Plant Varieties Journal

Quarter One 1999 Volume 12 Number 1

Treloar Roses
'Korrogilo'- A 1999 release
Cut Flower variety

Official Journal of Plant Breeders Rights Australia

01
9 771039 074812

Treloar Roses

Treloars are the Australian Agent for W. Kordes & Sons of Germany, who are recognised worldwide as leaders in producing new garden and cut flower varieties.

The following Kordes varieties are protected under Plant Breeders Rights:

Variety	*Synonym*	*Type*	*Applic No.*
KORSCHWAMA	Black Madonna	Hybrid Tea	94/094
KORCRISETT	Calibra	Cut Flower	94/090
KOROMTAR	Cream Dream	Cut Flower	97/204
KORSORB	Cubana	Cut Flower	91/052
KORMILLER	Dream	Cut Flower	96/076
KORTANKEN	Domstadt Fulda	Floribunda	96/082
KORILIS	Eliza	Cut Flower	96/077
KORAZERKA	Ekstase	Hybrid Tea	96/078
KORGENOMA	Emely	Cut Flower	97/207
KORCILMO	Escimo	Cut Flower	94/093
KORFISCHER	Hansa-Park	Shrub	96/085
KOROKIS	Kiss	Cut Flower	89/132
KORVERPEA	Kleopatra	Hybrid Tea	96/084
KORDABA	Lambada	Cut Flower	94/089
KORLAPER	La Perla	Cut Flower	94/091
KORSULAS	Limona	Cut Flower	97/203
KORBOLAK	Melody	Cut Flower	89/129
KORRUICIL	Our Esther	Cut Flower	97/205
KORANDERER	Our Copper Queen	Hybrid Tea	97/201
SPEKES	Our Sacha	Cut Flower	96/080
KORPLASINA	Our Vanilla	Cut Flower	96/081
KORBASREN	Pink Bassino	Ground Cover	96/087
KORMAREC	Sommerabend	Ground Cover	96/086
KORPINKA	Summer Fairytale	Ground Cover	94/088
KORVESTAVI	Sunny Sky	Cut Flower	97/200
KORMADOR	Tamara	Cut Flower	89/131
KORBACOL	Texas	Cut Flower	94/092
KORKUNDE	Toscana	Cut Flower	89/130
KORHOCO	Vital	Cut Flower	97/206

Please contact us for further information on these excellent new varieties

Treloar Roses Pty Ltd

"Midwood", Portland VIC 3305. Phone: (03) 5529 2367. Fax: (03) 5529 2511

Plant Varieties Journal

QUARTER ONE, 1999 **VOLUME 12 NUMBER 1**

In this issue

Part 1 – General Information

Part 2 – Public Notices

SUBSCRIPTION ENQUIRIES AND ADVERTISING SHOULD BE ADDRESSED TO:

PLANT BREEDERS RIGHTS AUSTRALIA
Department of Agriculture, Fisheries and Forestry - Australia
GPO Box 858, Canberra ACT 2601
Telephone: (02) 6272 4228 Facsimile: (02) 6272 3650
Homepage: http://www.affa.gov.au/agfor/pbr/pbr.html

CLOSING DATE FOR ISSUE VOL 12 NO 2: June 14, 1999.
Anticipated closing dates for other 1999 issues:
Vol 12 No 3: September 16, 1999 Vol. 12 No. 4: December 13, 1999.

Citation: Anon (1999). *Plant Varieties Journal*. Editors, Hossain T, Hulse N, Prakash K, Costa H, Waterhouse D, Dawes-Read K, Kingdom S, March 1999, **12**(1).

Acknowledgments: **Lyn Craven**, Australian National Herbarium, Division of Plant Industry, CSIRO for assistance with scientific names; **Iain Dawson**, Australian Cultivar Registration Authority for scientific advice; **Roger Spencer**, Royal Botanic Gardens, Melbourne and Greenlife Database™ for assistance with varietal names.

Doug Waterhouse
Registrar

Nik Hulse
Deputy Registrar

Katte Prakash
Examiner

Tanvir Hossain
Examiner

Helen Costa
Examiner

Kathryn Dawes-Read
Administration Officer

S. (Angie) Kingdom
Resource Co-ordinator

ISSN: 1039-0748 Printed by National Capital Printing, Fyshwick, ACT

Part 1 – General Information

Objections

Formal objections to applications can be lodged by a person who:

a) considers their commercial interests would be affected by a grant of PBR to the applicant; **and**

b) considers that the applicant will not be able to fulfil all the conditions for the grant of PBR to the variety.

A person submitting a formal objection must provide supporting evidence to substantiate the claim. A copy of the submission will also be sent to the applicant and the latter will be asked to show why the objection should not be upheld.

A fee of $100 is payable at the time of lodging a formal objection and $75/hour will be charged if the examination of the objection by the PBR office takes more than 2 hours.

Comments. Any person may make comment on the eligibility of any application for PBR, free of charge. If requested a comment will be kept confidential. If the comment is soundly based the person may be requested to lodge a formal objection. Comments may also be made regarding the name of a variety if it is believed to be scandalous or offensive.

All formal objections and comments must be lodged with the Registrar not later than six months after the date the description of the variety is published in this journal**.**

Applying For Plant Breeders Rights

Applications are accepted from the original breeder of a new variety (from their employer if the breeder is an employee) or from a person who has acquired ownership from the original breeder. Overseas breeders need to appoint an agent to represent their interests in Australia. Interested parties should contact the PBR office and an accredited Qualified Person (Appendix 3) experienced in the plant species in question.

Requirement to Supply Comparative Varieties

Once an application has been accepted by the PBR office, it is covered by provisional protection. Also it **immediately** becomes a 'variety of common knowledge' and thus may be required by others as a comparator for their applications with a higher application number.

Applicants are reminded that they are required to release propagative material for comparative testing provided that the material is used for no other purpose and all material relating to the variety is returned when the trial is complete.

The expenses incurred in the provision of material for comparative trials is borne by those conducting the trials.

As the variety is already under provisional protection, any use outside the conditions outlined above would qualify as an infringement and would be dealt with under section 53 of the Plant Breeder's Rights Act.

Applicants having difficulties procuring varieties for use in comparative trials are urged to contact the PBR office immediately.

UPOV Developments

Information on UPOV and its activities is available on the INTERNET located at http://www.upov.int

On 12 January 1999, the United States of America deposited with the office of the Union its instrument of ratification to the 1991 Act. The USA is the eleventh state to ratify or accept the 1991 Act of the UPOV Convention, or to accede to it.

On 23 March 1999, China has deposited with the Secretary-General of the UPOV its instrument of accession to the 1978 Act of the convention. The Act of 1978 of the convention will thus enter into force for China on April 23, 1999. On that date, China will become the thirty-ninth member state of the UPOV.

The complete list UPOV member states with their address and current status of ratification is given in Appendix 5.

Instruction to Authors: New Format For Preparing Varietal Description

Starting from this issue we are introducing a new format for the varietal description. This new format **replaces the long and short descriptions with a single, comprehensive description which will be known as the Detailed Description.**

We believe it will be easier for the Qualified Persons to work on one description instead of two. These savings will lower costs and improve the ease with which varieties move through the scheme.

However we are also suggesting additional information be included in the description eg. how comparators were selected (or rejected) and more information on the origin and breeding. This will reduce the likelihood of public comments or objection on the distinctness, novelty and the origin of the variety.

The Detailed Description will be a comprehensive summary of the variety's characteristics together with its origin and distinctive features presented under the following headings:

- **Details of the Application**
- **Characteristics**
- **Origin and Breeding**
- **Choice of Comparator(s)**
- **Comparative Trial**
- **Prior Applications and Sales**
- **Name of the person who prepared the description**
- **Comparative Table**
- **At the discretion of the QP/Applicant, scientific papers and other relevant information/publications can be appended to the detailed description**

Please note that the PBR office retains editorial control for all published material. Accordingly there may be instances when non critical portions of a description (eg particularly verbose methodologies or appendices) are not published, although they do remain part of the detailed description. In some cases some non distinct characteristics presented in a table may be omitted for publication.

Following are some notes for preparing descriptions under the above headings with some examples:

Details of the Application

This will include the common name of the species; the correct botanical name; name and synonym (if any) of the variety; application number and the acceptance date; details of the applicant; details of the agent (if any**).**

For consistency, botanical and common names should follow those of: *Hortus Third*, Staff of the LH Bailey Hortorium, Macmillan Publishing Company, 1976; *Census of Australian Vascular Plants*, RJ Hnatiuk, AGPS, 1990; *The Smart Gardeners Guide to Common Names of Plants*, M Adler, Rising Sun Press, 1994; *A Checklist of Economic Plants in Australia*, CSIRO, 1994; *Australian Plant Name Index,* Australian Biological Resources Study, AGPS, 1991.

Example 1

COMMON NAME OF THE SPECIES
Genus species
'Variety' syn **Synonym** (if applicable)
Application No: xx/xxx Accepted: dd month year.
Applicant: **Applicant's Name,** Town, State (abbreviation) and Country (if not Australia).
Agent: **Agent's Name,** Town, State (abbreviation).

Characteristics
Characteristics should be described in the following order: Plant, Stem, Leaf, Inflorescence, Flower and flower parts, Fruit and fruit parts, Seed, Other characters (disease resistance, stress tolerance, quality etc). Characters within subheadings should generally be in the following order: habit, height, length, width, size, shape, colour (RHS colour chart reference with edition), other. Use a concise taxonomic style in which subheadings are followed by a colon and characters are separated by a comma. Where there is a UPOV technical guideline available make sure that the asterisk characteristics are included in the description.

Example 2

Characteristics (Table nn, Figure nn) Plant: habit narrow bushy, height medium, early maturing. Stem: anthocyanin absent, internodes short. Leaf: length long, width narrow, variegation present, predominant colour green (RHS 137A, 1986), secondary margin colour pale green-yellow (RHS 1A, 1986). Inflorescence: corymb. Flower: early, pedicel short, diameter small (average 12.5mm), petals 5, petal colour yellow (RHS 12A, 1986), sepals 5 …..etc

Origin and Breeding

Indicate how the variety was originated, ie. controlled pollination, open pollination, induced mutation, spontaneous mutation, introduction and selection, seedling selection etc. Give the name of the parents. Also give the characteristics of the parental material by which they differ from the candidate variety . Briefly describe the breeding procedure and selection criteria used in developing the new variety. Also indicate the mode of propagation used during breeding. Give the name(s) of the breeder.

Example 3

Origin and Breeding Controlled pollination : seed parent S90-502-1 x pollen parent S90-1202-1. The seed parent was characterised by early flowering, dark green non-variegated leaves and compact bushy habit. The pollen parent was characterised by late flowering, variegated leaves and narrow bushy habit. Hybridisation took place in <location>, <country> in <year>. From this cross, seedling number S 3736 was chosen in 1993 on the basis of flowering time. Selection criteria: variegated leaves, compact bushy habit and early flowering. Propagation: a number mature stock plants were generated from this seedling through tissue culture and were found to be uniform and stable. The 'Variety' will be commercially propagated by vegetative cuttings from the stock plants. Breeder: <name>, <location>, <country>.

Example 4

Origin and Breeding Introduction and selection: 5 cycles of selection within <accession number> originating from <originating country> and supplied by the <company name> under a materials transfer agreement. When grown CI2204 was heterogeneous with both hooded and non-hooded types and differences in seed colour. Repeated selection for hooded types produced seven breeding lines (726.1-726.7) which were evaluated for forage and seed production potential. From these lines, an uniform single line known as 726.2.1 was selected to become 'Variety'. Selection criteria: seedling vigour, dry matter yield, uniformly hooded (awnless), seed colour (black). Propagation: by seed. Breeder: <name>, <location>, <country>.

Choice of Comparators
As choosing the most appropriate comparators may be the most crucial part of the trial, we suggest the QPs do more research and record their decisions before making the final selection. Under this heading briefly indicate what factors you have considered in choosing the comparator(s) for the trial. It is strongly recommended that the parental materials or the source germplasm is included in the trial for comparison purposes. If the parents are excluded indicate the reason(s).

Example 5

Choice of Comparators 'Comparator 1', 'Comparator 2' and 'Comparator 3' were initially considered for the comparative trial as these are similar varieties of common knowledge. 'Comparator 1' is a widely available commercial variety of the same species, however it has non variegated leaves. Therefore it was excluded from the trial. 'Comparator 2', was chosen for its variegated leaves and 'Comparator 3' was chosen for its compact growth habit and variegated leaves. The parents were not considered for the trial because the 'Variety' is clearly distinguishable from the seed parent by its variegated leaves and from the pollen parent by flowering time and growth habit.

Example 6

Choice of Comparators 'Comparator 1' was chosen because it is the original source material from which the variety was selected. Comparator 2' was selected for its similarity with the 'Variety' in seed colour. No other similar varieties of common knowledge have been identified.

Comparative Trial
List the varieties or forms used as comparators - the most similar varieties/forms of common knowledge. State the location and date of the trial. Give relevant details on propagation, pot/plot size and type, growing medium, chemical treatments, lighting, irrigation, or management which may be necessary to repeat the trials. State the type of trial design used, the total number of specimens in the trial and how they were arranged. State the number of specimens from which measurements/observations were taken. Also indicate how the specimen was selected and the sampling regime.

Example 7

Comparative Trial: Comparator(s): 'Comparator 2', 'Comparator 3'. Location: Carrum Downs, VIC (Latitude 38∞06¢ South, elevation 35m), summer-autumn 1996/97. Conditions: trial conducted in a polyhouse, plants propagated from cutting, rooted cuttings planted into 210mm pots filed with soilless potting mix (pine bark base), nutrition maintained with slow release fertilisers, pest and disease treatments applied as required. Trial design: fifteen pots of each variety arranged in a completely randomised design. Measurements: from ten plants at random. One sample per plant.

Prior Applications and Sales
Indicate the prior overseas applications with Country, Year of lodgement, Current status and Name applied in the following format.

Example 8

Country	Year	Current Status	Name Applied
Germany	1994	Granted	'Variety'
Denmark	1994	Granted	'Variety'

Also indicate date and country of first sale and date of first sale in Australia.

Example 9

First sold in Germany in 1994. First Australian sale nil.

Name of the person who prepared the description
Name and address of the person who prepared the description. It is preferable that the description be prepared by the Qualified Person or at the very least the draft has been seen and approved by the QP before final submission. Please note that it is a responsibility of the QP under the PBR Act to verify the particulars of the detailed description are accurate.

Example 10

Description: Name, Company (optional), Town/suburb, State (abbreviated)

Comparative Table
While preparing the table **NEVER** use the "table creating features" of word processing packages as they insert hidden formatting blocks that are difficult to remove before publication. Instead, use single tabs to align columns. NEVER use drawing objects to create lines, boxes or shading. Instead use the underscore character (_) to create lines for tables. Tables should normally be either 8.5cm wide (half page) or 17.5cm wide (full page). If necessary a very wide table can be presented in landscape orientation.

Please note the following points when preparing the comparative table:

- The candidate variety is always on the left of the table. If the same table is used for two or more candidate varieties, the candidate varieties are arranged in order of application numbers, higher application number to the left of the table. Comparators are always to the right of the candidate(s).

- Arrange the characteristics in order - this should be the same as the order in the UPOV technical guidelines for the species. Please ensure that each characteristics marked with an asterisk is included.

- If a UPOV technical guideline is not available use the order same as in the text part: Plant, Stem, Leaf, Inflorescence, Flower, Flower parts, Fruit, Fruit parts, Seed, special characters etc.

- For measured characteristics Mean, Standard Deviation, Least Significant Difference (LSD)* at P≤0.01 is mandatory.

- When quoting significant differences please give the level of probability in the following format: P≤0.001, P≤0.01, or ns.

- For discrete characters do not use scores. Please give a word description. e.g. round, medium, tall etc.

- For ranked characteristics just give the numbers, do not use 'normal' statistical analysis. Non-parametric statistical procedures may be used in such cases.

- Use only the number of significant decimal places appropriate to the level of accuracy of the observations.

- If there are two or more candidate varieties, use range tests rather than an LSD, such as Duncan's Multiple Range Test or any other appropriate multiple range test. Enter the grouping characters as alphabet superscripts.

Completed Part 2 Applications should be sent to:

Plant Breeders Rights Australia
Department of Agriculture, Fisheries
and Forestry - Australia
GPO Box 858 CANBERRA ACT 2601

To facilitate editing, descriptions may also be sent via Email to: Tanvir.Hossain@affa.gov.au

Note: a signed copy of the Part 2 application along with the examination fee, one slide or photograph must also be sent by post.

Important Changes

AMENDMENTS TO THE PBR ACT

'FREEING UP' THE USE OF VARIETY NAMES

On 31 March 1999 an amendment of the PBR Act came into force that, in some cases, will allow the same name to being used for different varieties.

The PBR office with support from industry has amend legislation that previously prevented a variety name from being accepted if it is already in use for any other variety. This limitation stopped the same name from being used even where the species are very different (such as a Turnip and a Tulip), and unlikely to cause confusion.

The PBR Act now allows duplicate names provided that the varieties are not included in the same 'Plant Class'. A list of 'Plant Classes' will be maintained by the Plant Breeders Rights Office. A copy of the current list is included in this journal at Appendix 7. An electronic version will also be available on the PBR web site soon.

Any applicant who has previously had a variety name rejected as it was already in use can, if they wish, contact the PBR Office to discuss whether the originally proposed name may now be eligible.

HERBARIUM SPECIMENS

It is a requirement of the PBR Act that, for all native species, a suitable specimen be sent to the Australian Cultivar Registration Authority (ACRA). The processing of these specimens attracts a fee from ACRA (currently $50). Payment of the fee should be sent directly to ACRA along with the specimen and a completed 'ACRA Herbarium Specimen' (Herb1) form.

CURRENT PBR FORMS

The official forms for PBR purposes are periodically updated. A list of current PBR forms with their numbers and date of last update is given in the following page. When a form is updated, the month and the year of the last update follows the form number within parentheses. For example, Form P1 was last updated in September 1998 and therefore this form gets a designation of Form P1 (9/98). We also encourage you to consult the 'Guidelines for Completing Part 1 Application Form' before filing in the Part 1 Application. To avoid delays we suggest that you use the latest version of the forms.

If you do not have the latest version of the form(s), please contact the PBR office. Alternatively, forms can be downloaded from the PBR web site at http://www.affa.gov.au/agfor/pbr/pbr.html

Name of Form	Form Number	Last Updated
Application for Plant Breeders Rights Part 1 - General Information	Form P1	September 1998
Guidelines for Completing Part1 Application Form	Part1ins	September1998
Application for Plant Breeders Rights Part 2 - Description of New Variety	Form P2	September 1998
Nomination of a Qualified Person	Form QP 1	July 1998
Certification by a Qualified Person	From QP 2	July 1998
Proposed Variety Names	Form DEN1	December 1995
Extension of Provisional Protection and Payment/Deferment of Examination Fee (for PVR applications)	Form EXT 1	April 1995
Extension of PBR Provisional Protection (for PBR applications)	Form EXT 2	August 1996
Exemption of a Taxon from Farm saved seed	Form ET1	September 1998
Status of Application	Form STAT 1	November 1995
ACRA Herbarium Specimen	Form Herb 1	October 1997

Overseas Test Reports

Many PBR applications are based on overseas DUS test reports. In the past the PBR office has obtained these reports from the relevant overseas testing authorities. Often these reports duplicated information already held by the applicant.

In many cases DUS test reports are accepted in lieu of conducting a similar trial in Australia. In this way the applicants are waived the costs of conducting a comparative trial. However, as the costs of procuring these reports were not passed on to the applicants, there is some cross subsidisation by other applications.

The PBR office will not be responsible for obtaining overseas DUS test reports on behalf of applicants. *It will be the sole responsibility of the applicants or their agents to obtain these reports*. Where applicants already have reports they are advised to submit a certified true copy of the report with the application.

Agents seeking test reports are advised to contact their principal and procure DUS test reports directly from them.

Certified true copies of DUS test reports *in English* will be accepted by the PBR office. Some test reports in other languages that closely follow UPOV Technical Guidelines may be accepted.

If you face difficulty in obtaining test reports directly from any overseas testing authorities then we can make a official request on behalf of you, however, please note that the applicant or the agent will be financially responsible for the report and under no circumstances the PBR office will bear any cost. Please contact the PBR office if you have any difficulties in obtaining overseas test reports.

Descriptions from the Voluntary Cereal Registration Scheme

The *Plant Varieties Journal* now includes descriptions of cultivars registered under the Voluntary Cereal Registration Scheme. Please note that the publication of these descriptions in the *Plant Varieties Journal* does not qualify the cultivars to be protected under Plant Breeder's Rights (PBR). PBR is an entirely different scheme and there are certain requirements under the *Plant Breeder's Rights Act 1994* which must be satisfied to be eligible for registration under PBR. However, it is possible that some cultivars published under the voluntary scheme are also registered under PBR. When a cultivar is registered under both schemes, the current PBR status of the cultivar is indicated in the descriptions. For information on registering a new cereal cultivar under the voluntary scheme please refer to the 'Cereal Registration Scheme' section at the back of this issue. Please note there is no descriptions from the Voluntary Cereal Registration Scheme in this issue.

Part 2 – Public Notices

Varieties Included in this Issue

ACCEPTANCES

The following varieties are under provisional protection from the date of acceptance.

AGLAONEMA
Aglaonema nitidum

'Rhapsody In Green'
Application No: 99/038 Accepted: 23 Mar 1999.
Applicant**: Dr. B. Frank Brown,** Florida, USA.
Agent: **Redlands Nursery Pty Ltd,** Redland Bay, QLD.

ANNUAL RYEGRASS
Lolium multiflorum

'Tabu'
Application No: 99/031 Accepted: 3 Feb 1999.
Applicant**: Agriseeds Research Limited,** Mulgrave, VIC.

APPLE
Malus domestica

'Obelisk' syn **Flamenco**
Application No: 98/122 Accepted: 18 Jan 1999.
Applicant**: Horticulture Research International,** Kent, England.
Agent: **Fleming's Nurseries & Associates Pty Ltd,** Monbulk, VIC.

'Charlotte'
Application No: 98/123 Accepted: 18 Jan 1999.
Applicant**: Horticulture Research International,** Kent, England.
Agent: **Fleming's Nurseries & Associates Pty Ltd**, Monbulk, VIC.

'GB 125-8'
Application No: 99/005 Accepted: 29 Jan 1999.
Applicant**: The State of QLD through its Department of Primary Industries,** Brisbane, QLD.

AZALEA
Rhododendron hybrid

'Australian Celebration'
Application No: 99/055 Accepted: 29 Mar 1999.
Applicant**: Advanced Specialty Hort Company of Australia Pty Ltd,** Olinda, VIC.

'Tilly Aston'
Application No: 99/056 Accepted: 29 Mar 1999.
Applicant**: Advanced Specialty Hort Company of Australia Pty Ltd,** Olinda, VIC.

'Coffee Caramel'
Application No: 99/057 Accepted: 29 Mar 1999.
Applicant**: Advanced Specialty Hort Company of Australia Pty Ltd,** Olinda, VIC.

BALANSA CLOVER
Trifolium michelianum

'Embal'
Application No: 99/023 Accepted: 27 Jan 1999.
Applicant**: South Australian Minister for Primary Industries, Natural Resources and Regional Development,** Adelaide, SA.

BARLEY
Avena sativa

'Nu Gene' syn **ND 9308572**
Application No: 98/259 Accepted: 16 Mar 1999.
Applicant**: NDSU Research Foundation,** Fargo, North Dakota, USA.
Agent: **The State of Queensland through its Department of Primary Industries,** Brisbane, QLD.

CAMELLIA
Camellia sasanqua

'Parbjane'
Application No: 99/039 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parbarb'
Application No: 99/040 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parblynda'
Application No: 99/041 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parbev'
Application No: 99/042 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parcaroline'
Application No: 99/043 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Pardiana'
Application No: 99/044 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Pargillian'
Application No: 99/045 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parjenni'
Application No: 99/046 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parjennifer'
Application No: 99/047 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parjill'
Application No: 99/048 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parleonie'
Application No: 99/049 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parlouise'
Application No: 99/050 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry**, Kulnura, NSW.

'Parodette'
Application No: 99/051 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

'Parsusan'
Application No: 99/052 Accepted: 12 Mar 1999.
Applicant**: RJ Cherry,** Kulnura, NSW.

CANOLA
Brassica napus

'46C01'
Application No: 98/228 Accepted: 2 Feb 1999.
Applicant**: Pioneer Hi-Bred International Inc,** Des Moines, Iowa, USA.
Agent: **Pioneer Hi-Bred Australia Pty Ltd,** Toowoomba, QLD.

'47C02'
Application No: 98/229 Accepted: 2 Feb 1999.
Applicant**: Pioneer Hi-Bred International Inc,** Des Moines, Iowa, USA.
Agent: **Pioneer Hi-Bred Australia Pty Ltd, Toowoomba, QLD.**

CHRISTMAS BUSH
Ceratopetalum gummiferum

'KSCL2'
Application No: 99/032 Accepted: 24 Feb 1999.
Applicant**: Yellow Rock Native Nursery Pty Ltd,** Winmalee, NSW.

'Bill Winter'
Application No: 99/033 Accepted: 24 Feb 1999.
Applicant**: Kay Winter,** Quenbeyan, NSW, **Vic Ciccolella,** Oakville, NSW **and Yellow Rock Native Nursery,** Winmalee, NSW.
Agent: **Yellow Rock Native Nursery Pty Ltd,** Winmalee, NSW.

COLEONEMA
Coleonema pulchellum

'Mellow Yellow'
Application No: 99/008 Accepted: 2 Feb 1999.
Applicant**: Stephen James Membrey,** Frankston, VIC.
Agent: **Plants Management Australia Pty Ltd,** Warragul, VIC.

COTTON
Gossypium hirsutum

'Sicala V-2RR'
Application No: 99/036 Accepted: 16 Mar 1999.
Applicant**: CSIRO Plant Industry, Cotton Research Unit,** Narrabri, NSW.

'Sicot 189RR'
Application No: 99/037 Accepted: 16 Mar 1999.
Applicant**: CSIRO Plant Industry, Cotton Research Unit,** Narrabri, NSW.

CUPHEA
Cuphea hyssopifolia

'Karissa'
Application No: 99/003 Accepted: 21 Jan 1999.
Applicant**: Carolynn Milne,** Alexandra Hills, QLD.

'Shona'
Application No: 99/004 Accepted: 21 Jan 1999.
Applicant**: Carolynn Milne,** Alexandra Hills, QLD.

DIASCIA
Diascia hybrid

'Hecrace' syn **Red Ace**
Application No: 99/001 Accepted: 10 Mar 1999.
Applicant**: Hector D Harrison,** United Kingdom.
Agents: **Plants Management Australia,** Warragul, VIC and **Wyvee Horticulture Services,** Lilydale, VIC.

'Hecbon' syn **Blue Bonnet**
Application No: 99/002 Accepted: 10 Mar 1999.
Applicant**: Hector D Harrison,** United Kingdom.
Agents: **Plants Management Australia,** Warragul, VIC and **Wyvee Horticulture Services,** Lilydale, VIC.

EASTER DAISY
Aster hybrid

'Dark Milka'
Application No: 98/260 Accepted: 18 Jan 1999.
Applicant**: Nachtvlinder B.V.,** Tl Ter Arr, Holland.
Agent: **Forbio Plants Pty Ltd,** Somersby, NSW.

'Peter's White'
Application No: 98/261 Accepted: 18 Jan 1999.
Applicant**: Nachtvlinder B.V.,** Tl Ter Arr, Holland.
Agent: **Forbio Plants Pty Ltd,** Somersby, NSW.

'Karmijn Milka'
Application No: 98/262 Accepted: 18 Jan 1999.
Applicant**: Nachtvlinder B.V.,** Tl Ter Arr, Holland.
Agent: **Forbio Plants Pty Ltd,** Somersby, NSW.

FALSE SARSAPARILLA
Hardenbergia violacea

'White Out'
Application No: 99/009 Accepted: 2 Feb 1999.
Applicant**: Stephen James Membrey,** Frankston, VIC.
Agent: **Plants Management Australia Pty Ltd,** Warragul, VIC.

FAN FLOWER
Scaevola phlebopetala

'No.33'
Application No: 99/058 Accepted: 16 Mar 1999.
Applicant**: The University of Melbourne,** Parkville, VIC.
Agent: **Plants Management Australia Pty Ltd,** Warragul, VIC.

FIELD BEAN
Vicia sativa

'Morava'
Application No: 99/012 Accepted: 20 Jan 1999.
Applicant**: South Australian Minister for Primary Industries, Natural Resources and Regional Development,** Adelaide, SA.

FIELD PEA
Pisum sativum

'Parafield'
Application No: 99/006 Accepted: 18 Jan 1999.
Applicant**: South Australian Minister for Primary Industries, Natural Resources and Regional Development,** Adelaide, SA.

'Soupa'
Application No: 99/027 Accepted: 27 Jan 1999.
Applicant**: South Australian Minister for Primary Industries, Natural Resources and Regional Development,** Adelaide, SA.

'Mukta'
Application No: 99/053 Accepted: 3 Mar 1999.
Applicant**: South Australian Minister for Primary Industries, Natural Resources and Regional Development,** Adelaide, SA.

'Santi'
Application No: 99/054 Accepted: 3 Mar 1999.
Applicant**: South Australian Minister for Primary Industries, Natural Resources and Regional Development,** Adelaide, SA.

JAPANESE PLUM
Prunus salicina

'Suplumtwenty'
Application No: 98/121 Accepted: 25 Feb 1999.
Applicant**: Sun World International, Inc.,** Bakersfield, California, USA.
Agent: **FB Rice & Co,** Balmain, NSW.

'Awaso'
Application No: 98/232 Accepted: 15 Feb 1999.
Applicant**: Agricultural Research Council,** Pretoria, South Africa.
Agent: **Teak Enterprises Pty Ltd,** Perth, WA.

LEUCADENDRON
Leucadendron gandogerii x Leucadendron spissifolium

'Corringle Gold'
Application No: 99/072 Accepted: 30 Mar 1999.
Applicant**: Corringle Proteas Pty Ltd,** Newmerella, VIC.
Agent: **Proteaflora Nursery Pty Ltd,** Monbulk, VIC.

LUCERNE
Medicago sativa

'WL 414'
Application No: 98/206 Accepted: 29 Jan 1999.
Applicant**: W-L Research, Inc, Evansville,** Wisconsin, USA.
Agent: **Wrightson Research,** Ballarat, VIC.

NECTARINE
Prunus persica var nucipersica

'Springfield Red'
Application No: 99/007 Accepted: 18 Jan 1999.
Applicant**: Ivan Peppe,** Albury, NSW.

NEMESIA
Nemesia capensis

'Tic Toc' syn **Honeydew**
Application No: 98/111 Accepted: 17 Feb 1999.
Applicant**: Amanda Fick,** George East, South Africa.
Agent: **Tony Kebblewaite t/as Florabundance Wholesale Nursery,** Verrierdale, QLD.

OLEARIA
Olearia axillaris

'Little Smokie'
Application No: 99/069 Accepted: 26 Mar 1999.
Applicant**: George A Lullfitz, Wanneroo, WA**.

PAPER DAISY
Bracteantha bracteata

'Broome Pearl'
Application No: 99/020 Accepted: 8 Feb 1999.
Applicant**: Redlands Nursery Pty Ltd,** Redland Bay, QLD.

'Kalgoorlie Gold'
Application No: 99/021 Accepted: 8 Feb 1999.
Applicant**: Redlands Nursery Pty Ltd,** Redland Bay, QLD.

PAULOWNIA
Paulownia fortunei

'EFF No.1'
Application No: 99/070 Accepted: 26 Mar 1999.
Applicant**: E.F.F. Pty Ltd, West Perth, WA**.

PEANUT
Arachis hypogaea

'Roberts'
Application No: 98/118 Accepted: 18 Jan 1999.
Applicant**: North Carolina Agricultural Research Service,** Raleigh, North Carolina, USA.
Agent: **The State of Queensland through its Department of Primary Industries,** Brisbane, QLD.

'Conder'
Application No: 99/010 Accepted: 18 Jan 1999.
Applicant**: The State of Queensland through its Department of Primary Industries,** Brisbane, QLD.

PENTAS
Pentas lanceolata

'Blushing Pearl'
Application No: 99/063 Accepted: 25 Mar 1999.
Applicant**: Duncan Buchanan**, Anstead, QLD.

PETUNIA
Calibrachoa (Petunia) hybrid

'Liricashower'
Application No: 98/168 Accepted: 21 Jan 1999.
Applicant**: Sakata Seed Corporation,** Yokohama, Japan.
Agent: **Phillips Ormonde & Fitzpatrick,** Melbourne, VIC.

'Liricashower Blue'
Application No: 98/169 Accepted: 21 Jan 1999.
Applicant**: Sakata Seed Corporation,** Yokohama, Japan.
Agent: **Phillips Ormonde & Fitzpatrick,** Melbourne, VIC.

POTATO
Solanum tuberosum

'Smiths Aurora'
Application No: 98/186 Accepted: 15 Feb 1999.
Applicant**: The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Attwood, VIC.

'Smiths Comet'
Application No: 98/187 Accepted: 15 Feb 1999.
Applicant**: The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Attwood, VIC.

PRINCESS PROTEA
Protea grandiceps x Protea longiflora

'Grandicolor'
Application No: 98/174 Accepted: 4 Feb 1999.
Applicant**: Ausflora Pacific Pty Ltd,** Gembrook VIC.

RICE
Oryza sativa

'YRK4'
Application No: 99/022 Accepted: 27 Jan 1999.
Applicant**: Department of Agriculture for and on behalf of the State of New South Wales,** Orange, NSW and **the Rural Industries Research & Development Corporation,** Canberra, ACT .

ROSE
Rosa hybrid

'Ausjo' syn **Jude the Obscure**
Application No: 98/244 Accepted: 2 Feb 1999.
Applicant**: David Austin Roses Ltd,** Wolverhampton, UK.
Agent: **Perfumed Roses Pty Ltd,** Moorooduc, VIC.

'Ausmoon' syn **Pegasus**
Application No: 98/245 Accepted: 2 Feb 1999.
Applicant**: David Austin Roses Ltd,** Wolverhampton, UK.
Agent: **Perfumed Roses Pty Ltd,** Moorooduc, VIC.

'Ausland' syn **Scepter d'Isle**
Application No: 98/246 Accepted: 2 Feb 1999.
Applicant**: David Austin Roses Ltd,** Wolverhampton, UK.
Agent: **Perfumed Roses Pty Ltd,** Moorooduc, VIC.

'Interlene'
Application No: 98/263 Accepted: 29 Jan 1999.
Applicant**: Interplant BV,** Leersum, The Netherlands.
Agent: **Grandiflora Nurseries Pty Ltd,** Cranbourne, VIC.

'Ruioran' syn **Orange Unique**
Application No: 98/264 Accepted: 29 Jan 1999.
Applicant**: Mr A.A.Pouw, De Ruiter's Nieuwe Rozen B.V,** Hazerwoude, The Netherlands.
Agent: **Grandiflora Nurseries Pty Ltd,** Cranbourne, VIC.

'Ruiconti' syn **Yellow Unique**
Application No: 98/265 Accepted: 29 Jan 1999.
Applicant**: Mr A.A.Pouw, De Ruiter's Nieuwe Rozen B.V,** Hazerwoude, The Netherlands.
Agent: **Grandiflora Nurseries Pty Ltd,** Cranbourne, VIC.

'SUNluck'
Application No: 98/266 Accepted: 29 Jan 1999.
Applicant**: Frank Bart Schuurman,** Whenuapai, New Zealand.
Agent: **Grandiflora Nurseries Pty Ltd,** Cranbourne, VIC.

'Meicobuis'
Application No: 99/064 Accepted: 23 Mar 1999.
Applicant**: Meilland Star Rose,** Le Luc en Provence, France.
Agent: **Selection Meilland Australia,** Rosevears, TAS.

SPIRAEA
Spiraea japonica

'Walbuma'
Application No: 99/067 Accepted: 29 Mar 1999.
Applicant**: D.R.Tristram,** West Sussex, UK.
Agent: **Koala Blooms Australia,** The Patch, VIC.

STOKES ASTER
Stokesia cyanea

'Purple Parasols'
Application No: 99/068 Accepted: 29 Mar 1999.
Applicant**: Scott Warren,** Hebron, Kentucky, USA.
Agent: **Koala Blooms,** The Patch, VIC.

STRAWBERRY
Fragaria xananassa

'Maroochy Jewel'
Application No: 99/025 Accepted: 28 Jan 1999.
Applicant**: The State of Queensland through its Department of Primary Industries,** Brisbane, QLD.

'Maroochy Sundew'
Application No: 99/026 Accepted: 28 Jan 1999.
Applicant**: The State of Queensland through its Department of Primary Industries,** Brisbane, QLD.

SYNGONIUM
Syngonium podophyllum

'Maria Allusion' syn **Cherry Allusion**
Application No: 98/132 Accepted: 3 Mar 1999.
Applicant**: AgriStarts Inc,** Apopka,Florida, USA.
Agent: **Burbank Biotechnology Pty Ltd,** Tuggerah, NSW.

TABLE GRAPE
Vitis vinifera

'Gold Seedless'
Application No: 99/011 Accepted: 18 Jan 1999.
Applicant**: Mr Eric Biggs,** Mildura, VIC.

TALL FESCUE
Festuca arundinacea

'Resolute' syn **El Pampa**
Application No: 98/131 Accepted: 19 Jan 1999.
Applicant**: Wrightson Seeds Limited,** Christchurch, New Zealand.
Agent: **Wrightson Seeds (Aust) Pty Ltd**, Laverton North, VIC.

'Flecha' syn **Grasslands Flecha**
Application No: 98/163 Accepted: 30 Nov 1998.
Applicant**: New Zealand Pastoral Agriculture Research Institute Limited,** Palmerston North, New **Zealand**.
Agent: **AgResearch Grasslands,** Bowna via Albury, NSW.

WARATAH
Telopea speciosissima xTelopea oreades

'Gembrook'
Application No: 98/175 Accepted: 4 Feb 1999.
Applicant: **Ausflora Pacific Pty Ltd,** Gembrook, VIC.

DESCRIPTIONS

Key to definitions/symbols/words used in the short descriptions

*	=	variety(s) used as comparator(s)
Agent	=	Australian agent acting on behalf of an applicant (usually where application is from overseas).
ca	=	about
DUS	=	Distinctiveness, Uniformity and Stability
LSD	=	Least Significant Difference
LSD/sig	=	The numerical value for the LSD (at P≤0.01) is in the first column and the level of significance between the candidate and the relevant comparator in subsequent columns
n/a	=	not available
ns	=	not significant
RHS	=	Royal Horticultural Society Colour Chart (Chip Number)
std deviation	=	Standard deviation of the sample
syn	=	synonym
UPOV	=	International Union for the Protection of New Plant Varieties
+	=	When used in conjunction with an RHS colour, '+' indicates a notional extension of a colour series when a precise match can not be made. It is most commonly used when the adjacent colour chip(s) are of a different sequence
#	=	Values followed by the same letter are not significantly different at P≤0.01
Origin	=	unless otherwise stated the female parent of the cross precedes the male parent
⒫	=	variety(s) for which PBR has been granted

AGAPANTHUS
Agapanthus orientalis

'Black Pantha'

Application No: 98/127 Accepted: 7 Jul 1998.
Applicant: **Agapan Growers Pty Ltd,** Belgrave, VIC.

Characteristics (Table 1, Figure 12) Plant: evergreen, tall. Leaf: long (mean 457.90mm), wide (mean 47.10mm), arching. Inflorescence: tall, medium to many florets, above foliage. Flower: immature buds blue (RHS 103A), mature bud violet-blue (RHS 93A), open floret main back colour violet-blue (RHS 93C), open floret back stripe violet (RHS 93A), open floret main front colour violet-blue (RHS 92C), open floret front stripe violet-blue (RHS 93B), speckling of flower stem present. Development of flower bud colour: dark-paler. (Note: all RHS colour chart numbers refer to 1996 edition).

Origin and Breeding Open pollination followed by seedling selection: *Agapanthus orientalis* 'Blue' at applicant's property in 1981. The seedling was characterised by a distinctive violet-blue flower colour, which was darker than that of the original seed parent. Selection criteria: flower colour, colour of leaf bases above the swollen rootstock. Propagation: vegetatively through several generations to establish uniformity and stability. Breeder: Graham Morrison, Doncaster, VIC.

Choice of Comparators 'Hedbourne Hybrid' and *A. orientalis* 'Blue' were chosen as comparators as these are varieties of common knowledge. 'Hedbourne Hybrid' was chosen on the basis of flower colour and *A. orientalis* 'Blue' was chosen as it is the seed parent of 'Black Pantha'.

Comparative Trial Comparator(s): 'Hedbourne Hybrid' and *A. orientalis* 'Blue'. Location: Urban Environments, Belgrave, VIC. Jan 1998-Dec 1998. Conditions: plants potted into pinebark based potting media in pots in the open. Trial design: 10 plants of each variety arranged in a completely randomised trial. Measurements: from 10 random specimens.

Prior Applications and Sales Nil.

Description: **Mark Lunghusen,** Croydon, VIC.

Table 1 *Agapanthus* varieties

	'Black ' Pantha	***'Hedbourne Hybrid'**	***A. orientalis* 'Blue'**
ATTITUDE OF LEAF	arching	erect	arching
LEAF LENGTH (mm)			
mean	457.9	408.8	379.5
std deviation	37.82	51.90	57.81
LSD/sig	47.81	P≤0.01	P≤0.01
LEAF WIDTH (mm)			
mean	47.10	20.20	33.10
std deviation	4.89	3.49	5.86
LSD/sig	5.35	P≤0.01	P≤0.01
HEIGHT OF INFLORESENCE ABOVE FOLIAGE	tall	level	medium
FLOWER BUD IMMATURE (RHS)	blue 103A	yellow-green 150C	yellow-green 150C
FLOWER BUD MATURE (RHS)	violet-blue 93A	violet-blue 93B	violet-blue 90C
OPEN FLORET BACK MAIN COLOUR (RHS)	violet-blue 93C	violet 88B	violet-blue 92B
OPEN FLORET BACK STRIPE (RHS)	violet 93A	n/a	violet-blue 90B
OPEN FLORET FRONT MAIN COLOUR (RHS)	violet-blue 92C	violet 88B	violet-blue 91B
OPEN FLORET FRONT STRIPE (RHS)	violet-blue 93B	violet-blue 93B	violet-blue 90B
DEVELOPMENT OF FLOWER BUD COLOUR	dark-paler	pale-dark	pale-dark
SPECKLING OF FLOWER STEM	present	absent	absent

ALSTROEMERIA
Alstroemeria hybrid

'Little Moon'

Application No: 97/178 Accepted: 19 Nov 1997.
Applicant: **Koninklijke Van Zanten BV,** Hillegom, The Netherlands.
Agent: **GrowWest,** Munster, WA.

Characteristics (Table 2, Figure 7). Plant: stem medium length and very thin, foliage medium density. Leaf: length medium, width medium, blade narrow, shape elliptical, longitudinal axis recurved. Inflorescence: branch number many, length short, pedicel length very long. Flower: colour orange, size medium, spread of tepals medium. Outer tepal: blade wide obovate, depth of margination shallow, main colour orange (ca RHS 24A - 24B), stripes absent. Inner tepal: blade obovate, colour yellow-orange (ca RHS 17A), stripes few to medium, stripe size small to medium. Stamens: colour of filaments orange with spots, colour of anthers at start of dehiscence orangeish. Pistil: anthocyanin colouration of ovary strong to very strong, spots on stigma absent.

Origin and Breeding Controlled pollination: derived from a complex cross between a number of breeding stock plants in a planned breeding program. The applicant maintains the breeding stock plants in Hillegom, The Netherlands. Selection criteria: from the cross, a seedling was selected on the basis of very distinct orange flower colour. Propagation: selected seedling propagated by rhizome division to generate stock plants. The variety will be commercially propagated by rhizome division. Breeder: Koninklijke Van Zanten B.V. Hillegom, The Netherlands.

Choice of Comparators The most similar varieties of common knowledge were included in the trials by the Dutch testing authority (Raad Voor het Kwekersrecht Wageningen). Comparators for description purposes have been selected from those varieties with similar orange flower colour.

Comparative Trial Description is based on official test report of Dutch testing authority (Raad Voor het Kwekersrecht Wageningen). The Qualified Person considers that 'Gloria', 'Orange Delight'Φ and 'Stadutia'Φ syn TiaraΦ are the closest varieties of common knowledge available in Australia. Comparisons between the candidate and comparators are based on official overseas data and published Australian PBR descriptions for comparators.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
The Netherlands	1997	Granted	'Little Moon'

Description: **Philip Watkins,** Perth, WA.

Table 2 *Alstroemeria* varieties

	'Little Moon'	*'Gloria'	*'Orange Delight'Φ	*'Stadutia'Φ syn TiaraΦ
STEM				
length	medium	long	long	long
thickness	very thin	medium	thick	medium
LEAF				
length	medium	short	long	long
width	medium	narrow	very broad	broad
shape	narrow elliptical	elliptical	n/a	n/a
longitudinal axis	recurved	recurved	n/a	n/a
INFLORESCENCE				
number of branches	large	n/a	medium to large	n/a
length of branch	short	medium	long	long
pedicel length	very long	short	long	medium
FLOWER				
main colour	orange	orange	orange	orange red
size	medium	large	large	n/a
tepal spread	medium	large	medium to large	n/a
OUTER TEPAL				
shape	wide obovate	wide obovate	wide obovate	obovate
depth of emargination	shallow	shallow	n/a	n/a
main colour	orange	orange	orange	orange red
RHS	24A-24B	28A-169C	25A-169D	34A-44C
stripes	absent	present	present	present
INNER LATERAL TEPAL				
main colour	yellow orange	yellow	orange	n/a
RHS	17A	12A	21A-23A	n/a
number of stripes	few to medium	medium to many	medium	many
stripe thickness	small to medium	medium to large	medium	thick
STAMENS				
filament colour	orange	pink	salmon	orange red
filament spots	present	absent	n/a	n/a
anther colour	orange	yellowish	red/purple	dark red brown
PISTIL				
anthocyanin in ovaries	strong to very strong	absent or very weak	absent	weak
spots on stigma	absent	n/a	absent	present

'Stabelin' syn Madeline

Application No: 97/243 Accepted: 11 Nov 1997.
Applicant: **Van Staavaren BV,** Aalsmeer, The Netherlands.
Agent: **F & I Baguley Flower and Plant Growers,** Clayton South, VIC.

Characteristics (Table 3, Figure 6) Plant: stem length very long, stem thickness thick, density of foliage medium to dense. Leaf: shape narrow ovate, longitudinal axis of blade recurved, length long, width medium. Inflorescence: umbel

branch number medium, length long, pedicel length medium. Flower: colour yellow, size large, tepal spread small to medium, outer tepal, shape broad elliptic, depth of emargination medium, stripes, very few, colour yellow (RHS 6D), inner lateral tepals, shape elliptic, colour yellow (RHS 6D) at apex and base, yellow (RHS 7A) at margins and centre, stripes few to medium, inner median tepal, colour yellow (RHS 6D), stripes few to medium. Stamens: filament colour cream, spots absent, anther colour orange. Ovary: anthocyanin absent, style cream, stigma colour cream, spots present. (note: all RHS colour chart number refers to 1986 edition)

Origin and Breeding Controlled pollination: seed parent 87R1280-1 x pollen parent 87G1069-2 in a planned breeding program at the applicant's nursery in Aalsmeer, The Netherlands. Both parents are proprietary breeding lines developed by the applicant. Selection criteria: from this cross, 'Stabelin' was chosen on the basis of flower characteristics and growth habit. Propagation: a number of mature stock plants were generated from the original seedling by tissue culture through 10 generations to confirm uniformity and stability. 'Stabelin' will be commercially propagated by tissue culture. Breeder: Van Staarvaren BV, Aalsmeer, The Netherlands.

Choice of Comparators On the basis of flower colour, 'Stayeli'Φ and 'Nevada'Φ were chosen as the most similar varieties of common knowledge. 'Stayeli'Φ was particularly similar because it arose from the same breeding stock.

Comparative Trial Comparators: 'Stayeli'Φ and 'Nevada'Φ. Comparisons of most of the characteristics are based on Dutch trials, which were assessed under conditions of controlled environment in glasshouses. Characteristics of the comparators are derived from previous descriptions published in the *Plant Varieties Journal*. Detailed flower descriptions of the candidate variety are based on plants growing in red kraznozem soil in a multispan polyhouse in Monbulk, VIC. Flowers from these plants were cut in bud and transported to Rye, VIC, and placed in a solution of 5% sugar and 1 ml/l chlorine bleach. The flowers were assessed four to five days later.

Prior Applications and Sales

Country	Year	Current status	Name Applied
The Netherlands	1995	Granted	'Stabelin'
Germany	1995	Granted	'Stabelin'
EU	1996	Granted	'Stabelin'
Japan	1996	Applied	'Stabelin'
USA	1996	Granted	'Stabelin'
Colombia	1996	Applied	'Stabelin'
Japan	1997	Applied	'Stabelin'

First sold in The Netherlands in Sep 1996.

Description: **David Nichols,** Rye, VIC.

Table 3 *Alstroemeria* varieties

	'Stabelin'	*'Stayeli'Φ	*'Nevada'Φ
STEM			
length	very long	medium	medium to long
thickness	thick	medium	thick
density of foliage	medium to dense	n/a	dense
LEAF			
length	long	long	medium to long
width	medium	broad	broad
shape of blade	narrow-ovate	n/a	narrow elliptic
longitudinal axis of blade	recurved	n/a	slightly recurved
INFLORESCENCE			
number of umbel branches	medium	medium	medium
length of umbels	long	medium	medium to long
pedicel length	medium	medium	medium
FLOWER			
main colour	yellow	yellow	yellow and cream white
size	large	medium	medium to large
spread of tepals	small to medium	medium	large
OUTER TEPAL			
shape of blade	broad elliptic	elliptic	broad elliptic
depth of emargination	medium	n/a	n/a
main colour (RHS)	6D	6C	4D, 3C-D
stripes	present	absent	absent
number of stripes	very few	absent	absent
INNER LATERAL TEPAL			
shape of blade	elliptic	broadly obovate	elliptic
yellow colour (RHS)	6D	n/a	3B-C
number of stripes	few to medium	medium	medium
stripe thickness	small to medium	medium	small to medium
INNER MEDIAN TEPAL			
main colour (RHS)	6D	n/a	n/a
stripes	few to medium	n/a	n/a
OTHER FLOWER CHARACTERISTICS			
filament colour	cream	salmon pink	white
filament spots	absent	n/a	n/a
anther colour	orange	green yellow	light orange yellow
style colour	cream	salmon pink	n/a
stigma colour	cream	salmon pink	n/a
spots on stigma	present	absent	n/a
anthocyanin in ovary	absent	strong	n/a

'Staprimil' syn Emily

Application No: 97/247 Accepted: 11 Nov 1997.
Applicant: **Van Staavaren BV,** Aalsmeer, The Netherlands.
Agent: **F & I Baguley Flower and Plant Growers,** Clayton South, VIC.

Characteristics (Table 4, Figure 5) Plant: stem length very short, stem thickness very thin, density of foliage thick to very thick. Leaf: shape narrow elliptic, longitudinal axis of blade recurved, length very short, width very narrow. Inflorescence: umbel branch number very few to few, length short, pedicel length short. Flower: colour white and yellow, size medium, tepal spread medium, outer tepal, shape broad obovate, depth of emargination medium, stripes, very few, colour yellow (RHS 11D) at centre and margins, red purple (RHS 70B) at apex , inner lateral tepals, shape elliptic, colour yellow (RHS 15A) at centre and base, red purple (RHS 70B) at apex, stripes medium, inner median tepal, yellow colour present, stripes medium. Stamens: filament pale pink, spots absent, anther colour greenish. Ovary: anthocyanin absent to very weak, style pale pink, stigma colour pale pink, spots absent. (note: all RHS colour chart number refers to 1986 edition).

