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## Plant Varieties Journal

December $1994 \quad$ Volume $7 \quad$ Number 4


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## Editorial

## The Plant Breeders Rights Act 1994-What are the changes?

The new Act commenced on 10 November 1994. The Plant Breeders Rights Office and the PBR Scheme will both be referred to as PBR Australia.

The new Act conforms with the 1991 revision of the International Convention for the Protection of New Varieties of Plants (the UPOV Convention). Copies of the 1994 Act, to which the 1991 Convention is appended, is available from Commonwealth Bookshops in all capital cities.

The changes to PBR law are aimed at extending the scope and effectiveness of the rights. Despite the significant changes to the Act, for the convenience of PBR Australia's clients, care has been taken to minimise changes to the application and examination procedures.

## Scope of breeders rights extended

In addition to the eligibilty of new varieties of all plant species, including the algae and transgenic plants, new varieties of all species of fungi may be eligible for breeder's rights under the new Act. This means that new varieties of mushrooms, filamentous fungi and yeasts may be protected by PBR.

The grant of rights gives the grantee exclusive commercial rights to the variety. The commercial activities that are deemed to be infringements have been extended. Any of the following acts carried out on the propagating material without the grantholders consent are an infringement: multiplication, sale, offering for sale (displaying or advertising), export, import, conditioning (coating, pelleting seed, etc.) and storage for any of the aforementioned purposes.

If the grant holder has not had an opportunity to exercise their rights to the propagating material the breeder's right may extend to the harvested material or even products derived from the harvested material. Denial of opportunity may arise if propagating material is, without authorisation of the grantholder, exported, multiplied, sold or saved by a farmer under the farmed-saved-seed provision.

The breeder's right to a protected variety also extends to dependent varieties and essentially derived varieties. A dependent variety is one that requires the repeated use of the protected variety. For example, an F1 hybrid is a dependent variety if it requires the repeated use of one or more protected inbred varieties for seed production. An essentially derived variety is one that is derived, but differs in only minor or cosmetic features, from the protected variety from which it is derived.

## Duration of the breeder's right

Under the old Act the duration of the breeder's rights was 20 years for all plant species calculated from the date of acceptance of the application. Thus the period of provisional protection was included in the twenty-year period.

Under the new Act the duration extends from the date of the grant and is thus in addition to the period of provisional protection. For tree and vine varieties, PBR continues for 25 years from the date of granting the right and, in all other varieties, for 20 years from the date of granting.

It may be posssible, subject to the outcome of public consultation, to extend the duration of protection for certain species, such as timber species with an extended breeding cycle, to a period longer than 25 years from the date of the grant. This provision relates to extensions by regulation to entire species and not particular varieties of a species.

## Prior sale

Under the old Act no prior sale of material in Australia was permitted if the variety was to remain eligible for breeder's rights. Sale for up to six years overseas was permitted under the old Act. Prior sale conditions have changed markedly in the new Act and they are expected to have a marked effect on marketing (see PVJ vol 7 no.3).

- Sale in Australia with the breeder's consent will be permitted for up to one year prior to applying for PBR:
- if the variety is released for test marketing before applying, if the release should be limited and reasonable steps taken to maintain control over distribution and production by indicating on labels and in writing that it is the breeder's intention to apply for PBR.
- Sale overseas with the breeder's consent will be permitted for up to six years for tree and vine varieties and for up to four years for all other varieties prior to applying for PBR.


## Increased effectiveness of protection

Apart from civil Federal Court action to recover, by way of damages, losses incurred by infringements, intentional and reckless infringement of a breeder's rights may attract a penalty of up to $\$ 50,000$ for individuals and $\$ 250,000$ for corporations.

These penalties are intended to act as a deterrent to would be infringers. The most effective way of ensuring prosecutions is to initiate, with the assistance of a solicitor, Anton Piller court orders which are used successfully, albeit controversially, for the enforcement of copyright.

## Farm-saved-seed (farmer's privilege)

The existing right of a farmer under the old Act to save sufficient seed of a protected variety to sow the subsequent crop on their own land or land of a partner or to share the seed with a bone fide sharefarmer is specifically provided for in the new Act.
Producers of a commodity who believe that farm-savedseed is proving to be a disincentive to breeding the commodity may approach the Minister to declare that farm-saved-seed does not apply to that particular commodity. As a safeguard, the Minister is required, under the new Act, to undertake extensive public consultations before making such a declaration.

## Transitional arrangements from the old to the new Act

After 10 November 1994, Plant Variety Rights granted under the old Act are treated as if they had been granted PBR. All provisions of the new Act will apply to those rights except those related to the duration of PBR.
Applications received while the old Act was in force (before the close of business on 9 November 1994), and not finalised, will be examined as if the old Act were still in force and, if successful, granted plant variety rights. Immediately after the granting these will be treated as if they were granted PBR under the new Act.
Applications received on or after 10 November are treated from the start as applications under the new Act.

## Fees

The new fees, effective 1 January 1995 are:

| Fee Type | Fee payable (\$) |
| :--- | :---: |
| Application | 300 |
| Examination-single application | 1400 |
| Examination-application based on | 1400 |
| overseas test data |  |
| Examination-multiple applications * | 1200 |
| Certificate | 300 |
| Annual | 300 |

* Applicable to 2 or more varieties of the same species tested at the same site when applications are lodged simultaneously by the same applicant, and descriptions are subsequently lodged and examined simultaneously.


Registrar: Dr Mick Lloyd Examiners: Mark Kethro, Shirley Gourgaud, Elizabeth Pulsford Administration: Margaret Winsbury. Kate Dawes

Assistance with scientific names from Lyn Craven, Australian National Herbarium, Division of Plant Industry, CSIRO. The Office thanks Geoff Butler of the Australian Cultivar Registration Authority for his scientific advice.

## Part 1- <br> General Information

## Computer Disks-What is the required format?

These notes are to assist applicants submitting descriptions to the Office on disk.

At present, we are using Word for Windows Version 2.0C. We expect to be updating our package to Word for Windows 6 in the near future. However, even with Word for Windows 6 , we will not be able to read Word Perfect 6 as this latter package came out after the Word for Windows version.

If you have Macintosh, Word Perfect 6 or any other incompatible word processing package, we ask that you save your files as Text Only. This will save time in sending back disks and waiting for new ones. It may even mean that you could miss out on inclusion in the current issue of the journal.

Please look carefully at the information you are required to supply on the disk given to you by the office. If for example, there is no synonym, then please delete the reference to it. (This applies to all other references which do not apply to your description. Base your description on those recently published in Plant Varieties Journal.)

If you supply information on ranked characteristics, they can not be used unless you have defined the ranking eg $\mathrm{I}=$ prostrate: $9=$ erect etc.

It would be appreciated if you would take a little more time over the presentation of your descriptions on disk.