Origin and Breeding Controlled pollination: seed parent 87D1262-5 x pollen parent 89G1041-1 in a planned breeding program at the applicant's nursery in Aalsmeer, The Netherlands. Both parents are proprietary breeding lines developed by the applicant. Selection criteria: from this cross, 'Staprimil' was chosen on the basis of flower characteristics and growth habit. Propagation: a number of mature stock plants were generated from the original seedling by tissue culture through 10 generations to confirm uniformity and stability. 'Staprimil' will be commercially propagated by tissue culture. Breeder: Van Staarvaren BV, Aalsmeer, The Netherlands.

Choice of Comparators On the basis of flower colour, 'Staprimon', 'Stayeli'Φ and 'Stalbel'Φ were chosen as the most similar varieties of common knowledge. 'Staprimon' is also a dwarf variety from the same breeding line.

Comparative Trial Comparators: 'Staprimon', 'Stayeli'Φ and 'Stalbel'Φ. Comparisons of most of the characteristics are based on Dutch trials, which were assessed under conditions of controlled environment in glasshouses. Characteristics of the comparators are derived from previous descriptions published in the *Plant Varieties Journal*. Detailed flower descriptions of the candidate variety are based on plants growing in 200 mm pots in a standard soilless potting mixture under shade cover in Silvan, VIC. Flowers from these plants were assessed at Rye, VIC.

Prior Applications and Sales

Country	Year	Current status	Name Applied
The Netherlands	1996	Granted	'Staprimil'
Japan	1996	Applied	'Staprimil'
USA	1996	Granted	'Staprimil'
EU	1996	Granted	'Staprimil'
South Africa	1997	Applied	'Staprimil'

First Sold in the USA in June 1997.

Description: **David Nichols,** Rye, VIC.

'Staprimon' syn Monica

Application No: 97/249 Accepted: 11 Nov 1997.
Applicant: **Van Staavaren BV,** Aalsmeer, The Netherlands.
Agent: **F & I Baguley Flower and Plant Growers,** Clayton South, VIC.

Characteristics (Table 4, Figure 3) Plant: stem length very short, stem thickness very thin, density of foliage very thick. Leaf: shape narrow elliptic, longitudinal axis of blade recurved, length very short, width very narrow. Inflorescence: umbel branch number few, length short, pedicel length short. Flower: colour pale yellow, size medium, tepal spread medium to broad , outer tepal, shape broad obovate, depth of emargination medium, stripes, very few, colour yellow (RHS 6D) at centre and margins, red purple (RHS 68A) at apex, inner lateral tepals, shape obovate, colour yellow (RHS 6D) at centre and base, red purple (RHS 68A) at apex, stripes medium, inner median tepal, yellow colour present, stripes medium. Stamens: filament pale pink, spots absent, anther colour greenish. Ovary: anthocyanin absent to very weak, style pale pink, stigma colour pale pink, spots absent. (note: all RHS colour chart number refers to 1986 edition).

Origin and Breeding Controlled pollination: seed parent 89D1577-1 x pollen parent 89G1041-1 in a planned breeding program at the applicant's nursery in Aalsmeer, The Netherlands. Both parents are proprietary breeding lines developed by the applicant. Selection criteria: from this cross, 'Staprimon' was chosen on the basis of flower characteristics and growth habit. Propagation: a number of mature stock plants were generated from the original seedling by tissue culture through 10 generations to confirm uniformity and stability. 'Staprimon' will be commercially propagated by tissue culture. Breeder: Van Staarvaren BV, Aalsmeer, The Netherlands.

Choice of comparators On the basis of flower colour, 'Staprimil', 'Stayeli'Φ and 'Stalbel'Φ were chosen as the most similar varieties of common knowledge. 'Staprimil' is also a dwarf variety from the same breeding line.

Comparative Trial Comparators: 'Staprimil', 'Stayeli'Φ and 'Stalbel'Φ. Comparisons of most of the characteristics are based on Dutch trials, which were assessed under conditions of controlled environment in glasshouses. Characteristics of the comparators are derived from previous descriptions published in the *Plant Varieties Journal*. Detailed flower descriptions of the candidate variety are based on plants growing in 200 mm pots in a standard soilless potting mixture under shade cover in Silvan, VIC. Flowers from these plants were assessed at Rye, VIC.

Prior Applications and Sales

Country	Year	Current status	Name Applied
The Netherlands	1996	Granted	'Staprimon'
Japan	1996	Applied	'Staprimon'
USA	1996	Applied	'Staprimon'
EU	1996	Granted	'Staprimon'
South Africa	1997	Applied	'Staprimon'

First Sold in the USA in June 1997.

Description: **David Nichols,** Rye, VIC.

Table 4 *Alstroemeria* varieties

	'Staprimil'	'Staprimon'*	'Stayeli'Φ*	'Stalbel'Φ
STEM				
length	very short	very short	medium	medium
thickness	very thin	very thin	medium	medium
density of foliage	thick to very thick	very thick	n/a	n/a
LEAF				
length	very short	very short	long	long
width	very narrow	very narrow	broad	broad
shape of blade	narrow elliptic	narrow elliptic	n/a	n/a
longitudinal axis of blade	recurved	recurved	n/a	n/a
INFLORESCENCE				
number of umbel branches	very few to few	few	medium	medium
length of umbels	short	short	medium	medium
pedicel length	short	short	medium	medium
FLOWER				
main colour	white and yellow	pale yellow	yellow	pale yellow
size	medium	medium	medium	medium
spread of tepals	medium	medium to broad	medium	medium
OUTER TEPAL				
shape of blade	broad ovate	broad ovate	elliptic	broad ovate
depth of emergination	medium	medium	n/a	n/a
main colour (RHS)	11D	6D	6C, 68A	158 B-C tips 65A-B
stripes	present	present	absent	present
number of stripes	very few	very few	absent	very few
INNER LATERAL TEPAL				
shape of blade	elliptic	obovate	broad obovate	narrow obovate
yellow colour (RHS)	15A	6D	6C	12A-B
number of stripes	medium	medium	medium	medium
stripe thickness	medium	medium	small to medium	large
INNER MEDIAN TEPAL				
yellow colour	present	present	n/a	n/a
stripes	medium	medium	n/a	n/a
OTHER FLOWER CHARACTERISTICS				
filament colour	pale pink	pale pink	salmon pink	salmon pink
filament spots	absent	absent	n/a	n/a
anther colour	greenish	greenish	green yellow	green yellow
style colour	pale pink	pale pink	salmon	salmon
stigma colour	pale pink	pale pink	purple pink	salmon
spots on stigma	absent	present	absent	present
anthocyanin in ovary	absent to very weak	absent to very weak	strong	weak

'Staprinag' syn **Ragna**

Application No: 97/252 Accepted: 11 Nov 1997.
Applicant: **Van Staavaren BV,** Aalsmeer, The Netherlands.
Agent: **F & I Baguley Flower and Plant Growers,** Clayton South, VIC.

Characteristics (Table 5, Figure 1) Plant: stem length very short, stem thickness very thin, density of foliage very thick. Leaf: shape narrow ovate, longitudinal axis of blade recurved, length very short, width medium. Inflorescence: umbel branch number very few, length short, pedicel length short. Flower: colour white, size medium, tepal spread medium, outer tepal, shape broad obovate, depth of emargination shallow, stripes, present, colour white (RHS 155C) at apex and margins and centre, pale red purple (RHS 65D) at base, inner lateral tepals, obovate, colour yellow (RHS 4A-4B) at centre, white (RHS 155A) at apex and red purple (RHS 65C-65D) at base, stripes few to medium, inner median tepal, yellow colour absent, stripes few. Stamens: filament pink, spots absent, anther colour greenish. Ovary: anthocyanin weak, style pink, stigma yellow green, spots absent. (note: all RHS colour chart number refers to 1986 edition).

Origin and Breeding Controlled pollination: seed parent 91D213-3 x pollen parent 87G1069-2 in a planned breeding program at the applicant's nursery in Aalsmeer, The Netherlands. Both parents are proprietary breeding lines developed by the applicant. Selection criteria: from this cross, 'Staprinag' was chosen on the basis of flower characteristics and growth habit. Propagation: a number of mature stock plants were generated from the original seedling by tissue culture through 10 generations to confirm uniformity and stability. 'Staprinag' will be commercially propagated by tissue culture. Breeder: Van Staarvaren BV, Aalsmeer, The Netherlands.

Choice of Comparators On the basis of flower colour, 'Stamond'Φ and 'Alaska'Φ were chosen as the most similar varieties of common knowledge. 'Stamond'Φ has arisen from the same breeding program.

Comparative Trial Comparators: 'Stamond'Φ and 'Alaska'Φ. Comparisons of most of the characteristics are based on Dutch trials, which were assessed under conditions of controlled environment in glasshouses. Characteristics of the comparators are derived from previous descriptions published in the *Plant Varieties Journal*. Detailed flower descriptions of the candidate variety are based on plants growing in 200 mm pots in a standard soilless potting mixture under shade cover in Silvan, VIC. Flowers from these plants were assessed at Rye, Victoria.

Prior Applications and Sales

Country	Year	Current status	Name Applied
The Netherlands	1996	Granted	'Staprinag'
Japan	1996	Applied	'Staprinag'
USA	1996	Granted	'Staprinag'
EU	1996	Applied	'Staprinag'
South Africa	1997	Applied	'Staprinag'

First Sold in the USA in June 1997.

Description: **David Nichols,** Rye, VIC.

Table 5 *Alstroemeria* varieties

	'Staprinag'	*'Stamond'Φ	*'Alaska'Φ
STEM			
length	very short	tall	long
thickness	very thin	medium to thick	thick
density of foliage	very dense	dense	medium
LEAF			
length	very short	long	medium long
width	medium	broad	broad
shape of blade	narrow ovate	narrow ovate	narrow elliptic
longitudinal axis of blade	recurved	straight	straight
INFLORESCENCE			
number of umbel branches	very few	medium	medium
length of umbels	short	long	medium
pedicel length	short	medium	short to very short
FLOWER			
main colour	white	white	white
size	medium	large	large
spread of tepals	medium	broad	medium to broad
OUTER TEPAL			
shape of blade	broad obovate	broad obovate	obovate
depth of emargination	shallow	n/a	shallow
main colour (RHS)	155C	155D	n/a
stripes	present	present	present
number of stripes	very few	few	very few
INNER LATERAL TEPAL			
shape of blade	obovate	elliptic	obovate
yellow colour (RHS)	4A-4B	4C	n/a
number of stripes	few to medium	medium	many
stripe thickness	small to medium	medium	medium
INNER MEDIAN TEPAL			
yellow colour	absent	absent	n/a
stripes	few	few	few
OTHER FLOWER CHARACTERISTICS			
filament colour	pink	white	pink
filament spots	absent	absent	absent
anther colour	greenish	greenish	brownish
style colour	pink	white	n/a
stigma colour	yellow green	white	n/a
spots on stigma	absent	absent	present
anthocyanin in ovary	weak	absent	absent

'Staprisis' syn Sissi

Application No: 97/248 Accepted: 11 Nov 1997.
Applicant: **Van Staavaren BV,** Aalsmeer, The Netherlands.
Agent: **F & I Baguley Flower and Plant Growers,** Clayton South, VIC.

Characteristics (Table 6, Figure 4) Plant: stem length very short, stem thickness very thin, density of foliage thick. Leaf: shape narrow ovate, longitudinal axis of blade straight, length very short, width very narrow. Inflorescence: umbel branch number very few, length short, pedicel length short. Flower: colour red purple, size medium, tepal spread small to medium, outer tepal, shape broad obovate, depth of emargination shallow, stripes, absent, colour red purple (RHS 65A-B) at apex and margins, red purple (RHS 64C) at upper centre, inner lateral tepals, obovate, colour yellow (RHS 8D) at centre, white (RHS 155A) at margins and red purple (RHS 65A) at apex, stripes few to medium, inner median tepal, yellow colour absent, stripes few. Stamens: filament red purple, spots absent, anther colour brownish. Ovary: anthocyanin absent to very weak, style pink, stigma colour pink, spots present. (note: all RHS colour chart number refers to 1986 edition).

Origin and Breeding Controlled pollination: seed parent 91D186-3 x pollen parent 86G713-1 in a planned breeding program at the applicant's nursery in Aalsmeer, The Netherlands. Both parents are proprietary breeding lines developed by the applicant. Selection criteria: from this cross, 'Staprisis' was chosen on the basis of flower characteristics and growth habit. Propagation: a number of mature stock plants were generated from the original seedling by tissue culture through 10 generations to confirm uniformity and stability. 'Staprisis' will be commercially propagated by tissue culture. Breeder: Van Staarvaren BV, Aalsmeer, The Netherlands.

Choice of Comparators On the basis of flower colour, 'Starover'Φ and 'Java'Φ were chosen as the most similar varieties of common knowledge. 'Starover'Φ has arisen from the same breeding lines.

Comparative Trial Comparators 'Starover'Φ and 'Java'Φ Comparisons of most of the characteristics are based on Dutch trials, which were assessed under conditions of controlled environment in glasshouses. Characteristics of the comparators are derived from previous descriptions published in the *Plant Varieties Journal*. Detailed flower descriptions of the candidate variety are based on plants growing in 200 mm pots in a standard soilless potting mixture under shade cover in Silvan, VIC. Flowers from these plants were assessed at Rye, VIC.

Prior Applications and Sales

Country	Year	Current status	Name Applied
The Netherlands	1996	Granted	'Staprisis'
Japan	1996	Applied	'Staprisis'
USA	1996	Granted	'Staprisis'
EU	1996	Granted	'Staprisis'
South Africa	1997	Applied	'Staprisis'

First Sold in the USA in June 1997.

Description: **David Nichols,** Rye, VIC.

Table 6 *Alstroemeria* varieties

	'Staprisis'	*'Starover'Φ	*'Java'Φ
STEM			
length	very short	tall	medium
thickness	very thin	medium	thin
density of foliage	very dense	n/a	sparse to medium
LEAF			
length	very short	medium	medium
width	very narrow	medium	medium
shape of blade	narrow ovate	n/a	narrow elliptic
longitudinal axis of blade	straight	n/a	recurved
INFLORESCENCE			
number of umbel branches	very few	many	medium
length of umbels	short	medium	medium
pedicel length	short	medium to long	medium
FLOWER			
main colour	red purple	red purple	red purple
size	medium	large	medium
spread of tepals	small to medium	broad	medium to broad
OUTER TEPAL			
shape of blade	broad obovate	broad obovate	broad elliptic
depth of emargination	shallow	n/a	n/a
main colour (RHS)	65A-65B	n/a	62A, 27B
stripes	absent	present	present
INNER LATERAL TEPAL			
shape of blade	obovate	narrow obovate	narrow obovate
yellow colour (RHS)	8D	12B	7A-B
number of stripes	few to medium	many	few to medium
stripe thickness	small to medium	medium	medium
INNER MEDIAN TEPAL			
yellow colour	absent	n/a	absent
stripes	few	n/a	absent
OTHER FLOWER CHARACTERISTICS			
filament colour	red purple	pink	pink
filament spots	absent	n/a	absent
anther colour	brownish	grey	yellow green
style colour	pink	light pink	green white to red purple
stigma colour	pink	light pink	green white
spots on stigma	present	present	absent
anthocyanin in ovary	absent to very weak	absent	weak

'Staprizsa' syn Zsa Zsa

Application No.97/250 Accepted: 11 Nov 1997.
Applicant: **Van Staavaren BV,** Aalsmeer, The Netherlands.
Agent: **F & I Baguley Flower and Plant Growers,** Clayton South, VIC.

Characteristics (Table 7, Figure 2) Plant: stem length very short, stem thickness very thin, density of foliage thick to very thick. Leaf: shape narrow ovate, longitudinal axis of blade recurved, length very short, width very narrow. Inflorescence: umbel branch number very few, length short, pedicel length short. Flower: colour pink, size medium, tepal spread medium, outer tepal, shape broad obovate, depth of emargination medium, stripes, present, colour red (RHS 52C), inner lateral tepals, obovate, colour yellow (RHS 12A) at centre and margins, red (RHS 51B) at apex, stripes medium, inner median tepal, yellow colour present, stripes medium. Stamens: filament pink, spots absent, anther colour greenish. Ovary: anthocyanin absent to very weak, style pink, stigma colour pink, spots absent. (note: all RHS colour chart number refers to 1986 edition).

Origin and Breeding Controlled pollination: seed parent 91D196-1 x pollen parent 86G1069-2 in a planned breeding program at the applicant's nursery in Aalsmeer, The Netherlands. Both parents are proprietary breeding lines developed by the applicant. Selection criteria: from this cross, 'Staprizsa' was chosen on the basis of flower characteristics and growth habit. Propagation: a number of mature stock plants were generated from the original seedling by tissue culture through 10 generations to confirm uniformity and stability. 'Staprizsa' will be commercially propagated by tissue culture. Breeder: Van Staarvaren BV, Aalsmeer, The Netherlands.

Choice of Comparators On the basis of flower colour, 'Staverpi'Φ and 'First Love'Φ were chosen as the most similar varieties of common knowledge. 'Staverpi'Φ has arisen from the same breeding program.

Comparative Trial Comparators: 'Staverpi'Φ and 'First Love'Φ. Comparisons of most of the characteristics are based on Dutch trials, which were assessed under conditions of controlled environment in glasshouses. Characteristics of the comparators are derived from previous published descriptions in the *Plant Varieties Journal*. Detailed flower descriptions of the candidate variety are based on plants growing in 200 mm pots in a standard soilless potting mixture under shade cover in Silvan, VIC. Flowers from these plants were assessed at Rye, VIC.

Prior Applications and Sales

Country	Year	Current status	Name Applied
The Netherlands	1996	Granted	'Staprizsa'
Japan	1996	Applied	'Staprizsa'
USA	1996	Granted	'Staprizsa'
EU	1996	Granted	'Staprizsa'
South Africa	1997	Applied	'Staprizsa'

First Sold in the USA in June 1997.

Description: **David Nichols,** Rye, VIC.

Table 7 *Alstroemeria* varieties

	'Staprizsa'	*'First Love'Φ	*'Staverpi'Φ
STEM			
length	very short	short	medium
thickness	very thin	very thick	medium
density of foliage	thick to very thick	thick	n/a
LEAF			
length	very short	short	medium
width	very narrow	narrow	medium
shape of blade	narrow ovate	narrow elliptic to narrow ovate	n/a
longitudinal axis of blade	recurved	recurved	n/a
INFLORESCENCE			
number of umbel branches	very few	few	medium
length of umbels	short	short	medium
pedicel length	short	very short	medium
FLOWER			
main colour	pink	purple pink	pink
size	medium	medium	large
spread of tepals	medium	medium	broad
OUTER TEPAL			
shape of blade	broad obovate	obovate	broad obovate
depth of emargination	medium	medium	n/a
main colour (RHS)	52C	52A-54A	55C-49B
stripes	present	absent	present
number of stripes	very few	absent	few
INNER LATERAL TEPAL			
shape of blade	obovate	elliptic	elliptic
yellow colour (RHS)	12A	13B	15B
number of stripes	medium	few to medium	many
stripe thickness	medium	small to medium	medium
INNER MEDIAN TEPAL			
yellow colour	present	n/a	n/a
stripes	medium	n/a	n/a
OTHER FLOWER CHARACTERISTICS			
filament colour	pink	pink	salmon pink
filament spots	absent	absent	n/a
anther colour	greenish	greenish	yellow green
style colour	pink	n/a	salmon
stigma colour	pink	n/a	salmon
spots on stigma	absent	present	present
anthocyanin in ovary	absent to very weak	absent to very weak	weak

APPLE
Malus domestica

'Charlotte'

Application No: 98/123 Accepted: 18 Jan 1999.
Applicant: **Horticulture Research International**, Kent, UK.
Agent: **Fleming's Nurseries & Associates Pty Ltd,** Monbulk, VIC.

Characteristics (Table 8, Figure 26) Plant: habit columnar, vigour weak, spur bearing. Stem: bark thick, lenticels many. Leaf: size very large, mean petiole length 38mm, length: width ratio medium 1:4. Flower: size medium, petals slightly overlapping, petal colour of upper side white (RHS 155D) with small areas of pink (RHS 68D), petal colour of lower side stripes of pink (RHS 73C) on white (RHS 155D). Fruit: size large, 84.2 mm mean diameter, form flat globose (obloid), side view asymmetric, ribbing present, prominence of ribbing medium, sepal length medium, sepal spacing at base free, depth of eye basin deep to very deep, width of eye basin medium to broad, stalk thickness thick, length of stalk short, depth of stalk cavity medium to deep, width of stalk cavity broad. Skin cracking tendency absent, skin thickness medium, skin ground colour whitish green, amount of overcolour medium, skin overcolour red, pattern of overcolour banded, amount of russet absent to very low, position of russet around stalk cavity. Flesh: browning weak (after one hour of being cut), firmness soft, colour cream, texture fine, juiciness medium. (Note: all RHS colour chart number refers to 1986 edition)

Origin and Breeding Controlled pollination: seed parent 'Wijcik' (a naturally occurring sport of 'McIntosh') x pollen parent 'Malling Greensleeves'. The seed parent was characterised by having medium sized, dessert type, purple/red flushed skin overcolour fruit and a very compact erect tree habit. The pollen parent was characterised by having medium sized, dessert type, occasionally pink flushed skin overcolour fruit and a non columnar tree habit. The hybridisation took place at East Malling Research Station (now Horticulture Research International, (HRI) East Malling) in a breeding program initiated in 1975, selective study resulted in the identification of a single plant of the variety which was originally designated SA 219/25. Selection criteria: large sized, culinary type fruit having 25-50 % red flushed skin colour and columnar tree habit. Propagation: budding onto apple rootstock. Breeder: Mr. Kenneth R. Tobutt, Horticulture Research International, East Malling, West Malling, Kent, UK.

Choice of Comparators 'SA 256-24' syn Bolero, 'SA 251-18 syn Waltz and 'SA 252-107' syn Polka are selected as comparators as they are the most similar varieties of common knowledge in Australia all having the columnar tree habit. The parents were not considered for the comparison as they are clearly distinguishable from the new variety by tree habit, fruit size and maturity.

Comparative Trial The information contained in this description is based on overseas data sourced from the United Kingdom Plant Breeders Rights description for the variety 'Charlotte', Grant number: 3931, dated 19 July 1989, where possible data has been verified in Australia. The new variety 'Charlotte' has medium sized flowers with slightly overlapping petals and large flat globose (obloid) formed fruit. 'SA 256-24' flowers have petals touching and medium sized fruit, which is flat to round oblong in form. 'SA 25118' flowers have overlapping petals and medium sized fruit of a round conical form. 'SA 252-107' flowers have free petals and medium sized round to conical fruit.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
UK	1989	Granted	'Charlotte'
Belgium	1992	Granted	'Charlotte'
Denmark	1992	Granted	'Charlotte'
France	1992	Granted	'Charlotte'
Ireland	1992	Granted	'Charlotte'
The Netherlands	1992	Granted	'Charlotte'
Germany	1993	Granted	'Charlotte'
Canada	1994	Applied	'Charlotte'
Italy	1994	Applied	'Charlotte'
Sweden	1994	Applied	'Charlotte'
USA	1995	Granted	'Hercules'

First sold in the UK in1992.

Description: Zoee Maddox, Fleming's Nurseries Pty Ltd, Monbulk, VIC.

'Obelisk' syn **Flamenco**

Application No: 98/122 Accepted: 18 Jan 1999.
Applicant: **Horticulture Research International**, Kent, UK.
Agent: **Fleming's Nurseries & Associates Pty Ltd,** Monbulk, VIC.

Characteristics (Table 8, Figure 27) Plant: habit columnar, vigour weak, spur bearing. Dormant one year old shoot: pubescence on upper half of shoot weak, many lenticels. Leaf: general pose outwards, size medium to large, mean leaf blade length:width ratio medium 1.5, glossiness of upper side weak, pubescence on lower side weak to medium, petiole mean length long 33mm. Flower: size small, position of margin free, petal colour of upper side white (RHS 155D) with areas of pink (RHS 55D), petal colour of lower side white (RHS 155D) with pink striping (RHS 55B). Fruit: size small to medium, mean 67.6mm diameter, form flat globose (obloid), side view asymmetric, ribbing present, prominence of ribbing very weak to weak, crowning at distil end present, size of eye medium, length of sepal medium, spacing of sepals at base free to some touching, eye basin depth medium, stalk thickness medium, stalk length short, depth of stalk cavity medium, width of stalk cavity medium. Skin cracking tendency absent, skin thickness thin to medium, skin ground colour yellow, amount of overcolour of skin high, skin overcolour purple, overcolour pattern banded, amount of russet absent or very low, russet position around stalk cavity, lenticel size small to medium. Flesh browning weak (after one hour of being cut), firmness of flesh soft, flesh colour white, flesh texture fine, flesh juiciness juicy. Fruit in cross section distinctiveness of core line weak, aperture of locules open. (Note: all RHS colour chart number refers to 1986 edition).

Origin and Breeding Controlled pollination: seed parent A1583 x pollen parent 'Wijcik' (a naturally occurring sport of 'McIntosh'). The seed parent was characterised by having a non columnar tree habit and fruit maturing mid season with a red flushed skin overcolour and some understriping. The pollen parent was characterised by having a very compact erect tree habit and fruit maturing mid season with a purple/red flushed skin overcolour. The hybridisation took place at East Malling Research Station (now Horticulture Research International, (HRI) East Malling) in a breeding program initiated in 1975. Selective study resulted in the identification of a single plant of the new variety which was originally designated SA 54-81. Selection criteria: columnar habit, precocity into bearing fruit with a 75 % purple/crimson skin overcolour that has the potential to store well for at least three months in the cold. Propagation: budding onto apple rootstock. Breeder: Mr. Kenneth R. Tobutt, Horticulture Research International, East Malling, West Malling, Kent, UK.

Choice of Comparators 'SA 256-24' syn Bolero, 'SA 251-18' syn Waltz and 'SA 252-107' syn Polka are selected as comparators as they are the most similar varieties of common knowledge in Australia all having the columnar tree habit. The parents were not considered for comparison as they are clearly distinguishable from the new variety by tree habit, fruit size and maturity.

Comparative Trial The information contained in this description is based on overseas data sourced from the United Kingdom Plant Breeders Rights description for the variety 'Obelisk', Grant number: 4976, dated 1 May 1992, where possible data has been verified in Australia. The new variety 'Obelisk' has small sized flowers with free petals and small to medium sized fruit, which is flat globose (obloid) formed. 'SA 256-24' flowers have petals touching and medium sized fruit, which is flat to round oblong in form. 'SA 25118' flowers have overlapping petals and medium sized fruit of a round conical form. 'SA 252-107' flowers have free petals and medium sized round to conical fruit.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
United Kingdom	1990	Granted	'Obelisk'
Belgium	1992	Granted	'Obelisk'
France	1992	Granted	'Obelisk'
Germany	1992	Granted	'Obelisk'
Denmark	1992	Granted	'Obelisk'
The Netherlands	1992	Granted	'Obelisk'
Sweden	1994	Applied	'Obelisk'
Ireland	1992	Granted	'Obelisk'
Canada	1994	Applied	'Obelisk'
Italy	1994	Applied	'Obelisk'
USA	1995	Granted	'Obelisk'

First sold in the UK in 1992, First Australian sale in 1998.

Description: Zoee Maddox, Fleming's Nurseries Pty Ltd, Monbulk, VIC.

Table 8 *Malus* varieties

	'Obelisk' syn **Flamenco**	**'Charlotte'**	***'SA 251-18'** syn **Waltz**	***'SA 252-107'** syn **Polka**	***'SA 256-24'** syn **Bolero**
FLOWER					
size	small	medium	medium	medium	medium
petal margins	free	slight overlap	overlap	free	touching
petal colour upper	white	white	pink	pink	pink
	slight RHS 55D	slight RHS 68D	RHS 64C	RHS 58D	RHS 58D
blossom time in season	late	early	mid	mid	mid
FRUIT					
size	small - medium	large	medium	small -medium	medium
shape	obloid	obloid	round-conical	round-conical	oblong
ribbing	very weak-weak	medium	weak	absent	weak
eye aperture	closed	open	closed	closed	mainly closed
eye size	medium	medium	small	small	small
sepal spacing at base					
	free-some touching	free	touching	touching	overlapping
stalk thickness	medium	thick	thick	medium	medium
stalk length	short	short	short	medium	short
stalk cavity depth	medium	medium-deep	shallow	medium	medium
relief of surface	smooth	smooth	hammered	smooth	smooth
greasiness of skin	present	present	absent	absent	present
skin groundcolour	yellow	whitish-green	green-yellow	green-yellow	green-yellow
skin overcolour	purple	red	red	red	orange
pattern of overcolour					
	banded	banded	solid flush	solid flush	washed out faded
amount of russet	absent-very low	absent-very low	absent	weak	weak
position of russet	stalk cavity	stalk cavity	n/a	cavity (cheek & basin)	basin & cavity
size of lenticels	small-medium	medium	medium	medium	small
browning of flesh	weak	weak	n/a	weak	medium
flesh firmness	soft	very soft	medium	medium	soft
core line distinction	weak	absent – very weak	weak	weak	strong

BARLEY
Hordeum vulgare

'Doolup'

Application No: 98/141 Accepted: 14 Oct 1998.
Applicant: **Chief Executive Officer, Agriculture Western Australia**, Perth, WA and
Grains Research and Development Corporation, Barton, ACT.

Characteristics (Table 9, Figure 53) A two row feed grade spring barley. Plant: habit semi-erect, maturity medium, height medium. Lower leaf: sheath hairiness absent; Flag leaf: auricle anthocyanin weak, sheath glaucosity weak, frequency of plants with recurved flag leaves low. Stem: straw strength very good. Awns: long, anthocyanin colouration of tips weak. Ear: glaucosity weak, semi recurved, shape parallel, density lax. Rachis: first segment short, curvature strong. Sterile spikelet: parallel. Median spikelet: shorter-equal. Grain: rachilla hair type long, husk present, spiculation of inner lateral nerves absent weak, hairiness of ventral furrow absent, disposition of lodicules frontal. Disease resistance: susceptible to scald and the net form of net blotch, moderately susceptible to the spot form of net blotch.

Origin and Breeding
Controlled pollination: seed parent 75S:323 x pollen parent 74S:314 expanded as (XBVT210)/3/(B6729)Prior/Lenta/Noyep/Lenta(75S:323)/(MndS,74S:314)Dampier//(A14)Prior/Ymer/3/Kristina(70S20-20)/4/(73S13)Clipper/Tenn65-117. The seed parent 75S:323 was high yielding type with poor straw strength and small grain size. The pollen parent 75S:314 had good straw strength and larger grain size but poor yield performance. 'Doolup' has the combination of high grain yield of the seed parent and the shorter stronger straw and larger grain size of the pollen parent. The cross was initiated in 1985 at South Perth, Western Australia. F_2 single plant selections were made from the cross in 1986. Reselections from 85S376-32 were made in 1989 and single plant rows were grown out in 1990. 'Doolup' was selected from one these single plant rows known as 85S376-32-4. The variety was selfed from F_2 to F_6. Performance testing was conducted by Agriculture Western Australia from 1993 to 1997. Selection criteria: grain yield, grain quality, adaptation to the agricultural regions of Western Australia. Propagation: by seed. Breeder: Peter Portmann, Dr Ross Gilmour and Dr Reg Lance, Agriculture Western Australia, Perth WA.

Choice of Comparators 'Stirling' was chosen as one of the comparators because it is the most commonly grown barley in Western Australia and shares some of the parents of 'Doolup' (Dampier// Prior/ Ymer). 'Mundah'(ф) has similar maturity and mature height as 'Doolup' and is also widely grown in the areas where 'Doolup' is suited.

Comparative Trial Comparator(s): 'Stirling', 'Mundah'(ф). Location: Avon Districts Agriculture Centre, Northam WA, Jun-Dec 1998. Conditions: plants were raised in red loam pH 5.6 in $CaCl_2$ in open plots. Glysophate was applied to the trial site 2 days before seeding, Bromoxynil plus Brodal was applied at early tillering for broad leaf weed control. DAP at 120 kg/ha was drilled with seed and 50 kg/ha of urea was top-dressed at early tillering. No treatments for disease or insect control were required. Trial design: plants arranged in randomised complete blocks 10m long by 1.42m (8 rows) wide by 2 replications. Measurements: taken from 10 specimens per replication selected randomly from approximately 2000 plant. One sample per plant.

Prior Applications and Sales Nil.

Description: **David Allen Collins,** Northam WA.

Table 9 *Hordeum* varieties

	'Doolup'	*'Stirling'	*'Mundah'(ф)
DAYS TO EAR EMEGENCE			
mean	104.20	107.15	102.85
std deviation	0.88	1.18	1.35
LSD/sig	2.52	P≤0.01	ns
MATURE HEIGHT: (stem, ear and awns)			
mean	789.38	900.80	786.80
std deviation	34.93	42.19	47.41
LSD/sig	32.51	P≤0.01	ns
FLAG LEAF: LENGTH (at tip of ear)			
mean	67.43	64.65	97.20
std deviation	15.77	14.90	16.60
LSD/sig	13.57	ns	P≤0.01
AWN: length mm (at tip of ear)			
mean	95.13	97.44	107.80
std deviation	5.62	6.84	5.21
LSD/sig	5.52	ns	P≤0.01
FLAG LEAF: intensity of auricle anthocyanin coloration			
	weak	very strong	weak
EAR: sterile spikelet attitude			
	parallel	divergent	parallel/weakly divergent
AWNS: intensity of anthocyanin colouration of tips			
	weak	strong	weak
GRAIN:			
rachilla hair type	long	short	long
spiculation of lemma nerves	absent/weak	medium	medium/strong
ventral furrow hairiness	absent/weak	absent	absent
disposition of lodicules	frontal	clasping	clasping

'Wyalong'

Application No: 98/137 Accepted: 30 Oct 1998.
Applicant: **NSW Agriculture for and on behalf of the State of New South Wales,** Orange, NSW and **Grains Research and Development Corporation,** Barton, ACT.

Characteristics (Table 10, Figure 52) General: two row, spring habit, export malting grade barley. Plant: habit semi-erect. Lower leaf: sheath hairiness absent. Flag leaf: strong anthocyanin colouration. Ear emergence: early to medium. Awns: anthocyanin colouration present, intensity weak; length long. Ear: glaucosity weak. Ear density: dense. Sterile spikelet attitude: divergent. Grain husk: present. Grain hairiness of ventral furrow: absent.

Origin and Breeding Controlled pollination: seed parent 'Schooner' x pollen parent 'Stirling' in 1981. From this cross, the early selfing generations were progressed through mass selection. Head selections taken in 1984 and were grown in rows in 1985. Seed from row LR84%2482 was included in stage 1 trials in 1986, stage 2 trials from 1987 to 1989, stage 3 trials in 1990 to 1992 and stage 4 trails in 1993 and 1994 as WB190. This line was reselected for anthocyanin pigmentation expression in plants and 10 selections of similar expression were bulked together for the line WB190R that underwent standard yield and malt assessment protocols. This line differs from its seed parent in the degree of anthocyanin pigmentation of plant parts. WB190R was later released as 'Wyalong'. Selection criteria: plump grain for early generation selections, higher diastase levels than standard malt variety 'Schooner' in original high yielding line WB190, anthocyanin pigmentation expression in plants in WB190 and standard yield and malt assessment protocols in WB190R. Propagation: by seed. Breeder: Dr Barbara Read, Agricultural Research Institute, Wagga Wagga, NSW.

Choice of Comparators 'Arapiles', 'Schooner', 'Sloop'(ф) and 'Stirling' selected as the most similar varieties of common knowledge. 'Schooner' and 'Stirling' were parents of 'Wyalong'. 'Wyalong' also differs from comparator varieties for molecular markers. The AFLP primer combination EcoR1-ACG / Mse1-CAC differentiates 'Wyalong' from popularly grown malting varieties 'Arapiles', 'Schooner', 'Sloop'(ф) and 'Stirling'.

Comparative Trial: Comparators: 'Arapiles', 'Schooner', 'Sloop'(ф) and 'Stirling'. Location: Agricultural Research Institute, Wagga Wagga, NSW in Jun–Nov 1998. Conditions: sown into red sandy loam on good moisture at 57 kg/ha seeding rate. Trial design: randomised plots 9.4m x 1.42m in 2 replicates. Measurements: 10 specimens per replicate randomly selected from 1,750 plants per plot.

Prior Applications and Sales

No prior applications.

First sold in Australia in June 1998.

Description **Paul Breust, NSW Agriculture,** Temora, NSW.

Table 10 *Hordeum* varieties

	'Wyalong'	*'Arapiles'	*'Schooner'	*'Sloop'(ϕ)	*'Stirling'
PLANT HEIGHT (mm)					
mean	1145	1089	1070	1032	1019
std deviation	30	47	34	45	30
LSD/sig	62	ns	P≤0.01	P≤0.01	P≤0.01
GROWTH HABIT	semi-erect	intermediate	erect	erect	semi-erect
ANTHOCYANIN INTENSITY OF AURICLES	strong	strong	weak-medium	medium-strong	weak
FLAG LEAF GLAUCOSITY	medium	weak	strong	strong	weak
EAR EMERGENCE	early-medium	early-medium	early-medium	early	early
ANTHOCYANIN EXPRESSION IN AWNS	medium	weak	strong	strong	weak
EAR GLAUCOSITY	medium	weak	strong	strong	weak
RACHIS CURVATURE	weak-medium	very weak	weak-medium	weak	medium-strong
STERILE SPIKELET ATTITUDE	divergent	divergent	divergent	parallel-divergent	weakly divergent
MEDIAN SPIKELET LENGTH RELATIVE TO GRAIN	shorter	equal	shorter (slightly)	shorter	shorter
GRAIN RACHILLA HAIR TYPE	short	long	short	short	short

BERSEEM CLOVER
Trifolium alexandrinum

'Elite II'

Application No: 95/304 Accepted: 29 Jan 1996.
Applicant: **South Australian Seedgrowers Co-operative Limited,** Hilton, SA.

Characteristics (Table 11, Figure 57) Plant: erect, height tall, medium maturity. Stem: pubescent when young, to 1m long, branched. Leaf: trifoliate, leaflets hairy, elliptical, commonly 40 to 50mm long and 15mm wide. Inflorescence: terminal on stems and branches, racemes dense with numerous, almost sessile flowers, at first ovate and later conical or elliptical. Flower: 5 mm long, petals cream, calyx green and persistent. Pods: 3mm long containing 1 seed. Seeds: seedcoat brown or yellow.

Origin and Breeding Recurrent mass selection: In 1991, 121 plants were selected from a population of 1600 spaced plants of 12 varieties of diverse origins in a nursery at Bordertown, South Australia. Plants were selected on lack of symptoms of *Kabatiella caulivora* attack, and on seed yield. Seeds of these plants were sown in 1992 and a population of 1000 plants was retained after preliminary selection. The number was reduced to 47 plants when reselected for disease resistance, flowering time and seed yield. After 2 further cycles of selection the seed from 40 plants was bulked to provide breeders seed of 'Elite II'. Based on maternal contribution 'Elite' II traces to: 'Multicut' (57%), 'Big Bee' (26%), 'Sacramonte' (12%) and 'Fahl' (5%). Selection criteria: leaf scorch (*K. caulivora*) resistance and seed yield. Propagation: by seed. Breeder: Dr. Ross Downes, ACT.

Choice of Comparators The comparators selected were 'Multicut' and 'Big Bee', the two varieties contributing most of the germplasm of the variety 'Elite II', and morphologically very similar to it. These varieties flower at approximately the same time (191 days), much later than 'Tabor' (168 days).

Comparative Trial Comparators: 'Multicut' and 'Big Bee', were sown at the Struan Agricultural Research Station, Naracoorte, South Australia on 6 Jun 1997. Conditions: spaced plants in the field with observations on 15 plants from each of 4 replications. The screening for *K. caulivora* was conducted by Mark Ramsay et al (SARDI). The trial was sown 7 Apr 1998 in a factorial design with 4 varieties (2 generations of Elite II, and one of 'Big Bee' and 'Multicut'), 4 isolates and 4 replications. Inoculations were made 29 Apr 1998 and ratings were recorded on 8 and 14 May 1998 on a scale of 0 to 6 scale based on the number of infected leaves per plant. Measurements: from all trial plants.

Prior Applications and Sales
No prior applications. First sold in Australia in March 1997.

Description: **Dr Ross Downes,** Innovative Plant Breeders, Canberra, ACT.

Table 11 *Trifolium* varieties

	'Elite II'	*'Big Bee'	*'Multicut'
CLOVER SCORCH RESISTANCE RATING - 0 to 6 scale (15 days after inoculation)			
mean	4.1	3.2	5.6
std deviation	0.75	0.66	0.50
LSD/sig	0.6 (> 20-30 leaves scorched)	P≤0.01 (> 10-20 leaves scorched)	P≤0.01 (> 30-50 leaves scorched)

BLACK SHEOAK
Allocasuarina littoralis

'Matuka Silver'
Application No: 95/205 Accepted: 4 Dec 1995.
Applicant: **Penelope Sinclair**, Nambour, QLD.

Characteristics (Table 12, Figure 22) Plant: erect shrubby tree. Stem: cylindrical, jointed. Branchlets: thick, jointed with leaves reduced to a toothed whorl at the nodes, internodes longitudinally variegated with lines of white (RHS 155D) tomentum , wider at the base of the internode. Leaf whorls: contrasting yellow-green colour (RHS 153C).

Origin and Breeding Spontaneous mutation: in a batch of *Allocasuarina littoralis* normal seedlings raised in applicant's property in 1991. The sport was an atypical form of *A. littoralis,* characterised by white variegated branchlets, which was due to the excessive cover of pubescence. It was vegetatively propagated through 4 generations to confirm uniformity and stability. Selection criteria: unusual variegated branchlets. Propagation: cuttings or grafting. Breeder: Penelope Sinclair, Nambour, QLD.

Choice of Comparator The parental form of the candidate, *A. littoralis* seedlings were chosen as the sole comparator (it is also representative of the normal form of the species). No other similar varieties of common knowledge have been identified.

Comparative Trial Comparator: *A. littoralis* seedlings. Location: Nambour, QLD, Apr 1998 – Jan 1999. Conditions: trial conducted in open nursery with overhead watering, plants propagated from cuttings, potted in 140mm pots of pine bark, sand, perlite mix. Nutrition is maintained with slow release fertiliser. Trial design: 30 plants of each variety arranged in a completely randomised design. Measurements: from 15 plants of each variety taken at random.

Prior Applications and Sales Nil.

Description: F D Hockings, Maleny, QLD.

Table 12 *Allocasuarina* varieties

	'Matuka Silver'	*A. littoralis* seedlings
INTERNODE LENGTH (mm)		
mean	7.2	11.3
std deviation	1.86	3.18
LSD/sig	3.58	P≤0.01
BRANCHLET DIAMETER (mm)		
mean	0.94	0.53
std deviation	0.09	0.13
LSD/sig	0.16	P≤0.01
BRANCHLET COLOUR		
	green RHS 139A	yellow green RHS 144A
VARIEGATION IN BRANCHLETS		
	present	absent
COLOUR OF VARIEGATION		
	white RHS 155D	n/a
LEAFLET WHORL COLOUR		
	yellow green RHS 153C	greyed orange RHS 172A

BROAD BEAN
Vicia faba

'Taranto'
Application No: 95/265 Accepted: 11 Dec 1995.
Applicant: **Brulan Bros,** Naracoorte, SA.

Characteristics (Table 13, Figure 37) Plant: habit erect, height high (47.9cm at flowering), number of stems medium. Stem: number of nodes to first flower medium (5), anthocyanin colouration present but slight. Foliage: colour green. Leaflet: length long (74mm) width narrow (42.6mm), terminal leaflet folding weak. Raceme: mean number of flowers per raceme few (4.7). Flower: flowering time medium (28th Aug, Millicent, SA), flower length long (39.4mm), wing melanin spot present, standard melanin spot absent, standard anthocyanin colouration present but slight. Truss: number of pods few. Pod: attitude horizontal, length at green maturity long (154mm), median width at green maturity very wide (22.6mm), degree of curvature medium, intensity of green colour medium, number of ovules per pod medium (3.8). Seed: shape of median longitudinal section square, shape of cross section broad elliptic, 100 grain weight very high (181g), colour of testa beige, black pigmentation of hilum present. Time of full development of pod medium (Dec 30th, Millicent, SA).

Origin and Breeding Open pollination: parent lines were selected from imported Italian strains as well as locally sourced lines. Several uncontrolled crosses were made during 1994-1998 from which progeny were selected characterised by large seed size. A single large seeded line was selected for seed increase to become the variety 'Taranto'. Selection criteria: large uniform seed size. Propagation: by seed. Breeder: Mr. Tom Cockburn, Carpenters Rocks, SA.

Choice of Comparators 'Aquadulce' was chosen because it is the most widely grown variety of dried culinary broad

bean. 'Big Ben' is a commonly grown garden bean of very large but variable seed size. It has the largest seed size of bean varieties of common knowledge in Australia. 'Big Ben' is considered to be representative of the original lines.

Comparative Trial Comparator(s): 'Aquadulce', 'Big Ben'. Location: Millicent, SA (Latitude 37°42′ South, elevation 35m), Winter/Spring/Summer 1998/99. Conditions: trial conducted in field, plants grown from seed (inoculated). Trial planted 9.6.98, soil grey self mulching clay of fine tilth, planting depth 5 cm. Nutrition 100 kg/ha grain legume fertiliser, pest and disease treatments applied as required. Trial design: four replicates of each variety in a randomised complete block design, plot size 2 rows x 5 metres plant spacing 12.5 cm, row spacing 50 cm. Measurements: from twenty plants at random. One sample per plant.

Prior Applications and Sales

First sold in Australia in March 1996.

Description: **Leslie Mitchell, Agrisearch Services Pty Ltd,** Shepparton, VIC

Table 13 *Vicia* varieties

	'Taranto'	*'Aquadulce'	*'Big Ben'
PLANT HEIGHT at flowering (cm)			
mean	47.9	47.9	47.5
std deviation	6.7	7.9	5.9
LSD/sig	3.61	ns	ns
LEAFLET LENGTH at flowering (mm)			
mean	74.1	73.3	74.4
std deviation	5.8	8.8	7.6
LSD/sig	3.70	ns	ns
LEAFLET WIDTH at flowering (mm)			
mean	42.6	45.6	47.7
std deviation	4.8	6.9	6.3
LSD/sig	2.30	P≤0.01	P≤0.01
POD LENGTH at green maturity (mm)			
mean	154.1	130.4	141.3
std deviation	20.8	20.8	30.8
LSD/sig	14.52	P≤0.01	ns
SEED LENGTH at maturity (mm)			
mean	24.7	20.9	24.3
std deviation	1.2	2.1	3.6
LSD/sig	1.41	P≤0.01	ns
100 GRAIN WEIGHT at maturity (g)			
mean	181.1	135.4	177.2
std deviation	6.2	13.3	31.0
LSD/sig	13.50	P≤0.01	ns
FLOWERING DATE (Millicent, SA)			
	28th August	28th August	2nd September
MATURITY DATE (Millicent, SA)			
	30th December	30th December	7th January

CHRISTMAS BUSH
Ceratopetalum gummiferum

'VIC 90-1'
Application No: 95/290 Accepted: 18 Dec 1995.
Applicant: **Vic Ciccolella**, Oakville, NSW.

Characteristics (Table 14, Figure 14) Plant: upright, bushy, evergreen small tree. Leaves: opposite, trifoliate, flat, waxy. Leaflets: average length 50mm, average width 13mm, elliptic in shape, apex acute (point rounded), base oblique-attenuate, surface glaucous, mid green (RHS 191A) on the upper surface with an irregular cream-coloured variegation (RHS 5D) on the margin of the upper leaf, lower leaf surface lighter green (RHS 194A), margin serrated. Colour of new growth bronzed red (RHS 178C) with a green midrib. Variegated sections pink in colour (lighter than RHS 187B). Leaves age through bronzed-green to mature colour. Flowers: small, creamy white, in terminal panicles. Sepals: 4-5, broadly obovate, sepal-circle average diameter 22mm, white at first flower (early Dec), ageing to red (RHS 45C) after flowering (late Dec).

Origin and Breeding Open pollination followed by seedling selection: from 'Alberry's Red' at applicant's property in 1990. Several thousand seed were collected from the parent and sown out in a commercial nursery for assessment. 'VIC 90-1' was selected for clonal propagation from this batch of seedlings for its striking foliage characteristics, compact plant habit, good vigour and free flowering habit. The primary difference in the candidate variety is variegated foliage, whereas the parent has non-variegated foliage. Selection criteria: unique variegation. Propagation: by cuttings through five generations. Breeder: Vic Ciccolella, Oakville, NSW.

Choice of Comparators The comparator chosen was 'Alberry's Red', being the seed parent and closest known variety of common knowledge. A variegated form of *Ceratopetalum* has been sold in Australia in the past, however this variety is quite different from 'VIC 90-1', having deeper green leaves (RHS 137B-139B) and a more yellow variegation (RHS 6D).

Comparative Trials Comparator: 'Alberry's Red'. Location: trials conducted at Paradise Plants, Kulnura, NSW between 1995-1998. Conditions: plants raised on their own roots from cuttings, grown in 200mm pots in standard potting mix under full sun with overhead irrigation. All plants were subjected to the same chemical treatments for crop protection and nutrition as required. Trial design: 10 plants of each variety arranged in complete blocks. Measurements: from all trial plants.

Prior Applications and Sales

No prior applications. First sold in Australia in Dec 1996.

Description: **John Robb, Paradise Plants,** NSW.

Table 14 *Ceratopetalum* varieties

	'VIC 90-1'	* 'Alberry's Red'
PLANT GROWTH HABIT		
	upright, branching	upright, branching
LEAF CHARACTERISTICS		
leaf type	trifoliate	trifoliate
arrangement	opposite	opposite
shape (leaflet)	elliptic	elliptic
margin (leaflet)	serrated	serrated
apex (leaflet)	acute-rounded tip	acute rounded tip
base (leaflet)	oblique-attenuate	oblique-attenuate
colour – upper	RHS 191A	RHS 147A
- lower	RHS 194A-B	RHS 138B
- variegation	RHS 5D	absent
- new growth	RHS 178C with a green midrib	RHS 179B-178B
FLOWER CHARACTERISTICS		
sepal colour	RHS 45C-D	RHS 46A-B
flower timing	mid Dec	mid Nov
full sepal colouration	late Dec	late Nov
SEPAL CIRCLE DIAMETER (mm)		
mean	22.5	15.4
std deviation	1.9	1.8
LSD/sig	1.5	P≤0.01

FIELD PEA
Pisum sativum

'Excell'

Application No: 98/180 Accepted: 14 Oct 1998.
Applicant: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC and **Grains Research and Development Corporation,** Barton, ACT.

Characteristics (Table 15, Figure 35) Plant: Quality blue field pea, height semi-dwarf, time of flowering early, maturity medium (determinate), anthocyanin absent. Foliage: colour green. Leaf: semi-leafless. Stipule present, normal. Flower: colour standard white. Pod: shape straight or weak concave curvature, colour medium, anthocyanin absent, shape of distal part blunt. Seed: shape spherical, size medium, cotyledon colour green, smooth, testa; hilum white.

Origin and Breeding Controlled pollination: **'**Excell' was developed from a complex crossing program, with the final cross made in 1985. The pedigree was, Parvus/PS386)//(Viktoria.dippes.gelbe/PS3/Dun/L58)//(Viktoria.dippes.gelbe/PS4/Greenfeast)//(MU38/Marx4/PS3/L1307). The parent plants were distinguishable from 'Excell' in terms of leaf form, seed traits and internode length. Between 1985 and 1992 the line was reselected 4 times and evaluated in rows and yield trials in Victoria, NSW, SA and WA. Over this testing period the line was named 85-14P*3-6-5-1. The name identified the year of the final cross (1985), the cross identification number (14), and the single plant selection id number at every stage of reselection. The line was promoted to the Victorian advanced variety testing program and nationwide evaluation in the Interstate pea variety testing program in 1993 as PSH3. Production of bulk seed commenced in 1996. Selection criteria: increased grain yield, improved harvestability (lodging resistance, crop height) and high grain quality for medium to high rainfall cropping regions of Victoria, NSW and SA. Propagation: by seed. Breeder: Jan Bert Brouwer, Wayne Burton, Antonio Leonforte. Victorian Institute for Dryland Agriculture, Horsham, VIC, Australia.

Choice of Comparators 'Bluey' and 'Jupiter' were included in the comparative trial as these are similar varieties of common knowledge. 'Bluey', 'Jupiter' and 'Excell' are all blue seeded varieties. The parental genotypes were not considered for the trial because 'Excell' is clearly distinguishable from these varieties by seed type, internode length and leaf type**.**

Comparative Trial Comparators: 'Bluey', 'Jupiter'. Location: Horsham district, VIC Jun-Dec 1998. Conditions: plants were raised in cracking black soils in open beds. Trial design: randomised complete block design. There were 4 replicate blocks, which consisted of variety plots. Each plot was sown as a paired row 5m in length. The rows were 30cm apart. Sowing rate was 100 seeds per plot. Measurements: 10 specimens per replication selected randomly from each plot.

Prior Applications and Sales

No prior applications. First sold in Australia in May 1998 under the name PSH3.

Description: **Antonio Leonforte, Department of Natural Resources and Environment; Agriculture Victoria,** Horsham, VIC.

Table 15 *Pisum* varieties

	'Excell'	*'Bluey'	*'Jupiter'
PETIOLE LENGTH (FROM SECOND FERTILE NODE) (cm)			
mean	7.46	6.43	n/a
std deviation	0.91	0.96	n/a
LSD/sig	1.78	ns	n/a
STEM LENGTH (AT MATURITY) (cm)			
mean	74.30	59.20	66.70
std deviation	13.35	10.29	12.49
LSD/sig	8.85	P≤0.01	ns
PLANT HEIGHT (AT 30% FLOWERING) (cm)			
mean	47.70	39.50	50.40
std deviation	3.82	4.61	7.16
LSD/sig	6.37	P≤0.01	ns
PEDUNCLE LENGTH (FROM STEM TO FIRST FLOWER) (cm)			
mean	12.71	8.28	10.73
std deviation	1.90	1.50	1.96
LSD/sig	1.46	P≤0.01	P≤0.01
POD LENGTH (AT SECOND FERTILE NODE) (mm)			
mean	71.80	78.20	70.20
std deviation	8.53	6.35	6.43
LSD/sig	4.15	P≤0.01	ns
POD MAXIMUM WIDTH (AT SECOND FERTILE NODE) (cm)			
mean	13.52	15.03	14.99
std deviation	1.10	1.18	1.21
LSD/sig	0.681	P≤0.01	P≤0.01

SEED WEIGHT (100 HARVESTED DRY SEEDS) (g)			
mean	23.53	23.17	27.06
std deviation	0.81	1.38	1.17
LSD/sig	1.65	ns	P≤0.01
SEED: SHAPE			
	spherical	spherical	rhomboid
SEED: TIME OF MATURITY			
	medium	early	early
LEAF: LEAFLETS			
	absent	absent	present
LEAFLETS: RABBIT EARED LEAFLETS			
	absent	absent	present

'Paravic'

Application No: 98/181 Accepted: 14 Oct 1998.
Applicant: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC and
Grains Research and Development Corporation, Barton, ACT.

Characteristics (Table 16, Figure 36) Plant: Dun field pea suitable for milling or stock feed, height semi-dwarf, time of flowering early, maturity early (determinate), anthocyanin present. Foliage: colour green. Leaf: semi-leafless. Stipule present, normal. Flower: colouration of wing reddish purple, intensity medium. Pod: shape straight or weak, concave curvature, colour medium, anthocyanin present, shape of distal part blunt. Seed: shape irregular, size medium, cotyledon colour yellow, dimpled, testa; colour light green brown, black colour of hilum absent.

Origin and Breeding Controlled pollination: **'**Paravic' was developed from a cross between 'Dinkum' and 'Mega' made in 1986. The parent plants were distinguishable from 'Paravic' in terms of seed and leaf form traits and internode length. The line was initially developed by Single Seed Descent (SSD) method following selection in F_2 and was reselected once. Between 1986 and 1992 the line was evaluated in rows and yield trials in Victoria, NSW, SA and WA. During this testing period the line was named 86-55P*32-4. The name identified the year of the final cross (1986), the cross identification number (55) and the single plant selection id number at every stage of reselection. The line was promoted to Advanced Variety Testing in Victoria and nationwide evaluation in the Interstate Pea Variety Testing Program in 1992 as PSG10. Production of bulk seed commenced in 1996. Selection criteria: increased grain yield, harvestability (lodging resistance, crop height) and high grain quality for medium to high rainfall areas of Victoria, NSW and SA. Propagation: Seed via SSD and pedigree/bulk breeding schemes. Breeder: Jan Bert Brouwer, Wayne Burton and Antonio Leonforte. Victorian Institute for Dryland Agriculture, Horsham, VIC, Australia.

Choice of Comparators 'King' (Φ), 'Magnet' (Φ), 'Alma', 'Dundale', 'Glenroy' were included in the comparative trial as they are similar varieties of common knowledge. The comparators are all Dun seeded varieties. The parental varieties were not considered for inclusion in the trial because 'Paravic' is distinguished clearly by seed traits, internode length and leaf type.

Comparative Trial Comparators: 'King' (Φ), 'Magnet' (Φ), 'Alma', 'Dundale'. Location: Horsham district, Jun-Dec 1998. Conditions: plants were raised in cracking black soils in open beds. Trial design: randomised complete block design. There were 4 replicate blocks, which consisted of variety plots. Each plot was sown as a paired row 5m in length. The rows were 30cm apart. Sowing rate was 100 seeds per plot. Measurements: 10 specimens per replication selected randomly from each plot.

Prior Applications and Sales

No prior applications. First sold in Australia in April 1998 under the name PSG10.

Description: **Antonio Leonforte, Department of Natural Resources and Environment; Agriculture Victoria,** Horsham, VIC.

Table 16 *Pisum* varieties

	'Paravic'	***'King'**(Φ)	***'Magnet'**(Φ)	***'Alma'**	***'Dundale'**	***'Glenroy'**
PETIOLE LENGTH (from second fertile node) (cm)						
mean	8.79	n/a	5.41	n/a	n/a	10.65
std deviation	1.07	n/a	0.81	n/a	n/a	5.10
LSD/sig	1.78	n/a	P≤0.01	n/a	n/a	P≤0.01
PLANT HEIGHT (at 30% flowering) (cm)						
mean	48.15	39.95	38.75	65.05	57.35	61.70
std deviation	5.13	3.19	10.69	4.62	6.16	5.80
LSD/sig	6.37	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01
STEM LENGTH (at maturity) (cm)						
mean	69.85	60.4	59.05	122.15	117.45	118.05
std deviation	13.10	10.73	10.73	22.29	13.14	17.80
LSD/sig	8.85	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01
PEDUNCLE LENGTH (from stem to first flower) (cm)						
mean	9.76	8.27	7.35	9.77	10.09	11.38
std deviation	1.50	1.23	1.14	1.53	1.80	1.60
LSD/sig	1.46	P≤0.01	P≤0.01	ns	ns	P≤0.01

Table 16 Continued

POD LENGTH (at second fertile node) (mm)						
mean	75.10	69.10	73.50	59.75	60.85	63.80
std deviation	4.97	4.67	5.67	3.16	5.63	6.67
LSD/sig	4.15	P≤0.01	ns	P≤0.01	P≤0.01	P≤0.01
POD MAXIMUM WIDTH (at second fertile node) (cm)						
mean	13.59	12.18	13.34	13.48	12.51	13.61
std deviation	1.07	2.38	1.17	1.04	1.00	1.00
LSD/sig	0.681	P≤0.01	ns	ns	P≤0.01	ns
TIME OF FLOWERING (30% of plants have one flower open) (days from sowing)						
mean	145	154	151	154	146	154
std deviation	0.58	5.54	3.79	0.50	4.51	4.57
LSD/sig	4	P≤0.01	P≤0.01	P≤0.01	ns	P≤0.01
SEED WEIGHT (100 harvested dry seeds) (g)						
mean	20.85	21.99	21.61	22.68	21.64	22.33
std deviation	0.72	0.59	0.86	1.53	0.89	1.45
LSD/sig	1.65	ns	ns	P≤0.01	ns	ns
STIPULE: (rabbit eared stipules)	absent	present	present	absent	absent	absent
LEAF: LEAFLETS	absent	present	absent	present	present	absent
FOLIAGE: COLOUR	green	blue green	blue green	yellow green	yellow green	yellow-green
SEED: COLOUR OF TESTA	light greenish brown	brown	greenish brown	greenish brown	greenish brown	greenish-brown
SEED: SHAPE	irregular	irregular	irregular	irregular	irregular	irregular
SEED: TIME OF MATURITY	very early	early	early	medium	early	late

HOPS
Humulus lupulus

'Furano No. 18'

Application No: 94/095 Accepted: 26 Apr 1994.
Applicant: **Sapporo Breweries Ltd,** Tokyo, Japan.
Agent: **Phillips Ormonde & Fitzpatrick,** Melbourne, VIC.

Characteristics (Table 17, Figure 23) Plant: main vine 6-8m in height. Form: clavate. Stem: colour reddish-green, young shoots-reddish purple, crista reddish-purple. Degree of twinning: medium. Length of internode: 30-40cm. Number of nodes: 35-44. Inflorescence: located on tertiary branches, medium to dense. Leaves: young and mature leaves light green, shape palmate with 7 lobes, medium cleft with serrate edges, length 15-25cm, ratio petiole to base 1.0-2.5. Cones: yellowish green in colour, large, elongated but ovate, bracts and bracteoles number 50-69, 100 cone weight 10-15g (dried 11% moisture), 2000-3000 cones per vine, weight ratio 40-60%. Bracts: yellowish green, oval, tips acute, length 12-16mm, length to width ratio 1.5-2.5. Strigs: medium thickness. Lupulin: yellow, bracteoles medium to abundant. Disease resistance: resistant to downy mildew. Total resin content: medium 15-25% and acids 5-8%, β fraction medium to high 8-11%, hard resins 3-7%. Ratio of β fraction to α-fraction: high >1.2. Constituents of α-acids: Humulone very high >60%; Cohumulone low <25%; Adhumulone low <15%. Aroma: medium. Maturity: mid season in flowering and ripening.

Origin and Breeding Controlled pollination: seed parent 'Sorachi-ace' was pollinated by a seedling of 'Saaz' from open pollination in 1983**,** Hokkaido, Japan. The main vine of the resultant variety is reddish green and is distinguishable from the green of 'Sorachi-ace'. The crista on the main vine is reddish purple which is also distinct from the reddish green of 'Sorachi-ace'. Selection criteria: early ripening, downy mildew resistance, grey mould resistant, excellent bitterness and aroma, suitability for mechanical harvesting. The finally selected plant was initially known as 'Sapporo No. 1', but more recently was renamed as 'Furano No. 18'. This variety has been bred for its acid quality which is low in cohumulone (the less the better), but much in humulone. Propagation: by vegetative reproduction and the stock plants are maintained at the Hokkaido Center, Plant Bio-Engineering Research Laboratories Sapporo Breweries Ltd. Breeder: Sapporo Breweries Ltd.

Choice of Comparator The qualified person considers that 'Pride of Ringwood' is a close comparator however the key differences are the cone weight, the maturity dates and the essential oil content which creates the distinctive aroma and flavour. No other similar varieties of common knowledge have been identified in Australia.

Comparative Trial The description is based on overseas data obtained from Japan (PBR 6049) where extensive field comparisons have been made with 'Furano No.18' using 'Shinshu-wase', 'Furano-ace and 'Sorachi-ace' varieties.

The overseas data was further confirmed by growing the variety at Bushy Park, near Hobart, by Australian Hop Marketers alongside other standard commercial varieties particularly 'Pride of Ringwood' which is the principal local commercial hop variety. Key characteristics of 'Furano No.18' were confirmed by random observations and measurements by the qualified person. The essential differences of 'Furano No. 18' from 'Pride of Ringwood' are in Table 17.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
Japan	1993	Granted	'Furano18GO'
USA	1994	Granted	'Furano No. 18'
Argentina	1994	Granted	'Furano No. 18'
New Zealand	1995	Granted	'Furano No. 18'

First sold in Japan in 1994.

Description: **Steve Martin,** Hobart, TAS.

Table 17 *Humulus* varieties

	'Furano No. 18'	*'Pride of Ringwood'
MATURITY AND HARVEST DATE		
	early	mid-season
	03.03.98	13.03.98
% LEAF CHLOROPHYLL VALUE (LCV)*		
	8.4	10.1
% DRY MATTER		
	20.9	23.9
100 CONE WEIGHT AT HARVEST (mg)		
	169	202
ALPHA AND BETA ACID CONTENT		
% Alpha	7.5	10.1
% Beta	5.1	n/a
Alpha/Beta Ratio	1.5	n/a
HPLC RESULTS		
%Cohumulone	19.42	21.73
%Humulone	50.35	39.60
%Colupulone	12.01	17.16
%Lupulone	12.60	13.51

*Leaf Chlorophyll Value (LCV) is a standard spectro-photometric method of analysis used by the hop producers. The samples for analysis were taken from bales in accordance with normal industry standards.

**HPLC results shown graphically in Fig 23 a.

HYBRID COUCHGRASS
Cynodon dactylon x Cynodon transvaalensis

'Champion Dwarf'
Application No: 96/203 Accepted: 24 Dec 1996.
Applicant: **Richard Morris Brown, Michael Andrew Brown and Scott Derek Brown,** Bay City, TX, USA.
Agent: **Spruson & Ferguson,** Sydney, NSW.

Characteristics (Figure 25) Ploidy: triploid (3n=27). Plant: very low habit, high shoot density. Stem: dense lateral stem growth, both stolons and rhizomes branch profusely, short internodes. Leaf: low vertical extension rate, narrow width, folded in bud shoot, fattened to v-shaped in cross-section, keeled, gradually tapering to an acute point, ligule present at the junction of the leaf blade, auricles absent, collar forms a continuous narrow band opposite to ligule. Inflorescence: not produced. Other characteristics: high recovery rate, thick mat, high wear tolerance, low temperature hardiness.

Origin and Breeding Spontaneous mutation: 'Tifdwarf' hybrid couch grass (*Cynodon dactylon* x *Cynodon transvaalensis*) on a golf green in Walker county, Texas, USA. The original green was planted to 'Tifdwarf' in 1969 and the selection was made from a segregated patch in 1987. Selection criteria: vertical leaf extension rate, lateral stem development, turf recuperative rate, shoot density, leaf blade width, inflorescence and terminal height. Propagation: a short lateral stem with a single node was used for asexual vegetative propagation and increase of the original source of 'Champion Dwarf'. Breeders: Richard Morris Brown, Michael Andrew Brown and Scott Derek Brown, Bay City, TX, USA.

Choice of Comparators 'Tifdwarf' and 'Tifgreen'(also known as 328) are the most similar varieties of common knowledge. 'Tifdwarf' is also the parental variety. The comparators are widely used in Australia on golf greens ('Tifdwarf' and 'Tifgreen') and bowling greens ('Tifdwarf').

Comparative Trial Description is based on data presented in the official US Plant patent description (US PP 9888). Location: Bay City and College Station, Texas, USA. Trial design: vertical leaf extension rate measured on 10 leaves in three replicated containers. Leaf blade width measured on six leaves in three replicated containers. Lateral stem development measured in three replicated containers. Shoot density measured on four replicates from field plot. Mat depth measured on four replicates from field plots. The QP considers 'Tifdwarf' and 'Tifgreen'(also known as 328) are the most similar varieties of common knowledge. Based on US observations 'Champion Dwarf' has shorter leaf blade width, shorter vertical extension rate, higher shoot density, higher lateral stem development, thicker mat and higher percentage of turf recovery rate compared to 'Tifdwarf' and 'Tifgreen'.

Prior Application and Sales

Country	Year	Current Status	Name Applied
USA	1997	Granted	'Champion Dwarf'

First sold in USA in March 1996. First Australian sale nil.

Description: **Jyri Kaapro,** Granville, NSW.

JAPANESE PEAR
Pyrus pyrifolia

'Gold Nijisseiki'
Application No: 97/056 Accepted: 2 Apr 1997.
Applicant: **National Institute of Agrobiological Resources,** Tsukuba, Japan.
Agent: **Davies Collison Cave Patent Attorneys,** Melbourne, VIC.

Characteristics (Table 18, Figure 28) Plant: tree medium vigour. Stem: shoot length medium, shoot thick, shoot

length of internodes short, shoot pubescence strong, number of spurs on branch many, few auxiliary flowers buds on shoot. Leaf: colour of upper side of young leaf brown, pubescence on lower side of young leaf present, shape oval, length of petiole short. Inflorescence: number of flowers medium to many. Flower: colour light pink fading to pure white at blooming, petal shape round, medium number of notches on margin of petal, number of petals more than 5 up to including 6 (mean 5.54), medium number of stamens, intensity of anther red colour before opening dark, anther pollen present. Fruit: shape in longitudinal section round, size medium, over colour of skin (non bagged) yellow green, medium size and density of lenticels, length of stalk medium, thick stalk, shape of core short conical, ratio diameter of core to diameter of fruit medium, number of loculus 5, yellowish white colour of flesh, firmness of flesh soft, texture of flesh medium, acidity content medium, astringency absent, size of seed medium, shape of seed oval, time of beginning of flowering medium, time of beginning of fruit ripening medium, self compatibility absent, browning of core absent, tendency of fruit cracking absent, storage life long. Disease Resistance: strong resistance to black spot disease.

Origin and Breeding Induced mutation: 'Gold Nijisseiki' was bred through deliberate mutation of nursery stocks of the variety 'Nijisseiki' and selected for strong resistance to black spot disease. In 1962, nursery stocks of 'Nijisseiki' were planted at a gamma field of the Institute of Radiation Breeding National Institute of Agrobiological Resources, Ministry of Agriculture, Forestry and Fisheries, Omiya-machi, Naka-gun, Ibaraki, Japan, and have been continuously exposed to gamma rays hitherto. In 1981, the amount of fungicide sprayed on the trees was reduced and one of the trees developed a branch devoid of the symptoms associated with black spot disease. The branch was asexually reproduced by top-grafting onto rootstocks and were subject to local adaptability tests at each of the prefectural experimental stations located in Tottori, Nangano, Fukushima since 1986. Field resistance to black spot disease on the fruit found that 'Nijisseiki' had 58 percent infection whereas 'Gold Nijisseiki' had 0 percent infection. Homogeneity and stability was confirmed at the various Prefectural Experimental Stations. Selection criteria: strong resistance to black spot disease compared to 'Nijisseiki'. Propagation: vegetative. Breeders: Teruo Nishida, Mito, Haruhiko Fujita, Matsumoto, Fukio Ikeda, Machida, Tetsuro Sanada, Tsukuba, Kazuo Kotobuki, Tsukuba, Japan.

Choice of Comparators 'Nijisseiki' was chosen because it is the original source material from which the variety was selected. The source material represents the natural form of the species and is the most similar variety based on tree and fruit characteristics.

Comparative Trial Description based on overseas United States Patent (US PP 8,529) and data from Japan and was subsequently compared to the most common cultivar grown in Australia. The qualified person considers 'Nijisseiki' to be the closest comparator in Australia. The essential difference between 'Gold Nijisseiki' and the comparator is a high resistance to black spot disease (*Alternaria kikuchiana*) and is given in Table 18.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
Japan	1990	Granted	'Gold Nijisseiki'
USA	1992	Granted	'Gold Nijisseiki'
New Zealand	1994	Applied	'Gold Nijisseiki'
Netherlands	1995	Applied	'Gold Nijisseiki'

First sold in Japan in 1991. First Australian sale nil.

Description: **Peter Scholefield and Amanda Schapel, Scholefield Robinson Horticultural Services Pty Ltd,** Adelaide, SA.

Table 18 *Pyrus* varieties

	'Gold Nijisseiki'	*'Nijisseiki'
RESISTANCE TO BLACK SPOT (*Alternaria kikuchiana*)		
	strong	weak-medium
	0% fruits infected	58% fruits infected
	5-7% leaves infected	90% leaves infected

KANGAROO PAW
Anigozanthos hybrid

'Bush Garnet'

Application No: 97/061 Accepted: 30 Apr 1997.
Applicant: **Forbio Plants Pty Ltd,** Somersby, NSW.

Characteristics (Table 19, Figure 13) Plant: habit compact, rhizomatous, medium number of inflorescences, height medium, flowering 14-16 weeks from tissue culture. Leaf: attitude semi-upright, slightly curved, weakly pubescent margin, length medium, width medium, colour green (RHS 137A, 1995). Inflorescence: tertiary ramification present, few-medium total number of flowers. Flower: perianth tube profile broadening evenly, perianth lobes slightly reflexed, perianth tube length medium, perianth tube width medium, single coloured hairs on perianth tube, ovary and pedicel greyed-purple (RHS 187A-B, 1995), inner perianth tube colour green (RHS 138A, 1995), two anthers at top of perianth, anther/pollen colour yellow (RHS 13A, 1995), stigma level with anthers.

Origin and Breeding Controlled pollination: *Anigozanthos preissii* (seed parent) x 'Bush Twilight'(P) (pollen parent). The seed parent was characterised by large orange flowers. The pollen parent has yellow and orange-red flowers. Hybridisation took place at Somersby, NSW in 1992. Seed were germinated *in vitro* with subsequent individual seedlings multiplied and tested as pot plants and in ground over three years. Selection criteria: flower colour and form, plant habit, disease tolerance, non-seasonal flowering and stable and productive micropropagation performance. Propagation: vegetative by micropropagation. Breeders: Angus Stewart and Mark Bennett, Biotech Innovations Pty Ltd (formerly Biotech Plants Pty Ltd), Somersby, NSW.

Choice of Comparators 'Bush Ranger', 'Bush Blaze' and 'Bush Ruby' were initially considered for the comparative trial, as these are similar varieties of common knowledge. 'Bush Ruby' was originally chosen for its similarity in flower colour, but was eliminated due to its significantly longer flowering stems and longer time to flower from tissue culture. 'Bush Ranger' and 'Bush Blaze', were chosen on the basis of similarity in flower colours and form. Both parents were excluded from the trial because of the difference in flower colour stated above.

Comparative Trial Comparators: 'Bush Ranger' and 'Bush Blaze'. Location: Kincumber, NSW, Spring-Summer 1998/99. Conditions: trial conducted in a open beds, plants micropropagated, rooted plants planted into 150mm pots filled with soilless potting mix, nutrition maintained with slow release fertilisers, pest and disease treatments applied as required. Trial design: fifteen pots of each variety arranged in a completely randomised design. Measurements: from ten plants at random. One sample per plant.

Prior Applications and Sales

No prior applications. First sold in Australia in 1997.

Description: **Ian Paananen,** Paananen Consulting Pty Ltd, Central Coast, NSW.

Table 19 *Anigozanthos* varieties

	'Bush Garnet'	*'Bush Ranger'	*'Bush Blaze'
PLANT HEIGHT (cm) - to top of leaves			
mean	26.8	22.3	21.2
std deviation	5.6	2.6	1.3
LSD/sig	4.2	P≤0.01	P≤0.01
LEAF LENGTH (cm) - basal mature leaf			
mean	22.7	19.0	19.3
std deviation	3.5	1.6	2.0
LSD/sig	2.8	P≤0.01	P≤0.01
LEAF WIDTH (mm) - basal mature leaf			
mean	14.0	10.6	12.4
std deviation	1.0	1.7	2.6
LSD/sig	2.2	P≤0.01	ns
LEAF			
Attitude	semi-upright	semi-upright	semi-upright
Curvature	slight	slight	slight-strong
NUMBER OF FLOWERS PER INFLORESCENCE - on first flowering stem			
mean	8.3	23.6	16.4
std deviation	1.3	3.1	4.0
LSD/sig	3.4	P≤0.01	P≤0.01
DEGREE OF RAMIFICATION			
	tertiary	tertiary	secondary
PERIANTH TUBE LENGTH (mm) - at first anthesis			
mean	29.6	30.5	35.4
std deviation	3.2	1.3	4.5
LSD/sig	3.8	ns	P≤0.01
PERIANTH TUBE WIDTH (mm) - at middle tube			
mean	4.7	4.4	5.8
std deviation	0.6	0.4	0.8
LSD/sig	0.7	ns	P≤0.01
PERIANTH LOBE LENGTH (mm) - middle lobe			
mean	10.7	8.9	12.5
std deviation	1.1	0.6	1.1
LSD/sig	1.1	P≤0.01	P≤0.01
FLOWER: PROFILE OF PERIANTH TUBE			
	broadening evenly	broadening evenly	parallel
FLOWER: COLOUR OF HAIRS (RHS, 1995)			
Perianth tip	greyed-purple 187A-B	greyed-purple 187B-C	greyed-purple 187B-C
Mid 3rd	187A-B	187B-C	187B-C
Ovary	187A-B	187B-C	187B-C
Pedicel	187A-B	187B-C	187B-C
FLOWER: COLOUR OF (RHS, 1995)			
Inner perianth	green 138A	green 138A	green 138A
Anther/pollen	yellow 13A	yellow 13A	yellow 13A
POSITION OF STIGMA IN RELATION TO ANTHERS			
	level	above	above
BEGINNING OF FLOWERING			
	medium	early	early

LILY
Lilium hybrid

'Siberia'

Application No: 94/230 Accepted: 6 Dec 1994.
Applicant: **Siberia Oriental BV**, 't Zand, The Netherlands.
Agent: **John Slykerman,** Kenny Lane Nurseries Pty Ltd, Monbulk, VIC.

Characteristics (Figure 8) Plant: height medium to tall (48.4cm sd 5.3). Stem: anthocyanin colouration absent, leaf number few to medium (9.3 sd 1.0). Leaf: arrangement on stem alternate, tip same level as point of attachment, distal part straight, length medium (120mm sd 12), width medium to broad (34.4mm sd 5.3), glossiness upper side weak, cross section flat. Inflorescence: type racemose, number of flowers few to medium (2.5 sd 0.8), pubescence very weak to weak. Flower: type single, attitude of longitudinal axis erect to horizontal, length of longest outer tepal medium (124mm sd 9.6), width widest outer tepal narrow to medium (31.0mm sd 4.5), main colour inner tepal both sides white RHS 155D, outer tepal both sides white RHS 155D, nectar furrows colour green (near RHS 145A, 1986). Tepal: inner side spots present and colour white, number of spots medium to many, size of spotted area large, spots on papillae absent, colour base of main vein creamy white, texture inner side papillose, margin undulation medium to strong, type of undulation fine and coarse, distal part recurved, degree of recurving strong to very strong. Stamen: length short to medium (79.8mm sd 1.5), filament main colour white, anther colour reddish brown. Pollen: colour light brown. Style: main colour green. Stigma: colour purple red (green), stigma well above anthers in flower. Flowering time medium to late. (Note: data in parenthesis from local observations and measurements.)

Origin and Breeding Controlled pollination: seedling x seedling in a planned breeding program. The parents are proprietary breeding plants within breeder's collection. The parents were selected in 1983, and crossed in 1984. Selection criteria: flower colour, upright flowers. Propagation: vegetatively through numerous generations. Breeder: Johannes Albertus Mak, Oregon, USA.

Choice of Comparator The qualified person considers 'Casa Blanca' to be the closest known comparator in Australia. 'Casa Blanca' differs in that flowers are horizontal, flower nectar furrows colour light green (near RHS 145C 1986).

Comparative Trial Description based on official Dutch PBR documents, and data confirmed by local observations and measurements. Comparator: 'Casa Blanca'. Location: Monbulk, VIC, summer (January) 1999. Trial conditions: Plants grown in the open under natural climatic conditions. Varieties grown in large blocks. Bulbs from cold storage planted late winter/early spring (August/September) into fumigated Krasnozem type clay loam soil. Plant health maintained with NPK plus micro-nutrient fertilisers, overhead sprinkler irrigation, and application of protective sprays as required. Flowering occurred mid summer. Minimum 10 plants sampled at random along with the comparator for examination. Measurements: taken at random.

Prior Applications and Sales

Country	Year	Current Status	Name applied
The Netherlands	1991	Surrendered	'Siberia'
Poland	1994	Granted	'Siberia'
Belgium	1994	Granted	'Siberia'
UK	1994	Surrendered	'Siberia'
New Zealand	1994	Granted	'Siberia'
Germany	1994	Surrendered	'Siberia'
France	1994	Surrendered	'Siberia'
Japan	1995	Applied	'Siberia'
USA	1995	Granted	'Siberia'
EU	1995	Granted	'Siberia'
Chile	1997	Applied	'Siberia'

First sold in The Netherlands, 1994.

Description: **Dr. Brian Hanger,** Rosemary Ridge Pty Ltd, Monbulk, VIC.

LIMONIUM
Limonium perezii

'Cosita'

Application No: 97/233 Accepted: 6 Nov 1997.
Applicant: **R.J. Cherry,** Kulnura, NSW.

Characteristics (Table 20, Figure 21) Plant: compact, dense, growing to an average height of 236mm. Leaves: mid green, lighter than RHS 147A on the upper and approx. RHS 147B on the lower side, undulate, spathulate and produced in a rosette, average leaf length 123mm, average leaf width 41mm, leaf apex rounded, margin ciliate, entire but becoming lobed towards the base, upper & lower leaf surfaces hairy, stellate. Inflorescence: peduncles smooth and green (RHS 147A), bud-sheaths colour (at nodes on peduncle) green (RHS 147A), flowers produced in clusters of 2-4 on branching spikes, average number of spikes per plant 16, average spike length 230mm, width 135mm. Bud (calyx) colour: sepals purple (RHS 77A), pedicel green (RHS 137D). Flower: calyx consists of 5 fused sepals, mature calyx light purple (RHS 87C) with red striations, colour range of mature calyces RHS 87A through to RHS 87C. Corolla tube approximately 11mm in length, off-white in colour (RHS 1D).

Origin and Breeding Controlled pollination: *Limonium perezii* seedlings LIM 94-2 (seed parent) by LIM 94-15 (pollen parent). The seed parent was a seedling selection characterised by compact growth and lack of anthocyanin colouration in flowers and leaves. The pollen parent was a selected seedling typical in most characteristics to the species form, but slightly more compact. Hybridisation took place at Kulnura, NSW, in 1995. Selection criteria: from this cross, seedling LIM 95-1 was selected on the basis of compact plant habit, good vigour and free flowering habit. Propagation: a number of mature stock plants were produced from this seedling via tissue culture. Plants were found to be uniform and stable. Breeder: R.J. Cherry, Kulnura, NSW.

Choice of Comparators *Limonium perezii* 'Blue' has been chosen as the comparator as it is most similar variety of common knowledge on the basis of colour and form to the candidate variety. The seed parent is vastly different from 'Cosita' in flower colour and therefore not included while the pollen parent is best represented by *L. perezii* 'Blue'.

Comparative Trial Comparator: *L. perezii* 'Blue'. Location: trials conducted at Paradise Plants, Kulnura, NSW between 1994-1997. Conditions: plants raised on their own roots from tissue culture, grown under 30% shade in 175mm pots in commercial potting mix. All plants were subjected to the same chemical treatments for crop protection and nutrition as required. Trial design: several thousand plants arranged in complete blocks. Measurements: taken from 12 plants selected at random.

Prior Applications and Sales

No prior applications. First sold in Australia in Oct 1996.

Description: **John Robb, Paradise Plants,** NSW.

Table 20 *Limonium* varieties

	'Cosita'	*'Blue'
PLANT GROWTH HABIT		
	compact, dense	tall, open
PLANT HEIGHT (mm) including inflorescence		
mean	236	498
std deviation	54.2	53.0
LSD/sig	22.0	P≤0.01
ROSETTE DIAMETER (mm)		
mean	282	352
std deviation	25.4	19.0
LSD/sig	8.6	P≤0.01

TOTAL LEAF LENGTH (mm) including petiole		
mean	122.7	190.0
std deviation	13.1	20.6
LSD/sig	16.1	P≤0.01
LEAF WIDTH (mm) at widest point		
mean	41.4	62.1
std deviation	5.9	9.5
LSD/sig	7.4	P≤0.01
LEAF COLOUR		
leaf upper	ca RHS 147A	RHS 146A
leaf lower	RHS 147B	RHS 146B
base of petiole	ca RHS 147A	RHS 179A
ANTHOCYANIN PRODUCTION IN NEW GROWTH		
	weak to absent	moderate
LEAF CHARACTERISTICS		
apex	rounded	acute rounded
base	spathulate	alternate
margin	entire, ciliate, becoming lobed towards base	entire, ciliate, undulate
undulation	weak	medium
surface	dull	dull
shape	spathulate	triangular ovate
COLOUR OF PETIOLE AT BASE (stem)		
	green RHS 147B	red RHS 179A
COLOUR OF BUD-SHEATH at nodes on peduncle		
	green RHS 147B	red RHS 179A
FLOWER SPIKES PER PLANT including new spikes which have emerged above foliage		
mean	16.4	2.3
std Deviation	3.2	1.0
LSD/sig	2.9	P≤0.01
PETAL COLOUR		
	cream RHS 1D	white RHS 155D
SEPAL COLOUR at time of flowering		
	RHS 87C	RHS 87C

MANGO
Mangifera indica

'Honey Gold'

Application No: 96/043 Accepted: 27 Mar 1996.
Applicant: **Burnett Asphalts Pty Ltd,** Rockhampton, QLD.

Characteristics (Table 21, Figure 29) Tree: small, upright, less vigorous than comparator 'Kensington Pride', main branches erect, length between whorls considerably shorter than comparator (mean 199.9mm). Young leaf: weak anthocyanin colouration, hue brownish (RHS 199A), concave shape in cross section, upper surface raised between secondary veins, undulation of margin present. Fully developed leaf: attitude drooping, length medium (mean 192.9mm), width medium (mean 44.6mm), length/width ratio medium (mean 4.33), predominant shape trullate to ovate, colour dark green (RHS 137A), twisting of blade present, shape in cross section straight mostly symmetrical, curvature of midrib present, position basal, upper surface relief raised between secondary veins, secondary veins closely spaced, predominant relief of veins on upper surface grooved, weak undulation of margin, shape of tip acute, shape of base obtuse, no fragrance noticeable when crushed, attitude of petiole in relation to stem semi-erect, length of petiole short (mean 30.2mm). Inflorescence: erect, length medium (mean 238.6mm), width medium (mean 176.0mm), ratio length/width (mean 1.38), number of branches in bottom two-thirds of inflorescence medium (mean 26.1), colour of axis and branches dark pink (RHS185B-C), pubescence on axis and branches present but sparse, leafy bracts generally absent but sparse if present, flower size small approximately 8mm diameter, position of fertile stamen in relation to style slightly oblique, length in relation to style mostly longer, weak development of staminodes, xanthophyll colouration of petals and ovule strong, time of first flowering medium. Old flower: anthocyanin colouration present, intensity medium. Immature fruit: shape in cross-section very narrow elliptic until close to maturity, all fruit which drop prematurely develop bright yellow skin colour before decay. Mature fruit: late maturity approximately 3-4 weeks after comparator, sapburn of skin does not occur but slight marking may occur if fruit left lying in pool of sap, volume of sap low, length of fruit medium (mean 107.2mm), width of fruit medium (mean 106.8mm), ratio length/width low (mean 1.00), shape in cross-section broad-elliptic, weight medium (mean 490gm), colour of skin green with pale coppery pink blush, size of area of non-green colour of skin small, waxy bloom on skin very conspicuous, density of lenticels sparse, conspicuousness of lenticels weak, size of lenticels small to medium, roughness of surface caused by lenticels absent, stalk cavity very shallow if present, neck absent, shape of left shoulder rounded upwards, shape of right shoulder rounded downwards, groove (cleavage) in left shoulder short and shallow if present, lumpiness on left shoulder absent, sinus proximal of stylar scar absent, bulge proximal of stylar scar absent, shape at stylar scar flattened, diameter of stalk small. Infructescence: predominant colour of main axis green to yellow. Ripe fruit: predominant colour of skin strongly brilliant orange-yellow (RHS 21A) later turning apricot, all fruit even if grown in shade develop full brilliant orange-yellow skin colour, at room temperature the waxy skin bloom softens giving the fruit a glossy polished appearance, pattern of skin colour faintly and weakly speckled, thickness of skin very thin adhering strongly to flesh, main colour of flesh orange (RHS 23A), flesh is firm and juicy with fine texture, amount of non-fleshy fibre in flesh attached to stone medium, amount of fleshy fibre beneath the skin very low, turpentine flavour absent, flavour is rich and aromatic and when skin is orange yellow colour flavour is acid/sweet becoming very sweet when skin turns apricot colour. Stone: prominence of point at stylar area weak, relief of surface grooved, numerous and prominent sharp points present on surface, length of fibre on cheeks short and sparse with fine texture, thickness of endocarp medium. Seed: long in relation to stone length, fills cavity, kidney shaped and more symmetrical in outline than comparator, polyembryony present.

Origin and Breeding Open pollination: seed parent 'Kensington Pride' with unknown pollen parent. A single open-pollinated seedling was selected in applicant's property from a planting of approximately 2000 'Kensington Pride' seedlings in 1995. Selection criteria: highly attractive fruit with brilliant, glossy, brilliant orange-

yellow skin colouration achieved even in full shade, flesh firm but juicy, non-turpentine rich sweet flavour similar to 'Kensington Pride', absence or very low incidence of sapburn, late maturity, negligible incidence of post-harvest disorders, extended shelf life, small tree size and reduced vegetative vigour. Propagation: commercially propagated by grafting onto seedling rootstock. Breeder: N. Sammon, Burnett Asphalts Pty Ltd, Alton Downs, Rockhampton, QLD.

Choice of Comparator 'Kensington Pride' was chosen as the sole comparator as it is the most similar variety of common knowledge in Australia. 'Kensington Pride' is also the seed parent of the candidate variety.

Comparative Trial Comparator: 'Kensington Pride'. Location: Alton Downs, Rockhampton, QLD. Conditions: both candidate and comparator were grown in the same soil type and were subject to the same cultural practices as commercial trees. No plant growth hormones were used. Trial design: scions of each of the candidate and comparator were grafted on to six-year old 'Kensington Pride' seedling trees of similar trunk diameter in Apr 1996, spacing 8m x 3m in an existing commercial orchard. Twenty single plant replicates of each cultivar were included in the trial. Measurements: floral, vegetative and fruit characteristics were recorded in the second cropping period (1998) on one random sample from each of twenty trees of each cultivar. Colours were determined by reference to RHS colour charts.

Prior Applications and Sales
No prior applications. First fruit sold January, 1999.

Description: **Noel Sammon and Nick Macleod,** Rockhampton, QLD.

Table 21 *Mangifera* varieties

	'Honey Gold'	*'Kensington Pride'
LEAF LENGTH (mm)		
mean	192.9	211.9
std deviation	20.4	25.8
LSD/sig	17.8	P≤0.01
LEAF WIDTH (mm)		
mean	44.6	52.3
std deviation	3.3	5.1
LSD/sig	3.3	P≤0.01
LEAF LENGTH/WIDTH RATIO		
mean	4.33	4.06
std deviation	0.26	0.41
LSD/sig	0.26	P≤0.01
PETIOLE LENGTH (mm)		
mean	30.2	39.9
std deviation	6.1	5.5
LSD/sig	4.4	P≤0.01
DISTANCE BETWEEN WHORLS (mm)		
mean	199.9	283.5
std deviation	40.4	43.0
LSD/sig	32.1	P≤0.01
INFLORESCENCE LENGTH (mm)		
mean	238.6	210.2
std deviation	22.6	9.8
LSD/sig	13.4	P≤0.01
INFLORESCENCE WIDTH (mm)		
mean	176.0	173.1
std deviation	29.2	21.2
LSD/sig	19.6	ns
INFLORESCENCE LENGTH/WIDTH RATIO		
mean	1.38	1.23
std deviation	0.20	0.18
LSD/sig	0.15	P≤0.01
INFLORESCENCE BRANCHES (in bottom 2/3 of inflorescence)		
mean	26.1	30.7
std deviation	3.5	2.9
LSD/sig	2.4	P≤0.01
FRUIT LENGTH (mm)		
mean	107.2	108.2
std deviation	4.2	9.7
LSD/sig	5.7	ns
FRUIT WIDTH (mm)		
mean	106.8	93.9
std deviation	4.7	6.4
LSD/sig	4.3	P≤0.01
FRUIT LENGTH/WIDTH RATIO		
mean	1.00	1.15
std deviation	0.03	0.07
LSD/sig	0.04	P≤0.01
FRUIT WEIGHT (g)		
mean	490	397
std deviation	44	82
LSD/sig	51	P≤0.01
RIPE FRUIT: PREDOMINANT COLOUR OF SKIN	orange (RHS 21A)	yellow-orange (RHS 20A)
MAIN COLOUR OF FLESH	brilliant yellow -orange (RHS 23 A)	yellow-orange (RHS 21B)
JUICYNESS OF FLESH	very juicy	juicy

NARROW LEAFED LUPIN
Lupinus angustifolius

'Moonah'
Application No: 98/183 Accepted: 28 Sep 1998.
Applicant: **Agriculture Victoria Services Pty Ltd,** Atwood, VIC, **Chief Executive Officer, Agriculture Western Australia,** Perth, WA and **Grains Research and Development Corporation,** Barton, ACT.

Characteristics (Table 22, Figure 48) Plant: start of anthesis early, maturity early, early branches habit semi prostrate, height short medium. Terminal leaflet: length medium, width narrow, average number per leaf 8 (mean 8.18), petiole medium, colour at flower bud stage mid green. Stem: strength medium, anthocyanin colouration medium-weak. Stipule: short. Flower colour cream/white at opening, wing develops purple/pink colour with age. Pod: length medium, number of ovules 4 to 5 (mean 4.55). Grain: ground colour white, ornamentation brown, intensity medium-strong, arrow below hilum narrow, brown,

intensity weak-medium, size medium-large, bitterness absent. Disease Resistance: moderate resistance to stem phomopsis, susceptible to brown spot and intermediate resistance to anthracnose. Susceptible to cucumber mosaic and bean yellow mosaic viruses.

Origin and Breeding Controlled pollination: 79A78-14-10 x F_1 of 84A041 expanded as 79A078-14-10/// Yorrel//Gungurru-01/75A54-5-8. 'Moonah' is distinguished from the seed parent by consistently lower seed alkaloid levels. The initial cross was made in 1984 in Western Australia where the F_2 derived line was also reselected. The variety was selfed from F_2 to F_6 when field testing in Western Australia was discontinued. The F_6 was sent to Victoria in 1990 where further selection to ensure a uniform line and field-testing was conducted. Selection criteria: increased yield, disease resistance, agronomic and grain quality suited to the agricultural regions of Victoria. Propagation: seed through 6 generations and 8 years performance testing by Agriculture Victoria. Breeders: Dr J S Gladstones, Agriculture Western Australia, Perth, WA and later testing by Ivan Mock and Ashley Corbett, Agriculture Victoria, Walpeup, VIC.

Choice of Comparators 'Wonga'ф ('Gungurru'ф x 75A54-5-8) was chosen as a comparator as it forms part of the parentage of 'Moonah'. 'Kalya' ('Warrah' x 79A78-14-10) was also chosen because it shares a common parent with 'Moonah'. Both varieties have similar mature height as 'Moonah' and are widely grown commercially in Southern Australia.

Comparative Trial Comparators: 'Wonga'ф and 'Kalya'ф. Location: Avon Districts Agriculture Centre, Northam WA, Jun - Dec 1998. Conditions: plants were in red loam pH 5.6 in $CaCl_2$ in open plots. The plots were treated with 2 l/ha simazine plus Knockdown® 2 days before seeding, grass control was applied in Aug 1998, no treatment for disease or insect control was required. DAP at 120 kg/ha was drilled with the seed, all seed was inoculated with group G inoculum the day it was sown. Trial design: plants sown in randomised complete blocks 10m long by 1.42m (8 rows) wide by 2 replications. Measurements: taken from 10 specimens per replicate selected randomly from approximately 2000 plants.

Prior Applications and Sales Nil.

Description: **David Allen Collins,** Northam WA.

Table 22 *Lupinus* varieties

	'Moonah'	***'Wonga'** ф	***'Kalya'** ф
EARLY PLANT HEIGHT (mm) (4 weeks post sowing)			
mean	62.63	57.45	53.90
std deviation	8.39	8.11	6.44
LSD/sig	6.35	ns	P≤0.01
DAYS TO FLOWERING			
mean	86.08	90.15	87.90
std deviation	0.89	2.32	1.71
LSD/sig	2.71	P≤0.01	ns
HEIGHT AT FIRST FLOWER (mm)			
mean	398.75	442.75	406.50
std deviation	27.69	30.06	24.45
LSD/sig	21.17	P≤0.01	ns
STIPULE: LENGTH (mm) (at main inflorescence)			
mean	9.98	13.10	10.79
std deviation	1.85	2.62	1.40
LSD/sig	2.83	P≤0.01	ns
1000 SEED WEIGHT (g) (from midst of main inflorescence)			
mean	159.85	150.25	153.00
std deviation	4.03	3.79	3.77
LSD/sig	3.81	P≤0.01	P≤0.01
EARLY BRANCH HABIT	semi-prostrate	prostrate	semi-prostrate
FLOWER: COLOUR (at bud stage)	cream white	blue white	cream white
GRAIN:			
ornamentation	medium/ strong	strong	weak
arrow above hilum;			
width	narrow	wide	narrow
colour	light brown	dark brown	light brown

'Tanjil'

Application No: 98/140 Accepted: 9 Sep 1998.
Applicant: **Chief Executive Officer, Agriculture Western Australia**, Perth, WA and **Grains Research and Development Corporation,** Barton, ACT.

Characteristics (Table 23, Figure 47) Plant: start of anthesis early, maturity medium, early branch habit intermediate, height medium. Terminal leaflet: length medium, width narrow, average number per leaf 8 (mean 8.18), petiole medium, colour at flower bud stage mid green. Stem: strength medium-good, anthocyanin colouration medium-weak. Stipule: medium. Flower: colour blue/white at opening, wing develops purple colour with age (older flowers on secondary inflorescence both wing and standard turn light purple). Pod: length medium, number of ovules 5 (mean 4.83). Grain: ground colour cream/white, ornamentation dark brown, intensity strong, arrow below hilum, width wide, colour dark brown, size medium, bitterness absent. Disease Resistance: resistant to stem and pod phomopsis, resistant to anthracnose. Reduced seed transmission of cucumber mosaic virus and resistant to aphid attack.

Origin and Breeding Controlled pollination: seed parent 'Gungurru' (75A61-3-1) with pollen parent 75A54-5-8. 'Tanjil' could be distinguished from the seed parent by its significantly taller plant height. The original cross was made in Western Australia in 1983 and in 1991 a single plant selection was made from the F_7 generation. Selection criteria: increased grain yield, disease resistance, agronomic and grain quality suited to the agricultural regions of Western Australia especially where there is a high risk of the anthracnose disease. Six years of performance testing by Agriculture Western Australia and since 1994 by the Australian Coordinated Lupin Improvement Program (ACLIP) in the south eastern region of Australia. Propagation: by seed. Breeder: Dr J S Gladstones and later testing by Dr Wallace Cowling, Agriculture Western Australia, South Perth WA.

Choice of Comparators 'Gungurru' was chosen because it is the seed parent of the candidate and 'Wonga'(ϕ was chosen because it is a sister line, which was also developed from the same cross. Both 'Wonga'(ϕ and 'Gungurru' are commercially widely available in Southern Australia.

Comparative Trial Comparators: 'Wonga'(ϕ and 'Gungurru'. Location: Avon Districts Agriculture Centre, Northam WA, Jun - Dec 1998. Conditions: plants were in red loam pH 5.6 in $CaCl_2$ in open plots. The plots were treated with 2 l/ha simazine plus glyphosate 2 days before seeding, Fusilade" 500ml/ha was applied in Aug 1998 for grass control, no treatment disease or insect control was required. DAP at 120 kg/ha was drilled with the seed, all seed was inoculated with group G inoculum the day it was sown. Trial design: plants sown in randomised complete blocks 10m long by 1.42m (8 rows) wide by 2 replications. Measurements: taken from 10 specimens per replicate selected randomly from approximately 2000 plants.

Prior Applications and Sales Nil.

Description: **David Allen Collins,** Northam WA.

Table 23 *Lupinus* varieties

	'Tanjil'	*'Wonga'(ϕ	*'Gungurru'
EARLY PLANT HEIGHT (mm) (6 weeks post sowing)			
mean	62.63	57.45	37.95
std deviation	8.90	8.11	6.22
LSD/sig	6.68	ns	P≤0.01
DAYS TO FLOWERING			
mean	86.95	90.15	87.60
std deviation	1.24	2.32	1.19
LSD/sig	2.84	P≤0.01	ns
HEIGHT AT FIRST FLOWER (mm)			
mean	423.50	442.75	394.00
std deviation	29.50	30.06	28.59
LSD/sig	23.02	ns	P≤0.01
HEIGHT AT MATURITY (mm)			
mean	726.73	718.10	689.79
std deviation	40.31	56.86	43.39
LSD/sig	33.92	ns	P≤0.01
1000 SEED WEIGHT (g) (from midst of main inflorescence)			
mean	145.00	150.25	140.50
std deviation	3.58	3.79	3.59
LSD/sig	3.97	P≤0.01	P≤0.01
EARLY BRANCH HABIT	intermediate	prostrate	semi-prostrate
FLOWER: COLOUR (on secondary inflorescence)	blue/purple wing & standard	purple wing only	purple wing & standard
GRAIN: ornamentation	strong	strong	medium/strong

OAT
Avena sativa

'Bass'

Application No: 98/041 Accepted: 17 Apr 1998.
Applicant: **University of Tasmania** and **The Crown in Right of the State of Tasmania through the Department of Primary Industries, Water and Environment,** Hobart, TAS.

Characteristics (Table 24, Figure 49) Plant: growth habi intermediate to semi-erect, height medium, maturity late. Stem: uppermost node hairs absent, anthocyanin strong (Growth Stage 85-90). Leaf: sheath hairs on lowest leaves absent, blade hairs on leaf below flag leaf absent or very weak, frequency of plants with recurved flag leaves very high. Panicle: length medium, branch orientation equilateral, branch attitude semi-erect, spikelet attitude pendulous. Glume: medium-long, glaucosity absent or very weak, anthocyanin medium (Growth Stage 85-90). Primary grain: lemma medium-long, lemma glaucosity absent, husk present, tendency to be awned medium, lemma colour brown, hairs on back of lemma absent, hairiness of base very strong, basal hair length medium, rachilla medium-long.

Origin and Breeding Controlled pollination: seed parent 'Nile' x pollen parent MA5028 at Cressy, TAS in 1989. 'Nile' is characterised by late flowering, large flag leaves and weak anthocyanin development. MA5028 is characterised by early flowering and short straw. Selection criteria: following three generations of pedigree selection at Cressy based on growth characteristics, disease resistance, yield and quality, the F_5 line 94-256 was finally selected for field testing and subsequently named 'Bass'. Propagation: by seed. Breeders: Mr Wayne Vertigan and Mr Stewart Salter, Launceston, Tasmania.