## Part 2- <br> Public Notices

Varieties Included in this Issue:

|  | Variety | page number |
| :--- | :--- | ---: |
| Alstroemeria | 'Alaska' | 19 |
|  | 'Atlanta' | 19 |
|  | 'Diana' | 6 |
|  | 'Felicity' | 22 |
|  | 'Flamengo' | 16 |
|  | 'Gloria' | 18 |
|  | ''beria' | 18 |
|  | 'Nevada' | 17 |
|  | 'Stabuwit' | 39 |
|  | 'Stapurzul' | 39 |
|  | 'Staronic' | 39 |
|  | 'Stayelor' | 39 |
|  | 'Stayeli' | 39 |
|  | 'Toscana' | 19 |
|  | 'Victoria' | 17 |
|  | 'Zanta' | 6 |
|  | 'GB 63-43' | 40 |
| Apple | 'Colleen Fahey' | 30 |



## ACCEPTANCES

## ROSE

Rosa
'Interpeach' synonym 'Peachy' Application No 94/104
Applicant: Interplant BV, Leersum, The Netherlands Australian Agent: Grandiflora Nurseries Pty Ltd, Cranbourne. Victoria
Application Accepted 6 May 1994

## PLUMCOT

Prunus domestica x armeniaca
'Flavour Queen' breeder's reference '29EB179' Application No 94/159
Applicant: Zaiger's Inc Genetics, California, United States of America
Australian Agent: Fleming's Nurseries \& Associates, Monbulk, Victoria
Application Accepted 22 August 1994

## PEACH

Prunus persica
'Rich May' breeder's reference '65EC75' Application No 94/162
Applicant: Zaiger's Inc Genetics, California, United States of America
Australian Agent: Fleming's Nurseries \& Associates, Monbulk, Victoria
Application Accepted 22 August 1994

## PLUMCOT

Prunus domestica $\times$ armeniaca
'Flavour Supreme' breeder's reference '28EB12' Application No 94/166
Applicant: Zaiger's Inc Genetics, California, United States of America
Australian Agent: Fleming's Nurseries \& Associates, Monbulk, Victoria
Application Accepted 22 August 1994

## LANTANA

## Lantana montevidensis

'Malans Gold' Application No $94 / 178$
Applicant: Malanseuns Pleasure Plants, Pretoria, South Africa
Australian Agent: RE Pearce, McLeans Ridge, Lismore, New South Wales
Application Accepted 15 August 1994

## IMPATIENS

## Impatiens wallerana

'Becky' Application No 94/179
Applicant: Gary Keith Branch, Port Macquarie, New South Wales
Australian Agent: Ian Collins, Glenorie, New South Wales Application Accepted 22 August 1994

## DIANTHUS

Dianthus pulmarius x caryophyllus
'Crossover' Application No 94/180
Applicant: Dr Keith RW Hammett, Auckland, New Zealand
Australian Agent: Pearce's Nurseries Pty Ltd, McLeans Ridge via Lismore, New South Wales
Application Accepted 22 August 1994
'Far Out' Application No 94/181
Applicant: Dr Keith RW Hammett, Auckland, New Zealand
Australian Agent: Pearce's Nurseries Pty Ltd, McLeans Ridge via Lismore, New South Wales
Application Accepted 22 August 1994

## SANTOLINA

Santolina virens
'Lemon Fizz' Application No 94/182
Applicant: Robert Pearce, McLeans Ridge via Lismore, New South Wales
Application Accepted 22 August 1994

## RICEFLOWER

## Ozothamnus diosmifolius

'Redlands Sandra' breeders' reference 'Selection 44.7' Application No 94/184

Applicants: The State of Queensland through its Department of Primary Industries, Brisbane, Queensland and Rural Industries Research and Development Corporation, Brisbane, Queensland Application Accepted 29 August 1994

## ALSTROEMERIA

Alstroemeria hybrid
'Zanta' synonym 'Violetta' Application No 94/185
Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales
Application Accepted 19 September 1994
'Diana' Application No 94/186
Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales
Application Accepted 19 September 1994

## PRUNUS

Prunus persica x domestica
'Atlas' synonym '60EB160' Application No 94/187
Applicant: Zaiger's Inc Genetics, California, United States of America
Australian Agent: Fleming's Nurseries \& Associates Pty Ltd, Monbulk, Victoria
Application Accepted 6 September 1994

## ROSE

Rosa
'Meimagul' synonym 'Gypsy Minijet' Application No 94/188
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Yarraee Pty Ltd 'Australian Roses', Silvan, Victoria
Application Accepted 13 September 1994
'Meilarac' synonym 'Bella Minijet'
Application No 94/189
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Yarraee Pty Ltd 'Australian Roses', Silvan, Victoria
Application Accepted 13 September 1994
'Meidrofal' synonym 'Happy Minijet'
Application No 94/190
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Yarraee Pty Ltd 'Australian Roses', Silvan, Victoria
Application Accepted 13 September 1994

## MARGUERITE DAISY

Argyranthemum frutescens
'Rosetta' Application No 94/193
Applicant: Frank Hammond, Warren Park Nurseries, Narre Warren East, Victoria
Application Accepted 4 October 1994
'Polly Anna' Application No 94/194
Applicant: Frank Hammond, Warren Park Nurseries. Narre Warren East, Victoria
Application Accepted 4 October 1994

## LETTUCE

Lactuca sativa
'Marksman' Application No 94/195
Applicant: Arthur Yates \& Co Pty Ltd, Narromine, New South Wales
Application Accepted 24 October 1994

## NECTARINE

Prunus persica var. nectarina
'Venus’ Application No 94/196
Applicant: Instituto Sperimentale per la Frutticoltura, Rome, Italy
Australian Agent: Fleming's Nurseries \& Associates Pty Ltd, Monbulk, Victoria
Application Accepted 4 October 1994

## IBERIS

Iberis gibraltarica
'Mount Hood Dusk' Application No 94/197
Applicant: Marion Carter, Mount Hood Gardens Inc, Hood River, Oregon, United States of America
Australian Agent: Ian Collins, Glenorie, New South Wales
Application Accepted 4 October 1994

## PHOTINA

## Photina x fraseri

'Allyn Sprite' Application No 94/198
Applicant: VF \& NC Jupp, East Gresford, New South Wales
Application Accepted 4 October 1994

## ROSE

Rosa
'Frytranquil' synonym 'Golden Moments' Application No 94/199
Applicant: Fryers Nurseries Limited, Knutsford, Cheshire, United Kingdom
Australian Agent: St Kilda Roses Pty Ltd, Waterloo Comer, South Australia
Application Accepted 12 October 1994
'Frystar' synonym 'Beauty Star' Application No 94/200 Applicant: Fryers Nurseries Limited, Knutsford, Cheshire, United Kingdom
Australian Agent: St Kilda Roses Pty Ltd, Waterloo Corner, South Australia
Application Accepted 12 October 1994
'Frytrooper' synonym 'Daily Post' Application No 94/201
Applicant: Fryers Nurseries Limited, Knutsford, Cheshire, United Kingdom
Australian Agent: St Kilda Roses Pty Ltd, Waterloo Corner, South Australia
Application Accepted 12 October 1994
'Dorothea Howard' Application No 94/204
Applicant: Mrs H M Barclay, Findon, South Australia Australian Agent: St Kilda Roses Pty Ltd, Waterloo Corner, South Australia
Application Accepted 12 October 1994

## WHITE CLOVER

Trifolium repens
'Clever Club' Application No 94/205
Applicant: Ms Susan Mary Love, Clifton Hill, Victoria
Application Accepted 17 October 1994

## LEUCOSPERMUM

Leucospermum condifloium x patersonii
'High Gold' Application No 94/206 Applicant: ARC Fynbos Unit, Elserberg, South Africa Australian Agent: Proteaflora Enterprises Pty Ltd, Monbulk, Victoria
Application Accepted 17 October 1994

## MANDEVILLA

Mandevilla sanderi
'Pale Face' Application No 94/210
Applicant: Vic Levey's Nurseries Pty Ltd, D'Aguilar, Queensland
Application Accepted 18 October 1994

## BANKSIA

Banksia coccinea
'Waite Flame' Application No 94/211
Applicant: Luminis Pty Ltd, Adelaide, South Australia
Application Accepted 25 October 1994

## STRAND MEDIC

Medicago littoralis
'Herald' breeder's reference 'Z-245' Application No 94/212
Applicant: Minister for Primary Industries, Adelaide, South Australia
Application Accepted 25 October 1994

## DESCRIPTIONS

## FABA BEAN

Vicia faba
'Icarus' Application No 92/007
Application Accepted 13 January 1994
Applicant: Luminis Pty Ltd, Rundle Mall, South Australia
Description-See Table 1 and Fig 1
A faba bean variety to be grown as a field crop and harvested as dry grain. The only comparable varieties in Australia are 'Fiord' and 'Aquadulce'. These three varieties differ in their seed size. In colour, the seeds of 'Icarus' are light green while those of 'Fiord' and 'Aquadulce' are buff. When sown early (eg early May) 'Icarus' will flower 20 days later than 'Fiord' and 12 days later than 'Aquadulce' but if sown mid June these differences reduce to 14 and 9 days respectively. With its late flowering 'Icarus' is suited to regions with irrigation or longer growing seasons. 'Icarus' has a greater resistance than 'Fiord' to the disease Chocolate Spot (Botrytis fabae). Where Chocolate Spot occurs and is not controlled by fungicides 'Icarus' will outyield 'Fiord' but in the absence of disease, 'Icarus' may have a lower yield than 'Fiord'. The resistance of 'Icarus' to Ascochyta blight (Ascochyta fabae') is less than in 'Fiord'.