Choice of Comparators 'Nile' was chosen as one of comparators because it is the seed parent of 'Bass'. The pollen parent MA5028 was not included because this non-commercialised variety differs from 'Bass' in flowering time and plant height. 'Esk' was chosen for its similarity to 'Nile' and 'Bass' in many characteristics.

Comparative Trial Comparators: 'Nile' and 'Esk'. Location: Mt Pleasant Laboratories, Launceston, TAS, May-Dec 1998. Conditions: trial conducted in a bird-proof enclosure in a well-fertilised grey loam soil in open beds. Trial design: randomised complete block with three replications, plots 3 rows by 4 metres, planted on 15 May to give approximately 200 plants per plot. Measurements and observations: taken from 20 randomly selected plants in each plot.

Prior Applications and Sales Nil.

Description: **Wayne Vertigan,** Launceston, TAS.

Table 24 *Avena* varieties

	'Bass'	*'Nile'	*'Esk'
DAYS TO PANICLE EMERGENCE			
mean	167.65	175.55	176.83
std. deviation	0.20	0.65	1.02
LSD/sig	1.24	P≤0.01	P≤0.01
FLAG LEAF WIDTH (mm)			
mean	21.50	23.53	22.13
std. deviation	0.10	0.51	0.61
LSD/sig	1.50	P≤0.01	ns
PANICLE LENGTH (cm)			
mean	28.93	30.23	24.83
std. deviation	0.31	1.01	0.40
LSD/sig	2.13	ns	P≤0.01

GROWTH HABIT	intermediate to semi-erect	intermediate	intermediate
FLAG LEAF: frequency of plants with recurved leaves	very high	very high	medium
PANICLE: attitude of branches	semi-erect	semi-erect	erect to semi-erect
GLUMES: length	medium - long	long	medium
GLUMES: intensity of anthocyanin colouration (Growth Stage 85-90)	medium	weak	medium
STEM: intensity of anthocyanin colouration (Growth Stage 85-90)	strong	weak	strong
PRIMARY GRAIN: tendency to be awned	medium	medium	weak
PRIMARY GRAIN: lemma length	medium - long	long	medium
PRIMARY GRAIN: length of basal hairs	medium	medium	long
PRIMARY GRAIN: length of rachilla	medium - long	short - medium	medium

'Heritage Lordship'

Application No: 98/049 Accepted 17 Apr 1998.
Applicant**: New Zealand Institute for Crop & Food Research Ltd,** Christchurch, New Zealand.
Agent: **Heritage Seeds Pty Ltd,** Howlong, NSW

Characteristics (Table 25, Figure 51) Plant: intermediate habit, tall height (145.4 cm), late maturing (30/10/98), spring type. Leaf: very strongly recurved leaf, 30.2cm long, 2.75cm wide, colour 137B (Munsell). Inflorescence: horizontal attitude of branches, equilateral distribution of branches glume length 18.5cm. Grain: Primary grain length 12.7cm, glaucosity of glume absent, glaucosity of primary grain absent, grain husk present, yellow lemma, very strong hairiness of base, short basal hairs, long rachilla.

Origin and Breeding Controlled Pollination: seed parent experimental line W84188 x pollen parent 'Reil'. Both parents were bred by Agriculture and Agrifood Canada, Winnipeg, Canada and the cross was also made by the same organisation. The F_3 segregating bulk population was sent to New Zealand where selections for dry matter production were made. The selections were sown into observation plots for evaluation and the best line was selected and sent to Australia where evaluation for forage production continued. Pure seed production commenced in Australia. Selection criteria: forage production. Propagation: seed. Breeder: hybridisation done by Agriculture and Agrifood Canada and bulk/pedigree selection made by Keith Armstrong, New Zealand Institute for Crop & Food Research Ltd, Christchurch, New Zealand.

Choice of Comparators 'Enterprise', 'Graza 50', 'Barcoo'(Φ), and 'Graza 68'(Φ) were all selected as comparators as they were the current cultivars marketed for the same use as intended for 'Heritage Lordship'. 'Warrego', 'Gwydir' and AC Medallion (Φ) syn Moola (Φ) were selected as comparators as they were new varieties about to enter the same market niche.

Comparative Trial: Comparators: 'Enterprise', 'Graza 50', 'Warrego', 'Gwydir', 'Barcoo'(Φ), 'Moola'(Φ), and 'Graza 68'(Φ). Location: Howlong, NSW. Conditions: plants were raised in open plots sown at 60kg/hectare. Tigrex herbicide was used for broadleaf weed control. Trial design: open plots (5m x 1.2m) replicated four times in a randomised complete block design. Measurements: taken from 10 plants for each replicate giving a total of 40 measurements for each entry.

Prior Applications and Sales Nil.

Description: **Peter Crane, Heritage Seeds,** Howlong, NSW.

Table 25 *Avena* varieties

	'Heritage Lordship'	***'Enterprise'**	***'Graza 50'**	***'Warrego'**	***'Gwydir'**	***'Barcoo'**(Φ)	***'Moola'**(Φ)	***'Graza 68'**(Φ)
PLANT: GROWTH HABIT	intermediate	intermediate	semi erect	semi erect	semi erect	intermediate	intermediate	semi erect
LOWER LEAVES: HAIRINESS OF SHEATHS	weak	absent	absent	absent	absent	absent	strong	very strong
LEAF BLADE: HAIRINESS OF MARGINS OF LEAF BELOW FLAG LEAF	absent	absent	absent	absent	absent	absent	absent	weak
TIME OF PANICLE EMERGENCE: FIRST SPIKELET VISIBLE ON 50% OF PLANTS	30/10/98	2/11/98	28/10/98	19/10/98	27/10/98	6/10/98	28/10/98	1/11/98
LEAF COLOUR: FLAG LEAF (Munsell)	137B	137A	139A	137B	137B	147A	137B	147A
FLAG LEAF: ATTITUDE	V. strong recurved	V. strong recurved	slight recurved	V. strong recurved	V. strong recurved	strong recurved	recurved	recurved

Table 25 Continued

	'Heritage Lordship'	***'Enterprise'**	***'Graza 50'**	***'Warrego'**	***'Gwydir'**	***'Barcoo'**(þ)	***'Moola'**(þ)	***'Graza 68'**(þ)
FLAG LEAF: LENGTH (mm)								
mean	302.0	371.8	213.1	244.2	223.6	219.5	281.8	306.1
std deviation	42.9	16.6	13.9	26.9	26.7	15.5	50.5	17.9
LSD/sig	56.28	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01	ns	ns
FLAG LEAF: WIDTH (mm)								
mean	27.5	30.6	24.8	24.7	17.0	19.2	25.8	26.1
std deviation	2.5	0.9	2.2	2.8	1.4	4.5	2.4	2.0
LSD/sig	5.11	ns	ns	ns	P≤0.01	P≤0.01	ns	ns
STEM: HAIRINESS OF UPPERMOST NODE								
	present	absent	absent	absent	absent	present	present	present
STEM: INTENSITY OF HAIRINESS OF UPPERMOST NODE								
	strong	very weak	very weak	very weak	very weak	medium	strong	weak
PANICLE: ORIENTATION OF BRANCHES								
	equilateral	equilateral	equilateral	equilateral	sub unilateral	equilateral	equilateral	equilateral
PANICLE: ATTITUDE OF BRANCHES								
	horizontal	semi erect	semi erect	semi erect	drooping	semi erect	horizontal	semi erect
GLUME: LENGTH (mm)								
mean	18.5	21.7	18.4	20.9	22.2	20.5	20.4	21.2
std deviation	0.6	0.3	0.4	0.4	0.9	0.4	1.3	0.3
LSD/sig	1.28	P≤0.01	ns	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01
GLUME: WIDTH (mm)								
mean	6.8	8.4	7.4	7.8	6.8	9.1	7.7	7.9
std deviation	0.3	0.1	0.1	0.2	0.1	0.2	0.4	0.2
LSD/sig	0.47	P≤0.01	P≤0.01	P≤0.01	ns	P≤0.01	P≤0.01	P≤0.01
PRIMARY GRAIN: GLAUCOSITY OF GRAIN								
	absent	present	present	absent	absent	absent	absent	absent
PLANT: HEIGHT (including panicle and stem) (cm)								
mean	145.4	131.0	150.6	150.8	154.7	134.7	137.2	137.8
std deviation	4.2	5.9	3.3	3.1	0.8	1.5	1.4	5.3
LSD/sig	7.28	P≤0.01	ns	ns	P≤0.01	P≤0.01	P≤0.01	P≤0.01
PRIMARY GRAIN: TENDENCY TO BE AWNED								
	absent	medium	weak	absent	absent	absent	absent	absent
PRIMARY GRAIN: SEED LENGTH (mm)								
mean	12.7	15.3	14.9	15.2	15.2	14.6	14.0	16.1
std deviation	0.4	0.1	0.5	0.2	0.2	0.1	0.6	0.3
LSD/sig	0.68	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01
GRAIN: COLOUR OF LEMMA								
	yellow	white	yellow	yellow	yellow	yellow	yellow	brown
PRIMARY GRAIN: HAIRINESS OF BASE								
	very strong	absent	medium	absent	very strong	absent	very strong	absent
PRIMARY GRAIN: LENGTH OF BASAL HAIRS								
	short	n/a	medium	medium	long	medium	medium	long
PRIMARY GRAIN: LENGTH OF RACHILLA								
	long	medium	medium	medium	short	medium	long	long
PRIMARY GRAIN: WIDTH OF RACHILLA								
	narrow	wide	narrow	medium	narrow	medium	narrow	narrow
PRIMARY GRAIN: GROOVES OF RACHILLA								
	medium	strong	medium	medium	absent	absent	very strong	strong
SEASONAL TYPE								
	spring	spring	spring	spring	spring	spring	spring	spring

'Needilup'

Application No: 98/116 Accepted: 22 Oct 1998.
Applicant: **Chief Executive Officer, Agriculture Western Australia**, Perth, WA and **Grains Research and Development Corporation,** Barton, ACT.

Characteristics (Table 26, Figure 50) A dwarf type, high quality feed grade oat. Plant: habit erect, maturity late, height short-medium. Leaf: sheath hairiness weak, sheath glaucosity strong, blade hairiness absent-weak, frequency of plants with recurved flag leaves low. Stem: straw strength Very good, stem node hairiness absent. Panicle: shape condensed, orientation equilateral, branch attitude semi-erect to erect, spikelet attitude pendulous. Glume: length medium, glaucosity weak. Primary Grain: lemma glaucosity weak, lemma length short-medium, husk present; tendency to be awned absent-weak, colour cream, hairiness of base medium-strong, hair length long, rachilla length short. Lemma: hairs on back absent. Disease resistance: susceptible to stem rust, has shown moderate resistance to crown rust at some locations in Western Australia.

Origin and Breeding
Controlled pollination: Avon/Swan//Jaycee(AX5)/3/7 (76Q:228)OT207/Swan//Moregrain/West. The parents in the final cross in 1986 were AX5 a non dwarf line from the Victorian oat breeding program with some rust resistance (which was not passed onto 'Needilup') and 76Q:228 an AGWEST line with good quality characteristic and short mature height. The variety was selfed from F_2 to F_6 and reselections to produce the fixed line occurred at the F_5 stage in 1990. Performance testing was conducted from 1992 to 1997 at various regional locations in Western Australia and the Interstate Oat Variety Trials. Selection criteria: grain yield, grain quality, disease resistance and adaptation to the southern high rainfall zones and early planting in adjacent areas of the agricultural areas of Western Australia. Propagation: by seed. Breeder: Dr Robyn McLean, Agriculture Western Australia, South Perth, WA.

Choice of Comparators 'Dalyup' and 'Echidna' were chosen for the comparative trial because these are both feed grade, dwarf oats with the same Dw6 gene, of medium to late maturity that are widely grown in Western Australia.

Comparative Trial Comparator(s): 'Dalyup', 'Echidna'. Location: Avon Districts Agriculture Centre, Northam, Western Australia, Jun 1998 - Jan 1999. Conditions: plants were raised in red loam pH 5.6 in $CaCl_2$ in open beds. Glysophate was applied to the trial site 2 days before seeding, Bromoxynil plus Brodal was applied at early tillering for broad leaf weed control. DAP at 120 kg/ha was drilled with seed and 50 kg/ha of urea was top-dressed at early tillering. No treatments for disease or insect control were required. Trial design: plants arranged in randomised complete blocks 10m long by 1.42m wide (8 rows) by 2 replications. Measurements: taken from 10 specimens per replicate selected randomly from approximately 2000 plants.

Prior Applications and Sales Nil.

Description: **David Allen Collins,** Northam, WA.

Table 26 *Avena* varieties

	'Needilup'	*'Dalyup'	*'Echidna'
FLAG LEAF: LENGTH (mm)			
mean	171.25	144.30	181.85
std deviation	23.97	19.77	26.07
LSD/sig	19.57	P≤0.01	ns
MATURE HEIGHT (mm) (stem and panicle)			
mean	717.93	698.40	637.65
std deviation	49.48	40.69	37.45
LSD/sig	35.56	ns	P≤0.01
DAYS TO PANICLE EMERGENCE			
mean	113.03	106.95	110.50
std deviation	0.83	1.76	1.24
LSD/sig	2.69	P≤0.01	ns
PANICLE: LENGTH (mm)			
mean	188.75	175.95	171.70
std deviation	12.35	9.69	11.30
LSD/sig	10.09	P≤0.01	P≤0.01
GLUME: LENGTH (mm)			
mean	21.84	25.02	23.68
std deviation	1.18	1.58	0.63
LSD/sig	2.70	P≤0.01	ns
STEM: hairiness of uppermost node	absent	weak	weak
PANICLE: shape	compact	open	compact
PRIMARY GRAIN: tendency to be awned	absent/weak	absent	absent/weak

PEACE LILY
Spathiphyllum hybrid

'Frederick' syn SPFR

Application No: 96/127 Accepted: 3 July 1996.
Applicant: **Daniel Cornelis,** Melsen, Belgium.
Agent: **Burbank Biotechnology,** Tuggerah, NSW.

Characteristics (Table 27, Figure 15) Plant: rhizomatous evergreen perennial, height approx 513mm, width 775mm, few shoots. Leaf: length 345mm, width 134mm, width length ratio 0.389, petiole 315mm, colour; adaxial dark green (RHS 137B), abaxial; colour medium green (RHS 146B). Flower: peduncles erect, partly fused with spathe from the junction of the spathe for 33.0mm then free for 8.22mm to spadix, ratio fused free 0.260, spathe: width 100mm, length 216mm, weakly cupped, strongly reflexing after anthesis, tip acuminate, white at anthesis; spadix; length 64.2mm width 14.3mm, yellow-white at anthesis (RHS 158B), ageing to dark green (RHS 141A to 137A,), strongly scented at anthesis. (note: all RHS colour chart number refers to 1995 edition)

Origin and Breeding Controlled pollination: seed parent *Spathiphyllum* hybrid 'Mauna Loa Supreme' x pollen parent unnamed selection of *Spathiphyllum wallisii* in Belgium in the mid 1970's. Following the initial cross, seedlings were selected then used for further crosses and 'Frederick' was selected from the subsequent crosses as a flowering plant in Jul 1988 in Melsen, Belgium. Selection

criteria: habit of plant and shape and size of flowers and leaves, scent of flowers. Propagation: by tissue culture only. (introduced into tissue culture Sep 1992). Plants generated form this seedling have been found to be to be uniform and stable. Breeder: Daniel Cornelis, Melsen, Belgium.

Choice of Comparators 'Mauna Loa Supreme' was chosen because it is the identifiable parent material from which 'Frederick' was developed. 'Viscount Prima' was selected for its close similarity with 'Frederick' compared to other commercially available varieties.

Comparative Trial Comparator(s): 'Mauna Loa Supreme' and 'Viscount Prima' Location: Burbank Biotechnology, Pacific Highway, Tuggerah NSW (Australian Map Grid Zone 52, 6312N, 351E; Lat/long. 33° 17′ S, 151° 24′ E, elevation 25m), summer 1997/98 to summer 1998/99, Conditions: trial conducted in a fibreglass covered greenhouse (min 15, max 35°C), plants propagated by tissue culture, deflasked into 35mm square cell trays (December1997) and established plants transplanted (winter 1998) into 100 mm pots filed with soilless potting mix (peat/pine bark base), and transplanted into 200 mm pots (Spring 1998) with same medium. Nutrition maintained with slow release (4.0 Nutricote ®'Blue') and liquid fertilisers, pest and disease treatments applied as required. Trial design: twelve pots of each variety arranged in a completely randomised design. Measurements: leaves-two youngest mature leaves from each pot. Flowers; fifteen at random from pots at anthesis.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
Belgium	1993	Granted	'Frederick'
The Netherlands	1992	Granted	'Frederick'
Germany	1993	Granted	'Frederick'
USA	1996	Granted	'Frederick'

First sold in The Netherlands 1992. First Australian sale Oct. 1996

Description: **Dr. R. J. Worrall,** Gosford, NSW.

Table 27 *Spathiphyllum* varieties

	'Frederick'	*'Mauna Loa Supreme'	*'Viscount Prima'
PLANT HEIGHT(mm) Protected LSD =50.6 (1)			
mean	512.7(a)	453.6(b)	443.6(b)
std deviation	214.2	208.5	136.5
PLANT DIAMETER(mm) Protected LSD =74.5			
mean	775.4(a)	628.2(c)	647.3(b)
std deviation	278.7	355.6	576.2
LEAF LENGTH(mm) Protected LSD =20.7			
mean	344.8(a)	339.0(a)	290.8(b)
std deviation	69.2	74.4	58.0
LEAF WIDTH(mm) Protected LSD =9.5			
mean	133.8(a)	131.0(a)	101.9(b)
std deviation	18.1	10.7	13.6
LEAF WIDTH/LENGTH Protected LSD =0.031			
mean	0.389(a)	0.388(a)	0.351(b)
std deviation	0.0017	0.0016	0.0013
PETIOLE LENGTH(mm) Protected LSD = 36.0			
mean	314.5(a)	238.6(b)	258.2(b)
std deviation	115.0	171.0	317.5
PEDUNCLE FREE(mm) Protected LSD =1.794 (above spathe)			
mean	8.217(a)	11.830(b)	12.881(b)
std deviation	3.981	2.400	3.551
PEDUNCLE FUSED(mm) Protected LSD =4.580 (to spathe)			
mean	32.95(a)	20.47(b)	25.08(c)
std deviation	34.74	11.45	18.55
PEDUNCLE FREE/FUSED Protected LSD =0.1021			
mean	0.2597(a)	0.5853(b)	0.5300(b)
std deviation	0.00853	0.00583	0.01786
PEDUNCLE LENGTH(mm) Protected LSD = 4.92 (below spathe)			
mean	21.58(a)	12.97(b)	14.12(b)
std deviation	6.16	1.81	5.10
LEAF COLOUR(RHS,1995)			
adaxial	137B	137A	137A-B
abaxial	146B	146B	146B
SPADIX COLOUR (RHS,1995)			
at anthesis	158B	158B	158B
aged	141Ato137A	146C	141A to 137A
SPADIX SCENT AT ANTHESIS			
	strong	weak	strong
SPATHE WIDTH (mm) Protected LSD = 13.7			
mean	99.9(a)	85.8(b)	62.8(c)
std deviation	17.4	20.3	20.3
SPATHE LENGTH (mm) Protected LSD = 20.6			
mean	215.8(a)	129.7(ab)	141.2(b)
std deviation	61.6	18.1	50.1
SPATHE REFLEXING AFTER ANTHESIS			
	yes (180°)	no	no
SPATHE SHAPE			
	weakly cupped	strongly cupped	strongly cupped
SPATHE TIP			
	acuminate	mucronate	acuminate

(1)mean values followed by the same letter are not significantly different according to Protected LSD P≤0.01

PERENNIAL RYEGRASS
Lolium perenne

'Avalon'

Application No: 97/320 Accepted: 2 Dec 1997.
Applicant: **Agriculture Victoria Services Pty Ltd**, Melbourne, VIC.

Characteristics (Table 28) Plant: habit erect and bushy, height medium (mean 85.8cm), late maturing. Leaf: length medium (mean 23.3cm), width medium (mean 6.5mm). Inflorescence: late inflorescence emergence, late flowering, spikelet length short (mean 25.1cm), number of spikelets large (316.7).

Origin and Breeding Open pollination: 'Avalon' was selected from within a spaced plant nursery based on an ecotype collection made in 1992 from the 'Victorian'

ecotype. Parents were selected after a 12 month period for superior late spring growth, erect growth habit and later flowering tendencies than the general population. These genotypes were open pollinated in an isolated environment to generate half-sib families. The families have undergone evaluation at three separate sites over three seasons as replicated 1m drill rows. The original 79 genotypes have been vegetatively cloned and screened under glasshouse conditions for crown and stem rust, BYDV and RMV resistance. Using a selection index and disease screening results, two groups of plants have been identified as being superior and were used to form synthetic cultivars. 'Avalon' is based on 6 genotypes that have good crown rust resistance and good progeny performance at the high rainfall sites. Selection criteria: herbage yield, disease resistance, maturity. Propagation: by seed. Breeder: Peter Cunningham, Agriculture Victoria, Hamilton, VIC.

Choice of Comparators 'Victorian' was chosen because it is the original source material from which the variety was developed. The source material represents the natural form of the species. The comparator varieties 'Ellett'Φ, 'Banks'Φ, 'Vedette'Φ and 'Matilda'Φ were chosen to represent the range of perennial ryegrass cultivars in commerce in Australia and New Zealand. They represent both modern cultivars ('Ellett'Φ, 'Banks'Φ 'Vedette'Φ and 'Matilda'Φ) and older ecotypes ('Victorian').

Comparative Trial 'Victorian', 'Ellett'Φ, 'Vedette'Φ, 'Matilda'Φ, 'Banks'Φ. Location: PVI Hamilton, VIC (Latitude 37 44′, Longitude 142 01′) spring-summer 1997/98. Conditions: plants grown from seed in seedling trays in a glasshouse and transplanted into the field at week eight. Trial area fertilised at transplanting with 200kg/ha NPK. The row component of the trial was sown as seed directly into the field area. Trial design: sixty single spaced plants of each variety were arranged into six replicates in a completely randomised block design. The row component of the trial consisted of 10 metres of row for each variety arranged into two completely randomised replicates. Measurements: carried out on each individual spaced plant.

Prior Applications and Sales Nil.

Description: **Valerie Gellert**, Agriculture Victoria, Hamilton VIC

Table 28 *Lolium* varieties

	'Avalon'	***'Victorian'**	***'Ellett'**Φ	***'Banks'**Φ	***'Vedette'**Φ	***'Matilda'**Φ
FLAG LEAF LENGTH (cm)						
mean	23.4	19.4	22.9	23.4	25.12	19.8
std deviation	3.41	3.23	3.40	3.41	5.70	3.21
LSD/sig	1.77	P≤0.01	ns	ns	ns	P≤0.01
FLAG LEAF WIDTH (cm)						
mean	6.6	6.3	6.7	6.4	7.0	6.4
std deviation	0.78	0.98	0.95	0.93	1.00	1.08
LSD/sig	0.43	ns	ns	ns	ns	ns
GROWH HABIT IN AUTUMN						
mean	1.6	1.3	1.9	1.7	1.7	1.6
std deviation	0.73	0.45	0.64	0.59	0.68	0.60
LSD/sig	0.29	P≤0.01	P≤0.01	ns	ns	ns
GROWTH HABIT IN SPRING						
mean	1.6	1.5	1.8	1.4	2.3	1.9
std deviation	0.70	0.67	0.80	0.60	0.66	0.51
LSD/sig	0.308	ns	ns	ns	P≤0.01	ns
FLOWERING DATE (Days from 1/8/98)						
mean	61.2	53.5	58.5	58.2	58.9	30.1
std deviation	9.94	7.45	6.62	7.04	7.49	12.12
LSD/sig	4.55	P≤0.01	ns	ns	ns	P≤0.01
PLANT HEIGHT AT INFLORESCENCE EMERGENCE (cm)						
mean	85.8	83.5	94.5	93.0	92.7	92.2
std deviation	12.26	11.03	12.45	9.24	15.35	13.52
LSD/sig	5.39	ns	P≤0.01	P≤0.01	P≤0.01	P≤0.01
SPIKELET LENGTH (cm)						
mean	25.1	25.2	28.0	27.8	29.7	24.0
std deviaton	3.87	3.47	3.77	4.20	4.98	3.19
LSD/sig	1.80	ns	P≤0.01	P≤0.01	P≤0.01	ns
SPIKELET NO.						
mean	316.7	246.4	255.3	233.7	243.2	203.9
std deviation	98.4	107.01	100.02	78.31	112.59	83.33
LSD/sig	47.98	P≤0.01	P≤0.01	P≤0.01	P≤0.01	P≤0.01

PERSIAN CLOVER
Trifolium resupinatum var. *majus*

'Laser'
Application No: 95/018 Accepted: 24 Jan 1995.
Applicant: **South Australian Seedgrowers Co-operative Limited,** Hilton, SA.

Characteristics (Table 29, Figure 58) Plant: glabrous annual, rosette as seedlings, later erect to decumbent, height medium tall, medium maturity. Stems: few, to 80cm long, branched and hollow. Leaf: trifoliate, petioles long, leaflets vary in size and shape from ovate to wedge shaped, hairless, strongly veined and solid green, margins finely toothed. Inflorescence: small and globular on peduncles in leaf axils. Flower: sub-sessile, pink petals, strongly scented and cross pollinated. Pod: woolly, bladder like. Seeds: very small, seedcoat dark brown or yellow.

Origin and Breeding Recurrent mass selection: In 1991, five apparently rust resistant plants were identified in a field of 'Maral' at Bordertown, South Australia. Open-pollinated seed was sown in nursery rows at Bordertown in 1992. After a severe rust attack, bulk breeders seed was harvested from 500 surviving plants. Selection criteria: rust resistance and seed yield. Propagation: by seed. Breeder: Dr. Ross Downes, ACT.

Choice of Comparators The comparators selected for field characterisation were 'Leeton', 'Lightning' and 'Maral'. 'Maral' is the variety most commonly grown in Australia. 'Maral' and 'Felix' are late flowering (191 days), 'Laser' and 'Leeton' are medium late flowering (186 days), 'Stemher' is early (168 days) and 'Lightning' is very early (161 days). For glasshouse assessment of rust resistance, European varieties 'Felix', 'Stemher' and 'Lupers' were considered in addition to the field-grown comparators.

Comparative Trial Comparators: 'Leeton', 'Lightning' and 'Maral'. Location: field trial sown at the Struan Agricultural Research Station, Naracoorte, South Australia on 6 Jun 1997. Conditions: spaced plants in the field with observations on 15 plants from each of 4 replications. Rust resistance trial: screening for resistance to *Uromyces trifolii-repentis* was conducted by Mark Ramsay et al (SARDI). The trial was sown 2 Oct 1998 in a completely randomised design with 8 entries and 4 replications. Plants were inoculated 29 Oct 1998 and rated for rust infection on 14 December 1998. The rating scale was based on that of Trapero-Casas and Kaiser (1992) with a rating of 0 having 0% of leaf areas infected and 9 with 95-100% leaf area infected.

Prior Applications and Sales

No Prior applications. First sold in Australia in March 1995.

Description: **Dr Ross Downes,** Innovative Plant Breeders, Canberra, ACT.

'Leeton'
Application No: 95/019 Accepted: 24 Jan 1995.
Applicant: **South Australian Seedgrowers Co-operative Limited,** Hilton, SA.

Characteristics (Table 29, Figure 58) Plant: glabrous annual, rosette as seedlings, later erect to decumbent, height medium tall, medium maturity. Stems: few, to 80cm long, branched and hollow. Leaf: trifoliate, petioles long; leaflets vary in size and shape from ovate to wedge shaped, hairless, strongly veined and solid green, margins finely toothed. Inflorescence: small and globular on peduncles in leaf axils. Flower: sub-sessile, pink petals, strongly scented and cross pollinated. Pod: woolly, bladder like. Seeds: very small, seedcoat dark brown or yellow.

Origin and Breeding Recurrent mass selection: In 1990, twenty three apparently rust resistant plants were identified in a commercial field of 'Felix' at Leeton, NSW. Selections were transferred to a nursery at Lake Bathurst, NSW and allowed to cross pollinate within the selected population. Seed was harvested from individual plants at maturity. Twenty plant progenies of each of the selected plants were grown in rows at Bordertown, South Australia in 1991-92. After a severe rust attack 127 plants were selected on rust resistance. These were the most rust-resistant plants from the most rust-resistant families. Open pollinated seed was harvested from individual plants at maturity. From the 127 lines, 100 were selected on seed yield associated with early maturity. The 100 elite selections were represented by 50 plants in a nursery at Bordertown in 1992-93. After a severe rust attack which killed susceptible plants, seed was harvested in bulk. This constitutes breeders seed. Selection criteria: rust resistance, early maturity and seed yield. Propagation: by seed. Breeder: Dr. Ross Downes, ACT.

Choice of Comparators The comparators selected for field characterisation were 'Laser', 'Lightning' and 'Maral'. 'Maral' is the variety most commonly grown in Australia. 'Maral' and 'Felix' are late flowering (191 days), 'Laser' and 'Leeton' are medium late flowering (186 days), 'Stemher' is early (168 days) and 'Lightning' is very early (161 days). For glasshouse assessment of rust resistance, European varieties 'Felix', 'Stemher' and 'Lupers' were considered in addition to the field-grown comparators.

Comparative Trial Comparators: 'Laser', 'Lightning' and 'Maral'. Location: field trial sown at the Struan Agricultural Research Station, Naracoorte, South Australia on 6 Jun 1997. Conditions: spaced plants in the field with observations on 15 plants from each of 4 replications. Rust resistance trial: screening for resistance to *Uromyces trifolii-repentis* was conducted by Mark Ramsay et al (SARDI). The trial was sown 2 Oct 1998 in a completely randomised design with 8 entries and 4 replications. Plants were inoculated 29 Oct 1998 and rated for rust infection on 14 December 1998. The rating scale was based on that of Trapero-Casas and Kaiser (1992) with a rating of 0 having 0% of leaf areas infected and 9 with 95-100% leaf area infected.

Prior Applications and Sales
No Prior applications. First sold in Australia April 1995.

Description: **Dr Ross Downes,** Innovative Plant Breeders, Canberra, ACT

Table 29 a *Trifolium* varieties

Field Trial

	'Leeton'	'Laser'	'Lightning'	*'Maral'
LEAFLET LENGTH (mm) LSD P≤0.01 = 1.5				
mean	29.6c	22.0b	13.4a	23.3b
std deviation	5.7	1.9	1.6	4.1
LEAFLET WIDTH (mm) LSD P≤0.01 = 0.9				
mean	12.9b	12.8b	6.3a	13.0b
std deviation	2.9	1.3	1.1	2.5
PETIOLE LENGTH (mm) LSD P≤0.01 = 5.8				
mean	43.5b	11.2a	16.0a	36.4b
std deviation	18.6	7.9	8.5	17.8
STEM WIDTH (mm) LSD P≤0.01 = 0.6				
mean	5.7b	4.3a	3.7a	4.2a
std deviation	2.2	1.1	0.7	1.0

Leaf measurements were taken from 3rd or 4th leaf from the top of the tallest flowering stem. Mean values followed by the same letters are not significant different at P ″0.01 according to Duncan's Multiple Range Test.

Table 29 b *Trifolium* varieties

Rust resistance trial

	'Leeton'	'Laser'	'Lightning'	*'Maral'	*'Felix'	*'Stemher'	*'Lupers'
RUST RESISTANCE (rating) LSD P≤0.01 = 1.3							
mean	3.5a	6.0b	8.0c	6.75bc	7.25bc	6.25b	7.75c
std deviation	1.0	0.5	0.8	0.5	0.5	0.9	0.9

Mean values followed by the same letters are not significant different at P ≤0.01 according to Duncan's Multiple Range Test.

POTATO
Solanum tuberosum

'Smith's Astra'

Application No: 98/025 Accepted: 25 Feb 1998.
Applicant: **The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 30, Figure 38) Plant: large bush, upright habit, medium-late maturing. Stem: thickness medium, anthocyanin absent, wings small and straight. Leaf: size medium, dark green, glossiness medium, apical rosette anthocyanin and midrib anthocyanin absent, silhouette open. Leaflet: size medium, width medium-narrow, margin waviness medium. Secondary leaflets: frequency low, size large. Flower: peduncle anthocyanin absent, bud anthocyanin absent, frequency medium-high, corolla white, anthers orange, anther structure normal. Fruit: few. Tuber: shape round; skin flaky, skin colour russet, flesh white. Lightsprouts: small, spherical, anthocyanin weak red-violet at base and tip, pubescence very weak at base and tip, tip size medium, tip habit closed, root tips few, protrusion of lenticels weak, lateral shoots medium in length.

Origin and Breeding Controlled pollination: seed parent 'Atlantic' x pollen parent 'Whitu'. The seed parent was characterised by medium-early maturity, compact bush, large broad leaflets, non-wavy leaflet margins, weak red-violet coloured flowers, low tuber number per plant. The pollen parent was characterised by late maturity, very large upright bush, small leaflets, very wavy leaflet margins. Hybridised at the Institute for Horticultural Development (IHD) Toolangi, VIC, Australia in 1988. From this cross, seedling number 89-A4-4 was field selected in 1990. Selection criteria: high yield of small, round shaped tubers; high solids content; consistent processing quality for crisp manufacture direct from harvest and from storage. Propagation: vegetative. Breeder: Dr. R.P. Kirkham, IHD Toolangi, VIC.

Choice of Comparators 'Atlantic', 'Denali' and 'Crispa' were chosen as the most similar varieties of common knowledge in Australia. 'Atlantic' is also the seed parent of the candidate variety. The pollen parent was not considered for the trial as the candidate is clearly distinguishable by its maturity, waviness of leaflet margin and frequency of fruits.

Comparative Trial Comparators: 'Atlantic', 'Denali' and 'Crispa'. Location: Institute for Horticultural Development, Toolangi, VIC (Latitude 37° 32′ South, elevation 550m), summer-autumn 1998/99. Conditions: field grown in red/brown loam; fertilised (pre-plant) with Pivot 800, banded at 1900 kg/ha; irrigation, pest and disease protection as necessary. Trial design: randomised complete block with 24 varieties arranged in three two-row replicates of 42 plants per replicate. Measurements: field measurements from 20 randomly selected plants per replicate, tuber measurements from 60 randomly selected tubers per replicate. Lightsprouts grown at room temperature and exposed to continuous artificial illumination, source of light 6-volt AC incandescent bulbs, 8 per square metre placed 25cm above tubers.

Prior Applications and Sales
First Australian sale 7th May 1997.

Description: **Roger Kirkham,** Institute for Horticultural Development, Toolangi, VIC.

'Smith's Aurora'

Application No: 98/186 Accepted: 15 Feb 1999.
Applicant: **The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 30, Figure 39) Plant: large bush, upright habit, medium maturing. Stem: thickness medium, anthocyanin weak, wings small predominantly straight. Leaf: size medium, colour dark green, glossy, base of new leaflets light green-yellow, apical rosette anthocyanin and midrib anthocyanin absent, silhouette medium-closed. Leaflet: size small, width broad, shape circular, apex cuspidate, margin waviness very weak. Secondary leaflets: frequency high, size large, shape broad. Flower: peduncle anthocyanin absent or very weak, bud anthocyanin absent, frequency medium, corolla white, calyx lobes long, anthers yellow, anther structure normal. Fruit: absent or very few. Tuber: shape round slightly flattened, eye depth medium, skin surface flaky, skin colour light russet, flesh colour white. Lightsprouts: size medium, shape ovoid, anthocyanin very strong red-violet at base, strong at tip, pubescence medium at base and tip, tip size medium, tip habit medium, root tip number many, protrusion of lenticels weak, lateral shoots short.

Origin and Breeding Controlled pollination: seed parent 'Maris Piper' x ND 860/2. The seed parent was characterised by medium-late maturity, small narrow leaflets with coarsely waved margins, red-violet flower buds and medium red-violet white tipped flowers. The pollen parent was characterised by early maturity, thin stems, small broad leaflets. Hybridised at the Institute for Horticultural Development (IHD) Toolangi, VIC, Australia in 1988. From this cross, seedling number 90-A40-1 was field selected in 1991. Selection criteria: high yield of small, round shaped tubers; high solids content; consistent processing quality for crisp manufacture direct from harvest and from storage. Propagation: vegetative. Breeder: Dr. R.P. Kirkham, IHD Toolangi, VIC, Australia.

Choice of Comparators 'Atlantic', 'Denali' and 'Crispa' were chosen as the most similar varieties of common knowledge. The seed parent was not considered for the trial as it is not commercially grown in Australia and the candidate is clearly distinguishable by leaflet width and flower colour. The pollen parent was not considered for the trial as the candidate is clearly distinguishable by maturity and stem thickness.

Comparative Trial Comparators: 'Atlantic', 'Denali' and 'Crispa'. Location: Institute for Horticultural Development, Toolangi, VIC (Latitude 37^{o} 32' South, elevation 550m), summer-autumn 1998/99. Conditions: field grown in red/brown loam; fertilised (preplant) with Pivot 800, banded at 1900 kg/ha; irrigation, pest and disease protection as necessary. Trial design: randomised complete block with 24 varieties arranged in three two-row replicates of 42 plants per replicate. Measurements: field measurements from 20 randomly selected plants per replicate, tuber measurements from 60 randomly selected tubers per replicate. Lightsprouts grown at room temperature and exposed to continuous artificial illumination. Source of light 6-volt AC incandescent bulbs, 8 per square metre placed 25cm above tubers.

Prior Applications and Sales
First Australian sale 1st Oct 1997.

Description: **Roger Kirkham,** Institute for Horticultural Development, Toolangi, VIC.

'Smith's Comet'

Application No: 98/187 Accepted: 15 Feb 1999.
Applicant: **The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 30, Figure 40) Plant: medium sized bush, upright habit, late maturing. Stem: width thick, anthocyanin absent or very weak, wings small and straight. Leaf: size medium, colour mid-green, glossiness medium, apical rosette anthocyanin weak, midrib anthocyanin absent or very weak, silhouette medium-open. Leaflet: size small, width narrow, margin waviness weak, cupped appearance. Secondary leaflets: frequency low, size small. Flower: peduncle anthocyanin absent, bud anthocyanin weak at base, frequency very low, corolla white, calyx base purple, anthers orange, anther structure slightly malformed. Fruit: absent or very few. Tuber: shape short-oval slightly flattened, eye depth medium, skin surface flaky, skin colour light-yellow, flesh colour light-yellow. Lightsprouts: size medium, shape spherical, anthocyanin strong red-violet at base and tip, pubescence very weak at base and tip, tip size small, tip habit closed, root tip number many, protrusion of lenticels weak, lateral shoots short.

Origin and Breeding Controlled pollination: seed parent 'Erntestolz' x pollen parent 'Trent'. The seed parent was characterised by medium early maturity, sprawling medium sized bush, small dark-green narrow leaflets, sessile secondary leaflets, green buds and abscission ring. The pollen parent was characterised by medium early maturity, light purple flowers, flattened round to oblong shaped tubers with white flesh. Hybridised at the Institute for Horticultural Development (IHD) Toolangi, Australia in 1989. From this cross, seedling number 91-A15-20 was field selected in 1992. Selection criteria: high yield of small, round shaped tubers, high solids content, consistent processing quality for crisp manufacture direct from harvest and from storage. Propagation: vegetative. Breeder: Dr. R.P. Kirkham, IHD Toolangi, VIC.

Choice of Comparators 'Atlantic', 'Denali' and 'Crispa' were chosen as the most similar varieties of common knowledge. The seed parent was not considered for the trial as the candidate is clearly distinguishable by growth habit and maturity. The pollen parent was not considered for the trial as it is clearly distinguishable by maturity, flower colour and flesh colour of tubers.

Comparative Trial Comparators: 'Atlantic', 'Denali' and 'Crispa'. Location: Institute for Horticultural Development, Toolangi, VIC (Latitude 37° 32′ South, elevation 550m), summer-autumn 1998/99. Conditions: field grown in red/brown loam; fertilised (preplant) with Pivot 800, banded at 1900 kg/ha; irrigation, pest and disease protection as necessary. Trial design: randomised complete block with 24 varieties arranged in three two-row replicates of 42 plants per replicate. Measurements: field measurements from 20 randomly selected plants per replicate, tuber measurements from 60 randomly selected tubers per replicate. Lightsprouts grown at room temperature and exposed to continuous artificial illumination. Source of light 6-volt AC incandescent bulbs, 8 per square metre placed 25cm above tubers.

Prior Applications and Sales
First Australian sale 1st Oct 1997.

Description: **Roger Kirkham,** Institute for Horticultural Development, Toolangi, VIC.

'Smith's Orion'

Application No: 97/274 Accepted: 23 Oct 1997.
Applicant: **The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 30, Figure 42) Plant: medium sized bush, upright habit, medium maturing. Stem: thickness medium, anthocyanin absent, wings small and straight. Leaf: size medium, grey-green, hirsute, apical rosette anthocyanin and midrib anthocyanin absent, silhouette medium-open. Leaflet: size medium-large, width medium, margin waviness absent. Secondary leaflets: frequency low, size small. Flower: peduncle anthocyanin absent, bud anthocyanin absent, frequency medium, corolla white, calyx lobes short recurved, anthers orange, anther structure normal. Fruit: absent or very few. Tuber: shape round slightly flattened, skin flaky, skin colour russet, flesh white. Lightsprouts: large, ovoid, anthocyanin very weak red-violet at base and tip, pubescence medium at base and tip, tip size large, tip habit closed, root tip number medium, protrusion of lenticels weak, lateral shoots short.

Origin and Breeding Controlled pollination: seed parent 'Denali' x pollen parent 'Lindsay'. The seed parent was characterised by compact bush, prominently angled stems, anthocyanin weakly present on stems and in axils, flowers frequent, flower colour weak blue-violet, tubers oblong. The pollen parent was characterised by late maturity, medium-large plant, spreading growth habit, small narrow leaflets, red-violet flower buds, strong red violet flowers with white tips, fruits many, tubers round. Hybridised at the Institute for Horticultural Development (IHD) Toolangi, Australia in 1988. From this cross, seedling number 89-A9-14 was field selected in 1990. Selection criteria: high yield of small, round shaped tubers; high solids content; consistent processing quality for crisp manufacture direct from harvest and from storage. Propagation: vegetative. Breeder: Dr. R.P. Kirkham, IHD Toolangi, VIC.

Choice of Comparators 'Atlantic', 'Denali' and 'Crispa' were chosen as the most similar varieties of common knowledge in Australia. 'Denali' is also the seed parent of the candidate variety. The pollen parent was not considered for the trial as the candidate is clearly distinguishable by flower colour and frequency of fruits.

Comparative Trial Comparators: 'Atlantic', 'Denali' and 'Crispa'. Location: Institute for Horticultural Development, Toolangi, VIC (Latitude 37° 32′ South, elevation 550m), summer-autumn 1998/99. Conditions: field grown in red/brown loam; fertilised (pre-plant) with Pivot 800, banded at 1900 kg/ha; irrigation, pest and disease protection as necessary. Trial design: randomised complete block with 24 varieties arranged in three two-row replicates of 42 plants per replicate. Measurements: field measurements from 20 randomly selected plants per replicate, tuber measurements from 60 randomly selected tubers per replicate. Lightsprouts grown at room temperature and exposed to continuous artificial illumination. Source of light 6-volt AC incandescent bulbs, 8 per square metre placed 25cm above tubers.

Prior Applications and Sales Nil.

Description: **Roger Kirkham,** Institute for Horticultural Development, Toolangi, VIC.

'Smith's Stellar'

Application No: 97/273 Accepted: 23 Oct 1997.
Applicant: **The Smith's Snackfood Company Limited,** Chatswood, NSW.
Agent: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 30, Figure 41) Plant: medium sized bush, slightly spreading habit, medium maturing. Stem: thickness medium, anthocyanin weak at base and in axils, wings prominent and straight. Leaf: size medium, dark green, glossiness medium, apical rosette anthocyanin and midrib anthocyanin weak, silhouette medium. Leaflet: size medium-small, width medium, margin waviness absent. Secondary leaflets: frequency high, size large. Flower: peduncle anthocyanin absent, bud anthocyanin medium-strong, frequency high, corolla blue-violet and uniform, calyx lobes reflexed, anthers orange, anther structure normal. Fruit: absent or very few. Tuber: shape oval slightly flattened, skin slightly flaky, skin colour white, flesh white. Lightsprouts: size medium, ovoid, anthocyanin very strong blue-violet at base and tip, pubescence very weak at base and tip, tip size medium, tip habit closed, root tip number medium, protrusion of lenticels weak, lateral shoots medium in length.

Origin and Breeding Controlled pollination: seed parent 'Denali' x pollen parent ND860/2. The seed parent was characterised by infrequent small secondary leaflets, secondary leaflets typically absent between terminal and subterminal leaflets, anthocyanin colouration of flower bud and flowers weak, tubers oblong. The pollen parent was characterised by early maturity, short plant height, thin stems, small broad leaflets and medium frequency of fruits. Hybridised at the Institute for Horticultural Development (IHD) Toolangi, Australia in 1989. From this cross, seedling number 90-A20-4 was field selected in 1991. Selection criteria: high yield of small, round shaped tubers; high solids content; consistent processing quality for crisp manufacture direct from harvest and from storage. Propagation: vegetative. Breeder: Dr. R.P. Kirkham, IHD Toolangi, VIC.

Choice of Comparators 'Atlantic', 'Denali' and 'Crispa' were chosen as the most similar varieties of common knowledge in Australia. 'Denali' is also the seed parent of the candidate variety. The pollen parent was not considered for the trial as the candidate is clearly distinguishable by maturity, plant height and frequency of fruits.

Comparative Trial Comparators: 'Atlantic', 'Denali' and 'Crispa'. Location: Institute for Horticultural Development, Toolangi, VIC (Latitude 37° 32′ South, elevation 550m), summer-autumn 1998/99. Conditions: field grown in red/brown loam; fertilised (pre-plant) with Pivot 800, banded at 1900 kg/ha; irrigation, pest and disease protection as necessary. Trial design: randomised complete block with 24 varieties arranged in three two-row replicates of 42 plants per replicate. Measurements: field measurements from 20 randomly selected plants per replicate, tuber measurements from 60 randomly selected tubers per replicate. Lightsprouts grown at room temperature and exposed to continuous artificial illumination. Source of light 6-volt AC incandescent bulbs, 8 per square metre placed 25cm above tubers.

Prior Applications and Sales Nil.

Description: **Roger Kirkham,** Institute for Horticultural Development, Toolangi, VIC.

Table 30 *Solanum* varieties

	'Smith's Comet'	**'Smith's Aurora'**	**'Smith's Astra'**	**'Smith's Orion'**	**'Smith's Stellar'**	***'Atlantic'**	***'Denali'**	***'Crispa'**
LIGHTSPROUT:								
size	medium	medium	small	large	medium	medium	medium	-
shape	spherical	ovoid	spherical	ovoid	ovoid	spherical	conical	-
anthocyanin colouration of base	red-violet	red-violet	red-violet	red-violet	blue-violet	red-violet	blue-violet	-
intensity of anthocyanin colouration of base	strong	very strong	weak	very weak	very strong	strong	very strong	-
pubescence of base	very weak	medium	very weak	medium	very weak	weak	very weak	-
habit of tip	closed	medium	closed	closed	closed	medium	medium	-
intensity of anthocyanin colouration of tip	strong	strong	weak	very weak	very strong	medium	very strong	-
pubescence of tip	very weak	medium	very weak	medium	very weak	strong	strong	-
number of root tips	many	many	few	medium	medium	medium	many	-
STEM:								
extension of anthocyanin colouration	absent or very weak	weak	absent	absent	weak	very weak	weak	absent
LEAF:								
silhouette	medium-open	medium-closed	open	medium-open	medium	closed	open	open
intensity of green colour	medium	dark	dark	dark	dark	medium	medium	medium-dark
LEAFLET:								
size	small	small	medium	medium-large	medium-small	large	medium	small
waviness of margin	weak	very weak	medium	none	none	none	none or very weak	none
glossiness of the upperside	medium	glossy	medium	medium-dull	medium	medium-dull	medium	medium-glossy
INFLORESCENCE:								
frequency of flowers	very low	medium	medium-high	medium	high	high	high	high
anthocyanin colouration of bud	absent	absent	absent		medium-strong	weak	medium	absent
FLOWER COROLLA:								
colour of inner side	white	white	white	white	blue-violet	red-violet	blue-violet	white
intensity of anthocyanin colouration of inner side in coloured flower	-	-	-	-	strong	weak	very weak	-
anthocyanin colouration of outer side in white flower	absent	absent	absent	absent	-	-	-	absent
FRUIT:								
frequency of fruits	absent or very few	absent or very few	few	absent or very few	absent or very few	absent or very few	absent or very few	many
TUBER:								
shape	flat short-oval	flat round	round	flat round	flat oval	oval-round	oblong	round
colour of skin	light-yellow	light-russet	russet	russet	white	russet	buff	russet
colour of flesh	light-yellow	white	white	white	white	white	white	white

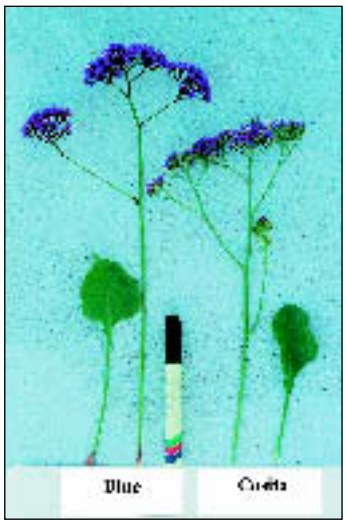

Fig 21 Limonium - 'Cosita' (right) with comparator 'Blue' (left)

Fig 22 Allocasuarina – 'Matuka Silver' (left) compared with normal types (right)

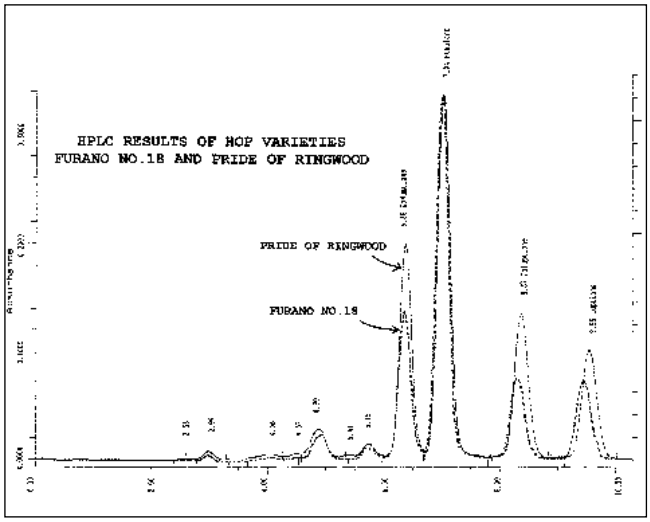

Fig 23 a – HPLC results of Hop 'Furano No. 18' showing differences from 'Pride of Ringwood' in Cohumulone, Colupulone and Lupulone content

Fig 23 b - Cones of 'Furano No. 18'

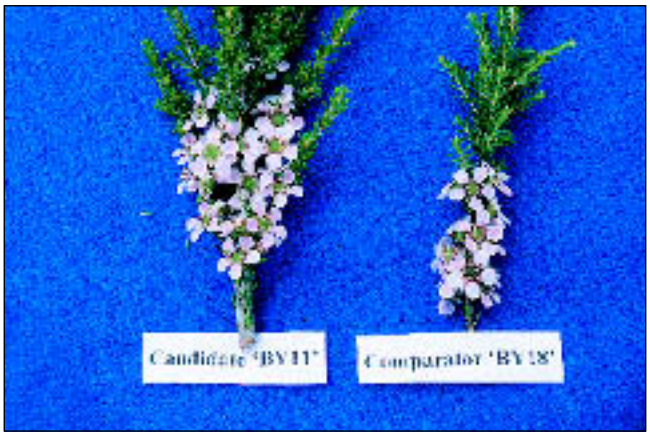

Fig 24 Tea Tree – 'BY 11' (left) with comparator 'BY 18' (right) showing differences in flowers.