## Origin

Developed by selection within a population (accession) of faba beans received from ICARDA, Syria. The accession is one of many received from ICARDA with a reputation for Chocolate Spot resistance which were compared for resistance and yield in Australian trials. Once the accession with the best combination of these attributes had been identified, further selection was practised for uniformity of seed size and colour and to a limited extent for resistance to Ascochyta fabae. ICARDA had obtained the population originally from Colombia, South America. ICARDA established that the population had an overall level of resistance to Chocolate Spot and had practised further selection for resistance before it was introduced to Australia. The breeder is Ronald Knight of AdeIaide, South Australia. 'learus' selected on the basis of its resistance to Chocolate Spot, its yield and the size and colour of its seed. The breeder's seed stock has been developed and multiplied in plots isolated by distance ( $>200 \mathrm{~m}$ ) from all other faba beans.

## Comparative Trials

The closest known comparator is 'Fiord'. Comparative field trials conducted May-December at Clare, South Australia in 1989, 1991 \& 1992 and at Strathalbyn, South Australia in 1990, 1991 and 1992. Yield measured from plots $4 \mathrm{~m}^{2}$ in area in a randomised complete block design with four replicates, except at Strathalbyn in 1992 where there were two replicates. None of the trials was treated with fungicides. Flowering date was assessed at Strathalbyn for 120 plants in four replicates. Weight per seed was calculated from random samples of 200 seeds of each variety.

## Prior Applications and Sales

Nil

## Adaptation

To be grown as a field crop and harvested as a dry bean. Selected for its resistance to Chocolate Spot (Botrytis fabae). Does not have good resistance to Ascochyta fabae. Released as there are areas in which Chocolate Spot is serious and Ascochyta does not occur or can easily be controlled. Yields best when the growing season is prolonged as may flower up to three weeks later than 'Fiord'. The optimal density of plants for high yield varies, but for most situations is between 20 to 30 plants $\mathrm{m}^{2}$. Under good conditions and a long season the lower density should be used. In areas which have not grown faba beans the special Rhizobial inoculum SU 303 should be applied. Other cultural conditions are similar to those used for 'Fiord'.

Description prepared by Ronald Knight of the University of Adelaide.

## Table 1 Faba Bean varietics

| (*=comparator) |  |  |
| :--- | :--- | :--- |
|  | 'Icarus' | ${ }^{*}$ Fiord' |
| SEED COLOUR | light green | buff |
| WING: MELANIN SPOT |  |  |
| STANDARD ANTHOCYANIN | present | present |
| HILUM COLOUR | absent | absent |
| WEIGHT PER SEED (g) |  |  |
|  | black | black |
| LSD 0.01 | 0.9 |  |
| LENGTH OF POD | 0.021 | 0.48 |
| mean |  |  |
| LSD 0.01 | 6.54 | 5.94 |

## POTATO

## Solanum tuberosum

'Nadine' Application No 92/075
Application Accepted 3 July 1992
Applicant: Caithness Potato Breeders Ltd, New Covent

Garden, United Kingdom
Australian Agent: LS \& JL Eldridge, Cuthbert via Albany, Western Australia

Description-See Table 2 \& Fig 2, 3
Upright and 657 mm high. Stems of medium thickness, no anthocyanin colouration, medium foliage cover. Leaf blade medium-long ( 202 mm ), short petiole ( 31 mm ), terminal leaflet short-medium ( 99 mm ) and narrow ( 57 mm ), medium silhouette, low frequency of leaf coalescence, wavy leaflet margin, absence of anthocyanin in apical rosette and midrib. Flower buds non persistent. Tubers short-oval, slightly netted cream skin, shallow eyes, creamy white flesh with low dry matter. After boiling flesh firm with slight sloughing, no after-cookingdarkening but very dark fry colour. Lightsprouts red violet base, weak pubescence of base, closed tip habit with strong pubescence and purple colour, few root tips, weak protrusion of purple tipped lenticels, short laterals.

## Origin

ex Solanum vernei polycross derivatives bred by Dr J. Dunnett, Caithness, Scotland, 1978. All propagation is by vegetative means.

## Comparative Trials

The comparators are 'Sebago' and 'Crystal'. Trial conducted on a commercial potato seed growers property at Rosa Brook in Western Australia and Medina Research Centre October 1992-October 1993. Trial comprised of four blocks in a completely randomised design. Each block comprised a two row plot of each variety each of which contained 36 plants. Plant measurements taken on at least 5 specimens. Selected at random from each plot to make a total of at least 20 specimens. Cut seed was used of pathogen tested origin of generation 3 obtained from a commercial grower. Trial received standard commercial treatment of fertiliser and pesticides. Tuber and lightsprout measurements made on 100 tubers of each variety in a laboratory at Medina Research Centre arranged in another completely randomised block of 25 tubers per plot under standard conditions.

## Prior Applications

| Country | Year | Status | Name Applied <br> United Kingdom |
| :--- | :--- | :--- | :--- |
|  | Protected | 'Nadine' |  |


| ( ${ }^{*}$ = comparators) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 'Nadine' | *'Crystal' | "Sebago' |
| PLANT HEIGHT (mm) |  |  |  |
| mean | 657 | 599 | 677 |
| std. deviation | 64 | 105 | 65 |
| significance | - | NS | NS |
| GROWTH HABIT |  |  |  |
|  | semi-erect | semi-spreading | semi-erect |
| STEM ANTHOCYANIN |  |  |  |
|  | absent | absent | absent |


|  | 'Nadine' | *'Crystal' | *Sebago' |
| :---: | :---: | :---: | :---: |
| LEAF BLADE LENGTH (mm) |  |  |  |
| mean | 202 | 178 | 188 |
| std. deviation | 32 | 29 | 21 |
| significance | - | NS | NS |
| PETIOLE LENGTH (mm) |  |  |  |
| mean | 31 | 58 | 56 |
| std. deviation | 8 | 13 | 11 |
| LSD/significance | 23 | $\mathrm{P}<0.001$ | $\mathrm{P}<0.001$ |
| TERMINAL LEAFLET LENGTH (mm) |  |  |  |
| mean | 99 | 107 | 114 |
| std. deviation | 13 | 14 | 15 |
| significance | - | NS | NS |
| TERMINAL LEAFLET WIDTH (mm) |  |  |  |
| mean | 57 | 63 | 69 |
| std. deviation | 8 | 9 | 8 |
| LSD/significance | 7 | NS | $\mathrm{P}<0.05$ |
| LEAF SILHOUETTE |  |  |  |
|  | medium | medium | medium |
| LEAF COLOUR |  |  |  |
|  | medium | medium | medium |
| WAVINESS OF LEAFLET MARGIN |  |  |  |
| GLOSSINESS OF LEAF UPPER SURFACE |  |  |  |
|  | dull | medium | dull-medium |
| TUBER SHAPE |  |  |  |
|  | short-oval | short-oval | round |
| LIGHTSPROUT AN | HOCYANIN C red violet | LIGHTSPROUT ANTHOCYANIN COLOUR OF BASE |  |
| LIGHTSPROUT PUBESCENCE OF BASE |  |  |  |
|  | weak | medium-strong | weak |
| LIGHTSPROUT PUBESCENCE OF TIP |  |  |  |
|  | strong | weak | weak |
| LIGHTSPROUT NUMBER OF ROOT TIPS |  |  |  |
|  | few | medium | many |
| LIGHTSPROUT LATERAL SHOOT COLOUR |  |  |  |
|  | purple | green | green |
| TUBER FLESH COLOUR |  |  |  |
|  | creamy white | creamy white | creamy white |
| AFTER COOKING DARKENING OF TUBERS |  |  |  |
|  | absent | marked | marked |
| SLOUGHING OF TUBERS AFTER BOILING |  |  |  |
|  | slight | slight | slight |
| SOFTNESS OF TUBER FLESH AFTER BOILING |  |  |  |
|  | fairly firm | fairly soft | fairly firm |
| FRY COLOUR OF | JBERS dark brown | light yellow | light yellow |

## NECTARINE

## Prunus persica var. nectarina

'Arctic Rose' synonym: '161GD263'
Application No 92/101
Application Accepted 8 July 1992
Applicant: Zaiger Genetics, Modesto, California, United States of America
Australian Agent: Fleming's Nurseries and Associates
Pty Ltd, Monbulk, Victoria

## Description-See Table 3 \& Fig 4

A medium sized ( 60 mm diameter), oblate shape, white flesh nectarine; with a sub-acid, mild, sweet flavour. The freestone type fruit has a small rounded stone ( 20 mm ) with a moderate amount of flesh redness around the stone. Trees crop in mid to late January, having blossomed in early September. Buds densely arranged on the branches producing large showy pink blossoms.

## Origin

Arose from a third generation seedling of a cross between 'Ruby Gold' nectarine and 'Red Wing' peach. Bred by Floyd Zaiger-Zaiger Genetics, California, United States of America prior to 1992. Selected for development (reproduction and commercialisation) on the basis of especially desirable characteristics, propagated by budding.

## Comparative Trials

'Queen Giant’, 'Snow Queen' and '33EB371' are the closest known comparators. The comparative test conducted at Fleming's Nurseries. Measurements from twenty samples selected at random from three trees from each of the four varieties within the trial block. Plants propagated by budding onto peach rootstock with the trees being planted into the scionwood orchard, located at Monbulk. The orchard is irrigated by a mirco-irrigation system. Watering and chemical treatments (herbicides, insecticides and fungicides) applied as required.

## PRIOR APPLICATIONS AND SALES

| Country | Year | Status | Name Applied |
| :--- | :--- | :--- | :--- |
| U.S.A. | 1992 | approved | 'Arctic Rose' |

'Arctic Rose' was first sold in the United States of America in 1989.

Description prepared by Fleming's Nursery, Monbulk. Victoria

## Table 3 Nectarine Varieties

|  | 'Arctic Rose' *'Queen Giant' *'Snow Queen' *33EB371' |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| FRUIT SIZE (diameter) (mm) |  |  |  |  |
| mean | 59.8 | 63.0 | 62.5 | 58.3 |
| std. deviation | 1.0 | 1.5 | 2.2 | 1.4 |
| LEAF LENGTH (mm) |  |  |  |  |
| mean | 137.3 | 122.6 | 149.6 | 159.6 |
| std. deviation | 12.1 | 30.2 | 25.0 | 21.8 |

Table 3 Nectarine-Continued

|  | 'Arctic Rose' | *Queen Giant' * | Snow Queen' * | 33EB371 |
| :---: | :---: | :---: | :---: | :---: |
| LEAF WIDTH (mm) |  |  |  |  |
| mean std. deviation | $\begin{aligned} & 31.0 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 29.8 \\ & 8.6 \end{aligned}$ | $\begin{aligned} & 40.3 \\ & 47 \end{aligned}$ | $42.1$ |
| BLOSSOM DATE |  |  |  |  |
|  | 2 Sept | 5-9 Sept | 2-9 Sept | 6-12 Sept |
| BLOSSOM DURATION (days) |  |  |  |  |
|  | 19 | 16 | 13-21 | 14-18 |
| BLOSSOM TYPE |  |  |  |  |
|  | showy | non-showy | non-showy | showy |
| PETAL COLOUR |  |  |  |  |
|  | pink (65D) | red (66C) | red (57B) | pink (62C) |
| BUD DENSITY |  |  |  |  |
|  | dense | medium | sparse | medium |
| FRUIT MATURITY |  |  |  |  |
|  | 15-25 Jan | 1-12 Jan | 1-10 Jan | 16-26 Jan |
| FRUIT SHAPE |  |  |  |  |
|  | oblate | oblate | globose | oblate |
| SKIN GROUND COLOUR |  |  |  |  |
|  | yellow <br> (4D) | white (155B) | yellow $(5 C)$ | yellow <br> (11B) |
| SKIN ANTHOCYANIN COLOUR |  |  |  |  |
|  | red (46A) | red (45C) | red (46A) | red (45C) |
| REDNESS AT STONE |  |  |  |  |
| STONE ADHERENCE |  |  |  |  |
|  | freestone | semi | semi | semi |
|  |  | -clingstone | -clingstone | -clingstone |

## PEACH

## Prunus persica

'Rich Lady' synonym '8GC128' Application No 92/102.
Application Accepted 30 June 1992
Applicant: Zaiger Genetics, Modesto, California, United States of America
Australian Agent: Fleming's Nurseries and Associates Pty Ltd, Monbulk, Victoria

Description-See Table 4 and Fig 5
Medium to large-sized, yellow-flesh clingstone peach. Oblate-shape fruit has an elongated stone with the absence of any redness around the stone. Fruit skin colour fruit dark, a purple-red colour. Fruit maturity in early January, having blossomed in early September. A large showy pink blossom produced.

## Origin

Arose from open pollination of 'Amparo' peach. Bred by Floyd Zaiger-Zaiger Genetics of Modesto, California, United States of America prior to 1990. Selected for development (reproduction and commercialisation) on the basis of its distinct and desirable characteristics. Propagation by budding onto peach rootstock.

## Comparative Trials

'Flavorcrest', 'Redhaven' and 'Red Top' are the closest known comparators. The comparative test conducted at Fleming's Nurseries, Monbulk since 1992. Measurements are from twenty specimens selected at random from three trees of each of the four varieties within the same plot. Plants propagated by budding plant material and planting the resultant trees into the scionwood orchard, located at Monbulk. Orchard irrigated by a micro irrigation system with water applied as required, as are any chemical treatments (herbicides, pesticides and insecticides).

## Prior Applications And Sales

| Country | Year | Status | Name Applied |
| :--- | :--- | :--- | :--- |
| USA | 1990 | approved | 'Rich Lady' |

'Rich Lady' was first sold in the USA in 1989.
Description prepared by Flemings Nnrseries, Monbulk, Victoria

## Table 4 Peach Varieties

(* = comparators)


Table 4 Peach-Continued

| 'Rich Lady' | *'Flavorcrest' | *'Redhaven' *'Redtop' |  |
| ---: | ---: | :--- | :--- |
| REDNESS AT STONE |  |  |  |
| absent | absent | absent | present |

## ROSE

Rosa
'Meitonje' synonym: 'Pretty Polly' Application No 92/105
Application Accepted 28 July 1992
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Ross Roses, Willunga, South Australia

## Description-See Table 5 \& Fig 6

A light pink (RHS 62A) remontant flowering miniature rose producing small sized (mean flower diameter 55.7 mm ) blooms borne in clusters of 3-5 blooms per stem. Each double blooms has $26-34$ petals. The small leaves (mean terminal leaflet length 26.7 mm ) dark green and glossy on the upper side. The shape of the terminal leatlet base obtuse and terminal leaflet in cross section concave. Undulation of the leaflet margin medium. Thorn shape catena on the upper side and concave on the lower side. Medium sepal length-mean 55 mm . Mild petal reflexing present and petal undulation observed. Filament colour yellow/green, style colour yellow. The stigma and the anthers located at the same level. 'Meitonje' has a small sized pitcher shaped seed vessel.