Fig 25 Hybrid Couchgrass – vertical leaf extension rate of 'Champion Dwarf' (left) compared with 'Tifdwarf' (2nd from left), 'Tifway' (2nd from right) and 'Tifgreen' (right)

Fig 26 Apple - fruits of 'Charlotte'

Fig 27 Apple - fruits of 'Obelisk' syn Flamenco

Fig 28 Japanese Pear – fruits of 'Gold Nijisseiki' (left) with comparator 'Nijisseiki (right) showing differences in Black Spot disease resistance.

Fig 29 Mango - fruits of 'Honey Gold' with comparator 'Kensington Pride' (right)

Fig 30 Strawberry – fruit and leaves of 'Lowanna' (right) with the comparator 'Selva' (left) showing shorter terminal leaf length, absence of bracts and conical fruit of 'Lowanna'.

Fig 31 Strawberry – fruit and leaves of 'Nonda' (right) with the comparator 'Selva' (left) showing the large conic fruit shape, weak stipule colouring, weak leaf blistering and insertion of calyx.

Fig 32 Strawberry – fruit and leaves of 'Euroka' (right) with the comparator 'Selva' (left) showing shorter terminal leaf length, tubular bracts and conical fruit of 'Euroka'.

Fig 33 Strawberry – fruit and leaves of 'Alinta' (right) with the comparator 'Selva' (left) showing shorter terminal leaf length, bi-conical fruit shape and lack of stipule anthocyanin colouration of 'Alinta'.

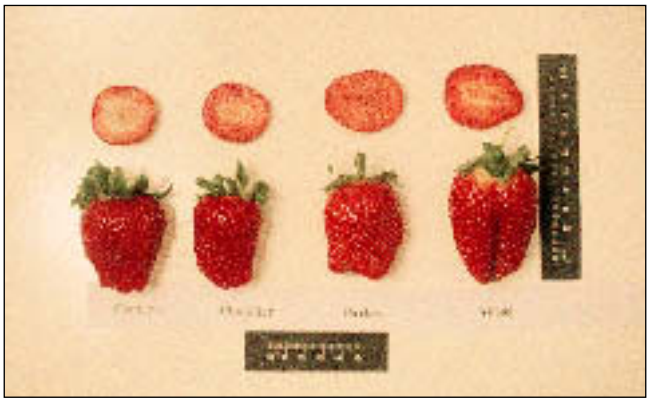

Fig 34 Strawberry - fruit of 'Cartuno' (left) with comparators 'Chandler' (2nd from left), 'Parker' (2nd from right) and 'Milsei'(right). 'Chandler' is the closest comparator of 'Cartuno'.

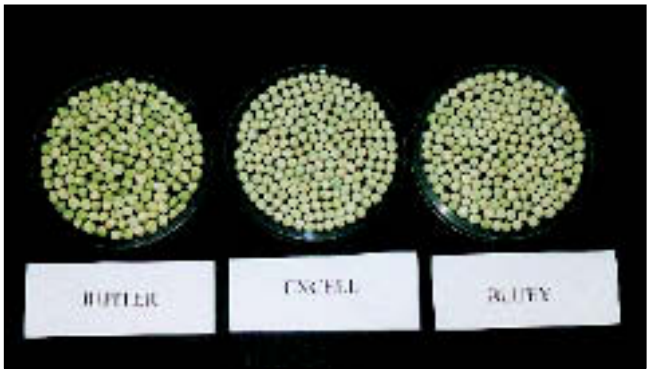

Fig 35 Field Pea - 'Excell (centre) with comparators Jupiter' (left) and 'Bluey' (right), showing differences in seed shape.

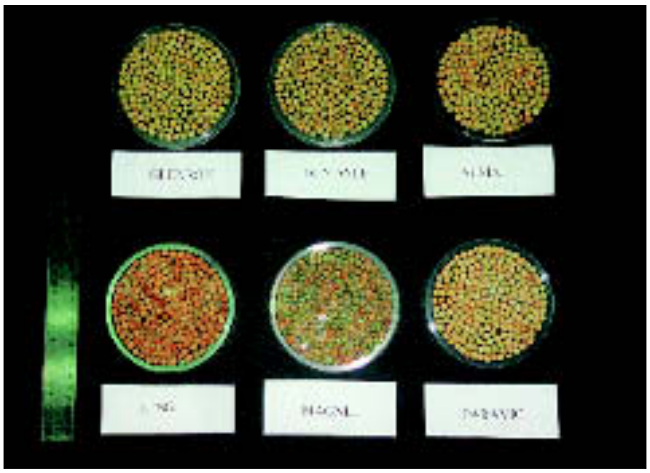

Fig 36 Field Pea - 'Paravic' (bottom right) showing differences in seed testa colour and intensity of colour to comparators 'Glenroy' (top left), 'Dundale (top centre), 'Alma' (top right), 'King' (bottom left), 'Magnet' (bottom centre).

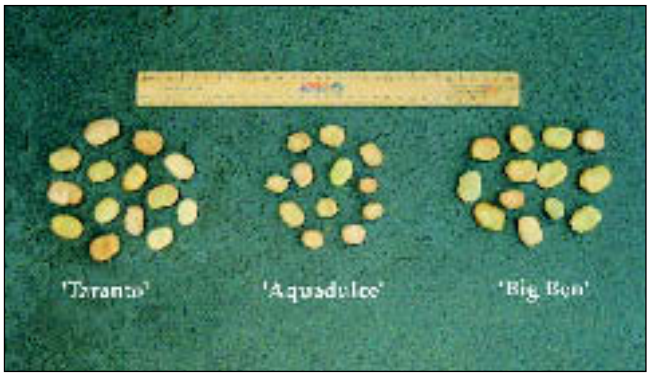

Fig 37 Broad Bean - Seeds of 'Taranto' (left) with comparator 'Aquadulce' (centre) and 'Big Ben' (right)

Fig 38 Potato – lightsprouts of 'Smith's Astra' (right) with comparator 'Atlantic' (left). The weak red-violet anthocyanin colouration of tip of 'Smith's Astra' distinguishes it from the comparator

Fig 39 Potato - lightsprouts of 'Smith's Aurora' (right) with comparator 'Atlantic' (left). The strong intensity of anthocyanin colouration of tip of 'Smith's Aurora' distinguishes it from the comparator

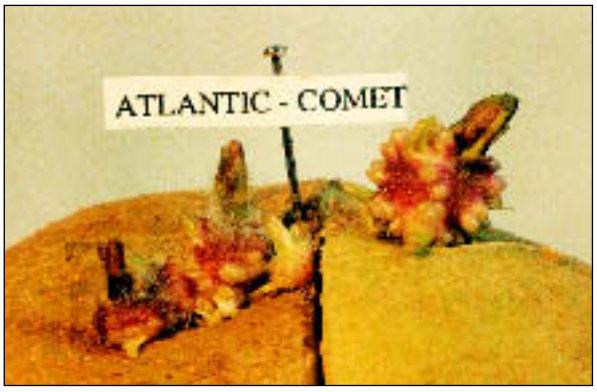

Fig 40 Potato – lightsprouts of 'Smith's Comet' (right) with comparator 'Atlantic' (left). The very weak pubescence of tip of 'Smith's Comet' distinguishes it from the comparator

Fig 41 Potato - lightsprouts of 'Smith's Stellar' (right) with comparator 'Atlantic' (left). The very strong blue-violet anthocyanin colouration of base of 'Smith's Stellar' distinguishes it from the comparator

Fig 42 Potato - lightsprouts of 'Smith's Orion' (right) with comparator 'Atlantic' (left). The very weak intensity of anthocyanin colouration of tip of 'Smith's Orion' distinguishes it from the comparator

Fig 1 Alstroemeria – flowering plant of 'Staprinag'

Fig 2 Alstroemeria – flowering plant of 'Staprizsa'

Fig 3 Alstroemeria – flowering plant of 'Staprimon'

Fig 4 Alstroemeria – flowering plant of 'Staprisis'

Fig 5 Alstroemeria – flowering plant of 'Staprimil'

Fig 6 Alstroemeria – flowers of 'Stabelin'

Fig 7 Alstroemeria – flowers of 'Little Moon'

Fig 8 Lily – flowers of 'Siberia'

Fig 9 Rose - flowers and plant parts of 'Betsy Taaffe'

Fig 10 Rose - flowers and plant parts of 'Tanmixa'

Fig 11 Rose - flowers and plant parts of 'My Sweet Honeycomb'

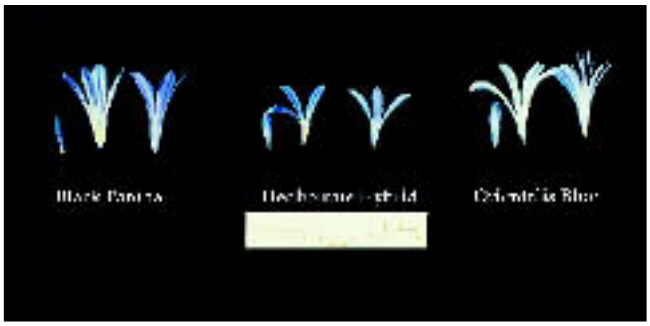

Fig 12 Agapanthus - 'Black Pantha' (left) with comparators 'Hedbourne Hybrid' (centre) and *A. orientalis* 'Blue' (right)

Fig 13 Kangaroo Paw — flowers and inflorescences (from left to right) of 'Bush Garnet', 'Bush Ranger' and 'Bush Blaze'

Fig 14 Christmas Bush – 'VIC 90-1' (left) with comparator 'Alberry's Red' (right)

Fig 15 Peace Lily - 'Frederick' (centre) with comparators 'Viscount Prima' (left) and 'Mauna Loa Supreme' (right)

Fig 16 Syngonium – 'Gold Allusion' (bottom) with comparators 'White Butterfly' (top) and 'Robusta' (centre)

Fig 17 Syngonium – 'Holly M' syn White Holly (bottom) with comparators 'Cream Tetra' (top) and Tiffany (centre)

Fig 18 Syngonium – 'Maria Allusion' syn Cherry Allusion (bottom) with comparator 'Maya Red' (top)

Fig 19 White Cedar – 'Lady Gwenda' (left) with comparator *Melia azedarach* (right) normal form

Fig 20 Weeping Fig – 'Marole' syn Bushy King (left) and 'Mikkie' syn Bushy Prince (2nd from right) with comparators 'Francis Goldstar', 'Golden Princess' and 'Shorty'.

ROSE
Rosa

'Betsy Taaffe'

Application No: 96/187 Accepted: 2 Sep 1996.
Applicant: **David Taaffe,** Elwood, VIC.

Characteristics (Table 31, Figure 9) Plant: growth habit bushy, height medium, width medium. Stem: smooth, green, with many thorns. Young vegetative stem: bronze to reddish brown, anthocyanin colouration weak. Thorns: lower side deep concave. Short prickles number: few. Large prickles number: many. Leaf: size medium, colour medium green, glossiness of upper side medium, leaflet number 5-7. Terminal leaflet: cross section slight concave, undulation of margin weak, length long (36-54mm), width medium (21-34mm), rounded base. Flowering shoot: number of flowers few (1-3). Flower pedicel: number of prickles many. Flower bud: broad - ovate. Flower: double, diameter large (65-89mm), shape from above: round, profile upper flat, profile lower concave. Fragrance: strong. Sepal extensions: weak. Petal: size small, number very many (127-197), colour midzone inside RHS 1D, midzone outside: RHS 1D, basal spot inside RHS 6C, basal spot outside RHS 4B, margin inside RHS 36D, margin outside RHS 27D, basal spot size inside small, basal spot outside very small, petal reflexing: very strong, undulation strong. Filament colour: yellow, Seed vessel: medium. Hip shape of longitudinal section: pitcher shaped. Time of beginning of flowering: late. Flowering habit: almost continuous flowering.

Origin and Breeding Spontaneous mutation: from 'Auscot'Φ syn Abraham DarbyΦ at applicant's property in Elwood, VIC in 1995. The most significant difference of 'Betsy Taaffe' from the parental variety is flower colour. The colour of 'Auscot'Φ is: midzone inside RHS 36B, midzone outside RHS 19D, basal spot inside RHS 12C, basal spot outside RHS 12A, margin inside RHS 56A, margin outside RHS 56A. Selection criteria: selected for development on the basis of flower colour, perfume, suitability for pot culture and garden use. Propagation: by budding onto *multiflora* rootstock through several generations to ensure uniformity and stability. Breeder: David Taaffe, Elwood, VIC.

Choice of Comparators The original parental variety 'Auscot'Φ was initially considered as a comparator, however it was not finally included in the trial as it significantly differs from the candidate variety in flower colour. Whereas, 'Ausbreak'Φ was chosen as a comparator as it is the most similar variety of common knowledge on the basis of flower colour.

Comparative Trial Comparator: 'Ausbreak'Φ. Location: Wandin, VIC between Dec 1995 and Jan 1999. Conditions: plants were budded onto the *multiflora* rootstock and raised hydroponically in pots of Scoria under controlled environment plastic house conditions, with a minimum temperature of 12°C, under the double skin Polythene cover of 'Infrasol'. Due to the lack of flowers on the comparator 'Ausbreak'Φ, the trial plants were removed from the greenhouse and placed in full sun in an open area outside the greenhouse. Trial design: 16 plants of each variety arranged in double rows. Measurements: 16 specimens selected at random from 16 plants, recorded as flowers presented themselves through that time, whilst all other measurements were collated in late January.

Prior Applications and Sales

No prior applications. 'Betsy Taaffe' was first sold in Australia in 1997.

Description **Christopher Prescott, Prescott Roses Pty Ltd**, Berwick, VIC.

Table 31 *Rosa* varieties

	'Betsy Taaffe'	***'Ausbreak'**Φ syn **Jayne Austin**Φ
PLANT HEIGHT	medium	tall
PLANT WIDTH	medium	narrow
YOUNG SHOOT: ANTHOCYANIN COLOURATION	bronze to reddish brown	reddish brown
SHORT PRICKLES: NUMBER	few	very few
LONG PRICKLES: NUMBER	many	medium
LEAF: GREEN COLOUR	medium	light
LEAFLET: CROSS SECTION	slight concave	concave
TERMINAL LEAFLET: LENGTH OF BLADE	long	medium
LEAF LENGTH (mm)		
mean	41	49
std deviation	5.18	6.61
LSD/sig	4.52	P≤0.01
LEAF WIDTH (mm)		
mean	28	34
std deviation	3.39	5.58
LSD/sig	3.98	P≤0.01
FLOWERING SHOOT: NUMBER OF FLOWERS	few	very few
FLOWER PEDICEL: NUMBER OF HAIRS	many	medium
FLOWER BUD: SHAPE OF LONGITUDINAL SECTION	broad-ovate	round
FLOWER SIZE (mm)		
mean	78	92
std deviation	9.04	6.02
LSD/sig	6.73	P≤0.01
FLOWER: SIDE VIEW UPPER PART (fully opened flower)	flat	flattened convex
FLOWER: SIDE VIEW LOWER PART (fully opened flower)	concave	flattened convex
FLOWER FRAGRANCE	strong	medium

PETAL: SIZE	small	medium
NUMBER OF PETALS		
mean	156	70
std deviation	25.45	3.8
LSD/sig	6.73	P≤0.01
PETAL COLOUR (RHS)		
midzone inside	1D	11A
midzone outside	1D	12C
margin inside	36D	14D
margin outside	27D	12C
PETAL SPOT COLOUR (RHS)		
innerside	6C	9B
outerside	4B	9C
PETAL: SIZE OF SPOT AT BASE OF INNER SIDE	small	very small to absent
PETAL REFLEXING OF MARGIN	very strong	weak
PETAL UNDULATION OF MARGIN	strong	very weak
TIME OF BEGINNING OF FLOWERING	late	very late
FLOWERING: HABIT	almost continuous	twice flowering

'My Sweet Honeycomb'

Application No: 97/066 Accepted: 18 Apr 1997.
Applicant: **John Gordon**, Wamboin, NSW.

Characteristics (Table 32, Figure 9) Plant growth habit: miniature rose, bushy, vigorous strong shoots. Young shoot: anthocyanin colouration present, colour reddish brown. Thorn: shape upper and lower surface concave, density medium, mainly long, few short. Leaf: size medium, colour medium green, upper surface semi-gloss to glossy. Leaflet: cross-section very slightly concave to flat, margin undulation weak. Terminal leaflet: length medium, width medium, petiolule length medium to long, base shape obtuse. Flowering shoot: mainly small clusters up to 3, some singles. Flower pedicel: many stiff glandular hairs, few small thorns, no fine hairs. Bud: shape ovate. Flower: type double, colour orange pink (fades to very pale pink RHS 56B), petal number medium, diameter small to medium, viewed from above irregularly round, side profile; upper half flattened convex, lower half flat, fragrance absent to very weak. Sepal: size medium, extensions weak. Petal: size medium, inside surface colour; marginal and midzone RHS 29C basal spot present, size very large, well defined, colour yellow RHS 6C, outside surface; marginal and midzone RHS 36C, basal spot present, size medium, very diffusive boundary colour yellow RHS 6C/8A, petal margin undulation weak, rolling of margin medium. Stamen filament: colour yellow. Style: colour pale yellowish green. Stigma height below anther. Seed vessel: size small to medium, shape pitcher. Flowering habit: remontant. (Note: all RHS chart number refers to 1986 edition).

Origin and Breeding Spontaneous mutation: from 'MORsegold' syn Sequoia Gold. The parental variety is a miniature rose characterised by medium to light yellow flower colour. An orange pink spontaneous mutation was observed on this variety at applicant's property in Wamboin, NSW. Selection criteria: miniature rose, attractive orange pink flower. Propagation: vegetatively through numerous generations and found to be uniform and stable. Breeder: John Gordon, Wamboin, NSW.

Choice of Comparators 'Meineyta'(Φ) syn Anita(Φ) was chosen as the sole comparator on the basis of similar flower colour and plant size. It is considered to be the most similar variety of common knowledge in Australia. The parent plant was not considered because of its yellow flower colour.

Comparative Trial Comparator: 'Meineyta'(Φ) syn Anita(Φ). Location: Carrum Downs, VIC (Latitude 38°06′ south, elevation 35m), summer (December) 1997. Conditions: trial conducted in a polyhouse for continuous flower production; plants propagated from cuttings, once rooted planted in threes into 210mm pots filled with soilless potting mix (pine bark based), nutrition maintained with slow release fertilisers, pest and disease treatments applied as required, plants periodically pruned to control growth. Trial design: randomised block of ten pots each of variety and comparator. Measurements: minimum of 20 taken at random from ten pots. leaf measurements made on first or second 5-7 leaflet leaf down from inflorescence, thorns assessed on stem tissue in vicinity of measured leaves. Climatic condition: high light intensity and temperatures.

Prior Application and Sale

No prior application. First sold in Australia, 1997.

Description: **Dr. Brian Hanger,** Rosemary Ridge Pty Ltd, Monbulk, VIC.

Table 32 *Rosa* varieties

	'My Sweet Honeycomb	***'Meineyta'** (Φ)
THORN LENGTH (mm)		
mean	5.6	7.2
std deviation	0.5	0.6
LSD/sig	0.4	P≤0.01
TERMINAL LEAFLET LENGTH(mm) First or second true leaf down from flower cluster		
mean	36.2	30.8
std deviation	4.0	2.7
LSD/sig	2.7	P≤0.01
TERMINAL LEAFLET WIDTH(mm)		
mean	19.7	18.3
std deviation	1.9	1.3
LSD/sig	1.4	ns
TERMINAL LEAFLET PETIOLULE LENGTH (mm)		
mean	12.3	8.3
std deviation	0.5	0.8
LSD/sig	0.8	P≤0.01
FLOWER DIAMETER (mm)Fully open		
mean	53.8	54.6
std deviation	3.0	2.6
LSD/sig	2.2	P≤0.01
SEPAL LENGTH (mm)		
mean	22.0	19.8
std deviation	1.6	1.2
LSD/sig	1.1	P≤0.01

FLOWER PEDICEL		
	many glandular hairs	few glandular hairs
NUMBER OF PETALS		
	medium to many	very many
SEPAL EXTENSIONS		
	weak	medium
PETAL COLOUR (RHS 1986)		
midzone outside	36A	33C
midzone inside	29C	33B
margin outside	36A	33C
margin inside	29C	35A/B
STYLE COLOUR		
	yellowish green	red stain
SEED VESSEL SIZE		
	medium	medium to large

'Tanmixa' syn **Joy of Life**

Application No: 97/064 Accepted: 15 Apr 1997.
Applicant: **Rosen Tantau, Mathias Tantau Nachfolger**, Uetersen, Germany.
Agent: **S. Brundrett and Sons (Roses) Pty Ltd,** Narre Warren North, VIC.

Characteristics (Figure 10) Growth habit: bed rose, broad bushy, height 1-1.2m. Young shoot: anthocyanin colouration present, medium intensity, colour reddish brown,(stem uniformly coloured). Thorn: shape (upper surface mainly flat), lower strongly concave to concave, density short few, long medium to many, (5.9mm sd 1.6). Leaf: size medium to large, colour dark green, upper surface semi-gloss to glossy. Leaflet: cross-section slightly concave, margin undulation medium. Terminal leaflet: length medium (56.6mm sd 7.8), width medium (31.6mm sd 4.3), petiolule length medium to long (18.3mm sd 2.9), base shape obtuse. Flowering shoot: flowers as singles. Flower pedicel: medium density stiff glandular hair, small thorns. Bud: shape ovate. Flower: type double, colour red blended with white, petal number many (48.6 sd 4.2), diameter medium (84.1mm sd 4.2), viewed from above irregularly round, side profile; upper half flattened convex, lower half flattened convex, fragrance medium. Sepal: size medium (37.3mm sd 5.1), extensions medium to strong. Petal: size large, inside surface colour; marginal zone RHS 57C (RHS 45A, 1986), midzone white RHS 155B, basal spot present, size small colour yellowish green RHS 1D; outside surface; marginal zone RHS 64D (RHS 50A, 1986), midzone RHS 155B, basal spot present, size very small, colour yellowish green RHS 1D, petal margin undulation weak, reflexing of margin medium. Stamen filament: colour pink (pale yellow green). (Style: colour pale green. Stigma height above anther.) Seed vessel: size medium, shape pitcher (towards funnel). Flowering habit: remontant. (Note: data in parenthesis from local observations and measurements).

Origin and breeding Controlled pollination: between two breeding stock plants in a planned breeding program at applicant's nursery in Uetersen, Germany. The parents are proprietary breeding plants within breeder's collection. Selection criteria: delicate colour form, and shape of flower. Propagation: vegetatively through numerous generations. Breeder: Hans-Jurgen Evers of Rosen Tantau, Mathias Tantau Nachfolger, Uetersen, Germany.

Choice of Comparator The qualified person considers 'ANDeli' syn Double Delight to be the closest known comparator in Australia. 'ANDeli' differs in red colour more bluish, upper leaf surface dull, leaf base round to cordate, flower pedicel surface smooth, sepal extensions few to medium, stigma same height as anther.

Comparative Trial Description based on official German PBR documents, and data confirmed by local observations and measurements. Location: Narre Warren, VIC, Autumn 1997. Conditions: trial conducted in open under natural climatic conditions. Plants budded onto *R multiflora* rootstock established in 240mm plastic bags filled with a pine-bark based potting mix, nutrients and protective sprays applied to maintain plant health. Plants pruned as required. Plants examined approximately two years after budding. Minimum 10 plants along with comparator. Measurements: taken at random.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
Germany	1993	Surrendered	'Tanmixa'

First sold in Germany, 1993.

Description: **Dr. Brian Hanger,** Rosemary Ridge Pty Ltd, Monbulk, VIC.

STRAWBERRY
Fragaria x ananassa

'Alinta'

Application No: 97/071 Accepted: 21 Apr 1997.
Applicant: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 33, Figure 33) Plant: flat globose, dense, strong vigour. Leaf: light green, medium blistering, medium glossiness, Terminal leaflet: as long as broad, mean length 7.54cm, obtuse base, incisions dentate and shallow, bracts leaflike, petiole hairs pointing upwards, petiole cross section shallow groove, stipule anthocyanin colour absent or very weak. Flowers: intermediate, level with foliage, calyx same size as corolla, primary flower petals touching. Fruit: early ripening, large, orange-red, shape bi-conical, longer than broad, broad band without achenes, achenes level with the surface, calyx necked and reflexed, calyx larger than fruit diameter, mean firmness 0.47 kg, flesh medium red and marginal. Bearing habit: day neutral.

Origin and Breeding Controlled pollination: seed parent breeding line 88-011-30 x pollen parent 'Chandler'(D). The seed parent was characterised by early flowering, strong vigour, soft fruit, strong day neutral bearing habit and lack of runners. The pollen parent was characterised by early flowering, strong plant vigour, large conical fruit and short day bearing habit. Hybridisation took place at IHD Knoxfield, VIC, Australia in 1991. From this cross, seedling number 91-012-39 was chosen in 1993 on the basis of bearing habit. Selection criteria: uniform conic fruit shape, large fruit size, firm fruit, high yield, resistance to Two Spotted Mite, flavour and Autumn production. Propagation: pathogen tested nucleus plants have been produced and

runners grown in Victoria and Tasmania for six generations. Throughout this period 'Alinta' was found to be uniform and stable. 'Alinta' will be commercially propagated by runners, from nucleus plants. Breeder: Bruce J Morrison, IHD Knoxfield, VIC, Australia.

Choice of Comparators 'Selva'Φ and 'Seascape'Φ were initially considered for the comparative trial as these are day neutral varieties of common knowledge. 'Seascape' is a widely available commercial variety of the same species, however it is a large plant producing dark coloured soft acid fruit, therefore it was excluded from the trial. 'Selva'Φ, was chosen, as it is the closest alternative. The seed parent was not considered for the trial as it was no longer available, but was distinguished by its strong day neutral habit and lack of runner production. The pollen parent was excluded due to its extensive runner production and short day bearing habit.

Comparative Trial Comparator: 'Selva'Φ. Location: Knoxfield, VIC (Latitude 37°52′ South, elevation 80m), spring-summer 1998/99. Conditions: trial conducted in the field, in open beds, as spaced plants, irrigated by T-tape, in full sun. Runner plants of 'Alinta' grown in Tasmania and 'Selva'Φ grown in Toolangi, Vic. Dug May 5 and planted May 12 with seven days additional chill at 0°C. Nutrition: preplant application of 5:2:1 and potassium nitrate through the T-tape during the season. Pest and disease treatments: no soil fumigation was used nor chemical control of pests or diseases accept aphids. Two Spotted Mites were controlled by the introduction of predators. Trial design: plots of eight plants replicated four times in a randomised block design. Measurements: from 20 plants at random. One sample per plant.

Prior Applications and Sales Nil.

Description: **Bruce Morrison,** Agriculture Victoria, Knoxfield, VIC.

'Cartuno'

Application No: 95/108 Accepted: 5 July 1995.
Applicant: **Plantas de Navarra S.A. (Planasa),** Valtierra (Navarra), Spain.
Agent: **Nu-Plants Australia,** Rochedale, QLD.

Characteristics (Figure 34) Plant: habit globose with medium density and vigour, height about 250mm, width about 260mm. Foliage: upper side dark green (near RHS 137A) and lower side lighter green (near RHS 138C). Leaf: slightly concave in cross section, three leaflets on average, length 110mm and width 130mm, terminal leaflet shape of base rounded and shape of teeth obtuse, petiole length 100mm with outward hairs, stipules anthocyanin colouration medium. Stolons: number medium, anthocyanin colouration weak, thickness medium, pubescence weak. Flower: size large, diameter of primary flowers about 40mm and secondary flowers about 30 mm, size of calyx relative to corolla is larger, inner and outer calyx same size. Spacing of petals overlapping, petal length to width ratio broader than longer, petal colour white, separation of petals (flowers with 5 or 6 petals) overlapping. Fruiting truss: attitude at first picking erect. Inflorescence relative to foliage: above foliage and readily visible. Fruit: firm, length to width ratio longer than broad, size large, primary fruit length about 60mm, width about 40mm; secondary fruit length about 45mm, width 30mm, predominant shape near conical with only slight differences in shape between primary and secondary fruit. Band without achenes absent or very narrow, unevenness of surface weak, colour strong orange red (near RHS 42B), strongly glossy with achenes embedded below the surface, fruit level with calyx, calyx segments reflexed, calyx size in relation to fruit diameter is larger, adherence of calyx medium. Colour of flesh pale red (near RHS 42B and RHS 44B) and even in colouration. Fruit medium in sweetness with weak acidity. Time of flowering (50% of plants at first flower) medium, time of ripening (50% of plants with ripe fruit) medium. Type of bearing: non-remontant, chilling requirement medium. Fruiting (in SE Queensland) averages 45 days from planting to 10% flowering and further 27 days to maturity.

Origin and Breeding Controlled pollination: seed parent 86-184 x pollen parent 86-175 in a planned breeding program. Both parents are non-commercialised proprietary lines within the breeding program. The parental lines were developed from open pollination of 32 different varieties and seedlings of different origin in 1986. Propagation: the resulting seedling of the new variety 'Cartuno' (8933018) was grown and asexually propagated by stolons in Seria, Spain. Clones of this new variety have been further propagated and tested extensively in the experimental fields of Planasa in Cartaya (Huelva), Spain to confirm that the combination of characteristics disclosed herein are stable and remain true to type through successive generations of asexual reproduction. Selection criteria: fruit production , fruit firmness, size, taste and colour. Breeder: Jose M A Lopez, Tudela-Navarra, Spain.

Choice of Comparators The characteristics of the new variety, which distinguishes it from other varieties of common knowledge, include inflorescence above foliage and near conical even coloured orange-red fruit. Based on these characteristics 'Chandler'Φ is considered to be the closest variety of common knowledge. No other similar varieties have been identified.

Comparative Trials Description based on official US Plant Patent description (US PP 8623) and official data certified by Del Instituto Nacional de Semillas Y Plantas de Vivero, Madrid, Spain, 1992. Key characteristics were confirmed by the qualified person by making observations in Queensland in winter, 1998. Condition: plants were planted and grown on raised beds covered with black plastic mulch film for commercial production of strawberries. Observations made on random sampling of fruit from individual plants. The characteristics of the new variety 'Cartuno' that are different from or not possessed by 'Chandler'Φ include: less plant vigour, darker green foliage colouration where leaves bunch and near conical fruit of lighter colour, smoother surface and firmer fruit.

Prior Application and Sales

Country	Year	Current Status	Name Applied
Spain	1992	Granted	'Cartuno'
Portugal	1993	Granted	'Cartuno'
Argentina	1993	Granted	'Cartuno

Fig 43 White Lupin - mature plants showing longer distance between successive orders of pods in 'Minibean' (right) than in 'Ludet' (left)

Fig 44 White Lupin - at maturity 'Magna' (second from left) has longer primary branches than the comparators 'Hamburg', 'Ultra' (second from right) and 'Kiev Mutant' (right)

Figure 45 White Lupin - 'Ludet' (left) showing differences in pod arrangement with comparator 'Kiev Mutant' (right)

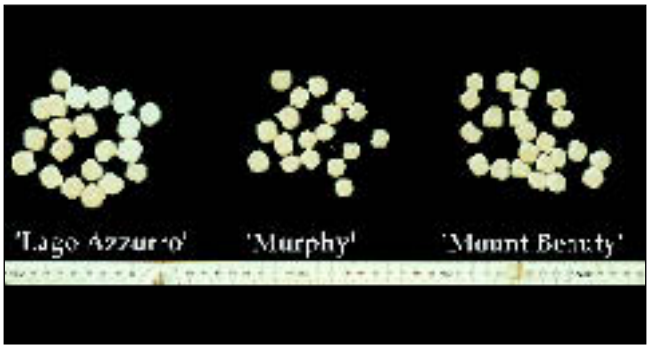

Fig 46 White Lupin – seeds of 'Lago Azzurro'(left) are larger and more uniform compared to the seeds of 'Murphy' (centre) and 'Mount Beauty' (right)

Fig 47 Narrow Leafed Lupin – 'Tanjil' (centre) showing earlier maturity on primary and secondary inflorescence compared to 'Wonga' (right) and height difference to 'Gungurru' (left). Note: light purple flowers on the secondary inflorescence.

Fig 48 Narrow Leafed Lupin - 'Moonah' (left) showing medium-strong seed ornamentation compared to strong seed ornamentation of 'Wonga' (centre) and weak seed ornamentation of 'Kalya'

Fig 49 Oat - two generations of 'Bass' (left) with comparators 'Nile' and 'Esk' showing differences in panicle emergence.

Fig 50 Oat - 'Needilup' left (2 generations) showing distinct mature height differences with comparators 'Echidna'(right) and compact panicle shape compared to comparator 'Dalyup' (left) panicle shape being open

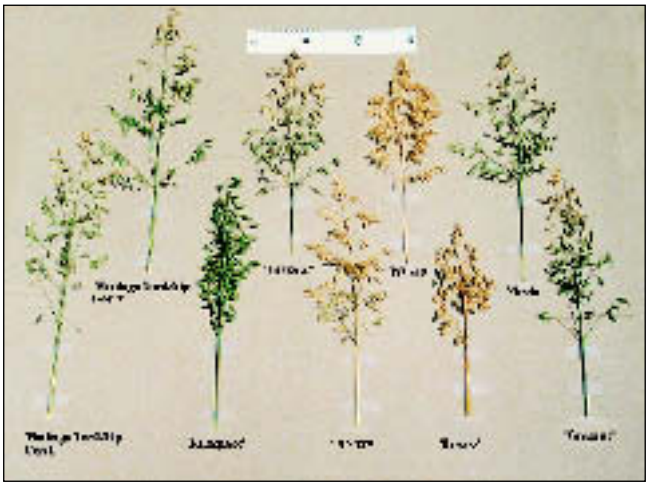

Fig 51 Oat - 'Heritage Lordship' (two generations - left front and rear) exhibiting different maturity, orientation of branches, and attitude of branches from the comparator varieties.

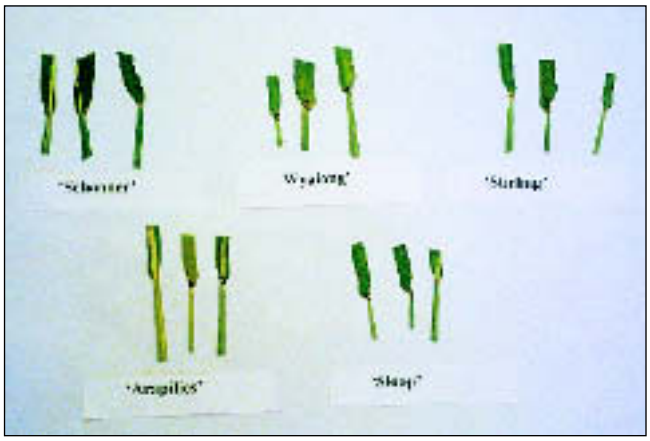

Fig 52 Barley – 'Wyalong' showing stronger intensity of anthocyanin colouration of auricles compared to that of 'Schooner', 'Stirling' and 'Sloop'. Only 'Arapilies' has similar intensity of anthocyanin colouration of auricles

Fig 53 Barley - 'Doolup' (left) showing differences in mature plant height with 'Stirling' (centre) and ear attitude with 'Mundah' (right)

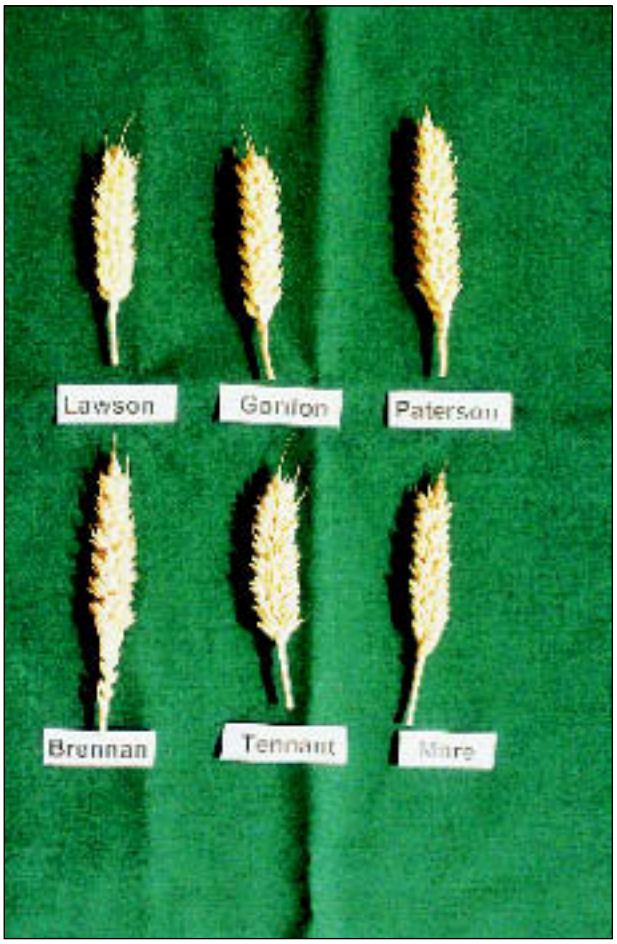

Fig 54 Wheat – ears of 'Brennan' and 'Tennant' with comparators 'Lawson', 'Gordon', 'Paterson' and 'More'

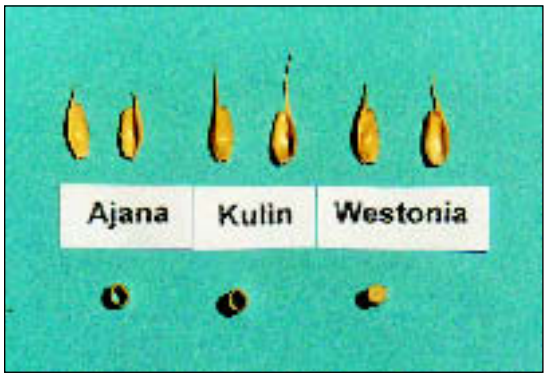

Fig 55 Wheat - 'Ajana' (left) showing shorter glume beak length than comparator 'Kulin'(centre) and thin straw pith in cross section compared to 'Westonia' (right) which has thick straw pith.

Fig 56 Triticale – 'Heritage Zephyr' (two generations – left) showing differences in head density, ear length and ear width from the comparator varieties

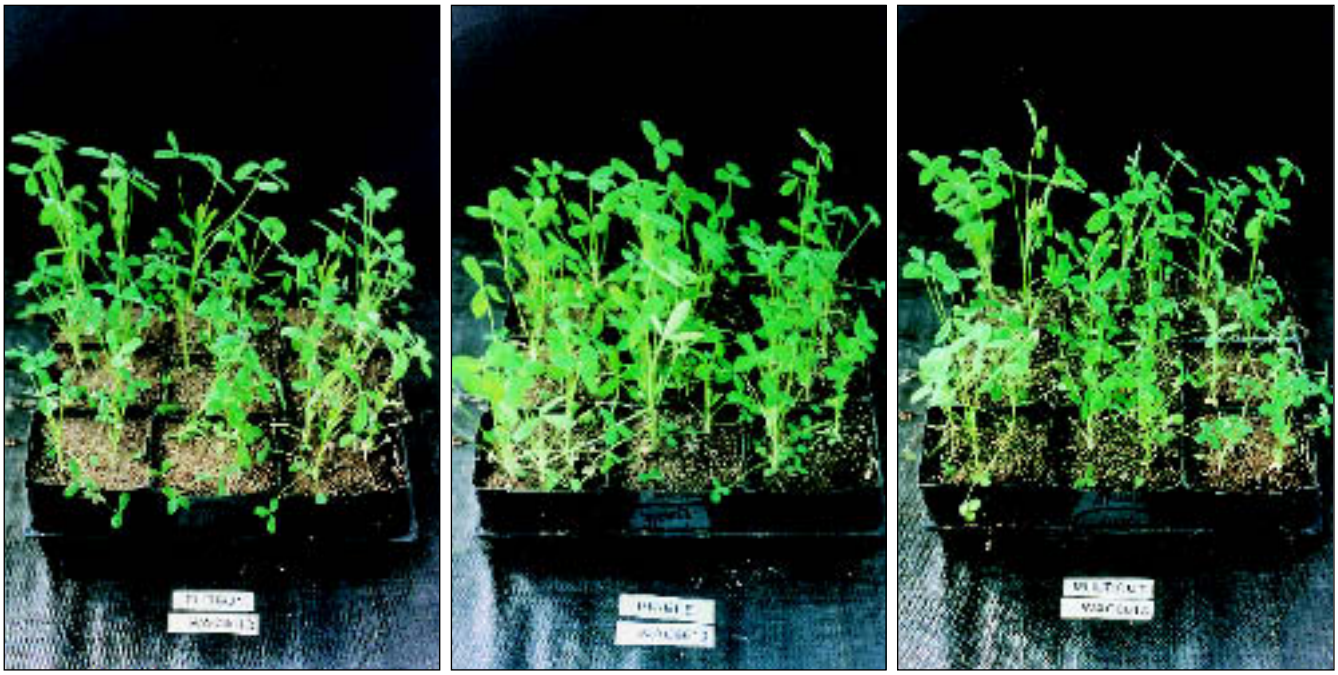

Fig 57 Berseem Clover - 'Elite II' (left) with comparators 'Big Bee' (centre) and 'Multicut' (right)

Fig 58 Persian Clover – Leaves of 'Leeton' (top left) showing fewer rust pustules than its parent 'Felix' (top right) and the variety 'Lightning' (centre); 'Laser' (lower left) and 'Maral' (lower right) showing rust pustules

'France	1993	Granted	'Cartuno'
Israel	1993	Granted	'Cartuno'
Italy	1993	Granted	'Cartuno'
The Netherlands	1993	Granted	'Cartuno'
USA	1994	Granted	'Cartuno'
Chile	1995	Applied	'Cartuno'
Morocco	1995	Granted	'Cartuno'

First sold in Spain in 1992.

Description**: Margaret Zorin,** Birkdale, QLD.

'Euroka'

Application No: 97/070 Accepted: 21 Apr 1997.
Applicant: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 33, Figure 32) Plant: flat globose, medium dense, medium vigour. Leaf: light green, medium blistering, medium glossiness, Terminal leaflet: as long as broad, mean length 7.70cm, obtuse base, incisions dentate and shallow, bracts tubular, petiole hairs pointing upwards, petiole cross section deeply grooved, stipule anthocyanin colour medium. Flowers: late, beneath foliage, calyx same size as corolla, primary flower petals touching. Fruit: late ripening, large, bright red, shape conical, longer than broad, medium band without achenes, achenes level with the surface, calyx level with the surface and spreading, calyx same diameter as fruit, mean firmness 0.39 kg, flesh medium red and marginal. Bearing habit: day neutral.

Origin and Breeding Controlled pollination: seed parent 'Selva'Φ x pollen parent breeding line 88-015. The seed parent was characterised by early flowering, open plant density, firm fruit and day neutral bearing habit. The pollen parent was characterised by late flowering, medium plant density, large conical fruit and short day bearing habit. Hybridisation took place at IHD Knoxfield, VIC, Australia in 1990. From this cross, seedling number 90-035-17 was chosen in 1992 on the basis of bearing habit. Selection criteria: uniform conic fruit shape, large fruit size, fruit firmness, yield, resistance to Two Spotted Mite, flavour and autumn production. Propagation: pathogen tested nucleus plants have been produced and runners grown in Victoria and Tasmania for seven generations. Throughout this period 'Euroka' was found to be uniform and stable. 'Euroka' will be commercially propagated by runners from the nucleus plants. Breeder: Bruce J Morrison, IHD Knoxfield, VIC, Australia.

Choice of Comparators 'Selva'Φ and 'Seascape'Φ were initially considered for the comparative trial, as these are day neutral varieties of common knowledge. 'Seascape'Φ is a widely available commercial variety of the same species, however it is a large plant producing dark coloured soft acid fruit, therefore it was excluded from the trial. 'Selva'Φ, was chosen, as it is one of the parents of Euroka and was the source of the day neutral characteristic. The pollen parent was not considered for the trial as it was no longer available, and was distinguished from Euroka by its short day bearing habit.

Comparative Trial Comparator: 'Selva'Φ. Location: Knoxfield, VIC (Latitude 37°52′ South, elevation 80m), spring-summer 1998/99. Conditions: trial conducted in the field, in open beds, as spaced plants, irrigated by T-tape, in full sun. Runner plants of 'Euroka' grown in Tasmania and 'Selva' grown in Toolangi, VIC. Dug May 5 and planted May 12 with seven days additional chill at 0°C. Nutrition: preplant application of 5:2:1 and potassium nitrate through the T-tape during the season. Pest and disease treatments: no soil fumigation was used nor chemical control of pests or diseases accept aphids. Two Spotted Mites were controlled by the introduction of predators. Trial design: plots of eight plants replicated four times in a randomised block design. Measurements: from 20 plants at random. One sample per plant.

Prior Applications and Sales Nil.

Description: **Bruce Morrison,** Agriculture Victoria, Knoxfield, VIC.

'Lowanna'

Application No: 97/069 Accepted: 21 April 1997.
Applicant: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 33, Figure 30) Plant: flat globose, open plant density, medium vigour. Leaf: light green, medium blistering, medium glossiness, Terminal leaflet: as long as broad, mean length 7.78 cm, obtuse base, incisions dentate and shallow, bracts none or rarely present, petiole hairs pointing outwards, petiole cross section flat, stipule anthocyanin colour weak. Flowers: early, level with foliage, calyx same size as corolla, primary flower petals overlapping. Fruit: early ripening, large, bright red, conical shape, longer than broad, medium band without achenes, achenes level with the surface, calyx level with the surface and clasping, calyx smaller than diameter of fruit, mean firmness 0.41 kg, flesh medium red and marginal. Bearing habit: day neutral.

Origin and Breeding Controlled pollination: seed parent 'Selva'Φ x pollen parent breeding line 89-064-1'. The seed parent was characterised by early flowering, open plant density, firm fruit and day neutral bearing habit. The pollen parent was characterised by early flowering, open plant density, large conical fruit and short day bearing habit. Hybridisation took place at IHD Knoxfield, VIC, Australia in 1992. From this cross, seedling number 92-021-433 was chosen in 1994 on the basis of bearing habit. Selection criteria: uniform conic fruit shape, attractiveness, large fruit size, firm fruit, high yield, resistance to Two Spotted Mite and flavour. Production: pathogen tested nucleus plants have been produced and runners grown in Victoria and Tasmania for five generations. Throughout this period 'Lowanna' was found to be uniform and stable. 'Lowanna' will be commercially propagated by runners from nucleus plants. Breeder: Bruce J Morrison, IHD Knoxfield, VIC, Australia.

Choice of Comparators 'Selva'Φ and 'Seascape'Φ were initially considered for the comparative trial, as these are day neutral varieties of common knowledge. 'Seascape' is a widely available commercial variety of the same species, however it is a large plant producing dark coloured soft acid fruit, therefore it was excluded from the trial. 'Selva'Φ, was chosen, as it is one of the parents of Lowanna and was the source of the day neutral characteristic. The pollen parent was not considered for the trial as it was no longer available,

and was distinguished from Euroka by its short day bearing habit.

Comparative Trial Comparator: 'Selva'Φ. Location: Knoxfield, VIC (Latitude 37°52′ South, elevation 80m), spring-summer1998/99. Conditions: trial conducted in the field, in open beds, as spaced plants, irrigated by T-tape, in full sun. Runner plants of 'Lowanna' grown in Tasmania and 'Selva'Φ grown in Toolangi, VIC. Dug May 5 and planted May 12 with seven days additional chill at 0°C. Nutrition: preplant application of 5:2:1 fertiliser and potassium nitrate through the T-tape during the season. Pest and disease treatments: no soil fumigation was used nor chemical control of pests or diseases, accept aphids. Two Spotted Mites were controlled by the introduction of predators. Trial design: plots of eight plants replicated four times in a randomised block design. Measurements: from 20 plants at random. One sample per plant.

Prior Applications and Sales Nil.

Description: **Bruce Morrison,** Agriculture Victoria, Knoxfield, VIC.

'Nonda'

Application No: 97/072 Accepted: 21 April 1997.
Applicant: **Agriculture Victoria Services Pty Ltd,** Melbourne, VIC.

Characteristics (Table 33, Figure 31) Plant: flat globose, medium dense, strong vigour. Leaf: medium green, weak blistering, medium glossiness, Terminal leaflet: as long as broad, mean length 9.04cm, obtuse base, incisions dentate and deep, bracts leaflike, petiole hairs pointing upwards, petiole cross section flat, stipule anthocyanin colour weak. Flowers: intermediate, level with foliage, calyx same size as corolla, primary flower petals overlapping. Fruit: early ripening, large, bright-red, shape conical, longer than broad, medium band without achenes, achenes level with the surface, calyx inserted and reflexed, calyx smaller than diameter of fruit, mean firmness 0.34 kg, flesh medium red and marginal. Bearing habit: day neutral.

Origin and Breeding Controlled pollination: seed parent breeding line 88-011-30 x pollen parent 'Parker'Φ. The seed parent was characterised by early flowering, strong vigour, soft fruit, strong day neutral bearing habit and lack of runners. The pollen parent was characterised by early flowering, open plant density, wedge fruit shape, very firm fruit, and short day bearing habit. Hybridisation took place at IHD Knoxfield, VIC, Australia in 1991. From this cross, seedling number 91-103-7 was chosen in 1993 on the basis of bearing habit. Selection criteria: uniform conic fruit shape, large fruit size, fruit firmness, high yield, resistance to Two Spotted Mite and flavour. Propagation: pathogen tested nucleus plants have been produced and runners grown in Victoria and Tasmania for six generations. Throughout this period 'Nonda' was found to be uniform and stable. 'Nonda' will be commercially propagated by runners from nucleus plants. Breeder: Bruce J Morrison, IHD Knoxfield, VIC, Australia.

Choice of Comparators 'Selva'Φ and 'Seascape'Φ were initially considered for the comparative trial, as these are day neutral varieties of common knowledge. 'Seascape'Φ is a widely available commercial variety of the same species, however it is a large plant producing dark coloured soft acid fruit, therefore it was excluded from the trial. 'Selva'Φ, was chosen, as it is the closest alternative. The seed parent was not considered for the trial as it was no longer available, but was distinguished by its strong day neutral habit, and lack of runner production. The pollen parent was excluded due to its very firm fruit and short day bearing habit.

Comparative Trial Comparator: 'Selva'. Location: Knoxfield, VIC (Latitude 37°52′ South, elevation 80m), spring-summer 1998/99. Conditions: trial conducted in the field, in open beds, as spaced plants, irrigated by T-tape, in full sun. Runner plants of 'Nonda' grown in Tasmania and 'Selva' grown in Toolangi, Vic. Dug May 5 and planted May 12 with seven days additional chill at 0°C. Nutrition: preplant application of 5:2:1 and potassium nitrate through the T-tape during the season. Pest and disease treatments: no soil fumigation was used nor chemical control of pests or diseases accept aphids. Two Spotted Mites were controlled by the introduction of predators. Trial design: plots of eight plants replicated four times in a randomised block design. Measurements: from 20 plants at random. One sample per plant.

Prior Applications and Sales Nil.

Description: **Bruce Morrison,** Agriculture Victoria, Knoxfield, VIC.

Table 33 *Fragaria* varieties

	'Nonda'	**'Lowanna'**	**'Euroka'**	**'Alinta'**	***'Selva'**Φ
TERMINAL LEAF LENGTH (cm)					
mean	9.04	7.78	7.70	7.54	8.11
std deviation	1.45	0.86	0.74	1.11	1.11
LSD/sig	0.68	P≤0.01	P≤0.01	P≤0.01	P≤0.01
PLANT DENSITY (leaves per plant at 4/11/98)					
mean	12.35	7.05	15.10	15.10	7.50
std deviation	4.43	2.46	4.94	2.57	1.76
LSD/sig	2.17	P≤0.01	P≤0.01	P≤0.01	P≤0.01
PETIOLE LENGTH (cm)					
mean	14.80	10.00	12.55	14.55	10.25
std deviation	1.64	1.17	1.36	1.15	1.55
LSD/sig	0.87	P≤0.01	P≤0.01	ns	P≤0.01

Table 33 Continued

	'Nonda'	'Lowanna'	'Euroka'	'Alinta'	*'Selva'ф
FIRMNESS (kg)†					
mean	0.34	0.41	0.39	0.47	0.44
std deviation	0.07	0.07	0.11	0.18	0.06
LSD/sig	0.07	ns	ns	P≤0.01	P≤0.01
LEAF BLISTERING	weak	medium	medium	medium	strong
BRACTS	leaf like	none	tubular	leaf like	leaf like
PETIOLE CROSS SECTION	flat	flat	deeply grooved	shallow grove	shallow grove
STOLON NUMBER	many	medium	few	few	medium
PRIMARY FLOWERS (position of petals)	overlapping	overlapping	touching	touching	overlapping
PREDOMINANT FRUIT SHAPE	conical	conical	conical	bi-conical	wedged
TIME OF FLOWERING	intermediate	early	late	intermediate	early
STIPULE ANTHOCYANIN COLOURATION (1 = Absent or very weak, 9 = Very strong)	3	3	5	1	5

†Peak compression as measured by force gauge, expressed as kg, using 3mm-diameter flat-ended probe.

SYNGONIUM
Syngonium podophyllum

'Gold Allusion'
Application No: 97/152 Accepted: 1 Sep 1997.
Applicant: **Bob Donaldson,** Florida, USA.
Agent: **Burbank Biotechnology,** Tuggerah, NSW.

Characteristics (Table 34, Figure 16) Plant (young tissue cultured): habit dense compact perennial, height medium. Stem: multiple, length very short, internodes very short. Leaf: total length 53.89mm, width 74.14mm, width length ratio 1.38, midrib 48.95mm, midrib length ratio 0.91, tip mucronate, base cordate- hastate, variegated, colour adaxial; main colour (marginal and interveinal) medium yellow-green (RHS 144A-B), secondary colour light yellow-green (RHS 145C), edge (less than 0.1mm) medium greyed-purple, midrib and main veins medium greyed-purple (RHS 186B), outer veins to mid yellow-green (RHS 146B), colour abaxial; light yellow-green (RHS 145B), edge (less than 0.1mm) medium greyed-purple, midrib medium yellow-green (RHS 144B), outer veins medium yellow-green (RHS 144A) anthocyanin present in main veins. (note: all RHS colour chart number refers to 1995 edition).

Origin and Breeding Spontaneous mutation: of *Syngonium podophyllum* 'Pink Allusion' in applicant's property in Zellwood, Florida, USA in 1990. The sport was characterised by a yellow-green leaf colour (RHS 144A-B), where as the original parent had pink leaf colour. The sport was vegetatively propagated through many generations and found to be stable and uniform. Selection criteria: yellow-green leaf colour with pink veins Propagation: through tissue culture. Breeder: Bob Donaldson, Zellwood, Florida, USA.

Choice of Comparators On the basis of general habit and leaf colour the commonly available *Syngonium* 'Cream Tetra', 'White Butterfly', 'Pixie' 'Robusta' and 'Tiffany' were considered to be the closest comparators. The original parent 'Pink Allusion' was not included because the candidate is clearly distinguishable from its parent on the basis of leaf colour.

Comparative Trial Comparator(s): *Syngonium* 'Cream Tetra', 'White Butterfly', 'Pixie' 'Robusta', 'Tiffany'. Location: Burbank Biotechnology, Pacific Highway, Tuggerah NSW (Lat/long. 33° 17′ S, 151° 24′ E, elevation 25m), spring-summer 1998/99. Conditions: trial conducted in a fibreglass covered greenhouse, plants propagated by tissue culture, deflasked into cell trays and established plants transplanted into 100mm pots filed with soilless potting mix (peat/pine bark base), nutrition maintained with slow release and liquid fertilisers, pest and disease treatments applied as required. Trial design: fifteen pots of each variety (containing a single plant) arranged in a completely randomised design. Measurements: two samples per plant .

Prior Applications and Sales

No prior applications. First sold in USA on 1 June 1992. First Australian Sale 4 Mar 1997.

Description: **Dr. R. J. Worrall,** Gosford, NSW.

'Holly M' syn White Holly
Application No: 97/151 Accepted: 1 Sep 1997.
Applicant: **Robert Morrison,** Ohio, USA.
Agent: **Burbank Biotechnology,** Tuggerah, NSW.

Characteristics (Table 34, Figure 17) Plant (young tissue cultured): habit dense compact perennial, height medium.

Stem: multiple, length very short, internodes very short. Leaf: total length 45.88mm, width 80.27mm, width length ratio 1.76, midrib 61.07mm, midrib length ratio 1.34, tip acuminate, base cordate - hastate, variegated, colour adaxial; main colour (internal) light to mid greyed-green (RHS 196A to 194C), secondary colour (including approx. 2 mm margin) dark green (RHS 139A), edge (approx. 0.1mm) dark red-purple, midrib medium greyed-green (RHS 191A), fine veins medium greyed-green (RHS 191A-C), colour abaxial; medium yellow-green (RHS 146B-C to 144A), edge (approx. 0.1mm) dark red-purple, veins dark yellow-green (RHS 146A to 147A). (Note: all RHS colour chart number refers to 1995 edition).

Origin and Breeding Spontaneous mutation: of *Syngonium podophyllum* 'White Butterfly' in applicant's property in Cincinnati, Ohio, USA in 1990. The sport was characterised by a unique internal leaf colour (RHS 196A to RHS 194C), where as the original parent had a different leaf colour (RHS 194D) which was mainly concentrated around the veins. The sport was vegetatively propagated through many generations and found to be stable and uniform. Selection criteria: clumping habit, unique leaf colouration. Propagation: through tissue culture. Breeder: Robert Morrison, Cincinnati, Ohio, USA.

Choice of Comparators 'White Butterfly' was chosen as it is the parental variety and has similarities in growth habit with the candidate. On the basis of general growth habit and leaf colour the commonly available *Syngonium* 'Cream Tetra', 'Pixie' 'Robusta' and 'Tiffany' were considered to be the closest comparators.

Comparative Trial Comparator(s): *Syngonium* 'Cream Tetra', 'White Butterfly', 'Pixie' 'Robusta', 'Tiffany'. Location: Burbank Biotechnology, Pacific Highway, Tuggerah NSW (Lat/long. 33° 17′ S, 151° 24′ E, elevation 25m), spring-summer 1998/99. Conditions: trial conducted in a fibreglass covered greenhouse, plants propagated by tissue culture, deflasked into cell trays and established plants transplanted into 100mm pots filed with soilless potting mix (peat/pine bark base), nutrition maintained with slow release and liquid fertilisers, pest and disease treatments applied as required. Trial design: fifteen pots of each variety (containing a single plant) arranged in a completely randomised design. Measurements: two samples per plant .

Prior Applications and Sales

No prior applications. First sold in USA on 15 Jul 1993. First Australian Sale 4 Feb 1997.

Description: **Dr. R. J. Worrall,** Gosford, NSW.

'Maria Allusion' syn Cherry Allusion

Application No: 98/132 Accepted: 3 Mar 1999.
Applicant: **AgriStarts,** Apopka, Florida, USA.
Agent: **Burbank Biotechnology,** Tuggerah, NSW.

Characteristics (Table 34, Figure 18) Plant (young tissue cultured): habit dense compact perennial, height medium. Stem: multiple, very short, internodes very short. Leaf: total length 42.95 mm, width 61.82mm, width length ratio 1.45, midrib 45.01mm, midrib length ratio 1.05, tip acuminate, base cordate- hastate, variegated, colour; adaxial, main colour (around veins esp. leaf centre) dark greyed red (RHS 182A-B), secondary colour iridescent medium green (RHS 132B to 137B), edge (less than 0.1mm) dark greyed-purple, midrib and main veins dark greyed-purple (RHS 187A-B), outer veins dark to medium green (RHS 132B and 182B). Abaxial; medium greyed green (RHS 197A-B) ageing to medium yellow-green (RHS 146A). edge dark green (approx 0.1mm) with an outer dark greyed-red edge (less than 0.1mm), veins variable and darker than main colours. (note: all RHS colour chart numbers refers to the 1995 edition).

Origin and Breeding Spontaneous mutation: arose as a sport of *Syngonium podophyllum* 'Berry Allusion' during subculturing in tissue culture in applicant's laboratory in Apopka, Florida, USA in 1995. The sport was characterised by more red colouration across the leaf where as the original parent 'Berry Allusion' having red colouration more restricted to the veins. The sport was vegetatively propagated through several generations and found to be stable and uniform. Selection criteria: leaf colour and non-vining habit. Propagation: through tissue culture. Breeder: AgriStarts Inc, Apopka, Florida, USA.

Choice of Comparators *Syngonium* 'Cherry Allusion' has a very distinctive red and green leaf colouration and on this basis closest available comparator in Australia is *Syngonium* 'Maya Red'. The original parent 'Berry Allusion' was not included because the candidate is clearly distinguishable from its parent on the basis of leaf colour.

Comparative Trial Comparator: 'Maya Red'. Location: Burbank Biotechnology, Pacific Highway, Tuggerah NSW (Lat/long. 33° 17′ S, 151° 24′ E, elevation 25m), spring-summer 1998/99. Conditions: trial conducted in a fibreglass covered greenhouse, plants propagated by tissue culture, deflasked into cell trays and established plants transplanted into 100mm pots filed with soilless potting mix (peat/pine bark base), nutrition maintained with slow release and liquid fertilisers, pest and disease treatments applied as required. Trial design: fifteen pots of each variety (containing a single plant) arranged in a completely randomised design. Measurements: two samples per plant.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
The Netherlands	1996	Granted	'Maria Allusion'

First sold in USA on 26 Apr 1996. First Australian sale on 24 Jul 1997.

Description: **Dr. R. J. Worrall,** Gosford, NSW.

Table 34 Syngonium varieties

	'Holly M'	'Gold Allusion'	'Maria Allusion'	*'Cream Tetra'	*'Maya Red'	*'Pixie'	*'Robusta'	*'Tiffany'	*'White Butterfly'
LEAF LENGTH (mm) Protected LSD = 4.38									
mean	45.88(b)	53.89(c)	42.95(b)	57.84(c,d)	59.31(d)	32.22(a)	46.95(b)	56.96(c)	56.90(c)
std deviation	27.23	32.36	22.89	45.00	132.13	9.59	19.83	21.04	78.57
LEAF WIDTH (mm) Protected LSD = 4.76									
mean	80.27(e)	74.14(d)	61.82(c)	64.67(c)	26.40(a)	40.62(b)	74.08(d)	61.69(c)	84.38(e)
std deviation	54.42	73.09	68.79	59.79	4.55	19.25	66.22	38.00	75.80
LEAF MIDRIB (mm) Protected LSD = 3.67									
mean	61.07(f)	48.95(d)	45.01(c)	45.35(c)	59.31(d)	27.46(a)	53.40(e)	40.37(b)	58.20(f)
std deviation	43.01	23.83	41.80	21.46	132.13	5.71	40.35	18.18	48.72
LEAF WIDTH/LENGTH Protected LSD = 0.0890									
mean	1.7586(g)	1.3804(d)	1.4456(d,e)	1.1203(b)	0.4571(a)	1.266(c)	1.5784(f)	1.0853(c)	1.5053(e,f)
std deviation	.0200	0.0184	0.0331	0.0060	0.0051	0.0179	0.0159	0.0088	0.0382
MIDRIB/LEAF LENGTH Protected LSD = 0.0647									
mean	1.3364(h)	0.9120(d)	1.0507(f)	0.7894(b)	0.7091(a)	0.8590(c)	1.1382(g)	0.7108(a)	1.0354(e)
std deviation	0.0086	0.0058	0.0166	0.0067	0.0061	0.0111	0.0087	0.0051	0.0163
LEAF TIP SHAPE (1)	acuminate	mucronate	acuminate	mucronate	acuminate	mucronate	mucronate	mucronate	acuminate
LEAF BASE SHAPE (1)	cordate -hastate	cordate -hastate	cordate -hastate	cordate -hastate	hastate	cordate	cordate -hastate	sagittate	cordate -hastate
LEAF COLOUR – ADAXIAL (RHS, 1995)									
Main Colour	196A to 194C	144A-B	182A-B	191C to 194C	177B (closest colour with pinkish hue see secondary)	139A-B to 137A	139A	193A	194D
Main Colour Position	internal	marginal & intervenal	around veins esp. leaf centre	uniform		marginal & intervenal (main veins)	marginal & intervenal (main veins)	relatively uniform	around main veins
Secondary Colour	139A (including marginal ~2mm)	145C	132B to 137B (iridescent)	n.a.	186A (as small discrete dots esp near midrib)	147D	145C-D	186C (adjacent to main veins)	139A (marginal and gen. intervenal to larger veins
Edge	dark red -purple (~.1mm)	mid greyed -purple (<.1mm)	dark greyed -purple (<.1mm)	dark green (~0.2mm) Note dark greyed-red slightly visible (~.1mm) on extreme edge	dark greyed -purple (<.1mm)	dark greyed -red (~.1mm)	dark red	dark green (~.3mm) & dark red-purple (outer ~.1mm)	dark red-purple (<.1mm)
Veins	191A (midrib) 191A-C (fine veins)	186B (midrib & main veins) to 146B outer veins	187A-B (midrib & main veins) outer veins 132B &182B	137B	141B (outer only, inner lighter)	147B midrib gen. same colour as surrounds	139A (outer only, inner lighter)	194A inner minor to 139B	191A (inner) to 139A (outer)
LEAF COLOUR – ABAXIAL (RHS 1995A)									
Main Colour	146B-C to 144A	145B	197A-B ageing to 146A	138B to 144B (uniform)	147A-B	137C	139C	139C	146B to 147C-D
Secondary colour	n.a.	n.a.	182B	n.a.	n.a.	146B	147D	n.a.	n.a.
Edge	dark red -purple (~.1mm)	mid greyed -purple (<.1mm)	dark green (~1mm) outer margin dark greyed-red (<.1mm)	dark greyed -red (~ 0.1mm)	dark greyed -purple (<.1mm)	dark red (<.1mm)	dark red (<.1mm)	as adaxial	as adaxial

Table 34 Continued

Veins	146A to 147B	144B (midrib) to 144A (outer) (some anthocyanin visible in main veins)	variable-darker than main colours	137B-C	147D (main)	139A-B (outer veins)	137A (outer veins)	inner veins anthocyanin pigment 139A (outer)	147A to C

(1) Classification according to Beadle, N. C. W., Evans, O. D., Caroline, R. C. and Tindale, M. D. (1972). Flora of the Sydney Region. Reed, Sydney.

TEA TREE
Leptospermum liversidgei

'BY11'

Application No: 97/289 Accepted: 4 Nov 1997.
Applicant: **Austraflora Pty Ltd,** Dixons Creek, VIC.

Characteristics (Table 35, Figure 24): Plant: erect, compact, 0.5 - 2.5m tall and 1 - 1.5m wide, mostly single trunked, bark hard, grey, branches numerous, erect, ends occasionally weeping, sericeous, soon becoming glabrous. Leaf: small, flexible, densely arranged along stems, predominant colour green (RHS 141A), anthocyanin absent. Flower: solitary, sessile or nearly so, mainly in axils, 13-18mm diameter. Petals with a dominant red purple (RHS 70B) centre, margins small, white, the whole maturing to red purple (RHS 75D).

Origin and Breeding Open pollination followed by seedling selection: twenty-six (26) plants were selected, twelve (12) of which were with seed. All twenty-six plants were propagated vegetatively and the material was submitted for oil extraction. Plant No. 18 (BY 18) was selected for its higher level of the preferred oil citronellal. Two other clones with lower level were also retained, the rest was discarded. In the next stage, seed from the twelve plants were grown in open trays and only the seedlings of plant No. 18 was retained. These were grown on and a further selection process, based on oil content and morphological characters was undertaken from this generation. Selection criteria: the preferred selection, BY 11 was selected for its higher citronellal content* than the mother plant (82% compared with 73%), a more compact habit and larger flowers. Propagation: vegetatively through six (6) generation to ensure uniformity and stability. Breeder: William (Bill) Molyneux, Dixons Creek, VIC.
*There are regional summer/winter variations in the oil levels when tested from plants grown in temperate regions.

Choice of Comparator The mother stock, *L. liversidgei* 'BY18', was chosen as the sole comparator as being closest in level of citronellal oil and floral marking.

Comparative Trial Comparator: *L. liversidgei* 'BY18' Location: trials conducted at Austraflora, Montrose, VIC, Dec 97 - Jan 99. Conditions: trials were conducted in the open, plants growing in Debco Protea Mix, in 30cm root pruner containers. Additional liquid NPK was applied until Jul 1998, when this was replaced by a weekly application of liquid potash. This initiated strong bud set in late Nov-Dec 1998 and flowering in Jan-early Mar 1999. Trial design: 10 plants each of variety arranged in a completely randomised design. Measurement: from all trial plants.

Prior Applications and Sales
No prior applications. First Australian sale Sept 1997.

Description: **William (Bill) Molyneux,** Dixons Creek, VIC.

Table 35 *Leptospermum* varieties

	'BY11'	*'BY18'
HABIT		
	branches upright ends of stems sometimes weeping	branches weeping
ANTHOCYANIN IN NEW GROWTH		
	absent	present
LEAF WIDTH (mm)		
mean	1.9	1.3
std deviation	0.7	0.4
LSD/sig	0.4	P≤0.01
LEAF LENGTH/WIDTH RATIO		
mean	3.3	4.9
std deviation	1.3	1.7
LSD/sig	1.0	P≤0.01
FLOWER DIAMETER (mm)		
mean	16.5	14.7
std deviation	1.5	1.4
LSD/sig	1.4	P≤0.01
FLOWER PETAL COLOUR (RHS) at centre of petal		
	red purple 70B	red purple 64A
FLOWER PETAL COLOUR (RHS) at maturity		
	red purple 75D	red purple 64B

TRITICALE
x *Triticosecale*

'Heritage Zephyr'

Application No: 98/050 Accepted 17 Apr 1998.
Applicant**: New Zealand Institute for Crop & Food Research Ltd,** Christchurch, New Zealand.
Agent: **Heritage Seeds Pty Ltd,** Howlong, NSW

Characteristics (Table 36, Figure 56) Plant: tetraploid, semi prostrate, medium height (124.2cm), medium-late maturing (18/10), spring type. Stem: medium hairiness of neck. Leaf: short length (275mm) and medium width (18.9mm) of flag leaf, low incidence of recurvature, very strong gloucosity of flag. Ear: short (185.3mm), narrow (12.9mm), dense head, medium glaucosity, long length of first beak (10mm), weak anthocyanin of awns, weak

distribution of awns. Flower and flower parts: no anthocyanin colouration on the anthers. Grain: no hairiness of the external surface of the lower glume.

Origin and Breeding Controlled Pollination: primary triticale developed from the cross, seed parent durum wheat 'Waitohi' x pollen parent dwarf ryecorn SPY15077. The embryo was rescued and cultured on media. F_1 - F_2 grown in the greenhouse. F_3 - F_4 grown in the field and selections were made out of the segregating population. These selections were grown as observation plots and selection 13 was entered in grain yield trials. This line was again re-tested for grain yield as an F_7. Selections were made from the F_7 population (still segregating) for forage yield. The selections were grown in comparative forage yield trials and selection 1 was chosen. This selection (4210.13.1) was sown in an observation plot and rogued for off-types. Sent to Australia for trial in 1995 (F_9). Selection criteria: vegetative vigour and disease resistance. Propagation: seed. Breeder: Dr. D.S.C. Wright, New Zealand Institute for Crop & Food Research Ltd, Christchurch, New Zealand.

Choice of Comparators: 'Madonna' and 'Maiden' were chosen as these are the common triticale which are grazed as well as used for grain (dual purpose). 'Abacus'(ↄ) was chosen as it is occasionally used as a dual-purpose triticale. The parents were not considered as the candidate is a primary triticale developed by crossing a durum wheat with a ryecorn.

Comparative Trial Comparators: 'Abacus'(ↄ), 'Maiden', and 'Madonna'. Location: Howlong, NSW. Conditions: plants were raised in open plots sown at 60kg/ha. Tigrex herbicide was used for broadleaf weed control. Trial design: open plots (5m x 1.2m) replicated four times in a randomised complete block design. Measurements: taken from 10 plants for each replicate giving a total of 40 measurements for each entry.

Prior Applications and Sales Nil.

Description: **Peter Crane, Heritage Seeds,** Howlong, NSW.

Table 36 Triticosecale varieties

	'Heritage Zephyr'	*'Abacus'(ↄ)	*'Maiden'	*'Madonna'
PLANT: GROWTH HABIT	semi prostrate	intermediate	intermediate	intermediate
FREQUENCY OF PLANTS WITH RECURVED FLAG LEAVES	low	low	very high	very high
FLAG LEAF: ANTHOCYANIN COLOURATION OF AURICLES	strong	very strong	medium	strong
EAR EMERGENCE: FIRST SPIKELET VISIBLE ON 50% OF PLANTS	18/10/98	3/10/98	18/10/98	16/10/98
FLAG LEAF: GLAUCOSITY OF SHEATH	very strong	very strong	very strong	strong
AWN: ANTHOCYANIN COLOURATION	weak	strong	weak	medium
ANTHERS: ANTHOCYANIN COLOURATION	absent	medium	very strong	short
FLAG LEAF: LENGTH (mm)				
mean	288.7	302.3	343.4	348.4
std deviation	3.4	29.3	26.8	22.8
LSD/sig	44.91	ns	P≤0.01	P≤0.01
FLAG LEAF: WIDTH (mm)				
mean	18.9	17.2	21.5	24.9
std deviation	0.7	0.9	1.2	0.7
LSD/sig	1.78	ns	P≤0.01	P≤0.01
EAR: GLAUCOSITY	medium	weak	strong	medium
STEM: DENSITY OF HAIRINESS OF NECK	medium	very strong	absent	medium
PLANT: TOTAL LENGTH (cm)				
mean	124.2	138.2	129.7	147.8
std deviation	6.0	2.9	3.9	4.7
LSD/sig	9.42	P≤0.01	ns	P≤0.01
LOWER GLUME: LENGTH OF FIRST BEAK (mm)				
mean	10.0	6.4	5.7	6.3
std deviation	4.1	0.9	0.4	0.5
LSD/sig	4.16	ns	P≤0.01	ns
LOWER GLUME: HAIRINESS OF EXTERNAL SURFACE	absent	absent	absent	absent
STRAW: PITH	medium	thin	medium	medium
EAR: DENSITY	dense	medium	lax	lax
EAR: LENGTH (inc. awns) (mm)				
mean	185.3	225.9	260.0	267.0
std deviation	4.5	4.9	10.8	15.5
LSD/sig	21.49	P≤0.01	P≤0.01	P≤0.01
EAR: WIDTH (mm)				
mean	12.9	16.1	14.8	15.5
std deviation	0.4	1.1	1.4	0.9
LSD/sig	1.98	P≤0.01	P≤0.01	P≤0.01
SEASONAL TYPE	spring	spring	spring	spring

WEEPING FIG
Ficus benjamina

'Marole' syn Bushy King

Application No: 97/ 267 Accepted: 6 Nov 1997.
Applicant: **Gebr v.d. Knaap W.**, De Kwakel, The Netherlands.
Agent: **Futura Promotions Pty Ltd**, Wellington Point, QLD.

Characteristics (Table 37 and Fig 20) Plant: habit upright, compact or very dense foliage of stunning greyed green colour with yellow green fringe or rim. Stem: main stem branches fairly irregularly, side branches arise at about 60 degrees to main stem and are almost straight, internodes short (average 1.7cm) but variable, young stem light greyish green, mature stems turning light greyish brown. Leaf: petiole short (average 0.9cm) but variable, colour greyish green with trace of brownish colour at maturity, average blade size 5.2cm x 2.7cm with an apex of 0.8cm, L/B ratio

of 1.95, variegation present and pronounced, emerging leaves light green with irregular light yellow green rim or fringe, colour darkens with maturity, upper surface greyed green (RHS 189A) predominant colour, secondary colour of margin or fringe yellow green (RHS 150D), fringe does not run into midrib but somewhat irregular representing only about 1/8th of leaf area, lower surface greyed green (RHS 191A), fringe yellow green (RHS 154D). Shape elliptic to ovate with distinct pointed apex (tending to be somewhat concave. Stipule: light green with brownish red trace at top occasionally, withers and drops quickly. (note: all RHS colour chart number refers to 1995 edition).

Origin and Breeding Spontaneous mutation: of 'Golden Princess' in 1991. The sport was found to be much more upright, compact, dense, smaller internodes and leaves, variegation more pronounced when compared with parental variety 'Golden Princess'. It was vegetatively propagated through several generations and was found to be stable and distinct from the parent. Selection criteria: upright habit, compact and dense foliage, more pronounced variegation. Propagation: vegetatively propagated through cuttings. Breeder: Gebr v.d. Knaap W., De Kwakel, The Netherlands.

Choice of Comparators 'Golden Princess' was chosen as one of the comparators because it is the parental variety and has some similarities with the candidate. 'Francis'(ф) syn 'Francis Gold Star'(ф) was chosen as it is the most similar variety of common knowledge. No other similar varieties of common knowledge have been identified.

Comparative Trials Comparators: 'Golden Princess' and 'Francis'(ф) syn 'Francis Gold Star'(ф). Location: Wellington Point, QLD, 26th Feb 1998 to 12th Mar 1999. Conditions: trial conducted in shadehouse, plants propagated from cuttings (26/2/98) and potted into 140mm pots with soilless media (peat and bark based), nutrition maintained with controlled release fertilisers, pest and disease management applied as required. Trial design: 30 pots of each variety arranged in a completely randomised design. Measurements: from 20 plants at random, third fully expanded leaf and third and fourth internodes were measured, abnormal leaves or internodes were discarded, plant height was taken from top of pot to tip.

Prior Applications and Sales

Country	Year	Status	Name Applied
The Netherlands	1992	Granted	'Marole'
USA	1995	Granted	'Bushy King'
New Zealand	1998	Applied	'Marole'

First sold in The Netherlands in 1993. First Australian sales Nil.

Description : **Deo Singh**, **Ornatec Pty Ltd,** QLD.

Table 37 *Ficus* varieties

	'Marole'syn Bushy King	*'Golden Princess'	*'Francis Goldstar'(ф)
PLANT HEIGHT (cm)			
mean	35.8	41.7	38.3
std deviation	4.56	4.80	3.04
LSD/sig	3.4	P≤0.01	ns
INTERNODE LENGTH (cm)			
mean	1.7	3.3	2.3
std deviation	0.31	0.60	0.37
LSD/sig	0.5	P≤0.01	P≤0.01
PETIOLE LENGTH (cm)			
mean	0.9	1.5	1.4
std deviation	0.13	0.25	0.12
LSD/sig	0.2	P≤0.01	P≤0.01
LEAF BLADE LENGTH (cm)			
mean	5.2	7.8	7.1
std deviation	0.53	0.62	0.53
LSD/sig	0.9	P≤0.01	P≤0.01
LEAF APEX LENGTH (cm)			
mean	0.8	1.2	1.1
std deviation	0.21	0.25	0.18
LSD/sig	0.2	P≤0.01	P≤0.01
LEAF COLOUR (RHS, 1995)			
leaf fringe-upper	150D	150D – 145B	150D
leaf fringe–lower	154D	154D	154D
upper surface	189A	189A	189A
lower surface	191A	191A	191A

'Mikkie' syn Bushy Prince

Application No: 97/ 266 Accepted: 21 Oct 1997.
Applicant: **Gebr v.d. Knaap W.**, De Kwakel, The Netherlands.
Agent: **Futura Promotions Pty Ltd**, Wellington Point, QLD.

Characteristics (Table 38, Figure 20) Plant: habit upright, compact or very dense foliage of stunning green colour with gloss. Stem: main stem branches fairly irregularly, side branches arise at about 60 degrees to main stem and are almost straight, slight bending at tip, internodes short (average 1.9cm) but variable, young stem light greyish green, mature stems turning light greet brown. Leaf: petiole short (average 1.0cm) but variable, colour green with trace of brownish colour at maturity, average blade size 5.4cm x 2.5cm with an apex of 1.0cm, L/B ratio of 2.1, emerging leaves light green, colour darkens with maturity, upper surface green (RHS 139A) predominant colour, lower surface green (RHS 139B). Shape elliptic to ovate with distinct pointed apex tending to be somewhat concave.

Origin and Breeding Spontaneous mutation: of 'Marole' syn Bushy King in 1992. The sport was found to have lost the variegation and predominant greyish leaf colour completely when compared with the variegated parent. It was vegetatively propagated through several generations and was found to be stable and distinct from the parent. Selection criteria: upright habit, compact, dense and glossy foliage, no variegation and green leaves. Propagation: vegetatively propagated through cuttings. Breeder: Gebr v.d. Knaap W., De Kwakel, The Netherlands.

Choice of Comparators 'Marole' syn Bushy King was chosen as one of the comparators because it is the parental variety and has some similarities with the candidate in growth habit. 'Shorty' (an upright, dwarf and green *Ficus*) was chosen as it is the most similar variety of common knowledge. No other similar varieties of common knowledge have been identified.

Comparative Trials Comparators: 'Marole' syn Bushy King and 'Shorty'. Location: Wellington Point, QLD, 26th Feb 1998 to 12th Mar 1999. Conditions: trial conducted in shadehouse, plants propagated from cuttings (26/2/98) and potted into 140mm pots with soilless media (peat and bark based), nutrition maintained with controlled release fertilisers, pest and disease management applied as required. Trial design: 30 pots of each variety arranged in a completely randomised design. Measurements: from 20 plants at random, third fully expanded leaf and third and fourth internodes were measured, abnormal leaves or internodes were discarded, plant height was taken from top of pot to tip.

Prior Applications and Sales

Country	Year	Status	Name Applied
The Netherlands	1993	Granted	'Mikkie'
New Zealand	1997	Applied	'Mikkie'

First sold in The Netherlands in 1994. First Australian sales Nil.

Description: **Deo Singh**, **Ornatec Pty Ltd,** QLD.

Table 38 *Ficus* varieties

	'Mikkie' syn Bushy Prince	*'Marole' syn Bushy King	*'Shorty'
PLANT HEIGHT (cm)			
mean	37.3	35.8	49.9
std deviation	3.43	4.56	3.1
LSD/sig	4.34	ns	P≤0.01
INTERNODE LENGTH (cm)			
mean	1.9	1.7	2.2
std Deviation	0.43	0.31	0.28
LSD/sig	0.24	ns	P≤0.01
PETIOLE LENGTH (cm)			
mean	1.0	0.9	0.76
std deviation	0.12	0.13	0.08
LSD/sig	0.2	ns	P≤0.01
LEAF BLADE LENGTH (cm)			
mean	5.4	5.2	5.1
std deviation	0.33	0.53	0.28
LSD/sig	0.14	ns	P≤0.01
L/B RATIO			
mean	2.1	2.0	2.3
std Deviation	0.16	0.11	0.13
LSD/sig	0.2	P≤0.01	P≤0.01
LEAF APEX LENGTH (cm)			
mean	1.0	0.8	0.9
std deviation	0.12	0.25	0.08
LSD/sig	0.1	P≤0.01	P≤0.01
LEAF COLOUR (RHS, 1995)			
leaf surface -upper	139A	189A	136A
leaf surface – lower	139B	191A	138A
leaf fringe	none	150D	none

WHEAT
Triticum aestivum

'Ajana'

Application No: 98/139 Accepted: 9 Sep 1998.
Applicant: **Chief Executive Officer, Agriculture Western Australia,** Perth, WA and **Grains Research and Development Corporation,** Barton, ACT.

Characteristics (Table 39, Figure 55) Plant: ASW grade spring wheat, habit erect, height medium, maturity early. Flag Leaf: short, auricle anthocyanin colouration absent-weak, sheath glaucosity strong, tendency to be recurved medium. Stem: straw pith thin. Ear: glaucosity weak, semi recurved, slightly tapering, white, density lax, fully awned. Lower glume: shoulder width medium, shoulder shape straight, internal hairs medium-strong; glume beak length medium, straight. Lemma: moderately curved. Grain: white, hard, ovate, germ face moderately steep, narrow, brush length long, end profile pointed. Disease Resistance: useful resistance to *Septoria nodorum*, very susceptible to leaf rust, moderately resistant to stem rust (Sr30 gene), susceptible to stripe rust.

Origin and Breeding Controlled pollination: 'Blade'/2*'Kulin'. 'Blade' (part of seed parent 'Blade'/'Kulin') is an A Hard grade wheat with medium maturity and short medium height, where as the candidate has an ASW grade with early maturity and medium height. The pollen parent 'Kulin' has earlier maturity than the candidate. The final cross was made in 1988 and selection was made through the F_2 progeny method. Propagation: seed through 5 generations (selection) and 5 years performance testing. Selection criteria: increased grain yield, agronomic and grain quality suited to the medium and low rainfall zones of the agricultural areas of Western Australia. Breeder: Robin Wilson, Agriculture Western Australia.

Choice of Comparators 'Kulin' was chosen as comparator due to its early maturity, white bearded head and its double use in the pedigree. 'Westonia'(ϕ) was chosen as comparator because of its white bearded head and early to medium maturity. 'Westonia'(ϕ) is also commercially extensively grown in areas where the candidate is recommended.

Comparative Trial Comparator(s): 'Kulin' and 'Westonia'(ϕ). Location: Avon Districts Agricultural Centre, Northam, WA Jun–Dec 1998. Conditions: plants were raised in red clay loam pH 5.6 in $CaCl_2$ in open plots. Glyphosate 1.0 l/ha was applied 2 days before seeding, Bromoxynil 1.5l/ha plus Brodal® 0.15 l/ha applied at tillering for broadleaf weed control. DAP at 120 kg/ha was drilled with the seed and urea at 50 kg/ha was top-dressed at early tillering. No treatments for disease or insects control was required. Trial design: plants sown in randomised complete blocks 10m long by 1.42m (8 rows)

wide by 2 replications. Measurements: taken from 10 specimens per replicate selected randomly from approximately 2000 plants. One sample per plant.

Prior Applications and Sales Nil.

Description: **David Allen Collins,** Northam, WA.

Table 39 *Triticum* varieties

	'Ajana'	*'Kulin'	*'Westonia'ф
DAYS TO EAR EMERGENCE			
mean	100.25	92.32	92.60
std deviation	2.62	0.82	0.94
LSD/sig	2.70	P≤0.01	P≤0.01
FLAG LEAF: LENGTH (mm)			
mean	158.80	203.80	194.00
std deviation	21.52	28.98	33.89
LSD/sig	22.67	P≤0.01	P≤0.01
MATURE HEIGHT (mm) (stem, ear & awns)			
mean	892.55	806.60	878.20
std deviation	42.53	46.66	31.75
LSD/sig	32.83	P≤0.01	ns
LOWER GLUME: BEAK LENGTH (mm)			
mean	3.46	7.52	5.68
std deviation	0.61	2.64	1.23
LSD/sig	2.66	P≤0.01	ns
LOWER GLUME:			
shoulder shape	straight -sloping	straight	elevated
shoulder width	medium	medium-wide	medium
beak shape	straight	moderately curved	straight
beak length	medium	long	medium-long
LOWEST LEMMA: BEAK SHAPE			
	moderately curved	slightly curved	straight
STRAW: PITH			
	thin	thin	thick
FLAG LEAF: WIDTH (mm)			
mean	14.00	15.40	15.14
std deviation	1.65	1.03	1.53
LSD/sig	2.69	ns	ns
PRIMARY EAR: LENGTH (mm)			
mean	80.37	76.61	77.69
std deviation	7.47	6.29	7.12
LSD/sig	6.42	ns	ns
AWN: LENGTH (mm) (at tip of ear)			
mean	52.92	53.59	56.39
std deviation	6.86	7.22	8.82
LSD/sig	6.35	ns	ns
GLUME: WIDTH (mm) (from mid third of ear)			
mean	3.63	3.91	3.98
std deviation	0.21	0.21	0.21
LSD/sig	2.47	ns	ns

'Brennan'

Application No: 98/177 Accepted: 29 Sep 1998.
Applicant: **CSIRO Plant Industry,** Canberra, ACT and **Grain Research and Development Corporation,** Canberra, ACT.

Characteristics (Table 40, Figure 54) Plant: semi erect, moderately tall (average height 83.5 cm), medium flowering and maturing winter wheat. Stem: pith present. Leaf: moderately glaucous sheath, flag leaf long and weakly glaucous. Ear: moderately glaucous, parallel sided, colour white, long, lax density, scurs at tip, length moderate, lower glume shoulder width medium and straight, beak medium length and strongly curved, lower lemma beak strongly curved. Grain: white. Resistance to stem rust: strong (*Sr 2* gene). Season: winter wheat, responding to vernalisation and photoperiod.

Origin and Breeding Controlled pollination: **'**Brennan' was derived from a cross between the 'Mercia' (seed parent) and 'Hartog' (pollen parent), the resulting F_1 was backcrossed to 'Mercia', in Canberra, in 1985. The seed parent 'Mercia' was characterised by rust susceptibility and the pollen parent 'Hartog' was characterised by longer awns. Selection criteria: winter habit, resistance to stem rust, medium flowering, strong recovery from grazing, and high yield of white grain. Propagation: by seed. Breeder: Dr Jim Davidson, CSIRO Plant Industry, Canberra, ACT.

Choice of Comparators 'Tennant', 'Gordon'ф, 'Paterson'ф, 'Lawson'ф and 'More' were chosen as comparators on the basis of presence of scurs at the tip of ears. These are the most similar winter wheat varieties of common knowledge. Strongly awned varieties were excluded. The seed parent 'Mercia' was not included as a comparator on the basis of rust susceptibility and the pollen parent 'Hartog' was excluded because it is a strongly awned variety.

Comparative Trial Comparators: 'Tennant', 'Gordon'ф, 'Paterson'ф, 'Lawson'ф and 'More'. Location: CSIRO Ginninderra Research Station, Canberra, ACT seeds sown on 6 March 1998. Condition: plants were raised in open field plots and were cut on 12 May and grazed from 18 May until 9 June 1998. Trial design: plots (1.8x10m) arranged in randomised complete block of four replicates. Measurements: ten samples were taken at random from two replications.

Prior Applications and Sales Nil.

Description: **Dr Ross Downes, Innovative Plant Breeders,** Canberra, ACT.

'Tennant'

Application No: 98/178 Accepted: 29 Sep 1998.
Applicant: **CSIRO Plant Industry,** Canberra, ACT and **Grain Research and Development Corporation,** Canberra, ACT.

Characteristics (Table 40, Figure 54) Plant: semi erect, moderately tall (average height 85.6 cm), medium-late flowering and maturing winter wheat. Stem: pith absent. Leaf: moderately glaucous sheath, flag leaf short, weakly glaucous. Ear: moderately glaucous, parallel sided, colour white, long, lax to medium density, scurs at tip, length short, lower glume shoulder width broad and straight, beak medium length and straight, lower lemma beak slightly curved. Grain: red. Resistance to stem rust: strong (*Sr 31* gene). Season: winter wheat, responding to vernalisation and photoperiod.

Origin and Breeding Controlled pollination: 'Tennant' was derived from a cross between 'Hornet' (seed parent) and pollen parent B65 (Hobbit/Pitic 62//Mardler) in Canberra in 1989. The seed parent 'Hornet' (a U.K. winter wheat) was characterised by later flowering under Australian condition and the pollen parent B65 was characterised by stem rust susceptibility. Selection criteria: winter habit, resistance to stem rust, medium-late flowering, strong recovery from grazing, and high yield of red grain. Propagation: by seed. Breeder: Dr Jim Davidson, CSIRO Plant Industry, Canberra, ACT.

Choice of Comparators 'Brennan', 'Gordon'ϕ, 'Paterson'ϕ, 'Lawson'ϕ and 'More' were chosen as comparators on the basis of presence of scurs at the tip of ears. These are the most similar winter wheat varieties of common knowledge. Strongly awned varieties were excluded. The seed parent 'Hornet' was not included as a comparator on the basis of later maturity and the pollen parent B65 was excluded on the basis of rust susceptibility.

Comparative Trial Comparators: 'Brennan', 'Gordon'ϕ, 'Paterson'ϕ, 'Lawson'ϕ and 'More'. Location: CSIRO Ginninderra Research Station, Canberra, ACT seeds sown on 6 March 1998. Condition: plants were raised in open field plots and were cut on 12 May and grazed from 18 May until 9 June 1998. Trial design: plots (1.8x10m) arranged in randomised complete block of four replicates. Measurements: ten samples were taken at random from two replications.

Prior Applications and Sales Nil.

Description: **Dr Ross Downes, Innovative Plant Breeders,** Canberra, ACT.

Table 40 *Triticum* varieties

	'Brennan'	'Tennant'	*'Gordon'	*'Paterson' ϕ	*'Lawson' ϕ	*'More'
PLANT: GROWTH HABIT						
	semi erect	semi prostrate	semi prostrate	semi prostrate	semi prostrate	semi prostrate
FLAG LEAF: LENGTH (cm) LSD (P≤0.01) = 2.1						
mean	21.3ab	17.2cd	19.5bc	17.3cd	22.4a	16.2d
std deviation	2.5	3.0	3.7	2.2	2.7	3.5
FLAG LEAF: WIDTH (mm) LSD (P≤0.01) = 1.1						
mean	16.1a	17.1a	16.9a	16.9a	16.7a	15.6a
std deviation	1.3	1.7	1.3	1.1	1.1	2.2
TIME OF EAR EMERGENCE (days after sowing)						
	227	244	239	238	240	244
TIME OF ANTHESIS (days after sowing)						
	233	247	244	243	245	248
FLAG LEAF: glaucosity of sheath						
	moderate	moderate	moderate	moderate	moderate	strong
EAR: GLAUCOSITY						
	moderate	moderate	moderate	moderate	slight	moderate
PLANT: LENGTH (cm) LSD (P≤0.01) = 3.9						
mean	83.5a	85.6a	86.6a	76.6b	87.4a	76.2b
std deviation	6.8	6.2	3.8	3.8	4.1	6.0
STRAW: PITH IN CROSS SECTION						
	medium	absent	thin	thin	thin	thin
EAR: SHAPE IN PROFILE						
	parallel	parallel	parallel	parallel	parallel	parallel
EAR: SPIKELET NUMBER LSD(P≤0.01) = 1.1						
mean	21.9b	19.8c	20.8bc	25.0a	20.9bc	19.8c
std deviation	2.0	1.4	0.9	1.6	0.9	1.9
EAR: DENSITY (spikelets per cm ear) LSD (P≤0.01) = 0.17						
mean	2.57a	2.73bc	2.91b	3.11bc	2.92b	2.52a
std deviation	0.23	0.18	0.26	0.29	0.22	0.16
EAR: LENGTH (mm) LSD (P≤0.01) = 5.5						
mean	85.5a	72.9c	72.0c	80.7ab	72.0c	78.6bc
std deviation	9.5	6.4	6.8	6.9	5.9	7.7
AWNS: PRESENCE						
	scurs at tip	scurs at tip	scurs at tip	scurs at tip	scurs at tip	scurs at tip

Table 40 Continued

	'Brennan'	'Tennant'	*'Gordon'	*'Paterson' (ϕ	*'Lawson' (ϕ	*'More'
AWNS AT TIP OF EAR: LENGTH (mm) LSD (P≤0.01) = 2.4						
mean	10.0bc	13.3a	11.5b	6.2d	12.3ab	8.3cd
std deviation	3.1	5.3	2.7	2.1	3.1	2.8
EAR: COLOUR	white	white	white	white	white	white
APICAL RACHIS SEGMENT: HAIRINESS OF CONVEX SURFACE	medium	medium	medium	strong	medium	medium
LOWER GLUME: SHOULDER WIDTH	medium	broad	medium	narrow	narrow	broad
LOWER GLUME: SHOULDER SHAPE	straight	straight	sloping	sloping	slight slope	strongly elevated
LOWER GLUME: BEAK LENGTH	medium	medium	medium	medium	medium	long
LOWER GLUME: BEAK SHAPE	strong curve	straight	slight curve	slight curve	slight curve	strong curve
LOWEST LEMMA: BEAK SHAPE	strong curve	slight curve	moderate curve	strong curve	slight curve	moderate curve
GRAIN: COLOUR	white	red	red	red	red	red
SEASONAL TYPE	winter	winter	winter	winter	winter	winter

WHITE CEDAR
Melia azedarach

'Lady Gwenda'

Application No: 97/102 Accepted: 27 May 1997.
Applicant: **Mark Hartley,** Shanes Park, NSW.

Characteristics (Table 41, Figure 19) Plant: habit upright, height tall, highly variegated (>50% loss of green surface area) plants shorter. Stem: internodes medium, new growth striated. Leaf: bipinnate, margins incised, variegation present, primary colour yellow-green (RHS 147A), reverse of primary colour yellow-green (RHS 146A), secondary colours yellow-green (RHS 147C-D), white (RHS 155A) or yellow (RHS 5D, 10D or 11D,) , anthocyanin present on base of petioles of white/yellow dominant leaves. Fruit: frequently striated. (Note: all RHS colour chart number refers to 1995 edition).

Origin and Breeding Spontaneous mutation: *Melia azedarach* normal form at applicant's property in Shanes Park, NSW in 1995. The parent is characterised by dark green leaves with an absence of any variegation in either leaves, stems or fruits. Selection criteria: variegated leaves. Propagation: stock plants were generated from the original plant from stem and root cuttings and were found to be uniform and stable. They were also grown from seed germination where it has been found to consistently produce 75% true to type variegated progeny and 25% non-variegated. 'Lady Gwenda' will be commercially propagated by both vegetative cuttings and seed germination from the stock plants. Breeder: Mark Hartley, Shanes Park, NSW.

Choice of Comparators *Melia azedarach* was chosen because it is the original source material from which the variety was selected. The source material represents the natural form of the species and is the standard form commercially produced in Australia. No other similar varieties of common knowledge have been identified.

Comparative Trial Comparator: *Melia azedarach*. Location: Kincumber, NSW, spring-Autumn 1998/99. Conditions: trial conducted in open beds, plants propagated from root cuttings, rooted cuttings planted into 200mm pots filled with soilless potting mix (pine bark base), nutrition maintained with slow release fertilisers, pest and disease treatments applied as required. Trial design: fifteen pots of each variety arranged in a completely randomised design. Measurements: from ten plants at random. One sample per plant.

Prior Applications and Sales Nil.

Description: **Ian Paananen, Paananen Consulting Pty Ltd,** Central Coast, NSW

Table 41 *Melia* varieties

	'Lady Gwenda'	**Melia azedarach*
LEAF VARIEGATION	present	absent
DEGREE OF VARIEGATION - % leaflets per leaf		
mean	65	absent
std deviation	32.9	absent

LEAF COLOURS (RHS, 1995)		
primary	yellow-green (147A)	yellow-green (147A)
reverse	yellow-green (146A)	yellow-green (146B)
secondary	white (155A)	absent
	yellow (5D)	absent
	yellow (10D)	absent
	yellow (11D)	absent
	yellow-green (147C-D)	absent
PETIOLE ANTHOCYANIN		
	present on highly variegated leaves	absent
RACHIS/RACHILLA COLOURS (RHS, 1995)		
	as for adjacent leaflet (see leaf colours)	yellow-green (147A) to yellow-green (145C)

WHITE LUPIN
Lupinus albus

'Lago Azzurro'
Application No: 95/112 Accepted: 4 Apr 1995.
Applicant: **Mount Gambier Property Trust,** Adelaide, SA.

Characteristics (Table 42, Figure 46) Plant: habit erect, height high at green maturity (av. 115 cm). Leaf: colour medium green, terminal leaflet length long (av. 83.8 mm), width broad (av. 38.2 mm). Stem: anthocyanin colouration medium. Flower: flowering time late, white/blue tip petals. Pod: length at maturity long (av. 132.5 mm). Seed: ground colour white, ornamentation absent, 1000-grain weight high (av. 925.1 g). Time of green maturity: very late (January 19th Mount Gambier, SA).

Origin and Breeding Open pollination: parent lines were selected from imported and locally sourced, unnamed wild Italian varieties. Several uncontrolled crosses were made during 1984-87 from which progeny were selected characterised by large seed size. A single large seeded line was selected for build up to become the variety 'Lago Azzurro'. Selection criteria: large uniform seed size. Propagation: by seed. Breeder: Mr. T. Cockburn, Carpenters Rocks, SA.

Choice of Comparators. Each of the comparators used in this trial does not have a common commercial name. The name given to these varieties is based upon the source (ie: a farmer in the Mount Beauty region has grown 'Mt Beauty' for 20 years. 'Murphy' is a selection from this line). 'Mount Beauty' was chosen because it is a wild Italian line of bitter lupin commonly grown by gardeners in Australia. 'Mt. Beauty' is considered to be representative of the original parental lines. 'Murphy' was chosen because of concern that it was identical to 'Lago Azzurro'.

Comparative Trial Comparator(s): 'Mount Beauty', 'Murphy'. Location: Mount Gambier, SA, Jun 1997-Feb 1998. Conditions: trial planted in the field, plants grown from seed. Trial planted June 5th 1997, into grey sandy loam soil of fine tilth. Planting depth 5cm. Fertiliser 100 kg/ha single superphosphate, pest and disease treatments applied as required. Trial design: randomised complete block design, plot size 4 rows x 5m plant spacing 30 cm, row spacing 30. Measurements: from twenty plants at random. One sample per plant.

Prior Applications and Sales
First Australian Sale March 1996.

Description: **Les Mitchell, Agrisearch Services Pty Ltd**, Shepparton, VIC.

(Note: This is the amended version of the description of *Lupinus* 'Lago Azzurro' published in PVJ 10.1)

Table 42 *Lupinus* varieties

	'Lago Azzurro'	***'Mount Beauty'**	***'Murphy'**
TERMINAL LEAFLET LENGTH at first flower node (mm)			
mean	83.8	78.0	73.9
std deviation	4.4	11.9	10.8
LSD/sig	3.51	P≤0.01	P≤0.01
TERMINAL LEAFLET WIDTH at first flower node (mm)			
mean	38.2	26.1	25.4
std deviation	2.1	2.2	2.2
LSD/sig	1.87	P≤0.01	P≤0.01
PLANT HEIGHT at green maturity (cm)			
mean	115.8	121.4	123.3
std deviation	3.6	9.5	9.6
LSD/sig	1.87	P≤0.01	P≤0.01
POD LENGTH AT FULL MATURITY at first flower node (mm)			
mean	135.1	114.3	117.9
std deviation	5.0	14.0	12.8
LSD/sig	4.03	P≤0.01	P≤0.01
1000 GRAIN WEIGHT at full maturity(g)			
mean	925.1	701.5	766.5
std deviation	3.9	41.6	12.9
LSD/sig	57.4	P≤0.01	P≤0.01
DATE OF GREEN MATURITY			
	January 19th	January 10th	January 10-12th

'Ludet'
Application No: 97/143 Accepted: 27 Jun 1997.
Applicant: **Agri Obtentions SA,** Cedex, France.
Agent: **WestVic AgServices,** Horsham, VIC.