## Origin

Arose from controlled pollination of 'Meilucca' by 'Meifinaro'. Bred by Alain Meilland of SNC Meilland et Cie, Antibes, France.

## Comparative Trial

The comparator is 'Pink Delight'. Comparative test conducted at Willunga, South Australia 23 April 1993. Measurements from 20 specimens selected at random from 6-10 plants. Plants grown in open beds in clay loam soil.

## Prior Applications and Sales

| Country | Year <br> December <br> Germany | Status <br> Granted | Name applied <br> 'Meitonje' |
| :--- | :--- | :--- | :--- |
| France | - | Granted | 'Meitonje' |
| Denmark | - | Granted | 'Meitonje' |
| Great Britain | - | Granted | 'Meitonje' |
| New Zealand | - | Applied for 'Meitonje' |  |
| Rep. South Africa - | Granted | 'Meitonje' |  |
| U.S.A. | - | Granted 'Meitonje' |  |
| 'Meitonje' was first sold in Germany on I June 1987. |  |  |  |
| Description prepared by A Kim Syrus of Melrosc Park. South Australia. |  |  |  |


| Table 5 Rose Varieties |  |  |
| :--- | :--- | :--- |
| ( ${ }^{*}=$ comparators $)$ |  |  |
|  | 'Meitonje' | *'Pink Delight' |
| FLOWER COLOUR GROUP |  |  |
|  | medium pink | medium pink |

Table 4 Rose-Continued

|  | 'Meitonje' | *'Pink Delight' |
| :--- | :--- | :--- |
| THORN LENGTH (mm) |  |  |
| mean | 5.25 | 4.55 |
| std. deviation | 0.94 | 1.28 |
| LSD/significance | 1.33 | P0.01 |
| TERMINAL LEAFLET LENGTH (mm) |  |  |
| mean | 26.70 | 41.95 |
| std. deviation | 2.15 | 3.25 |
| LSD/significance | 7.98 | NS |
| TERMINAL LEAFLET WIDTH |  |  |
| mean | 15.35 | 22.80 |
| std. deviation | 1.33 | 1.59 |
| LSD/significance | 4.63 | NS |


| TERMINAL LEAFLET PETIOLE LENGTH (mm) |  |  |
| :--- | :---: | :--- |
| mean | 6.50 | 13.6 |
| std. deviation | 1.12 | 1.59 |
| LSD/significance | 1.99 | P 0.01 |
| SEPAL LENGTH (mm) |  |  |
| mean | 17.55 | 16.45 |
| std. deviation | 0.86 | 1.20 |
| LSD/significance | 1.16 | P 0.01 |

FLOWER DIAMETER (mm) fully ope

| mean | 55.70 | 57.35 |
| :--- | :--- | :--- |
| std. deviation | 3.21 | 4.19 |
| LSD/significance | 4.70 | NS |
| YOUNG SHOOT ANTHOCYANIN |  |  |
|  | very weak | weak |
| HUE OF ANTHOCYANIN |  |  |
|  | bronze | reddish brown |


| PRICKLE SHAPE: LOWER SIDE |  |
| ---: | ---: | ---: |
| concave | absent |

PRICKLE SHAPE: UPPER SIDE

| catena | flat |
| ---: | ---: |
| LEAF GLOSSINESS: UPPER SIDE |  |
| glossy | dull |


| LEAFLET: CROSS SECTION |  |  |
| :--- | ---: | :--- |
|  | concave | concave |
| LEAFLET: UNDULATION OF MARGIN |  |  |
| medium |  |  |$\quad$ mild |  |
| :--- | :--- |
| TERMINAL LEAFLET-SHAPE OF BASE |
| obtuse |


| FLOWER PEDICEL THORNS/PRICKLES <br> few | few |  |
| :--- | :--- | :--- |
| FLOWER BUD SHAPE | ovate | round |
| FLOWER TYPE | semi-double | double |
| NO. PETALS | many 28 | very many 55 |

Table 5 Rose-Continued

|  | 'Meitonje' | *'Pink Delight' |
| :--- | :--- | :--- |
| FLOWER SIZE |  |  |
|  | small | small |
| FLOWER PROFILE-UPPER |  |  |
|  | flattened convex | flat |
| FLOWER PROFILE-LOWER |  |  |
| SEPAL EXTENSIONS |  | flat |


| PETAL SIZE |  |  |
| :--- | :--- | :--- |
|  | small | small |
| PETAL COLOUR (RHS) |  |  |
| midzone outside | 62 C | 55 D |
| midzone inside | 62 A | 36 D |
| margin outside | 62 C | 55 C |
| margin inside | 62 A | 36 D |


| BASAL SPOT SIZE-INSIDE (1=very small, $9=$ very large $)$ |  |  |
| :--- | :---: | :---: |
|  | 3 | 2 |
| PETAL REFLEXING | weak | very strong |
| PETAL UNDULATION |  |  |
|  | medium | absent |


| STAMEN-COLOUR OF FILAMENT |  |  |
| :--- | :---: | :--- |
|  | yellow/green | yellow/green |
| SEED VESSEL SHAPE |  |  |
|  | pitcher | pear |
| FLOWERING HABIT |  |  |
|  | remontant | remontant |

## ROSE

Rosa
'Meipitac' synonym 'Carefree Wonder'
Application No 92/106
Application Accepted 28 July 1992
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Ross Roses, Willunga, South Australia

## Description-See Table 6 \& Fig 7

A medium pink (RHS 57D) remontant flowering bush rose producing medium sized (mean flower diameter106.6 mm ) blooms borne in clusters of $3-5$ blooms per stem. Each semi-double bloom has $20-26$ petals. The medium sized leaves (mean terminal leaflet length45.90 mm ) dull mid-green on the upper side. Terminal leaflet base obtuse shape while terminal leaflet cross section concave. Leaflet margin undulation medium. Thorn shape catena on the upper side and concave on the lower side. Strong sepal length-mean 20.1 mm . Medium petal reflexing present and petal undulation observed. Filament colour yellow/green, style colour red. Stigma located above the anthers. 'Meipitac' has medium sized pitcher shaped seed vessels.

## Origin

Arose from controlled pollination of 'Praire Princess' x 'Meirisoru' [by 'Maceye' x 'Meivilanic']. Bred by Alain Meilland of SNC Meilland et Cie, Antibes, France.

## Comparative Trial

The comparator is 'Regensberg'. Comparative test conducted at Willunga, South Australia 23 April 1993. Measurements from 20 specimens selected at random from $6-10$ plants. Plants grown in open beds in clay loam soil.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| USA | September 1990 Granted | 'Meipitac' |  |
| Great Britain | March 1991 | Applied for 'Meipitac' |  |
| France | March 1992 | Applied for 'Meipitac' |  |
| 'Meipitac' was first sold in the United States of America |  |  |  |
| on 1 June 1990. |  |  |  |
| Description prepared by a Kim Syrus of Melrose Park, South Australia. |  |  |  |