Characteristics (Table 43, Figure 45) Plant: seedling medium erect, early vegetative growth prostrate as a rosette, height tall, maturity late, determinate. Stem: strong, basal branches rare, 3-4 branches from upper leaf axils, purple anthocyanin colour on both stipules and petioles and medium purple colouring of the stem during flowering, terminal leaflet: dark green, long and broad. Flower: colour light blue. Pod length longer than usual (8.46 cm av.), and vertical distance between successive inflorescences short (2.22 cm av.). Seed white, rounded, small (0.27 g/seed), low alkaloids (0.009% DM).

Origin and Breeding Controlled pollination: epigonal spring-sown line LA300 (seed parent) with a late flowering, intermediate autumn sown line LA195 (pollen parent) followed by selection and multiplication. LA300 differs from 'Ludet' in that it has white flowers, and no prostrate growth habit, and does not produce any terminal branches. LA195 differs in that it has an indeterminate structure

producing successive inflorescences as shoots flower, whereas 'Ludet' is determinate. Selection criteria: determinate plant architecture. Propagation: by seed. Breeder: Dr C. Huyghe, INRA, Centre de Poitou-Charentes, Lusignan, France.

Choice of Comparator Four varieties of low alkaloid white lupin were chosen as comparators ('Lucyane', 'Hamburg', 'Ultra' and 'Kiev Mutant') as these are the most similar varieties of common knowledge. Large seeded high alkaloid variety 'Lago Azzurro' was distinctly different from the low alkaloid types, therefore, was not included for comparison. The parental lines were not considered, as they are distinguishable from the parent in flower colour and plant architecture.

Comparative Trial Comparators: 'Lucyane', 'Hamburg', 'Ultra', 'Kiev Mutant'. Location: Laharum VIC, 35km SE of Horsham in the Victorian Wimmera. Conditions: sown on 5th May 1998 and plants emerged 25th May 1998. One application of 15kg P/ha as double superphosphate. Weeds controlled by hand hoeing. Insects controlled with an application of 250 ml/ha of alph-cypermethrin and 85 ml/ha of dimethoate. Trial design: six replicates of 10 spaced plants in randomised block design. Measurements: made on all plants in all replicates. One measurement per plant.

Prior Applications and Sales

Country	Year	Current Status	Name Applied
UK	1993	Granted	'Ludet'

First sold in France in Nov 1996. Australian sale Nil.

Description: Bill Gardner, **WestVic AgServices,** Horsham, VIC.

Table 43 *Lupinus* varieties

	'Ludet'	'Lucyane'	*'Kiev Mutant'	*'Ultra'	*'Hamburg'
PLANT: HEIGHT JULY (cm) LSD (P≤0.01) = 1.7					
mean	4.32	3.90[a]	8.08[a]	6.45[a]	7.52[a]
std deviation	0.67	0.54	0.79	0.67	0.75
PLANT: HEIGHT AUGUST (cm) LSD (P≤0.01) = 1.5					
mean	6.12[a]	5.99[a]	14.2[b]	10.8[b]	12.1[b]
std deviation	1.19	1.21	0.93	1.52	1.42
PLANT: HEIGHT LATE SEPTEMBER (cm) LSD (P≤0.01) = 4.2					
mean	8.57[a]	7.64[a]	37.7[b]	34.9[b]	39.1[b]
std deviation	2.57	1.99	3.71	6.09	6.38
PLANT: DISTANCE BETWEEN 1ST AND 2ND INFLORESCENCE (cm) LSD (P≤0.01) = 1.5					
mean	2.23[a]	1.24[a]	12.8[b]	12.6[b]	21.4[b]
std deviation	0.71	0.86	1.09	1.62	2.40
PLANT: HEIGHT AT BEGINNING OF FLOWERING (cm) LSD (P≤0.01) = 18.6					
mean	52.6[a]	67.2[a]	37.6[a]	34.9[a]	39.1[a]
std deviation	5.46	6.51	3.71	6.09	6.38
PLANT: HEIGHT AT GREEN RIPENING (cm) LSD (P≤0.01) = 9.4					
mean	62.9[a]	64.3[a]	53.7[a]	55.6[a]	65.1[a]
std deviation	4.54	7.35	3.78	7.75	4.65
PLANT: GROWTH HABIT 3 WEEKS AFTER SEEDLING EMERGENCE (1 = erect, 5 = prostrate)					
	prostrate (4.75)	prostrate (5.00)	intermediate (3.36)	intermediate (3.41)	semi-prostrate (4.03)
PLANT: GROWTH HABIT JULY (1 = erect, 5 = prostrate)					
	prostrate (4.85)	prostrate (4.10)	semi-erect (1.96)	semi-erect (1.96)	intermediate (2.85)
STEM: ANTHOCYANIN COLOURATION					
	present	absent	absent	absent	absent
TERMINAL LEAFLET: LENGTH AT FLOWERING (mm) LSD (P≤0.01) = 15.0					
mean	68.4[a]	76.6[a]	51.0[a]	52.4[a]	54.8[a]
std deviation	3.35	3.52	3.13	7.44	6.24
TERMINAL LEAFLET: WIDTH AT FLOWERING (mm) LSD (P≤0.01) = 4.8					
mean	24.7[a]	24.2[a]	18.1[a]	20.8[a]	20.9[a]
std deviation	1.53	1.12	0.94	2.67	2.04
LEAF: COLOUR AT FLOWER BUD STAGE					
	dark green 139A	dark green 139A	light green 137A	light green 137A	light green 137A
LEAF: STIPULE COLOUR					
	purple	light green	purple	purple	purple

Table 43 Continued

	'Ludet'	'Lucyane'	*'Kiev Mutant'	*'Ultra'	*'Hamburg'
POD: LENGTH AT GREEN MATURITY (cm) LSD (P≤0.01) = 1.8					
mean	8.44[a]	8.94[a]	7.97[a]	7.38[a]	7.22[a]
std deviation	0.32	0.40	0.81	0.37	0.33
FLOWER: COLOUR					
light blue	white	light blue	light blue	light blue	
DAYS TO FLOWERING (from sowing 5/5/98)					
	162	171	136	136	136

Note: mean values followed by the same letter are not significantly different at P≤0.01 according Duncan's Multiple Range Test.

'Magna'

Application No: 98/205 Accepted: 19 Oct 1998.
Applicant: **CSIRO Plant Industry,** Canberra, ACT.

Characteristics (Table 44, Figure 44) Plant: seedling erect, height tall, maturity mid-season. Stem: strong, basal branches rare, 2 - 3 long branches in upper leaf axils, medium purple anthocyanin colour during early flowering. Terminal leaflet: dark green, long, broad. Flower: wing colour light blue (RHS 96D, 1986), keel tip colour blue-black (RHS 93A, 1986). Pod: length of primaries long (average 97mm), number per plant medium (12.6), number of seeds/pod medium (3.7). Grain: white, large (0.38 g/seed), low in alkaloids (0.010% DM), protein 36.2% DM.

Origin and Breeding Controlled pollination: among 6 female lines (W1043, CPI 31620, 'Hamburg' CPI 47211, CPI 16564 and CPI 16574) and 4 males ('Kiev Mutant', 'Kiev Skoropelyi', 'Ultra' and CPI 47643) in Canberra, ACT. Selection criteria: 12 F_3 families were bulked, selected over two generations, mutagenised with gamma-rays or ethyl methanesulphonate, re-selected over 6 generations for larger seed size and higher yield. All generations after the F_1 were grown in the field at Canberra and/or Wagga Wagga, NSW, with about 10% natural outcrossing per generation. The stabilised population was seed-increased in the ACT in isolation during 1994 and 1995. During 1994-98, 'Magna' was yield-tested under the code name "Bulk C" in the core trials of NSW Agriculture. Propagation: certified seed. Breeder: Dr Rex N. Oram, CSIRO Plant Industry, Canberra, ACT.

Choice of Comparators The large-seeded, low alkaloid varieties grown in Australia, 'Hamburg', 'Ultra' and 'Kiev Mutant' were used as comparators. The other parents were excluded because they were high in alkaloids, or had shorter primary branches than 'Magna'.

Comparative Trial Comparators: 'Hamburg', 'Ultra' and 'Kiev Mutant'. The small-seeded group - 'Minibean' and 'Ludet' were excluded from comparison with 'Magna'. Location: Ginninderra Experiment Station, ACT. Conditions: seeds inoculated with Group G *rhizobia* and sown on June 3, 1998. Plots were covered with bird-proof netting from sowing to maturity. Weeds were controlled by one inter-row application of Round-Up®, hand cultivation and slashing. Trial design: plots were two rows 3m long and 0.33m apart, with 0.75m between plots. Thirty seeds were sown in each row. There were two replicates in a split plot design in which the main plots were seed size groups and the sub-plots were varieties and lines. Measurements: made on 20 adjacent plants per replicate.

Prior Applications and Sales Nil.

Description: **Rex N. Oram, CSIRO Plant Industry**, Canberra ACT.

Table 44 *Lupinus* varieties

	'Magna'	*'Hamburg'	*'Kiev Mutant'	*'Ultra'
UPPER STEM AND PETIOLE ANTHOCYANIN COLORATION (bud stage)	medium	strong	medium	medium
FLOWERING TIME (days after 31/8/98)				
mean	30.42	29.55	23.87	23.27
std deviation	0.60	0.33	0.37	0.48
LSD/sig	3.01	ns	P≤0.01	P≤0.01
WING COLOUR (RHS, 1986)	blue 96C	dark blue 96B	light blue 97A	blue 96C
HEIGHT AT MATURITY	tall	tall	short	short
PRIMARY BRANCH LENGTH	long	medium	short	short

'Minibean'

Application No: 98/204 Accepted: 19 Oct 1998.
Applicant: **CSIRO Plant Industry,** Canberra, ACT.

Characteristics (Table 45, Figure 43) Plant: seedling erect, height tall, maturity mid-season. Stem: strong, basal branches rare, 3 - 4 branches from upper leaf axils, medium purple anthocyanin colour during early flowering. Terminal leaflet: dark green, long, broad. Flower: wing colour light blue (RHS 96D, 1986), keel tip colour blue-black (RHS 93A, 1986). Pod: length of primaries somewhat short (average 88mm), number per plant high (22.5), number of seeds/pod medium (3.3). Grain: white, small (0.26 g/seed), low in alkaloids (0.0058% DM), protein 34.2% DM.

Origin and Breeding Controlled pollination: among 6 female lines (W1043, CPI 31620, 'Hamburg' CPI 47211, CPI 16564 and CPI 16574) and 4 males ('Kiev Mutant', 'Kiev Skoropelyi', 'Ultra' and CPI 47643), in Canberra, ACT. All with larger seeds than 'Minibean'. Selection criteria: 12 F_3 families were bulked, selected over two generations, mutagenised with gamma-rays or ethyl methanesulphonate, re-selected over 6 generations for smaller seed size and higher yield. All generations after the F_1 were grown in the field at Canberra and/or Wagga Wagga, NSW, with about 10% natural outcrossing per generation. The stabilised population was seed-increased in the ACT in isolation during 1994 and 1995. During 1994-

98, 'Minibean' was yield-tested under the code name of "Bulk 4" in the core trials of NSW Agriculture. Propagation: certified seed. Breeder: Dr Rex N. Oram, CSIRO Plant Industry, Canberra, ACT.

Choice of Comparator 'Ludet' was chosen as the sole comparator because it is the only small-seeded, low alkaloid variety of common knowledge in Australia. The parents 'Hamburg', 'Ultra' and 'Kiev Mutant' were grown in the comparative trial, but the other parents were excluded because all were larger-seeded than 'Minibean'.

Comparative Trial Comparator: 'Ludet'. The large-seeded group - 'Magna', 'Hamburg', 'Kiev Mutant', 'Ultra', 'Esta' were excluded from comparison with 'Minibean'. Location: Ginninderra Experiment Station, ACT. Conditions: seeds inoculated with Group G *rhizobia* and sown on June 3, 1998. Plots were covered with bird-proof netting from sowing to maturity. Weeds were controlled by one inter-row application of Round-Up®, hand cultivation and slashing. Trial design: plots were two rows 3m long and 0.33m apart, with 0.75m between plots. Thirty seeds were sown in each row. There were two replicates in a split plot design in which the main plots were seed size groups and the sub-plots were varieties and lines. Measurements: made on 20 adjacent plants per replicate.

Prior Applications and Sales Nil.

Description: **Rex N. Oram, CSIRO Plant Industry,** Canberra ACT.

Table 45 *Lupinus* varieties

	'Minibean'	***'Ludet'**
PLANT HEIGHT:- (cm) at 17 weeks		
mean	17.18	7.70
std deviation	0.26	0.26
LSD/sig	2.10	P≤0.01
PLANT HEIGHT : (cm) at first flowering		
mean	22.30	43.47
std deviation	0.35	1.02
LSD/sig	5.05	P≤0.01
VERNALIZATION REQUIREMENT		
	absent	present
FLOWERING DATE: (days after 31/8/98)		
mean	25.68	50.45
std deviation	0.25	0.41
LSD/sig	2.18	P≤0.01
DISTANCE BETWEEN ORDERS OF PODS		
	long	short

GRANTS

AGLAONEMA
Aglaonema hybrid

'Silver Queen Compact'ⓟ syn **Silver Lady**ⓟ
Application No: 97/146 Grantee: **Edwin J Frazer**, Kenmore, QLD.
Certificate No: 1224 Expiry Date: 21 February, 2019.

AZALEA
Rhododendron simsii

'Kenny Lane Lou Lou'ⓟ
Application No: 95/308 Grantee: **John Slykerman**, Monbulk, VIC.
Certificate No: 1270 Expiry Date: 31 March, 2019.

BARLEY
Hordeum vulgare

'Fitzgerald'ⓟ
Application No: 97/135 Grantee: **Chief Executive Officer, Agriculture Western Australia,** South Perth, WA and **Grains Research and Development Corporation**, Barton, ACT.
Certificate No: 1218 Expiry Date: 19 January, 2019.

'Gairdner'ⓟ
Application No: 97/136 Grantee: **Chief Executive Officer, Agriculture Western Australia,** South Perth, WA and **Grains Research and Development Corporation**, Barton, ACT.
Certificate No: 1219 Expiry Date: 19 January, 2019.

'Mundah'ⓟ
Application No: 96/205 Grantee: **Chief Executive Officer, Agriculture Western Australia**, South Perth, WA.
Certificate No: 1217 Expiry Date: 19 January, 2019.

BOUGAINVILLEA
Bougainvillea glabra

'Krishna'ⓟ
Application No: 97/119 Grantee: **Jan Iredell**, Moggill, QLD.
Certificate No: 1231 Expiry Date: 31 March, 2019.

BOUGAINVILLEA
Bougainvillea hybrid

'Majik'ⓟ
Application No: 97/280 Grantee: **Jan and Peter Iredell**, Moggill, QLD.
Certificate No: 1252 Expiry Date: 31 March, 2019.

'Miski'ⓟ
Application No: 97/120 Grantee: **Jan and Peter Iredell**, Moggill, QLD.
Certificate No: 1255 Expiry Date: 31 March, 2019.

'Nonya'ⓟ
Application No: 97/281 Grantee: **Jan and Peter Iredell**, Moggill, QLD.
Certificate No: 1253 Expiry Date: 31 March, 2019.

'Zuki'ⓟ
Application No: 97/118 Grantee: **Jan and Peter Iredell**, Moggill, QLD.
Certificate No: 1254 Expiry Date: 31 March, 2019.

COTTON
Gossypium hirsutum

'DeltaPEARL'ⓟ
Application No: 96/232 Grantee: **Deltapine Australia Pty Ltd**, Narrabri, NSW.
Certificate No: 1275 Expiry Date: 31 March, 2019.

'Siokra V-16'ⓟ
Application No: 97/261 Grantee: **CSIRO Plant Industry**, Narrabri, NSW.
Certificate No: 1264 Expiry Date: 31 March, 2019.

CUPHEA
Cuphea hyssopifolia

'Louisa'ⓟ
Application No: 97/058 Grantee: **Carolynn Milne**, Alexandra Hills, QLD.
Certificate No: 1243 Expiry Date: 31 March, 2019.

DIASCIA
Diascia barberae

'Fiona'ⓟ
Application No: 94/227 Grantee: **Stephen Lawrence Wood**, High Wycombe, WA.
Certificate No: 1271 Expiry Date: 31 March, 2019.

DWARF CHILLI
Capsicum annuum var *fasciculatum*

'Bantam'ⓟ
Application No: 97/128 Grantee: **NF Derera, AM - ASAS Pty Ltd**.
Certificate No: 1256 Expiry Date: 31 March, 2019.
Agent: **AJ Newport & Son Pty Limited**, Winston Hills, NSW.

'Thimble'ⓟ
Application No: 97/129 Grantee: **NF Derera, AM - ASAS Pty Ltd**.
Certificate No: 1257 Expiry Date: 31 March, 2019.
Agent: **AJ Newport & Son Pty Limited**, Winston Hills, NSW.

LASIANDRA
Tibouchina organensis

'Totally Moonstruck'ⓟ
Application No: 97/014 Grantee: **Gary and Linda Winter**.
Certificate No: 1232 Expiry Date: 31 March, 2019.
Agent: **Rex Trimble, Faceys Nursery**, Cranbourne, VIC.

LETTUCE
Lactuca sativa

'85-53 RZ'ⓟ syn **Concorde RZ**ⓟ
Application No: 97/339 Grantee: **Rijk Zwaan Zaadteelt en Zaadhandel BV**.
Certificate No: 1229 Expiry Date: 31 March, 2019.
Agent: **Rijk Zwaan Australia Pty Ltd**, Daylesford, VIC.

'Iglo'ⓟ
Application No: 95/266 Grantee: **Rijk Zwaan Zaadteelt en Zaadhandel BV**.
Certificate No: 1227 Expiry Date: 31 March, 2019.
Agent: **Rijk Zwaan Australia Pty Ltd**, Daylesford, VIC.

'Kendai'ⓟ
Application No: 97/340 Grantee: **Rijk Zwaan Zaadteelt en Zaadhandel BV**.
Certificate No: 1230 Expiry Date: 31 March, 2019.
Agent: **Rijk Zwaan Australia Pty Ltd**, Daylesford, VIC.

'Remus'ⓟ
Application No: 95/268 Grantee: **Rijk Zwaan Zaadteelt en Zaadhandel BV**.
Certificate No: 1228 Expiry Date: 31 March, 2019.
Agent: **Rijk Zwaan Australia Pty Ltd**, Daylesford, VIC.

'Rubette'ⓟ
Application No: 97/341 Grantee: **Rijk Zwaan Zaadteelt en Zaadhandel BV**.
Certificate No: 1226 Expiry Date: 31 March, 2019.
Agent: **Rijk Zwaan Australia Pty Ltd**, Daylesford, VIC.

LILLY PILLY
Syzygium australe

'Aussie Boomer'ⓟ
Application No: 97/314 Grantee: **Lloyd W Vagg and Joan M Vagg**, Calamvale, QLD.
Certificate No: 1273 Expiry Date: 31 March, 2024.

LUPIN
Lupinus angustifolius

'Mason'ⓟ
Application No: 97/223 Grantee: **Gary Mason**, Perenjori, WA.
Certificate No: 1263 Expiry Date: 31 March, 2019.

MARGUERITE DAISY
Argyranthemum frutescens

'Abby Belle'ⓟ
Application No: 97/153 Grantee: **Frank Hammond**, Narre Warren East, VIC.
Certificate No: 1258 Expiry Date: 31 March, 2019.

'Annie Petite'ⓟ
Application No: 97/027 Grantee: **Frank Hammond**, Narre Warren East, VIC.
Certificate No: 1250 Expiry Date: 31 March, 2019.

'Beth'ⓟ
Application No: 96/259 Grantee: **Robert Harrison**.
Certificate No: 1238 Expiry Date: 31 March, 2019.
Agent: **Frank Hammond**, Narre Warren East, VIC.

'Christy Belle'ⓟ
Application No: 97/156 Grantee: **Frank Hammond**, Narre Warren East, VIC.
Certificate No: 1259 Expiry Date: 31 March, 2019.

'Elly Belle'ⓟ
Application No: 97/157 Grantee: **Frank Hammond**, Narre Warren East, VIC.
Certificate No: 1260 Expiry Date: 31 March, 2019.

'Julie Anna'ⓟ
Application No: 97/028 Grantee: **Frank Hammond**, Narre Warren East, VIC.
Certificate No: 1239 Expiry Date: 31 March, 2019.

OAT
Avena sativa

'A.C.Assiniboia'ⓟ syn **Graza 68**ⓟ
Application No: 97/279 Grantee: **Agriculture and Agri-Food Canada**.
Certificate No: 1262 Expiry Date: 31 March, 2019.
Agent: **Pioneer Hi-Bred Australia Pty Ltd**, Toowoomba, QLD.

'Hotham'ⓟ
Application No: 97/161 Grantee: **Chief Executive Officer, Agriculture Western Australia,** South Perth, WA and **Grains Research and Development Corporation**, Barton, ACT and **The Grain Pool WA**, Perth, WA.
Certificate No: 1249 Expiry Date: 31 March, 2019.

'Vasse'ⓟ
Application No: 97/160 Grantee: **Chief Executive Officer, Agriculture Western Australia,** South Perth, WA and **Grains Research and Development Corporation**, Barton, ACT and **The Grain Pool WA**, Perth, WA.
Certificate No: 1248 Expiry Date: 31 March, 2019.

PAPER DAISY
Bracteantha bracteata

'Argyle Star'ⓟ
Application No: 97/037 Grantee: **Redlands Nursery Pty Ltd**, Redland Bay, QLD.
Certificate No: 1269 Expiry Date: 31 March, 2019.

'Lemon Colourburst'ⓟ
Application No: 97/315 Grantee: **The University of Sydney, Plant Breeding Institute,** Cobbitty NSW and **Yellow Rock Native Nursery Pty Ltd**, Winmalee, NSW.
Certificate No: 1251 Expiry Date: 31 March, 2019.

'Menindee Magic'ⓟ
Application No: 97/039 Grantee: **Redlands Nursery Pty Ltd**, Redland Bay, QLD.
Certificate No: 1247 Expiry Date: 31 March, 2019.

'Sunraysia Splendour'(Þ)
Application No: 97/038 Grantee: **Redlands Nursery Pty Ltd**, Redland Bay, QLD.
Certificate No: 1246 Expiry Date: 31 March, 2019.

PEAR
Pyrus communis

'Red Princess'(Þ)
Application No: 95/046 Grantee: **Paul Giankos, Florina Coolstores**, Shepparton, VIC.
Certificate No: 1265 Expiry Date: 31 March, 2024.

PLATYSACE
Platysace lanceolata

'Valentine Lace'(Þ)
Application No: 97/051 Grantee: **Francis David Hockings**, Maleny, QLD.
Certificate No: 1236 Expiry Date: 31 March, 2019.

POTATO
Solanum tuberosum

'St. Johns'(Þ)
Application No: 96/039 Grantee: **Hettema Zonen Keewkbedrijf BV**.
Certificate No: 1223 Expiry Date: 21 February, 2019.
Agent: **Sunrise Agriculture Pty Ltd**, Latrobe, TAS.

ROSE
Rosa hybrid

'Ausmol'(Þ) syn **Molineux**(Þ)
Application No: 98/083 Grantee: **David Austin Roses Ltd**.
Certificate No: 1245 Expiry Date: 31 March, 2019.
Agent: **Perfumed Roses Pty Ltd**, Moorooduc, VIC.

'Aussal'(Þ) syn **Radio Times**(Þ)
Application No: 98/081 Grantee: **David Austin Roses Ltd**.
Certificate No: 1242 Expiry Date: 31 March, 2019.
Agent: **Perfumed Roses Pty Ltd**, Moorooduc, VIC.

'Brilliant Pink Iceberg'(Þ) syn **Probril**(Þ)
Application No: 97/337 Grantee: **Prophyl Pty Ltd**, Austins Ferry, TAS.
Certificate No: 1233 Expiry Date: 31 March, 2019.

'Koranderer'(Þ) syn **Our Copper Queen**(Þ)
Application No: 97/201 Grantee: **W Kordes' Sohne**.
Certificate No: 1244 Expiry Date: 31 March, 2019.
Agent: **Treloar Roses Pty Ltd**, Portland, VIC.

'Korbasren'(Þ) syn **Pink Bassino**(Þ)
Application No: 96/087 Grantee: **W Kordes' Sohne**.
Certificate No: 1234 Expiry Date: 31 March, 2019.
Agent: **Treloar Roses Pty Ltd**, Portland, VIC.

'Korfischer'(Þ) syn **Hansa-Park**(Þ)
Application No: 96/085 Grantee: **W Kordes' Sohne**.
Certificate No: 1261 Expiry Date: 31 March, 2019.
Agent: **Treloar Roses Pty Ltd**, Portland, VIC.

'Kormarec'(Þ) syn **Sommerabend**(Þ)
Application No: 96/086 Grantee: **W Kordes' Sohne**.
Certificate No: 1268 Expiry Date: 31 March, 2019.
Agent: **Treloar Roses Pty Ltd**, Portland, VIC.

'Kortanken'(Þ) syn **Domstadt Fulda**(Þ)
Application No: 96/082 Grantee: **W Kordes' Sohne**.
Certificate No: 1267 Expiry Date: 31 March, 2019.
Agent: **Treloar Roses Pty Ltd**, Portland, VIC.

'Korverpea'(Þ) syn **Kleopatra**(Þ)
Application No: 96/084 Grantee: **W Kordes' Sohne**.
1Certificate No: 1241 Expiry Date: 31 March, 2019.
Agent: **Treloar Roses Pty Ltd**, Portland, VIC.

'Meirevolt'(Þ) syn **Golden Conquest**(Þ)
Application No: 96/094 Grantee: **Meilland International**.
Certificate No: 1222 Expiry Date: 20 February, 2019.
Agent: **Mr Kim Syrus**, Myponga, SA.

'Meitebros'(Þ) syn **The Children's**(Þ)
Application No: 97/026 Grantee: **Meilland International**.
Certificate No: 1221 Expiry Date: 20 February, 2019.
Agent: **Mr Kim Syrus**, Myponga, SA.

'Meitosier'(Þ) syn **Twilight Glow**(Þ)
Application No: 94/207 Grantee: **Meilland International**.
Certificate No: 1220 Expiry Date: 20 February, 2019.
Agent: **Mr Kim Syrus**, Myponga, SA.

'Tanafira'(Þ)
Application No: 97/089 Grantee: **Rosen Tantau, Mathias Tantau Nachfolger**.
Certificate No: 1240 Expiry Date: 31 March, 2019.
Agent: **Sovereign Nurseries Pty Ltd**, Catherine Field, NSW.

'Taniffest'(Þ)
Application No: 97/090 Grantee: **Rosen Tantau, Mathias Tantau Nachfolger**.
Certificate No: 1237 Expiry Date: 31 March, 2019.
Agent: **Sovereign Nurseries Pty Ltd**, Catherine Field, NSW.

'Tankalcig'(Þ)
Application No: 97/091 Grantee: **Rosen Tantau, Mathias Tantau Nachfolger**.
Certificate No: 1235 Expiry Date: 31 March, 2019.
Agent: **Sovereign Nurseries Pty Ltd**, Catherine Field, NSW.

SWEET ORANGE
Citrus sinensis

'Rohde Summer Navel'(Þ)
Application No: 89/005 Grantee: **Harkhill Agricultural Services Pty Ltd**, Whale Beach, NSW.
Certificate No: 1225 Expiry Date: 20 January, 2009.

WATERCRESS
Nasturtium hybrid

'Vicred'(ɒ)
Application No: 97/171 Grantee: **Francis D Crowe**, Epsom, VIC.
Certificate No: 1266 Expiry Date: 31 March, 2019.

WAXFLOWER
Chamelaucium uncinatum

'Cascade Brilliance'(ɒ)
Application No: 96/200 Grantee: **AJ Newport & Son Pty Ltd**, Winmalee, NSW.
Certificate No: 1272 Expiry Date: 31 March, 2019.

WHEAT
Triticum aestivum

'Monad'(ɒ)
Application No: 96/143 Grantee: **Wrightson Seeds Limited**.
Certificate No: 1274 Expiry Date: 31 March, 2019.
Agent: **Wrightson Seeds (Aust) Pty Ltd**, Laverton North, VIC.

CORRIGENDA FOR GRANTS

The public notice of grant of rights for the following applications in PVJ 11(4) incorrectly omitted the joint grantee Grains Research and Development Corporation. The full name of the grantee should read **Chief Executive Officer, Agriculture Western Australia,** South Perth, WA and **Grains Research and Development Corporation**, Barton, ACT.

Lupinus angustifolius	**'Belara'**(ɒ)
App No. 97/122	Certificate No. 1188
Lupinus angustifolius	**'Tallerack'**(ɒ)
App No. 97/094	Certificate No. 1157
Lupinus luteus	**'Wodjil'**(ɒ)
App No. 97/093 Grantee:	Certificate No. 1205
Triticum aestivum	**'Arrino'**(ɒ)
App No. 97/126	Certificate No. 1213
Triticum aestivum	**'Brookton'**(ɒ)
App No. 97/121	Certificate No. 1209
Triticum aestivum	**'Calingiri'**(ɒ)
App No. 97/125	Certificate No. 1212
Triticum aestivum	**'Nyabing'**(ɒ)
App No. 97/123	Certificate No. 1210
Triticum aestivum	**'Westonia'**(ɒ)
App No. 97/124	Certificate No. 1211

REGISTER OF PLANT VARIETIES

Register of Plant Varieties contains the legal description of the varieties granted Plant Breeder's Rights. Under section 62(1) of the *Plant Breeder's Rights Act 1994* a person may inspect the Register at any reasonable time. Following are the contact details for registers kept in each state and territories.

South Australia
Ms Lisa Halskov
AQIS
8 Butler Street
PORT ADELAIDE SA 5000
Phone 08 8305 9706

Western Australia
Mr Geoffrey Wood
AQIS
Level, Wing C
Market City
280 Bannister Road
CANNING VALE WA 6154
Phone 08 9311 5407

New South Wales
Mr. Alex Jabs
General Services
AQIS
2 Hayes Road
ROSEBERY NSW 2018
Phone 02 9364 7293

Victoria and Tasmania
Mr. Colin Hall
AQIS
Building D, 2nd Floor
World Trade Centre
Flinders Street
MELBOURNE VIC 3005
Phone 03 9246 6810

Queensland
Mr. Ian Haseler
AQIS
2nd Floor
433 Boundary Street
SPRING HILL QLD 4000
Phone 07 3246 8755

Australian Capital Territory and Northern Territory
ACT and NT Registers are kept in the Library of PBR Office in Canberra
Phone 02 6272 4228

APPLICATIONS VARIED

The agent for *Digitaria didactyla* **'Aussieblue'** (App. No. 97/181) is **Progressive Seeds Pty Ltd, Mt Crosby, QLD**.

The denomination of *Agapanthus orientalis* **'Black Panther'** (App. No. 98/127) has been changed to **'Black Pantha'**.

The denominations of *Ficus benjamina* **'Bushy Prince'** and **'Bushy King'** (App. No. 97/266 and 97/267) have been changed respectively to **'Mikkie'** syn **Bushy Prince** and **'Marole'** syn **Bushy King.**

The denominations of *Alstroemeria* hybrid **'My Virginia'** (App No. 96/148) and **'Our Ballet'** (App No. 96/149) have been changed to **'Virginia'** and **'Ballet'** respectively. The

name changes have been allowed as a consequence of the recent amendment to section 53 of the *Plant Breeder's Rights Act 1994*.

The denominations of *Vitis vinifera* **'A871'** (App. No. 97/268), **'B891'**(App. No. 97/269), **'C990'** (App. No. 97/270) and **'D1056'**(App. No. 97/271) have been changed respectively to **'Cienna'**, **'Vermilion'**, **'Rubienne'** and **'Tyrian'**.

The agent name for the following *Lilium* hybrid applications has been changed from **Kenny Lane Nurseries Pty Ltd,** Monbulk, VIC to **Watermark,** Hawthorn, VIC.

App. No:	Variety
95/309	'Nippon'
95/310	'Acapulco'
96/162	'Colonna'
96/163	'Rosato'
96/164	'Arena'
96/165	'Woodriff's Memory'
96/166	'Tiber'
96/167	'Spinoza'
96/168	'Sartre'
96/169	'Sorbonne'
96/170	'Lombardia'
96/171	'Carise Miami'
96/172	'Our Medusa'
96/173	'Galilei'
96/174	'Simplon'
96/175	'Barbaresco'
96/176	'Bergamo'
96/177	'Bernini'

The applicant's name in the following applications *Lolium perenne* **'Victoca'** (App. No. 96/057), *Trifolium vesiculosum* **'Arrotas'** (App. No. 96/274) and the joint applicant's name in *Avena sativa* **'Bass'** (App. No. 98/041) has been changed from Department of Primary Industry and Fisheries to **The Crown in Right of the State of Tasmania through the Department of Primary Industries, Water and Environment.**

APPLICATIONS WITHDRAWN

Agonis flexuosa nana **'Pink Peppy'** (App. No. 97/232)
Backhousia citriodora **'Harvest Home'** (App. No. 96/137)
Dahlia pinnata **'Kaleidoscope'** (App. No. 94/053)
Hymenosporum flavum **'VIC 97/12'** (App. No. 97/333)
Lotus hybrid **'Merlin Gold'** (App. No. 98/017)
Lycopersicon esculentum **'Alka'** (App. No. 94/169)
Ptilotus exaltatus **'Pink Feather'** (App. No. 97/183)
Rosa hybrid **'Meitoliel'** (App. No. 97/082)
Rosa hybrid **'Meidarwet'** (App. No. 97/084)
Rosa hybrid **'Meihatoil'** (App. No. 97/085)
Rosa hybrid **'Meitune'** (App. No. 97/086)
Rosa hybrid **'Meininrut'** (App. No. 97/087)
Solanum tuberosum **'Azur'** (App. No. 93/273)
Solanum tuberosum **'Forta'** (App. No. 93/274)
Solanum tuberosum **'Pepo'** (App. No. 93/275)
Wahlenbergia stricta **'Bonnie Blue'** (App. No. 96/141)

GRANTS SURRENDERED

Alstroemeria hybrid	**'Diana'**
(App. No. 94/183)	Certificate No. 933
Avena sativa	**'Graza 70'**
(App. No. 93/197)	Certificate No. 434
Brachyscome hybrid	**'Just Jayne'**
(App. No. 93/232)	Certificate No. 677
Dianthus hybrid	**'Stagiten'** syn **Pink Gypsy**
(App. No. 90/123)	Certificate No. 145
Dianthus hybrid	**'Stagilic'** syn **Lilac Gypsy**
(App. No. 90/125)	Certificate No. 147
Lotus pedunculatus	**'Sharnae'**
(App. No. 93/147)	Certificate No. 430
Prunus persica	**'Julie'** syn **Tendresse**
(App. No. 95/219)	Certificate No. 951
Prunus persica	**'French Lady'** syn **C88.83PB**
(App. No. 96/133)	Certificate No. 953
Prunus persica	**'Symphonie'**
(App. No. 89/078)	Certificate No. 554
Prunus persica var *nucipersica*	**'April Glo'** syn **39GA188**
(App. No. 94/163)	Certificate No. 787
Prunus persica var *nucipersica*	**'Liz's Late'** syn **18K374**
(App. No. 95/038)	Certificate No. 949
Rosa hybrid	**'Savaje'** syn **Auria Meillandina**
(App No. 92/149)	Certificate No. 317
Rosa hybrid	**'Meispreyo'** syn **Golden Mimi**
(App. No. 93/180)	Certificate No. 722
Rosa hybrid	**'Meivamo'** syn **Paris YSL**
(App. No. 93/181)	Certificate No. 701
Rosa hybrid	**'Meikister'** syn **Trudy Mimi**
(App. No. 93/182)	Certificate No. 723
Rosa hybrid	**'Meiblonver'** syn **White Majesty**
(App. No. 93/183)	Certificate No. 702
Rosa hybrid	**'Meidalnu'** syn **Mascara**
(App. No. 93/184)	Certificate No. 724
Rosa hybrid	**'Meihouba'** syn **Message 91**
(App. No. 93/185)	Certificate No. 692
Solanum tuberosum	**'Maradonna'**
(App. No. 90/075)	Certificate No. 665
Solanum tuberosum	**'Proloog'**
(App. No. 95/125)	Certificate No. 225

CHANGE OF ASSIGNMENT

The new owner of *Rosa* hybrid **'Noatraum'** syn **Pink Noack Groundcover** (App. No. 90/091) is **Werner Noak** of Germany and the Australian agent is **Flower Carpet Pty Ltd.**

CORRIGENDA

In PVJ 11(4) p11, in **Acceptances** the denominations of *Euphorbia pulcherrima* have been wrongly published as **'Fiscore'** (App. No. 98/189) and **'Fiscore Crème'** (App. No. 98/190). The correct denominations are **'Fiscor'** and **'Fiscor Crème'** respectively.

In PVJ 11(4) p125, in the **Cumulative Index of Varieties** for the application **'Kooiana Daybreak'** the details have moved to the right. The correct details for this record are Public Notice 3(2) 34, Description 3(2) 19, Grant 4(1) 4 and Varied 5(3) 6 respectively.

In PVJ 11(2) p14, the species status of **'Corio Queen'** (App No. 98/065) has been published as *Prunus salicina* whereas in fact it should be *Prunus domestica.*

In PVJ 10(3) p 18, the origin of **'DeltaPEARL'** has been published as 'DP5816' x 'Sicala 34'(ϕ whereas it should be 'DP5816' x 'Sicala 33'.

APPLICATIONS REFUSED

The following PBR applications have been refused as they failed to meet the requirements under Section **43(6)** of the *Plant Breeder's Rights Act 1994.*

Euphorbia pulcherrima **'Peterstar Marble'** (App. No. 99/014)
Euphorbia pulcherrima **'Peterstar Pink'** (App. No. 99/015)
Euphorbia pulcherrima **'Peterstar White'** (App. No. 99/017)
Euphorbia pulcherrima **'Eckespoint Monet'** (App. No. 99/019)

APPENDIX 1

FEES
Two fee structures exist as a result of the transition from Plant Variety Rights to Plant Breeders Rights.
For new applications (those lodged on or after 11 November 1994) the PBR fees apply. For older applications lodged before 11 November 1994 and not finally disposed of (Granted, Withdrawn, Refused etc.) the PVR fees in force at the time apply.

Payment of Fees

All cheques for fees should be made payable and sent to:

Collector of Public Monies
C/-Plant Breeders Rights Office
GPO Box 858
Canberra, ACT 2601

The **application fee** ($300) must accompany the application at the time of lodgement.

Consequences of not paying fees when due
Application fee
Should an application not be accompanied by the prescribed application fee the application will be deemed to be 'non-valid' and neither assigned an application number nor examined for acceptance pending the payment of the fee.

Examination fee
Non-payment of the examination fee of an application will automatically result, at the end of 12 months from the date of acceptance, in a refusal of the application. The consequences of refusal are the same as for applications deemed to be inactive (see 'inactive applications' below).

Field examinations and final examinations falling within the first 12 months will *not* be undertaken without prior payment of the examination fee.

Consideration of a request for an extension of the period of provisional protection from the initial 12 month period may require the prior payment of the examination fee.

Certificate fee
Following the successful completion of the examination, including the public notice period, the applicant will be required and invoiced to pay the certification fee. Payment of the certification fee is a prerequisite to granting PBR and issuing the official certificate by the PBR office. Failure to pay the fee may result in a refusal to grant PBR.

Annual fee
Should an annual renewal fee not be paid within 30 days after the due date, the grant of PBR will be revoked under Section 50 of the PBR Act. To assist grantees, the PBR office will invoice grantees or their Australian agents for renewal fees.

Inactive applications
An application will be deemed inactive if, after 24 months of provisional protection (or 12 months in the case of non-payment of the examination fee) the PBR Office has not received a completed application or has not been advised to proceed with the examination or an extension of provisional protection has not been requested or not granted or a certificate fee has not been paid. Inactive applications will be examined and, should they not fully comply with Section 26 of the PBR Act 1994, they will be refused. As a result provisional protection will lapse, priority claims on that variety will be lost and should the variety have been sold, it will be ineligible for plant variety rights on reapplication. Continued use of labels or any other means to falsely imply that a variety is protected after the application has been refused is an offence under Section 53(1) of the Act.

FEES

Basic Fees	Schedule			
	A	**B**	**C**	**D**
	$			
Application	300	300	400	300
Examination – per application	1400	1200	1400	800
Certificate	300	300	250	300
Total Basic Fees	2000	1800	2050	1400

Annual Renewal – all applications	300

Schedule

A Single applications and applications based on an official overseas test reports.

B Applicable when two or more Part 2 Applications are lodged simultaneously and the varieties are of the same genus and the examinations can be completed at one location at the same time.

C Applications lodged under PVR (prior to 10th Nov 1994).

D Applicable to 5 or more applications examined at an Accredited Centralised Testing Centre.

Other Fees	
Variation to application(s) – per hour or part thereof	75
Change of Assignment – per application	100
Copy of an application (Part 1 and/or Part 2), an objection or a detailed description	50
Copy of an entry in the Register	50
Lodging an objection	100
Annual subscription to Plant Varieties Journal	40
Back issues of Plant Varieties Journal	14
Administration – Other work relevant to PBR – per hour or part thereof	75
Application for declaration of essential derivation	800
Application for	
(a) revocation of a PBR	500
(b) revocation of a declaration of essential derivation	500
Compulsory licence	500
Request under subsection 19(11) for exemption from public access – varieties with no direct use as a consumer	

APPENDIX 2

Plant Breeders Rights Advisory Committee (PBRAC)

(Members of the PBRAC hold office in accordance with Section 85 of the *Plant Breeder's Rights Act 1994*.)

Dr Brian **Hare**
Director of Research
Pacific Seeds Australia
6 Nugent Crescent
TOOWOOMBA QLD 4350
Representing Plant Breeders

Ms Cheryl **McCaffery**
Business Development Manager
UniQuest Limited
Research Road
University of Queensland
ST LUCIA QLD 4072
Member with appropriate qualifications and experience

Mr David **Moore**
Consultant
Applied Economic and Technology Services
PO Box 193
GAWLER, SA 5118
Member with appropriate qualifications and experience

Ms Natalie **Peate**
Nursery Owner
26 Kardinia Crescent
WARRENWOOD VIC 3134
Representing consumers

Mr Hugh **Roberts**
Farmer
'Birralee'
COOTAMUNDRA NSW 2694
Representing Users

Professor Margaret **Sedgley**
Head, Dept. of Horticulture, Viticulture and Oenology
University of Adelaide
Waite Campus, PMB 1
GLEN OSMOND SA 5064
Representing Plant Breeders

Mr Doug **Waterhouse** (Chair)
Registrar, Plant Breeders Rights
GPO Box 858
CANBERRA ACT 2601

Comments on the technical operation of, or amendments to, the *Plant Breeder's Rights Act 1994*, particularly applications under section 17(2), should be directed through the Chairman.

The next meeting will be held on 16 and 17 September 1999.

APPENDIX 3

INDEX OF ACCREDITED CONSULTANT 'QUALIFIED PERSONS'

The following persons have been accredited by the Plant Breeders Rights office based on information provided by these persons. From the information provided by the applicants, the PBR office believes that these people can fulfil the role of 'qualified person' in the application for plant breeder's rights. Neither accreditation nor publication of a name in the list of persons is an implicit recommendation of the person so listed. The PBR office cannot be held liable for damages that may arise from the omission or inclusion of a person's name in the list nor does it assume any responsibility for losses or damages arising from agreements entered into between applicants and any person in the list of accredited persons. Qualified persons charge a fee for services rendered.

A guide to the use of the index of consultants:

- locate in the left column of Table 1 the plant group for which you are applying;
- listed in the right column are the names of accredited qualified persons from which you can choose a consultant;
- in Table 2 find that consultant's name, telephone number and area in which they are willing to consult (they may consult outside the nominated area);
- using the "Nomination of Qualified Person" form as a guide, agree provisionally on the scope and terms of the consultancy; complete the form and attach it to Part 1 of the application form;
- when you are notified that your nomination of a consultant qualified person is acceptable in the letter of acceptance of your application for PBR you should again consult the qualified person when planning the rest of the application for PBR.