## Table 6 Rose Varieties

| (* = comparators) |  |  |
| :---: | :---: | :---: |
|  | 'Meipitac' | *'Regensberg' |
| FLOWER COLOUR GROUP |  |  |
|  | medium pink | medium pink |
| THORN LENGTH (mm) |  |  |
| mean | 5.45 | 4.55 |
| std. deviation | 1.12 | 1.47 |
| LSD/significance | 1.04 | P0.01 |
| TERMINAL LEAFLET LENGTH (mm) |  |  |
| mean | 45.90 | 47.65 |
| std. deviation | 3.59 | 2.78 |
| LSD/significance | 1.85 | P0.05 |
| TERMINAL LEAFLET WIDTH (mm) |  |  |
| mean | 30.60 | 19.05 |
| std. deviation | 3.18 | 2.64 |
| LSD/significance | 6.16 | NS |
| TERMINAL LEAFLET PETIOLE LENGTH (mm) |  |  |
| mean | 14.55 | 12.10 |
| std. deviation | 1.72 | 1.30 |
| LSD/significance | 2.34 | P0.05 |
| SEPAL LENGTH (mm) |  |  |
| mean | 20.10 | 20.30 |
| std. deviation | 2.49 | 1.58 |
| LSD/significance | 4.58 | NS |
| FLOWER DIAMETER (mm) fully open |  |  |
| mean | 106.60 | 85.75 |
| std. deviation | 4.35 | 8.48 |
| LSD/significance | 4.78 | NS |
| YOUNG SHOOT ANTHOCYANIN |  |  |
|  | strong | medium |
| HUE OF ANTHOCYANIN |  |  |
|  | reddish brown/purple | reddish brown/purple |

Table 6 Rose-Continued

| 'Meipitac' | *'Regensberg' |
| :---: | :---: |
| LEAF GLOSSINESS: UPPER SIDE dull | glossy |
| LEAFLET: CROSS SECTION concave | concave |
| LEAFLET: UNDULATION OF MARGIN strong | medium |
| TERMINAL LEAFLET-SHAPE OF BASE obtuse | obtuse |
| FLOWER PEDICEL THORNS/PRICKLES few | few |
| FLOWER BUD SHAPE <br> ovate | ovate |
| FLOWER TYPE semi double | semi double |
| NO. PETALS <br> many 20 | many 30 |
| FLOWER SIZE medium | medium |
| FLOWER PROFILE: UPPER <br> flat | flat |
| FLOWER PROFILE: LOWER <br> flat | flat |
| SEPAL EXTENSIONS <br> strong | medium |
| PETAL SIZE <br> medium | medium |
| PETAL COLOUR (RHS)  <br> midzone outside 62 B <br> midzone inside 67 D <br> margin outside 62 D <br> margin inside 57 A | $\begin{aligned} & 67 \mathrm{C} \\ & 62 \mathrm{D} \\ & 67 \mathrm{C} \\ & 62 \mathrm{D} \end{aligned}$ |

BASAL SPOT SIZE: INSIDE (1=very small, 9=very large)
\(\left.\begin{array}{lll} \& 5 \& 9 <br>
\hline PETAL REFLEXING \& medium \& mild <br>
\hline PETAL UNDULATION \& \& <br>
\hline pTAMEN: COLOUR OF FILAMENT <br>

yellow/green\end{array}\right]\)| present |
| :--- |
| STIGMA IN RELATION TO ANTHERS |
|  |
| above |

## 'Meichoiju' synonym 'City of Adelaide'

Application No 92/107
Application Accepted 28 July 1992
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Ross Roses, Willunga, South Australia

## Description-See Table 7 \& Fig 8

A medium pink (RHS 52D) remontant flowering bush rose producing medium sized (av. 97.15 mm ) blooms borne in clusters of $3-5$ blooms per stem. Each semidouble bloom has $26-32$ petals. The medium sized leaves (av. terminal leaflet length 51.9 mm ) dark green and glossy on the upper side. Shape of terminal leaflet base obtuse and terminal leaflet in cross section is concave. Undulation of leaflet margin medium. Thorn shape catena on the upper side and concave on the lower side. Strong sepal length-mean 25.55 mm . Mild petal reflexing present and petal undulation observed. Filament colour yellow, style colour red. Stigma located above the anther. 'Meichoiju' has medium sized pitcher shaped seed vessels.

## Origin

Arose from the controlled pollination of 'Meidanu' $x$ 'Meitulimon' [by 'Meihartfo']. Bred by Alain Meilland, SNC Meilland et Cie, Antibes, France.

## Comparative Trial

The comparator is 'Kalinka'. The comparative test conducted at Willunga, South Australia 23 April 1993. Measurements from 20 specimens selected at random from 6-10 plants. Plants grown in open beds in clay loam soil.

Prior Applications And Sales

| Country | Year | Status | Name applied <br> France |
| :--- | :--- | :--- | :--- |
| 1988 | Granted |  |  |

'Meichioju' was first sold in France on 1st April 1988.
Description prepared by A Kim Syrus. Meirose Park. South Australia.

## Table 7 Rose Varieties

(* = comparator)

|  | 'Meichoiju' | *'Kalinka' |
| :--- | :--- | :--- |
| FLOWER COLOUR GROUP |  |  |
|  | Medium Pink | Medium Pink |
| THORN LENGTH (mm) |  |  |
| mean | 5.95 | absent |
| std. deviation | 1.07 | absent |
| LSD/significance | 0.604 | NS |
| TERMINAL LEAFLET LENGTH (mm) |  |  |
| mean | 51.90 | 60.15 |
| std. deviation | 1.99 | 2.03 |
| LSD/significance | 4.27 | NS |


|  | 'Meipitac' | *'Regensberg' |
| :---: | :---: | :---: |
| TERMINAL LEAFLET WIDTH (mm) |  |  |
| mean | 31.20 | 40.25 |
| std. deviation | 2.36 | 2.03 |
| LSD/significance | 4.55 | NS |
| TERMINAL LEAFLET PETIOLE LENGTH (mm) |  |  |
| mean | 15.05 | 19.05 |
| std. deviation | 0.81 | 2.48 |
| LSD/significance | 3.57 | NS |
| FLOWER DIAMETER (mm) fully open |  |  |
| mean | 97.15 | 97.65 |
| std. deviation | 3.54 | 3.41 |
| LSD/significance | 2.71 | P0.05 |
| SEPAL LENGTH (mm) |  |  |
| mean | 25.55 | 6.40 |
| std. deviation | 2.01 | 1.71 |
| LSD/significance | 6.54 | NS |
| YOUNG SHOOT ANTHOCYANIN |  |  |
|  | mild | medium |
| HUE OF ANTHOCYANIN |  |  |
|  | reddish brown | reddish brown/purple |
| PRICKLE SHAPE: LOWER SIDE |  |  |
|  | concave | concave |
| PRICKLE SHAPE: UPPER SIDE |  |  |
|  | catena | n/a |
| LEAF GLOSSINESS: UPPER SIDE |  |  |
|  | glossy | glossy |
| LEAFLET: CROSS SECTION |  |  |
|  | concave | flat |
| LEAFLET: UNDULATION OF MARGIN |  |  |
|  | present | present |
| TERMINAL LEAFL | HAPE OF BASE obtuse | rounded |
| FLOWER PEDICEL THORNS/PRICKLES |  | few |
| FLOWER BUD SHAPE |  |  |
|  | ovate | ovate |
| FLOWER TYPE |  |  |
|  | semi-double | semi-double |
| NO. PETALS |  |  |
|  | medium 30 | medium 30 |
| FLOWER SIZE |  |  |
|  | medium | medium |
| FLOWER PROFILE: UPPER |  |  |
|  | flattened convex | convex |
| FLOWER PROFILE: LOWER |  |  |
|  | flat | flat |


| Table 7 Rose-Continued |  |  |
| :--- | :--- | :--- |
|  | 'Meipitac' | *'Regensberg' |
| SEPAL EXTENSIONS |  |  |
|  | strong | medium |
| PETAL SIZE |  |  |
|  | medium | medium |
| PETAL COLOUR (RHS) |  |  |
| midzone outside | 52 C | 48 D |
| midzone inside | 52 D | 48 C |
| margin outside | 52 B | 48 D |
| margin inside | 52 C | 48 D |

BASAL SPOT SIZE: INSIDE (1=very small, 9=very large)

5

## PETAL REFLEXING

| mild | strong |
| :---: | :---: |
| PETAL UNDULATION |  |
| medium | medium |
| STAMEN: COLOUR OF FILAMENT |  |
| yellow | yellow |
| STIGMA IN RELATION TO ANTHERS |  |
| above | above |
| SEED VESSEL SIZE |  |
| medium | medium |
| SEED VESSEL SHAPE |  |
| pitcher | pitcher |
| FLOWERING HABIT |  |
| remontant | remontant |

'Meipopul' synonym 'Coral MEIDILAND' (R)
Application No 92/125
Application Accepted 7 September 1992
Applicant: SNC Meilland et Cie, Antibes, France
Australian Agent: Ross Roses, Willunga, South Australia

## Description-See Table 8 \& Fig 9

A pink blend (RHS 52B) remontant flowering ground cover rose producing medium sized (mean flower diameter 65.35 mm ) blooms borne in clusters of 5-9 blooms per stem. Each single bloom has 5 petals. The small leaves (mean terminal leaflet length- 29.65 mm ) mid-green and dull on the upper side. Shape of terminal leaflet base obtuse and terminal leaflet in cross section concave. Undulation of leaflet margin present. Thorn shape catena on the upper side and concave on the lower side. Weak sepal length-mean 12.70 mm . Mild petal reflexing present and petal undulation observed. Filament colour yellow, style colour red. The stigma located below the anther. 'Meipopul' has a small sized funnel shaped seed vessel.

## Origin

Arose from the controlled pollination of 'Meinececa' (by 'Lili Marlene'). Bred by Alain Meilland of SNC Meilland et Cie, Antibes, France.

## Comparative Trial

The comparator is 'Red MEIDILAND'(R). Comparative test conducted at Willunga, South Australia 23 April 1993. Measurements from 20 specimens selected at random from 6-10 plants. Plants grown in open beds in clay loam soil.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| France | March 1992 | Applied For <br> Republic of |  |
| 'Meipopul' |  |  |  |

## Table : Rose Varicties

( ${ }^{*}=$ comparators)

|  | ‘Meipopul' | *'Red MEIDILAND' ${ }^{(R)}$ |
| :---: | :---: | :---: |
| FLOWER COLOUR GROUP |  |  |
|  | pink blend | dark red |
| THORN LENGTH (mm) |  |  |
| mean | 4.95 | 6.65 |
| std. deviation | 1.07 | 1.98 |
| LSD/significance | 1.33 | P0.01 |
| TERMINAL LEAFLET LENGTH (mm) |  |  |
| mean | 29.65 | 34.40 |
| std.deviation | 1.65 | 3.64 |
| LSD/significance | 8.4 | NS |
| TERMINAL LEAFLET WIDTH (mm) |  |  |
| mean | 17.20 | 20.90 |
| std. deviation | 1.33 | 1.92 |
| LSD/significance | 2.87 | P0. 05 |
| TERMINAL LEAFLET PETIOLE LENGTH (mm) |  |  |
| mean | 12.20 | 15.30 |
| std. deviation | 1.86 | 1.42 |
| LSD/significance | 2.88 | P0.05 |
| SEPAL LENGTH (mm) |  |  |
| mean | 12.70 | 14.25 |
| std. deviation | 1.45 | 1.84 |
| LSD/significance | 2.47 | P0. 01 |
| FLOWER DIAMETER (mm) fully open |  |  |
| mean | 65.35 | 46.35 |
| std. deviation | 2.65 | 6.75 |
| LSD/significance | 7.71 | NS |
| YOUNG SHOOT ANTHOCYANIN |  |  |
| HUE OF ANTHOCYANIN |  |  |
|  | reddish brown | bronze |
| PRICKLE SHAPE: LOWER SIDE |  | concave |
| PRICKLE SHAPE: UPPER SIDE |  |  |
| LEAF GLOSSINES | PPER SIDE <br> glossy | dull |

Table 8 Rose-Continued

|  | 'Meipopul' | *'Red MEIDILAND' ${ }^{(R)}$ |
| :---: | :---: | :---: |
| LEAFLET: CROSS SECTION |  |  |
|  | concave | concave |
| LEAFLET: UNDULATION OF MARGIN |  |  |
|  | medium | medium |
| TERMINAL LEAFLET-SHAPE OF BASE |  |  |
|  | obtuse | round |
| FLOWER PEDICEL THORNS/PRICKLES |  |  |
|  | many | few |
| FLOWER BUD SHAPE |  |  |
|  | ovate | ovate |
| FLOWER TYPE |  |  |
|  | single | single |
| NO. PETALS |  |  |
|  | 5 | 5 |
| FLOWER SIZE |  |  |
|  | medium | medium |
| FLOWER PROFILE-UPPER |  |  |
|  | flat | flat |
| FLOWER PROFILE-LOWER |  |  |
|  | flat | flattened convex |
| SEPAL EXTENSIONS |  |  |
|  | weak | weak |
| PETAL SIZE |  |  |
|  | medium | medium |
| PETAL COLOUR (RHS) |  |  |
| midzone outside | 55A | 53D |
| midzone inside | 52B | 53 B |
| margin outside | 55A | 53C |
| margin inside | 52 B | 53B |
| BASAL SPOT SIZE: INSIDE (1=very small, 9=very large) |  |  |
|  | 3 | 8 |

PETAL REFLEXING

| mild | medium |
| :---: | :---: |
| PETAL UNDULATION |  |
| medium | medium |
| STAMEN: COLOUR OF FILAMENT |  |
| yellow | yellow |
| STIGMA IN RELATION TO ANTHERS |  |
| below | same level |
| SEED VESSEL SIZE |  |
| small | small |
| SEED VESSEL SHAPE |  |
| funnel | pear |
| FLOWERING HABIT |  |
| remontant | remontant |

## AZALEA

Rhododendron hybrid
'Princess Barbara' breeder's reference 'MD 77-8-C' Application No 94/139
Application Accepted 21 June 1994
Applicant: James B Shanks, Beltsville, Maryland, United States of America
Australian Agent: Rodger Max Davidson, Galston, New South Wales

## Description-See Table 9 \& Fig 10

A wide bushy azalea. Leaves elliptic, medium green upper surface and light green lower surface of mean length 4.75 cm and mean width 2.04 cm . Leaf apex acuminate. Produces few early pink flowers. Flowers of large diameter (mean 9.33 cm ), double, wide funnel-shaped with a very strong calyx (hose in hose). The undulation of the corolla lobe margin very weak with very weak flower throat markings, throat colour being lighter than the corolla lobe. Pistil longer than the stamens. Characterised by distinctive flower colours, petaloidy of sepals and stamens, the petaloids being open faced.

## Origin

Arose from controlled pollination of two unnamed varieties. Bred by James B Shanks, University of Maryland, Beltsville United States of America in 1977. 'Princess Barbara' 'MD 77-8-C' was selected for development on the basis of dwarfness, free branching habit, short rest early flowering and petaloidy of sepals and stamens, propagated by cuttings.

## Comparative Trials

The comparators are 'Only One Earth' and 'Charly'. The comparative test growing conducted at Glenorie, New South Wales May 1994-October 1994. Measurements taken from twelve plants arranged in randomised complete blocks. Plants propagated by cuttings in 5 cm tube trays in January 1993. The trials conducted in an open house under shade cloth in 12.5 cm pots. The plants grown in a standard azalea potting mix supplemented with slow release fertiliser, a granular herbicide being applied. A wide range of insecticides, miticides and fungicides was used. The pots hand watered regularly.

## Prior Applications And Sales

Nil
Description prepared by Mike Barrett and Associates, Beecroft, New South Wales Photography by Lawrence Greenup, Thornleigh, New South Wales.