TABLE 1

PLANT GROUP/SPECIES/FAMILY	CONSULTANT'S NAME (TELEPHONE AND AREA IN TABLE 2)
Apple	Baxter, Leslie Darmody, Liz Fleming, Graham Langford, Garry Mackay, Alastair Maddox, Zoee Malone, Michael Mitchell, Leslie Pullar, David Robinson, Ben Scholefield, Peter Stearne, Peter Tancred, Stephen Valentine, Bruce
Anigozanthos	Paananen, Ian Kirby, Greg
Aroid	Harrison, Peter
Azalea	Barrett, Mike Hempel, Maciej Paananen, Ian
Barley (Common)	Boyd, Rodger Brouwer, Jan Collins, David Khan, Akram Platz, Greg
Berry Fruit	Darmody, Liz Fleming, Graham Maddox, Zoee Pullar, David Robinson, Ben Scholefield, Peter
Blueberry	Barthold, Graham Pullar, David
Bougainvillea	Iredell, Janet Willa
Brassica	Aberdeen, Ian Baker, Andrew Easton, Andrew Cross, Richard Fennell, John Kadkol, Gururaj Lewis, Gregory McMichael, Prue Pullar, David Robinson, Ben Scholefield, Peter Tay, David Wearing, Alan
Buddleia	Robb, John Paananen, Ian
Camellia	Paananen, Ian Robb, John
Cassava	Tay, David
Cereals	Alam, Rafiul Brouwer, Jan Bullen, Kenneth Collins, David Cook, Bruce Cooper, Kath Cross, Richard Davidson, James Derera, Nicholas AM Downes, Ross Fennell, John Fletcher, Rob Gardner, Anne Hare, Raymond Harrison, Peter Henry, Robert J Khan, Akram Kidd, Charles Law, Mary Ann Mitchell, Leslie Oates, John Platz, Greg Poulsen, David Rose, John Scattini, Walter John Smart, Geoffrey Stearne, Peter Stuart, Peter Vertigan, Wayne Wearing, Alan Williams, Warren Wilson, Frances
Cherry	Darmody, Liz Fleming, Graham Kennedy, Peter Mackay, Alastair Maddox, Zoee Mitchell, Leslie Pullar, David Robinson, Ben Scholefield, Peter
Chickpeas	Brouwer, Jan Collins, David Goulden, David
Citrus	Edwards, Megan Fox, Primrose Gingis, Aron Lee, Slade Maddox, Zoee Mitchell, Leslie Pullar, David Robinson, Ben Scholefield, Peter Sykes, Stephen Topp, Bruce
Clover	Lake, Andrew Miller, Jeff Mitchell, Leslie Nichols, Phillip
Conifer	Stearne, Peter
Cotton	Alam, Rafiul Derera, Nicholas AM Leske, Richard
Cucurbits	Alam, Rafiul Cross, Richard Herrington, Mark McMichael, Prue Pullar, David Robinson, Ben Scholefield, Peter Sykes, Stephen Wearing, Alan
Cydonia	Baxter, Leslie
Dogwood	Darmody, Liz Fleming, Graham Maddox, Zoee Stearne, Peter
Feijoa	Robinson, Ben Scholefield, Peter
Fig	Darmody, Liz FitzHenry, Daniel Fleming, Graham Maddox, Zoee Pullar, David
Forage Brassicas	Goulden, David
Forage Grasses	Berryman, Tim Bray, Robert Fennell, John Harrison, Peter Kirby, Greg Mitchell, Leslie Slatter, John
Forage Legumes	Bray, Robert Fennell, John Foster, Kevin Harrison, Peter Lake, Andrew Miller, Jeff Slatter, John Snowball, Richard
Forest Trees	Lubomski, Marek
Fruit	Beal, Peter Darmody, Liz Fleming, Graham Gingis, Aron Lenoir, Roland Maddox, Zoee

Mitchell, Leslie
Pullar, David
Robinson, Ben
Scholefield, Peter

Fungi, Basidiomycetes
Cairney, John

Fungi, Entomopathogenic
Milner, Richard

Grapes
Biggs, Eric
Cirami, Richard
Darmody, Liz
Fleming, Graham
Gingis, Aron
Lee, Slade
Maddox, Zoee
Mitchell, Leslie
Pullar, David
Robinson, Ben
Scholefield, Peter
Stearne, Peter
Sykes, Stephen

Grevillea
Herrington, Mark

Hydrangea
Hanger, Brian
Maddox, Zoee

Impatiens
Paananen, Ian

Jojoba
Dunstone, Bob

Legumes
Aberdeen, Ian
Bahnisch, L
Baker, Andrew
Bray, Robert
Collins, David
Cook, Bruce
Downes, Ross
Foster, Kevin
Harrison, Peter
Imrie, Bruce
Kirby, Greg
Knights, Edmund
Lake, Andrew
Law, Mary Ann
Loch, Don
Mitchell, Leslie
Nutt, Bradley
Rose, John
Snowball, Richard

Lentils
Brouwer, Jan
Collins, David
Goulden, David

Lucerne
Lake, Andrew
Mitchell, Leslie
Bray, Robert
Nichols, Phillip

Lupin
Collins, David
Lewis, Gregory

Magnolia
Paananen, Ian

Maize
Slatter, John

Myrtaceae
Dunstone, Bob

Native grasses
Quinn, Patrick
Waters, Cathy

Neem
Friend, Joe

Oat
Collins, David
Khan, Akram
Platz, Greg

Oilseed crops
Downes, Ross
Kidd, Charles
Poulsen, David
Slatter, John

Olives
Bazzani, Mr Luigi
Gingis, Aron
Pullar, David

Onions
Cross, Richard
Fennell, John
Gingis, Aron
McMichael, Prue
Pullar, David
Robinson, Ben
Scholefield, Peter

Ornamentals - Exotic
Abell, Peter
Armitage, Paul
Angus, Tim
Barth, Gail
Beal, Peter
Collins, Ian
Cooling, Beth
Cross, Richard
Cunneen, Thomas
Darmody, Liz
Dawson, Iain
Derera, Nicholas AM
Fisk, Anne Marie
Fitzhenry, Daniel
Fleming, Graham
Gingis, Aron
Harrison, Peter
Hempel, Maciej
Johnston, Margaret
Kirkham, Roger
Kwan, Brian
Larkman, Clive
Lenoir, Roland
Lowe, Greg
Lubomski, Marek
Lunghusen, Mark
Maddox, Zoee
McMichael, Prue
Mitchell, Leslie
Nichols, David
Oates, John
Paananen, Ian
Robb, John
Robinson, Ben
Scholefield, Peter
Singh, Deo
Stearne, Peter
Stewart, Angus
Tay, David
Van der Ley, John
Washer, Stewart
Watkins, Phillip
Wearing, Alan
Winfield, Joel

Ornamentals - Indigenous
Abell, Peter
Allen, Paul
Angus, Tim
Barrett, Mike
Barth, Gail
Beal, Peter
Bound, Sally Anne
Cooling, Beth
Cunneen, Thomas
Dawson, Iain
Derera, Nicholas AM
Downes, Ross
Hanger, David
Harrison, Peter
Henry, Robert J
Hockings, David
Jack, Brian
Johnston, Margaret
Kirby, Greg
Kirkham, Roger
Lenoir, Roland
Lowe, Greg
Lunghusen, Mark
McMichael, Prue
Molyneux, W M
Nichols, David
Oates, John
Paananen, Ian
Robinson, Ben
Scholefield, Peter
Singh, Deo
Stearne, Peter
Tan, Beng
Watkins, Phillip
Wearing, Alan
Winfield, Joel
Worrall, Ross

Ornithopus
Foster, Kevin
Nichols, Phillip
Nutt, Bradley
Snowball, Richard

Osmanthus
Paananen, Ian
Robb, John

Pastures & Turf
Aberdeen, Ian
Anderson, Malcolm
Avery, Angela
Bahnisch, L
Berryman, Tim
Cameron, Stephen
Cook, Bruce
Downes, Ross
Gellert, Valerie
Harrison, Peter
Kaapro, Jyri

Kirby, Greg
Loch, Don
Miller, Jeff
Mitchell, Leslie
Rawstron, Jane
Rose, John
Smith, Raymond
Scattini, Walter John
Slatter, John
Williams, Warren
Wilson, Frances

Peanut
George, Doug
Tay, David

Pear
Baxter, Leslie
Darmody, Liz
Fleming, Graham
Langford, Garry
Mackay, Alastair
Maddox, Zoee
Malone, Michael
Pullar, David
Robinson, Ben
Scholefield, Peter
Tancred, Stephen
Valentine, Bruce

Petunia
Paananen, Ian
Nichols, David

Photinia
Robb, John

Pistacia
Pullar, David
Richardson, Clive
Sykes, Stephen

Pisum
Brouwer, Jan
Goulden, David
Lewis, Gregory
McMichael, Prue

Potatoes
Baker, Andrew
Cross, Richard
Fennell, John
Kirkham, Roger
McMichael, Prue
Pullar, David
Robinson, Ben
Scholefield, Peter
Stearne, Peter
Tay, David

Proteaceae
Barth, Gail
Kirby, Neil
Robb, John
Robinson, Ben
Scholefield, Peter

Pseudocereals
Fletcher, Rob

Pulse Crops
Bestow, Sue
Brouwer, Jan
Collins, David
Cross, Richard
Fletcher, Rob
Kidd, Charles
Oates, John
Poulsen, David
Slatter, John

Prunus
Darmody, Liz
Fleming, Graham
Mackay, Alastair
Maddox, Zoee
Malone, Michael
Porter, Gavin
Pullar, David
Topp, Bruce

Raspberry
Barthold, Graham
Darmody, Liz
Fleming, Graham
Martin, Stephen
Pullar, David
Robinson, Ben
Scholefield, Peter

Rhododendron
Barrett, Mike
Paananen, Ian

Roses
Barrett, Mike
Cross, Richard
Darmody, Liz
Fitzhenry, Daniel
Fleming, Graham
Fox, Primrose
Gingis, Aron
Hanger, Brian
Lee, Peter
Maddox, Zoee
Prescott, Chris
Robinson, Ben
Scholefield, Peter
Stearne, Peter
Swane, Geoff
Syrus, A Kim
Van der Ley, John

Sesame
Bennett, Malcolm
Harrison, Peter
Imrie, Bruce

Sorghum
Khan, Akram
Slatter, John

Soybean
Andrews, Judith
Harrison, Peter
James, Andrew

Spices and Medicinal Plants
Derera, Nicholas AM
Pullar, David

Stone Fruit
Barrett, Mike
Darmody, Liz
Fleming, Graham
Mackay, Alistair
Maddox, Zoee
Malone, Michael
Pullar, David
Robinson, Ben
Scholefield, Peter
Valentine, Bruce

Strawberry
Barthold, Graham
Gingis, Aron
Herrington, Mark
Martin, Stephen
Mitchell, Leslie
Morrison, Bruce
Porter, Gavin
Pullar, David
Robinson, Ben
Scholefield, Peter
Zorin, Clara

Sugarcane
Morgan, Terence
Tay, David

Sunflower
George, Doug

Tomato
Cross, Richard
Gingis, Aron
Herrington, Mark
Martin, Stephen
McMichael, Prue
Pullar, David
Robinson, Ben
Scholefield, Peter

Tree Crops
Friend, Joe
McRae, Tony

Triticale (x Triticosecale Wittmack)
Collins, David

Tropical/Sub-Tropical Crops
Fletcher, Rob
Harrison, Peter
Kulkarni, Vinod
Paulin, Robert
Pullar, David
Robinson, Ben
Scholefield, Peter
Tay, David
Winston, Ted

Umbrella Tree
Paananen, Ian

Vegetables
Alam, Rafiul
Baker, Andrew
Beal, Peter
Cross, Richard
Derera, Nicholas AM
Fennell, John
Frkovic, Edward
Gingis, Aron
Harrison, Peter
Kirkham, Roger
Lenoir, Roland
McMichael, Prue
Oates, John
Pearson, Craig
Pullar, David
Robinson, Ben
Scholefield, Peter
Scott, Peter
Tay, David
Westra Van Holthe, Jan

Verbena
Paananen, Ian

Wheat (Aestivum & Durum Groups)
Brouwer, Jan
Collins, David
Gardner, Anne
Khan, Akram
Platz, Greg

TABLE 2

NAME	TELEPHONE	AREA OF OPERATION
Abel, Peter	02 9351 8825	
	02 9351 8875 fax	New South Wales
Aberdeen, Ian	03 5782 1029	
	03 5782 2073 fax	SE Australia
Alam, Rafiul	07 5460 1184	
	07 5460 1112 fax	SE QLD
Allen, Paul	07 3824 0263 ph/fax	SE QLD, Northern NSW
Anderson, Malcolm	03 5573 0900	
	03 5571 1523 fax	
	017 870 252 mobile	Victoria
Andrews, Judith	02 6951 2614	
	02 6955 7580 fax	Southern NSW, Northern VIC
Angus, Tim	02 4751 5702 ph/fax	Australia and New Zealand
Armitage, Paul	03 9756 7233	
	03 9756 6948 fax	Victoria
Avery, Angela	02 6030 4500	
	02 6030 4600 fax	South Eastern Australia
Bahnisch, L	07 5460 1457	
	07 5460 1204 fax	Australia
Baker, Andrew	03 6427 8553	
	03 6427 8554 fax	Tasmania
Barrett, Mike	02 9875 3087	
	02 9980 1662 fax	
	0407 062 494 mobile	NSW/ACT
Barth, Gail	08 8303 9580	
	08 8303 9424 fax	SA and Victoria
Barthold, Graham	03 5997 1413	
	03 5942 5132 fax	Southern Victoria
Baxter, Leslie	03 6224 4481	
	03 6224 4468 fax	
	0181 21943 mobile	Tasmania
Bazzani, Luigi	08 9772 1207	
	08 9772 1333 fax	Western Australia
Beal, Peter	07 3286 1488	
	07 3286 3094 fax	QLD & Northern NSW
Bennett, Malcolm	08 8973 9733	
	08 8973 9777 fax	NT, QLD, NSW, WA
Berryman, Tim	02 4571 1583	
	02 4578 2364 fax	Sydney & Environs
Bestow, Sue	02 6795 4050	
	02 6795 3358 fax	
	0152 54695 mobile	Australia
Biggs, Eric	03 5023 2400	
	03 5023 3922 fax	Mildura Area
Bound, Sally Anne	03 6233 6857	Tasmania
Boyd, Rodger	08 9380 2553	
	08 9380 1108 fax	Western Australia
Bray, Robert	07 3378 3158	QLD & Northern NSW
Brouwer, Jan	03 5362 2159	
	03 5362 2187 fax	South Eastern Australia
Cairney, John	02 9685 9903	Sydney
	j.cairney@nepean.uws.edu.au	
Cirami, Richard	08 8562 8273	
	08 8562 8415 fax	Australia
Collins, David	08 9622 6100	
	08 9622 1902 fax	
	0154 42694 mobile	Central Western Wheatbelt of Western Australia
Cooling, Beth	07 5533 2277 ph/fax	
	0414 533301 mobile	Gilston, Queensland
Cooper, Katharine	08 8303 6563	
	08 8303 7119 fax	Australia
Cross, Richard	64 3 325 6400	
	64 3 325 2074 fax	New Zealand
Cunneen, Thomas	02 4889 8647	
	02 4889 8657 fax	Sydney Region
Darmody, Liz	03 9756 6105	
	03 9752 0005 fax	Australia
Davidson, James	02 6246 5071	
	02 6246 5399 fax	High rainfall zone of temperate Australia
Dawson, Iain	02 6251 2293	ACT, South East NSW
Derera, Nicholas AM	02 9639 3072	
	02 9639 0345 fax	
	0414 639 307 mobile	Australia
Downes, Ross	02 6255 1461 ph	
	02 6278 4676 fax	
	0412 255256 mobile	ACT, South East Australia
Dunstone, Bob	02 6281 1754 ph/fax	South East NSW
Easton, Andrew	07 4690 2666	
	07 4630 1063 fax	QLD and NSW
Edwards, Megan	03 5024 5603	
	03 5051 4523 fax	VIC/NSW
Fennell, John	03 5334 7871	
	03 5334 7892 fax	
	0419 881 887	Australia
FitzHenry, Daniel	02 4862 2487 ph/fax	
	0417 891 651 mobile	Sydney and surrounding districts
Fleming, Graham	03 9756 6105	
	03 9752 0005 fax	Australia
Fletcher, Rob	07 5465 4126	
	07 5460 1112 fax	Australia
Foster, Kevin	08 9368 3670	Mediterranean areas of Australia
Friend, Joe	02 6688 6150 ph/fax	Northern QLD & NSW
Frkovic, Edward	02 6962 7333	
	02 6964 1311 fax	Australia
Gardner, Anne	02 6238 3536	Australia, New Zealand
George, Doug	07 5460 1308	
	07 5460 1112 fax	Australia
Gellert, Valerie	03 5573 0900	
	03 5571 1523 fax	Victoria
Gingis, Aron	03 9887 6120	
	03 9769 1522 fax	
	0419 878658 mobile	Victoria, South Australia and Southern NSW
Goulden, David	64 3 325 6400	
	64 3 325 2074 fax	New Zealand
Hanger, Brian	03 9756 7532	
	03 9756 6684 fax	
	03 9752 0603 fax	
	0418 598106 mobile	Victoria
Hanger, David	07 5460 1317	
	07 5460 1112 fax	Australia
Hare, Ray	02 6763 1232	
	02 6763 1222 fax	QLD, NSW VIC & SA
Harrison, Peter	08 8948 1894 ph	
	08 8948 3894 fax	
	0407 034 083 mobile	Tropical/Sub-tropical Australia, including NT and NW of WA and tropical arid areas
Hempel, Maciej	02 4628 0376	
	02 4625 2293 fax	NSW, QLD, VIC, SA
Henry, Robert J	02 6620 3010	
	02 6622 2080 fax	Australia
Herrington, Mark	07 5441 2211	
	07 5441 2235 fax	Southern Queensland
Hockings, David	07 5494 3385 ph/fax	Southern Queensland
Imrie, Bruce	02 4471 2976	
	0409 266762	SE Australia
Iredell, Janet Willa	07 3202 6351 ph/fax	SE Queensland
Jack, Brian	08 9952 5040	
	08 9952 5053 fax	South West WA
James, Andrew	07 3214 2278	
	07 3214 2410 fax	Australia
Johnston, Margaret	07 5460 1240	
	07 5460 1455 fax	SE Queensland
Kaapro, Jyri	02 9637 8711	
	02 9637 8599 fax	Sydney and surrounding areas
Kadkol, Gururaj	03 5382 1269	
	03 5381 1210 fax	North Western Victoria
Kennedy, Peter	02 6382 1077	
	02 6382 2228 fax	Australia
Khan, Akram	02 9351 8821	
	02 9351 8875 fax	New South Wales
Kidd, Charles	08 8842 3591	
	08 8842 3066 fax	
	0417 336 458 mobile	Southern Australia
Kirby, Greg	08 8201 2176	
	08 8201 3015 fax	South Australia
Kirby, Neil	02 4754 2637	
	02 4754 2640 fax	New South Wales
Kirkham, Roger	03 5957 1200	
	03 5957 1210 fax	
	0153 23713 mobile	Victoria
Knights, Edmund	02 6763 1100	
	02 6763 1222 fax	North Western NSW
Kulkarni, Vinod	08 9992 2221	
	08 9992 2049 fax	Australia
Kwan, Brian	03 5943 1088	
	03 5943 1146 fax	Australia
Lake, Andrew	08 8277 9789	SE Australia
Langford, Garry	03 6266 4344	
	03 6266 4023 fax	
	0418 312 910 mobile	Australia
Larkman, Clive	03 9735 3831	
	03 9739 6370	
	larkman@tpgi.com.au	Victoria
Law, Mary Ann	07 4638 4322	
	07 4638 4271 fax	Toowoomba region
Lee, Peter	03 6330 1147	
	03 6330 1927 fax	SE Australia

Lee, Slade	02 6620 3410	
	02 6622 2080 fax	Queensland/Northern New South Wales
Lenoir, Roland	02 6231 9063 ph/fax	Australia
Leske, Richard	07 4671 3136	
	07 4671 3113 fax	Cotton growing regions of QLD & NSW
Lewis, Gregory	07 5460 1301	
	07 5460 1112 fax	Southern QLD, Northern NSW
Loch, Don	07 5482 1522	
	07 5482 1529 fax	Queensland
Lowe, Greg	02 4389 8750	
	02 4389 4958 fax	
	0411 327390 mobile	Sydney, Central Coast NSW
Lubomski, Marek	07 5525 3023 ph/fax	NSW & QLD
Lunghusen, Mark	03 9752 0477	
	03 9752 0028 fax	
	0155 15845 mobile	Melbourne & environs
Mackay, Alastair	08 9310 5342 ph/fax	
	0159 87221 mobile	Western Australia
Maddox, Zoee	03 9756 6105	
	03 9752 0005	Australia
Malone, Michael	+64 6 877 8196	
	+64 6 877 4761 fax	New Zealand
Martin, Stephen	03 6231 2489	
	03 6231 4508 fax	
	0418 500198 mobile	Tasmania
McMichael, Prue	08 8373 2488	
	08 8373 2442 fax	SE Australia
McRae, Tony	08 8723 0688	
	08 8723 0660 fax	Australia
Miller, Jeff	64 6 356 8019 extn 8027	
	64 3 351 8142 fax	Manawatu region, New Zealand
Milner, Richard	02 6246 4169	
	02 6246 4042 fax	
	richardm@ento.csiro.au	Australia
Mitchell, Leslie	03 5821 2021	
	03 5831 1592 fax	VIC, Southern NSW
Molyneux, William	03 5965 2011	
	03 5965 2033 fax	Victoria
Morgan, Terence	07 4783 6000	
	07 4783 6001 fax	Australia
Morrison, Bruce	03 9210 9251	
	03 9800 3521 fax	East of Melbourne
Nichols, David	03 5977 4755	
	03 5977 4921 fax	SE Melbourne, Mornington Peninsula and Dandenong Ranges, Victoria
Nichols, Phillip	08 9387 7442	
	08 9383 9907 fax	Western Australia
Nutt, Bradley	08 9387 7423/	
	08 9383 9907 fax	Western Australia
Oates, John	02 4651 2601	
	02 4651 2578 fax	Sydney region, Eastern Australia
Paananen, Ian	02 4381 0051	
	02 4381 0071 fax	
	0412 826589 mobile	Sydney/Newcastle
Paulin, Robert	08 9368 3308	
	08 9367 2625 fax	
	0191 07244 mobile	South West Western Australia
Platz, Greg	07 4639 8817	
	07 4639 8800 fax	QLD, Northern NSW
Porter, Gavin	07 5460 1231	
	07 5460 1455 fax	SE QLD, Northern NSW
Poulsen, David	07 4661 2944	
	07 4661 5257 fax	SE QLD, Northern NSW
Prescott, Chris	03 5964 2780 ph/fax	
	0417 340 558 mobile	Victoria
Pullar, David	03 5822 2222	
	03 5822 2200 fax	
	0418 575 444 mobile	Australia
Quinn, Patrick	03 5427 0485	SE Australia
Rawstron, Jane	03 6336 5219	
	03 6344 9814 fax	Tasmania
Richardson, Clive	03 5155 0255	
	03 5143 2168	New South Wales and Victoria
Robb, John	02 4376 1330	
	02 4376 1271 fax	
	0199 19252 mobile	Sydney, Central Coast NSW
Robinson, Ben	08 8373 2488	
	08 8373 2442 fax	SE Australia
Rose, John	07 4661 2944	
	07 4661 5257 fax	SE Queensland
Scattini, Walter	07 3356 0863 ph/fax	Tropical and sub-tropical Australia
Scholefield, Peter	08 8373 2488	
	08 8373 2442 fax	
	018 082022 mobile	SE Australia
Scott, Peter	02 9653 1362	
	02 9653 1072 fax	Sydney region
Singh, Deo	0418 880787 mobile	
	07 3207 5998 fax	Brisbane
Slatter, John	07 4635 0726	
	07 4635 2772 fax	
	0155 88086 mobile	Australia
Smart, Geoffrey	02 6793 1114 ph/fax	
	0191 10307 mobile	New South Wales
Smith, Stuart	03 6336 5234	
	03 6334 4961 fax	SE Australia
Snowball, Richard	08 9368 3517	Mediterranean areas of Australia
Stearne, Peter	02 9262 2611	
	02 9262 1080 fax	Sydney, ACT & NSW
Stewart, Angus	02 4325 3944 ph/fax	Sydney, Gosford
Stuart, Peter	07 4690 2666	
	07 4630 1063 fax	SE Queensland
Swane, Geoff	02 6889 1545	
	02 6889 2533 fax	
	0419 841580 mobile	Central western NSW
Sykes, Stephen	03 5051 3100	
	03 5051 3111 fax	Victoria
Syrus, A Kim	03 8556 2555	
	03 8556 2955 fax	Adelaide
Tan, Beng	08 9266 7168	
	08 9266 2495	Perth & environs
Tancred, Stephen	07 4681 2931	
	07 4681 4274 fax	
	0157 62888 mobile	QLD, NSW
Tay, David	07 5460 1313	
	07 5460 1112 fax	Australia
Topp, Bruce	07 4681 1255	
	07 4681 1769 fax	SE QLD, Northern NSW
Valentine, Bruce	02 6361 3919	
	02 6361 3573 fax	New South Wales
Van Der Ley, John	02 6561 5047	
	02 6561 5138 fax	
	0417 423 768 mobile	Sydney to Brisbane and New England area
Vertigan, Wayne	03 6336 5221	
	03 6334 4961 fax	Tasmania
Washer, Stewart	08 9300 9995	
	08 9407 5070 fax	
	0196 83642 mobile	Western Australia
Waters, Cathy	02 6888 7404	
	02 6888 7201 fax	SE Australia
Watkins, Phillip	08 9525 1800	
	08 9525 1607 fax	Perth Region
Wearing, Alan	07 5460 1230	
	07 5460 1455 fax	Australia
Westra Van Holthe, Jan	03 9706 3033	
	03 9706 3182 fax	Australia
Williams, Warren	64 6 356 8019 NZ	
	02 6356 8019 AUS	
	02 6351 8047 fax AUS	New Zealand
Wilson, Frances	64 3 318 8514	
	64 3 318 8549 fax	Canterbury, New Zealand
Winfield, Joel	03 9737 9660	Victoria
Winston, Ted	07 4068 8796 ph/fax	
	0412 534 514 mobile	QLD, Northern NSW and NT
Worrall, Ross	02 4348 1900	
	02 4348 1910 fax	Australia
Zorin, Clara	07 3207 4306 ph/fax	
	0418 984 555	Eastern Australia

APPENDIX 4

INDEX OF ACCREDITED NON-CONSULTANT 'QUALIFIED PERSONS'

Name
Ali, S
Baelde, Arie
Barr, Andrew
Beatson, Ron
Bell, David
Birmingham, Erika
Bodman, Keith
Brennan, Paul
Breust, P
Brindley, Tony
Buchanan, Peter
Bunker, John
Bunker, Kerry
Burton, Wayne
Cameron, Nick
Chin, Robert
Chivers, Ian
Clayton-Greene, Kevin
Coker, Julian
Constable, Greg
Cook, Esther
Cooper, Kath
Costin, Russell
Cox, Michael
Craig, Andrew
Crane, Peter
Cruickshank, Alan
Cummings, Dale
Dale, Gary
Davidson, Jim
Dear, Brian
de Betue, Remco
Done, Anthony
Donnelly, Peter
Downe, Graeme
Eastwood, Russell
Eisemann, Robert
Elliott, Philip
Enneking, Dirk
Fiffer, Sue
Fitzsimmons, Laurie
Foster, Pauline
Gibson, Peter
Gomme, Simon
Granger, Andrew
Green, Allan
Guy, Graeme
Hall, Nicola
Harden, Patrick
Hart, Ray
Hatfield, Peter
Higgs, Robert
Hollamby, Gil
Holland, Mark
Hoppo, Sue
Howie, Jake
Huxley, Ian
Irwin, John
Jupp, Noel
Kaehne, Ian
Kebblewhite, Tony
Kennedy, Chris
Kimbeng, Collins
Knight, Ronald
Knights, Ted
Knox, Graham
Kobelt, Eric
Leonforte, Tony
Lewin, Laurence
Lewis, Hartley
Liu, Chunji
Loi, Angelo
Luckett, David
Lullfitz, Robert
Macleod, Nick
Mann, Dorham
Mason, Lloyd
Mcdonald, David
Mcmaugh, P
Mendham, Neville
Menzies, Kim
Milne, Carolyn
Moody, David
Moore, Stephen
Neilson, Peter
Newman, Allen
Norriss, Michael
Oakes, John
Offord, Cathy
Oram, Rex
Patel, Narandra
Paull, Jeff
Pearce, Bob
Peppe, Ivan
Perrott, Neil
Pymer, Sally
Reese, Nicholas
Reid, Peter
Richardson, Maureen
Rose, Ian
Salmon, Alexander
Sammon, Noel
Sandral, Graeme
Sanewski, Garth
Schreuders, Harry
Scott, Ralph
Smith, Michael
Smith, Raymond
Smith, Sue
Song, Leonard
Sully, Helen
Toyer, Christine
Titley, Michael
Trimboli, Daniel
Turner, Matthew
Tuttleby, Richard
Vaughan, Peter
Weatherly, Lilia
Whalley, R.D.B.
Whiley, Tony
Williams, Rex
Wilson, Rob
Wilson, Stephen
Witherspoon, Jennifer
Wrigley, John
Yan, Guijun
Zeppa, Aldo

APPENDIX 5

ADDRESSES OF UPOV AND MEMBER STATES

International Union for the Protection of New Varieties of Plants (UPOV):

International Union for the
Protection of New Varieties of Plants
(UPOV)
34, Chemin des Colombettes
CH-1211
Geneva 20
SWITZERLAND

Phone: (41-22) 338 9111
Fax: (41-22) 733 0336
Web site: http://www.upov.int

Plant Variety Protection Offices in individual UPOV Member States:

ARGENTINA
Instituto Nacional de Semillas
Ministerio de Economia
Secretaria de Agricultura
Ganaderia y Pesca
Avda. Paseo Colon 922-3.
Piso, 1063 Buenos Aires

Phone: (54 1) 362 39 88
Fax: (54 1) 349 24 17

AUSTRALIA
Registrar
Plant Breeders Rights Office
P O Box 858
Canberra ACT 2601

Phone: (61 2) 6272 3888
Fax: (61 2) 6272 3650

AUSTRIA
Bundesamt und Forschungszentrum
fur Landwirtschaft
Sortenschutzamt
Postfach 400
Spargelfeldstrasse 191
A- 1226 Wien

Phone: (43 1) 73216 4000
Fax: (43 1) 73216 4211

BELGIUM
Ministere de classes moyennes et de l'agriculture
Service de la protection des obtentions
vegetales et des catalogues nationaux
Tour WTC/3- 6eme etage
Avenue Simon Bolivar 30
B-1000 Bruxelles

Phone: (32 2) 208 37 28
Fax: (32 2) 208 37 05

BULGARIA
Patent Office of the Republic of Bulgaria
52 B, Dr. G. M. Dimitrov Blvd.
1113 Sofia

Phone: (359-2) 710 152
Fax: (359-2) 708 325

CANADA
The Commissioner
Plant Breeders' Rights Office
Canadian Food Inspection Agency (CFIA)
3rd Floor, East Court
Camelot Court
59 Camelot Drive
Nepean, Ontario
K1A OY9

Phone: (1 613) 225 2342
Fax: (1 613) 228 6629

CHILE
Ministerio de Agricultura
Servicio Agricola y Ganadero
Department de Semillas
Casilla 1167-21
Santiago de Chile

Phone: (56 2) 696 29 96
Fax: (56 2) 696 64 80

CHINA
(new member – address to be advised)

COLUMBIA
Instituto Colombiano Agropecuario (I.C.A)
Division de Semillas
Calle 37 No. 8-43
Santa Fe de Bogota

Phone: (57 1) 232 4697
Fax: (57 1) 232 4695

CZECH REPUBLIC
Ministry of Agriculture
External Relations Department
Tesnov 17
117 05 Prague 1

Phone: (42) 2 2181 2474
Fax: (42) 2 2181 2970

DENMARK
Afdeling for Sortsafprovning
Postbox 7
Teglvaerksvej 10, Tystofte
DK-4230 Skaelskoer

Phone: (45) 53 59 61 41
Fax: (45) 53 59 01 66

ECUADOR
División de Insumos
Ministerio de Agricultura y Ganadería
Avenida Eloy Alfaro y Amazonas
Quito

Phone: (593-2) 543 763
Fax: (593-2) 504 833

FINLAND
Plant Variety Board
Plant Variety Rights Office
PO Box 232
SF-00171 Helsinki

Phone: (358) 01 60 33 16
Fax: (358) 01 60 24 43

FRANCE
Comite de la protection des obtentions vegetales
11, rue Jean Nicot
F-75007 Paris

Phone: (331) 42 75 93 14
Fax: (331) 42 75 94 25

GERMANY
Bundessortenamt
Postfach 61 04 40
D-30604 Hannover

Phone: (49 511) 95 66 5
Fax: (49 511) 56 33 62

HUNGARY
Hungarian Patent Office
Magyar Szabadalmi Hivatal
Garibaldi-u.2-B.P. 552
H-1370 Budapest

Phone: (36 1) 112 44 00
Fax: (36 1) 131 25 96

IRELAND
Controller of Plant Breeders' Rights
Department of Agriculture and Food
Agriculture House 6W
Kildare Street
Dublin 2

Phone: (353) 1 607 20 00
Fax: (353) 1 661 62 63

ISRAEL
Plant Breeders' Rights Council
The Volcani Center
PO Box 6
Bet-Dagan 50 250

Phone: (972) 3 968 3669
Fax: (972) 3 968 34 92

ITALY
Ufficio Italiano Brevetti e Marchi
Ministero dell'Industria, del Commercio e dell'Artigianato
19,via Molise
I-00187 Roma

Phone: (39 6) 47 05 1
Fax: (39 6) 47 05 30 35

JAPAN
Director of Seeds and Seedlings Division
Agricultural Production Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigaseki - Chiyoda-ku
Tokyo 100

Phone: (81 3) 35 91 05 24
Fax: (81 3) 35 02 65 72

MEXICO
Director de SNICS
Lope de Vega 125 8· Piso
Col. Capultepec Morales
México, D.F. 11570

Phone: (52-5) 203 9427
Fax: (52-5) 250 64 83

NETHERLANDS
Raad voor het Kwekersrecht
Marijkeweg 24
NL-6709 PG Wageningen

Phone: (31 317) 478090
Fax: (31 317) 42 58 67

NEW ZEALAND
Commissioner of Plant Variety Rights
Plant Variety Rights Office
PO Box 130
Lincoln

Phone: (64 3) 325 63 55
Fax: (64 3) 325 29 46

NORWAY
Planteosortsnemnda
(The Plant Variety Board)
Fellesbygget
N-1432 As

Phone: (47) 64 94 75 04
Fax: (47) 64 94 02 08

PARAGUAY
Ministerio de Agricultura y Ganaderia
Direccion de Semillas (DISE)
Gaspar R. de Francia No. 685
c/ Mcal. Estigarribia
San Lorenzo

Phone: (595) 21 58 22 01
Fax: (595) 21 58 46 45

POLAND
The Director
Research Center of Cultivars Testing (COBORU)
63-022 Slupia Wielka

Phone: (48 667) 535 58 or 523 41
Fax: (48 667) 535 58

PORTUGAL
Centro Nacional de Registo de Variedades Protegidas (CENARVE)
Edificio II do CNPPA
Tapada da Ajuda
P-1300 Lisboa

Phone: (351) 1 362 16 07
Fax: (351) 1 362 16 06

REPUBLIC OF MOLDOVA
State Commission for Crops Variety Testing and Registration
Ministry of Agriculture
Bul. Stefan Cel Mare 162
C.P. 1873
2004 Chisinau

Phone: (373-2) 24 62 22
Fax: (373-2) 24 69 21

RUSSIAN FEDERATION
State Commission of the Russian Federation for Selection Achievements Test and Protection
Orlicov per., 3a
107139 Moscow

Phone: (70-95) 204 49 26
Fax: (70-95) 207 86 26

SLOVAKIA
Ministry of Agriculture
Dodrovicova 12
812 66 Bratislava

Phone: (42) 736 85 61
Fax: (42) 745 62 94

SOUTH AFRICA
National Department of Agriculture
Directorate of Plant and Quality Control
Private Bag X 258
Pretoria 0001

Phone: (27 12) 319 7202
Fax: (27 12) 319 7279

SPAIN
Registro de Variedades
Subdireccion General de Semillas y Plantas de Vivero
Jose Abascal, 4
E-280003- Madrid

Phone: (34 1) 347 66 00
Fax: (34 1) 594 27 68

SWEDEN
Statens vaxtsortnamnd
Box 1247
S-171 24 Solna

Phone: (46) 8 730 66 30
Fax: (46) 8 833 170

SWITZERLAND
Bundesamt fur Landwirtschaft
Buro fur Sortenschutz
Mattenhofstr. 5
CH-3003 Bern

Phone: (41 31) 322 25 24
Fax: (41 31) 322 26 34

TRINIDAD AND TOBAGO
Controller (Ag)
Intellectual Property Office
Ministry of Legal Affairs
34 Frederick Street
Port of Spain

Phone: (1 868) 625 9972
Fax: (1 868) 624 1221

UKRAINE
State Patent Office of Ukraine
8 Lvov Square
254655 Kiev 53, GSP- 655

Phone: (880 44) 212 50 82
Fax: (880 44) 212 34 49

UNITED KINGDOM
The Plant Variety Rights Office
White House Lane
Huntingdon Road
Cambridge CB3 OLF

Phone: (44 1223) 34 23 81
Fax: (44 1223) 34 23 86

UNITED STATES OF AMERICA
(For PVP)
The Commissioner
Plant Variety Protection Office
Agricultural Marketing Service
Department of Agriculture
Beltsville, Maryland 20705-2351

Phone: (1 301) 504 55 18
Fax: (1 301) 504 52 91

(For Plant Patent)
The Commissioner of Patents and Trademarks
Patent and Trade Mark Office
Box 4
Washington DC 20231

Phone: (1 703) 305 93 00
Fax: (1 703) 305 88 85

URUGUAY
Ministerio de Ganaderia, Agricultura y Pesca
Direccion General -Servicios Agricolas
Unidad de Semillas
Ava. Milan 4703
12.900 Montevideo

Phone: (59 82) 309 79 24
Fax: (59 82) 39 60 53

EUROPEAN UNION
(for applications filed within the EU)

Community Plant Variety Office
P.O. Box 2141
F-49021 Angers Cedex
FRANCE

Phone: (33 2) 41 36 84 50
Fax: (33 2) 41 36 84 60

CURRENT STATUS OF PLANT VARIETY PROTECTION LEGISLATURE IN UPOV MEMBER COUNTRIES

Argentina[2]
Australia[2,5]
Austria[2,4]
Belgium[1,4]
Bulgaria[3]
Canada[2]
Chile[2]
China[2]
Columbia[2]
Czech Republic[2]
Denmark[3,4]
Ecuador[2]
Finland[2,4]
France[2,4]
Germany[3,4]
Hungary[2]
Ireland[2,4]
Israel[3]
Italy[2,4]
Japan[3]
Mexico[2]
Netherlands[3,4]
New Zealand[2]
Norway[2]
Paraguay[2]
Poland[2,5]
Portugal[2,4]
Republic of Moldova[3]
Russian Federation[3]
Slovakia[2,5]
South Africa[2,5]
Spain[1,4]
Sweden[3,4]
Switzerland[2]
Trinidad and Tobago[2]
Ukraine[2]
United Kingdom[3,4]
USA[3]
Uruguay[2]
(Total 39)

Many non-member states currently have proposals for law to protect plant varieties before their legislatures. Belarus, Bolivia, Brazil, Kenya, Panama, have initiated with the Council of UPOV the procedure for becoming members of the Union.

1 Bound by the 1961 Act as amended by the Additional Act of 1972.
2 Bound by the 1978 Act.
3 Bound by the 1991 Act.
4 Member of the European Community which has introduced a (supranational) Community plant variety rights system based upon the 1991 Act.
5 Has already amended its law to conform to the 1991 Act; most other states are in the process of doing so.

APPENDIX 6

CENTRALISED TESTING CENTRES

Under Plant Breeder's Rights Regulations introduced in 1996, establishments may be officially authorised by the PBR office to conduct test growings. An authorised establishment will be known as Centralised Test Centre (CTC).

Usually, the implementation of PBR in Australia relies on a 'breeder testing' system in which the applicant, in conjunction with a nominated Qualified Person (QP), establishes, conducts and reports a comparative trial. More often than not, trials by several breeders are being conducted concurrently at different sites. This makes valid comparisons difficult and often results in costly duplication.

While the current system is and will remain satisfactory, other optional testing methods are now available which will add flexibility to the PBR process.

Centralised Testing is one such optional system. It is based upon the authorisation of private or public establishments to test one or more genera of plants. Applicants can choose to submit their varieties for testing by a CTC or continue to do the test themselves. Remember, using a CTC to test your variety is voluntary.

The use of CTCs recognises the advantages of testing a larger number of candidate varieties (with a larger number of comparators) in a single comprehensive trial. Not only is there an increase in scientific rigour but there are substantial economies of scale and commensurate cost savings. A CTC will establish, conduct and report each trial on behalf of the applicant.

The PBR office has amended its fees so that cost savings can be passed to applicants who choose to test their varieties in a CTC. Accordingly, when 5 or more candidate varieties of the same genus are tested simultaneously, each will qualify for the CTC examination fee of $800. This is a saving of nearly 40% over the normal fee of $1400.

Trials containing less than 5 candidate varieties capable of being examined simultaneously will not be considered as Centralised test trials regardless of the authorisation of the facility. Candidate varieties in non-qualifying small trials will not qualify for CTC reduction of examination fees.

Establishments wishing to be authorised as a CTC may apply in writing to the PBR office outlining their claims against the selection criteria. Initially, only one CTC will be authorised for each genus. Exemptions to this rule can be claimed due to special circumstances, industry needs and quarantine regulations. Authorisations will be reviewed periodically.

Authorisation of CTCs is not aimed solely at large research institutions. Smaller establishments with appropriate facilities and experience, can also apply for CTC status. There is no cost for authorisation as a CTC.

APPLICATIONS FOR AUTHORISATION AS A 'CENTRALISED TESTING CENTRE'

Establishments interested in gaining authorisation as a Centralised Testing Centre should apply in writing addressing each of the Conditions and Selection Criteria outlined below.

Conditions and Selection Criteria

To be authorised as a CTC, the following conditions and criteria will need to be met:

Appropriate facilities
While in part determined by the genera being tested, all establishments must have facilities that allow the conduct and completion of moderate to large scale scientific experiments without undue environmental influences. Again dependent on genera, a range of complementary testing and propagation facilities (e.g. outdoor, glasshouse, shadehouse, tissue culture stations) is desirable.

Experienced staff
Adequately trained staff, and access to appropriately accredited Qualified Persons, with a history of successful PVR/PBR applications will need to be available for all stages of the trial from planting to the presentation of the analysed data. These staff will require the authority to ensure timely maintenance of the trial. Where provided by the PBR office, the protocol and technical guidelines for the conduct of the trial must be followed.

Substantial industry support
Normally the establishment will be recognised by a state or national industry society or association. This may include/be replaced by a written commitment from major nurseries or other applicants, who have a history of regularly making applications for PBR in Australia, to use the facility.

Capability for long term storage of genetic material
Depending upon the genus, a CTC must be in a position to make a long term commitment to collect and maintain, at minimal cost, genetic resources of vegetatively propagated species as a source of comparative varieties. Applicants indicating a willingness to act as a national genetic resource centre in perpetuity will be favoured.

Contract testing for 3rd Parties
Unless exempted in writing by the PBR office operators of a CTC must be prepared to test varieties submitted by a third party.

Relationship between CTC and 3rd Parties
A formal arrangement between the CTC and any third party including fees for service will need to be prepared and signed before the commencement of the trial. It will include among other things: how the plant material will be delivered (e.g. date, stage of development plant, condition etc); allow the applicant and/or their agent and QP access to the site during normal working hours; and release the use of all trial data to the owners of the varieties included in the trial.

One trial at a time
Unless exempted in writing by the PBR office, all candidates and comparators should be tested in a single trial.

One CTC per genus
Normally only one CTC will be authorised to test a genus. Special circumstances may exist (environmental factors, quarantine etc) to allow more than one CTC per genus, though a special case will need to be made to the PBR office. More than one CTC maybe allowed for roses.

One CTC may be authorised to test more than one genus. Authorisations for each genus will be reviewed periodically.

Authorised Centralised Test Centres (CTCs)

Following publication of applications for accreditation and ensuing public comment, the following organisations/individuals are authorised to act as CTCs. Any special conditions are also listed.

Name	Location	Approved Genera	Facilities	Name of QP	Date of accreditation
Agriculture Victoria, National Potato Improvement Centre	Toolangi, VIC	Potato	Outdoor, field, greenhouse, tissue culture laboratory	R Kirkham G Wilson	31/3/97
Bureau of Sugar Experiment Stations	Cairns, Tully, Ingham, Ayr, Mackay, Bundaberg, Brisbane QLD	*Saccharum*	Field, glasshouse, tissue culture, pathology	M Cox	30/6/97
Ag-Seed Research	Horsham and other sites	Canola	Field, glasshouse, shadehouse, laboratory and biochemical analyses	G Kadkol	30/6/97
Agriculture Western Australia	Northam WA	Wheat	Field, laboratory	D Collins	30/6/97
University of Sydney, Plant Breeding Institute	Camden, NSW	*Argyranthemum, Diascia, Mandevilla*, Oats	Outdoor, field, irrigation, green-houses with controlled micro-climates, controlled environment rooms, tissue culture, molecular genetics and cytology lab.	J Oates	30/6/97

Boulters Nurseries Monbulk Pty Ltd	Monbulk, VIC	Clematis	Outdoor, shadehouse, greenhouse	M Lunghusen	30/9/97
Geranium Cottage Nursery	Galston, NSW	Pelargonium	Field, controlled environment house	I Paananen	30/11/97
Agriculture Victoria	Hamilton, VIC	*Perennial ryegrass, tall fescue, tall wheat grass, white clover, persian clover*	Field, shadehouse, glasshouse, growth chambers. Irrigation. Pathology and tissue culture. Access to DNA and molecular marker technology. Cold storage.	V Gellert M Anderson	30/6/98
Koala Blooms	Monbulk, VIC	*Bracteantha*	Outdoor, irrigation	M Lunghusen	30/6/98
Redlands Nursery	Redland Bay, QLD	*Aglaonema*	Outdoor, shadehouse, glasshouse and indoor facilities	K Bunker	30/6/98
Protected Plant Promotions	Macquarie Fields , NSW	New Guinea Impatiens including *Impatiens hawkeri* and its hybrids	Glasshouse	I Paananen	30/9/98
University of Queensland, Gatton College	Lawes, QLD	Some tropical pastures	Field, irrigation, glasshouse, small phytotron, plant nursery & propagation, tissue culture, seed and chemical lab, cool storage	D Hanger	30/9/98
Jan and Peter Iredell	Moggill, QLD	Bougainvillea	Outdoor, shadehouse	J Iredell	30/9/98
Protected Plant Promotions	Macquarie Fields, NSW	*Verbena*	Glasshouse	I Paananen	31/12/98
Avondale Nurseries Ltd	Glenorie, NSW	*Agapanthus*	Greenhouse, tissue culture with commercial partnership	I Paananen	31/12/98
Paradise Plants	Kulnura, NSW	*Camellia, Lavandula, Osmanthus, Ceratopetalum*	Field, glasshouse, shadehouse, irrigation, tissue culture lab	J Robb	31/12/98
Prescott Roses	Berwick, VIC	*Rosa*	Field, controlled environment greenhouses	C Prescott	31/12/98
F & I Baguley Flower and Plant Growers	Clayton South, VIC	*Euphorbia*	Controlled glasshouses, quarantine facilities, tissue culture	G Guy	31/3/99

The following applications are pending:

Name	**Location**	**Genera applied for**	**Facilities**	**Name of QP**
Outeniqua Nursery	Monbulk, VIC	Unspecified	Outdoor, glasshouse	
University of Queensland, Gatton College	Lawes, QLD	Ornamental & bedding sp., wheat, millet, *Prunus, Capsicum, Glycine, Ipomea, Vigna*, *Lycopersicon,* Asian vegetables, Tropical fruits, *Solanum*	Field, irrigation, glasshouse, small phytotron, plant nursery & propagation, tissue culture, seed and chemical lab, cool storage	L Bahnisch R Fletcher D George M Johnston G Lewis G Porter D Tay A Wearing D Hanger

Comments (both for or against) either the continued accreditation of a CTC or applications to become a CTC are invited. Written comments are confidential and should be addressed to:

The Registrar
Plant Breeders Rights Office
PO Box 858
CANBERRA ACT 2601
Fax (02) 6272 3650
Closing date for comment: 30 June 1999.

APPENDIX 7

LIST OF CLASSES FOR VARIETY DENOMINATION PURPOSES[1]

As amended by the Council at its twenty-fifth ordinary session, on October 25, 1991.

Recommendation 9

For the purposes of the fourth sentence of Article 13(2) of the Convention, all taxonomic units are considered closely related that belong to the same botanical genus or are contained in the same class in the list in Annex I to these Recommendations.]

Note: Classes which contain subdivisions of a genus may lead to the existence of a complementary class containing the other subdivisions of the genus concerned (example: Class 9 (Vicia faba) leads to the existence of another class containing the other species of the genus Vicia).*

Class 1: Avena, Hordeum, Secale, Triticale, Triticum

Class 2: Panicum, Setaria

Class 3: Sorghum, Zea

Class 4: Agrostis, Alopecurus, Arrhenatherum, Bromus, Cynosurus, Dactylis, Festuca,Lolium, Phalaris, Phleum, Poa, Trisetum

Class 5: Brassica oleracea, Brassica chinensis, Brassica pekinensis

Class 6: Brassica napus, B. campestris, B. rapa, B. juncea, B. nigra, Sinapis

Class 7: Lotus, Medicago, Ornithopus, Onobrychis, Trifolium

Class 8: Lupinus albus L., L. angustifolius L., L. luteus L.

Class 9: Vicia faba L.

Class 10: Beta vulgaris L. var. alba DC., Beta vulgaris L. var. altissima

Class 11: Beta vulgaris ssp. vulgaris var. conditiva Alef. (syn.: Beta vulgaris L. var. rubra L.), Beta vulgaris L. var. cicla L., Beta vulgaris L. ssp. vulgaris var. vulgaris

Class 12: Lactuca, Valerianella, Cichorium

Class 13: Cucumis sativus

Class 14: Citrullus, Cucumis melo, Cucurbita

Class 15: Anthriscus, Petroselinum

Class 16: Daucus, Pastinaca

Class 17: Anethum, Carum, Foeniculum

Class 18: Bromeliaceae

Class 19: Picea, Abies, Pseudotsuga, Pinus, Larix

Class 20: Calluna, Erica

Class 21: Solanum tuberosum L.

Class 22: Nicotiana rustica L., N. tabacum L.

Class 23: Helianthus tuberosus

Class 24: Helianthus annuus

Class 25: Orchidaceae

Class 26: Epiphyllum, Rhipsalidopsis, Schlumbergera, Zygocactus

Class 27: Proteaceae

COMPLEMENTARY CLASSES

Class 28: Species of Brassica other than
(in Class 5 + 6) Brassica oleracea, Brassica chinensis, Brassica pekinensis + Brassica napus, B. campestris, B. rapa, B. juncea, B. nigra, Sinapis

Class29: Species of Lupinus other than
(in Class 8) Lupinus albus L., L. angustifolius L., L. luteus L.

Class30: Species of Vicia other than
(in Class 9) Vicia faba L.

Class 31: Species of Beta + subdivisions of the species Beta vulgaris other than
(in Class 10 +11) Beta vulgaris L. var. alba DC., Beta vulgaris L. var. altissima + Beta vulgaris ssp. vulgaris var. conditiva Alef. (syn.: Beta vulgaris L. var. rubra L.), Beta vulgaris L. var. cicla L., Beta vulgaris L. ssp. vulgaris var. vulgaris

Class 32: Species of Cucumis other than
(in Class 13 + 14) Cucumis sativus + Citrullus, Cucumis melo, Cucurbita

Class 33: Species of Solanum other than
(in Class 21) Solanum tuberosum L.

Class 34: Species of Nicotiana other than
(in Class 22) Nicotiana rustica L., N. tabacum L.

Class 35: Species of Helianthus other than
(in Class 23 + 24) Helianthus tuberosus + Helianthus annuus

* The complementary classes have been added by the Office of the Union for the convenience of the reader and are given the numbers 28 to 35.

[1] From UPOV RECOMMENDATIONS ON VARIETY DENOMINATIONS, Adopted by The Council of UPOV on October 16, 1987, and amended on October 25, 1991.

Register of Australian Winter Cereal Cultivars

Varietal Descriptions from the Voluntary Scheme for the Registration of Cereal Cultivars

Recently some procedural changes have been implemented in the operations of the Voluntary Cereal Registration Scheme. The Plant Breeder's Rights (PBR) office and the Voluntary Cereal Registration Scheme are collaborating to ensure that descriptions of new varieties, whether they are protected by PBR or not, are made available.

The *Plant Varieties Journal* now includes descriptions of cultivars registered under the Voluntary Cereal Registration Scheme. **Please note that publishing a description in the *Plant Varieties Journal* does not automatically qualify a cultivar to be protected under Plant Breeder's Rights (PBR). PBR is entirely a different scheme and there are specific requirements under the *Plant Breeder's Rights Act 1994* which must be satisfied to be eligible for registration under PBR.** However, it is possible that some cultivars published in this section of the journal are also registered under PBR. When a cultivar is registered under both schemes, the current PBR status of the cultivar is indicated in the descriptions.

A Check list for Registering New Cereal Cultivars in the Voluntary Scheme

Breeders considering submitting a new variety to the voluntary scheme should:

1. Clear the proposed name with Australian Winter Cereal Collection (AWCC). The AWCC will query available information systems to ensure that the proposed name will not be confused with other cultivars of the same group and issue a **registration number**. The timeframe for this process will usually be less than 24 hours, and can be done by phone, fax or by e-mail.

2. Complete a **registration form,** including the registration number and forward the form to the Voluntary Cereal Registration Scheme **-** either by an e-mail attachment or by ordinary mail on a 3.5 inch a IBM formatted floppy diskette. The breeders will be notified of the acceptance for a new registration within one week of its receipt.

3. Send an *untreated* one kilogram (1 kg) reference (or type) **sample of seed** to the Voluntary Cereal Registration Scheme for long term storage in the AWCC. Please indicate if there are any restrictions on the distribution of this seed. Unless advised to the contrary it will be assumed that seed samples of registered cultivars can be freely distributed by the AWCC to *bona fide* scientists for research purposes.

4. Provide a **description of the new cultivar** for publication in the *Plant Varieties Journal* and send it to the Voluntary Cereal Registration Scheme in Word for Windows or in RTF format **-** either by an e-mail attachment or by ordinary mail on a 3.5 inch a IBM formatted floppy diskette. In general, a description should contain the following headings:

- Common name
- Botanical name
- Cultivar name
- Registration number
- Registration date
- Name and address of Originators
- Name and address of Registrar of Cereal Cultivars
- Released by
- Synonyms (if any)
- Parentage
- Breeding and selection
- Morphology
- Disease Reaction
- Yield
- Quality
- PBR Status (if any)
- Acknowledgment(if any)
- Breeder

In addition, you may also include other headings if they are relevant to the description of the variety. Please follow the general style and format of the descriptions published in the current issue. Please note: <u>always</u> format your description <u>in a single column</u>, **do not format in two columns**. Columns will be formatted during the publication process.

The **Voluntary Cereal Registration Scheme** will electronically forward your description to the *Plant Varieties Journal* for publication. *Plant Varieties Journal* reserves the right for editorial corrections and the edited versions will be forwarded to the breeder for review before the final publication. Publication cost will be charged on a cost recovery basis with invoices sent directly from the PBR office to the breeder. The nominal cost will be $400.00 (four hundred dollars) per variety.

Contact information

Registration
Voluntary Cereal Registration Scheme
C/- Australian Winter Cereals Collection
RMB 944, Calala Lane
TAMWORTH NSW 2340

Phone: (02) 6763 1149
Fax: (02) 6763 1154
e-mail: mackaym@agric.nsw.gov.au

Publication

Registrar PBR
Plant Breeder's Rights Office
GPO Box 858
CANBERRA ACT 2601

Phone: (02) 6272 4228
Fax: (02) 6272 3650
e-mail: Doug.Waterhouse@affa.gov.au

No descriptions have been received for this issue from Voluntary Cereal Registration Scheme.

ADVERTISE YOUR NEW VARIETY OR SERVICES IN THE

Plant Varieties Journal

Plant Breeders and their agents are invited to take this opportunity to promote their new plant varieties by advertising in the Plant Varieties Journal. Consultant Qualified Persons are also invited to advertise their services. The Journal is well circulated throughout the horticultural and agricultural industry. Advertising in the Journal will promote the commercialisation of new plant varieties and the services offered by the qualified persons. Our policy is to promote the varieties which are currently in the PBR scheme and the services of those who are currently accredited by the PBR office.

The Journal also has a Service Directory. This Directory is suitable for advertising the services provided by Consultant Qualified Persons, Agents, Patent Attorneys, CTC sites or photographers.

Advertising is available at a casual space rate as well as a four times rate, attracting a considerable discount of 25%! Advertisements will be published on the back cover or inside front and back covers. The front cover is restricted to full colour photographs of a PBR variety.

Advertising Rates

			Casual	**4 issues**
Front Cover		Colour	$1100.00	$3300.00
Back Cover	(Full Page only)	Colour	825.00	2475.00
	(Full Page only)	Mono	550.00	1650.00
Inside Front Cover	(Full Page)	Mono	440.00	1320.00
	(Half Page)	Mono	275.00	825.00
Inside Back Cover	(Full Page)	Mono	330.00	990.00
	(Half Page)	Mono	220.00	660.00
Service Directory	(6cm x 6cm)	Mono	55.00 per spot	

For bookings or further information please contact Kathryn Dawes-Read on 02 6272 4228, fax 02 6272 3650 or email Kathryn.Dawes-Read@affa.gov.au

Important Message for Plant Breeders and Owners of New Varieties!

Do you have a new plant and are unsure of the potential market?

Do you need help with a Plant Breeders Rights Application?

Do you need help or advice on marketing?

Do you need any help or advice at all?

Call us, for proven expertise in plant promotions!

- We can provide assistance with Trials, Plant Breeders Rights Applications, Test Marketing, and full commercialisation both in Australia and overseas.
- We can give general advice on almost any subject related to ornamental marketing and promotions.
- We can arrange trial of plant material with various APG members both in Australia and overseas with **guaranteed security and confidentiality.**
- We can provide qualified legal advice.

The Australian Perennial Growers' in-house facilities include label design and product information services. In addition their advertising agency has the responsibility for professionally developing mass consumer promotion advertising and point of sale materials to support the promotion of the plants.

With these resources Australian Perennial Growers are already recognised as the new leaders in perennial growing.

For the right advice call the ornamental plant professionals...

APG

Australian Perennial Growers

The Power in Perennial Promotions

Call us toll free on 1800 659 287 or fax (066) 86 5810. PO Box 369, Ballina NSW 2478.