## Table getzalea Varieties

( ${ }^{*}=$ comparators)

| 'Princess Barbara’*'Only One Earth' *'Charly' |  |  |  |
| :--- | :---: | :---: | :---: |
| MATURE LEAF: LENGTH (cm) |  |  |  |
| mean | 4.75 | 4.48 | 4.99 |
| std. deviation | 2.09 | 2.19 | 1.98 |
| LSD 0.05/significance | 8.32 |  |  |

Table 9 Azalea-Continued

| 'Princess Barbara'*Only One Earth' *Charly' |  |  |  |
| :---: | :---: | :---: | :---: |
| MATURE LEAF WIDTH (cm) |  |  |  |
| mean | 2.04 | 2.05 | 2.73 |
| std deviation | 0.98 | 1.03 | 0.93 |
| LSD 0.01/significance | 0.39 | $\mathrm{P}<0.001$ |  |
| MATURE LEAF SHAPE OF APEX |  |  |  |
|  | acuminate | rounded | rounded |
| INFLORESCENCE NUMBER OF FLOWERS |  |  |  |
|  | few | medium | few |
| CALYX FORMATION OF A COROLLA FORM |  |  |  |
|  | very strong | very strong | absent |
| FLOWER DIAMETER (cm) |  |  |  |
| mean | 9.33 | 7.18 | 8.91 |
| std deviation | 2.33 | 2.44 | 2.21 |
| LSD 0.01/significance | 0.93 | P<0.001 |  |
| FLOWER SHAPE |  |  |  |
|  | wide | wide |  |
|  | funnel -shaped | funnel -shaped | funnel -shaped |
| FLOWER TYPE OF COROLLA |  |  |  |
|  | double | single | double |
| COROLLA LOBE COLOUR OF MARGIN OF UPPER SIDE (RHS Chart) |  |  |  |
|  | 61 C | 63A | 58B |
| COROLLA LOBE COLOUR OF MIDOLE OF UPPER SIDE (RHS Chart) |  |  |  |
|  | 67C | 63B | 58B |
| COROLLA LOBE UNDULATION OF MARGIN |  |  |  |
|  | very weak | weak | weak |
| FLOWER THROAT CONSPICUOUSNESS OF MARKINGS |  |  |  |
|  | very <br> weak | very weak | very weak |
| TIME OF FLOWERING (Galston New South Wales) |  |  |  |
|  | 5/9/94 | 19/8/94 | 2/8/94 |

## ALSTROEMERIA

Alstroemeria hybrid
'Flamengo' Application No 92/146
Application Accepted 24 September 1992
Applicant: LEZAN V.O.F., Hillegom, The Netherlands Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 \& Fig 11

Relatively short medium thick stem with dark green leaves which are long and broad. Inflorescence has medium number of short to medium long branches in umbel, the pedicels are medium to long with large purplepink flowers. Outer lateral tepal obovate, the main colour of it pink with a large central purple-red spot and has stripes which are sparse on the upper margin. Outer median tepal the same shape and colour as the outer lateral tepal. Inner lateral tepal narrowly obovate with white ground colour, top purple-pink, the centre has a flush of yellow, base of the blade and claw has a flush of
purple-pink with a medium number of dark brown small to medium size stripes. Inner median tepal narrowly obovate with a base colour of white while the top and central spot is purple-pink and has medium size medium to many dark red-brown stripes. The filament of stamens light purple and the anthers yellow-green at the start of dehiscence. The stigma is salmon with light purple style and the ovary is light green with a weak anthocyanin colouration dorsally on the ribs.

## Origin

Arose from controlled pollination of a complex number of unnamed parents. The breeder is LEZAN V.O.F. of Hillegom, The Netherlands. Selected for its strong upright stem, compact umbel and distinct pink flowers. Selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) in 1984. Measurements taken from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates, plants arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht, Wageningen) (INC 169) 'Flamengo' is clearly distinguishable from any other variety, and is sufficiently homogeneous and stable.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| Germany |  | $14 / 05 / 1986$ | 'Flamengo' |
| USA |  | $08 / 11 / 1986$ | 'Flamengo' |
| England |  | $21 / 09 / 1987$ | 'Flamengo' |
| Japan |  | $18 / 08 / 1988$ | 'Flamengo' |

First sold in The Netherlands in September 1986.
Description prepared by $N$ F Derera AM, FAIAS, ASAS Agricultural Science Advisory Service, Winston Hills New South Wales.
'Nevada' Application No 92/147
Application Accepted: 24 September 1992
Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 \& Fig 12

Medium to long strong stems and dense foliage. Dark green narrow elliptic leaves, the length medium to long and broad with slightly recurved longitudinal axis. Inflorescence has a medium number of branches in umbel. branches are medium to long and the pedicels are medium long with medium to large cream-white flowers blended with yellow, later pure white. Spread of tepals large. Outer tepal is broad elliptic almost round, and is cream white without any stripes. Inner tepal elliptic, yellowish-white on a lighter background and with a medium number and small to medium size of strikingly coloured stripes. Filaments of the stamens white and anthers light orangeyellow at the start of dehiscence. The ovary has no anthocyanin coloration.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents. The breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for development on the basis of strong stem, a good number of cream-white flowers and the selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) 1989. Measurements taken from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates, plants were arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge were included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht, Wageningen) (INC297) 'Nevada' is clearly distinguishable from any other variety, and is sufficiently homogeneous and stable.

Prior Applications and Sales

| Country | Year | Status <br> France |  |
| :--- | :--- | :--- | :--- |
| 19/11/1991 | Name applied |  |  |
| 'Nevada' |  |  |  |
| UK | 1992 | in course | 'Nevada' |
| The Netherlands | 1989 | in course | 'Nevada' |

## First sold in The Netherlands in 1991

Description prepared by N F Derera AM, FA1AS, ASAS Agricultural Science Advisory Service, Winston Hills, New South Wales.
'Victoria' Application No 92/148
Application Accepted 24 September 1992.
Applicant: Koninklijke Van Zanten BV, Hillegom. The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 \& Fig 13

Long thick stems with medium dense foliage. Straight, broad, dark green leaves long and have narrow-elliptic shape. Inflorescence has a medium number of very long branches in umbel and the pedicels are also very long. Flowers large, and their main colour is orange-red with medium spread of tepals. Outer tepal broad-elliptic to round and the depth of emargination is medium. Main colour of the outer tepal orange-red, with a flush of purple below the top and with irregular flush of yellow slightly above the basis of the blade, and has no stripes. Inner lateral tepal narrow obovate, the colour yellowish and has a medium number of small to medium size stripes. Filaments of the stamens are pale orange-red and anthers brownish preceding dehiscence. Ovary has strong anthocyanin coloration on and in between the dorsal ribs.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents. The breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for development on the basis of long and thick flower stems, good production, large number of very distinct big orangered flowers and year-round flowering. The selected seedlings were propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) 1989. Measurements taken from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates, plants were arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge were included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht, Wageningen) (INC298) -Victoria' is clearly distinguishable from any other variety, and is sufficiently homogeneous and stable.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| The Netherlands | 1988 | $28 / 05 / 1990$ | 'Victoria' |
| Germany | 1989 | $17 / 09 / 1991$ | 'Victoria' |
| UK | 1990 | $19 / 09 / 1991$ | 'Victoria' |
| USA | 1991 | in course | 'Victoria' |

First sold in Germany in 1990.
Description prepared by N F Derera AM, FAIAS, ASAS Agricultural Science Advisory Service, Winston Hills, New South Wales
'Iberia' Application No 94/037
Application Accepted 28 February 1994.
Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 \& Fig 14

Firm thick flower stems. Medium dense foliage, the leaves recurved (bent down) elliptic and medium long. Inflorescence medium long with medium long branches in umbel, pedicels short and have a good number of yellow flowers. The flowers large with large spread of tepals. Outer tepal broad obovate with very shallow emargination and yellow with very few stripes. The inner lateral tepal obovate, tinged yellow, towards the middle zone of the blade, has many small brown stripes. Inner median tepal is yellow having few stripes. Filaments pink without spots, anthers yellowish/orange, the ovary has very weak or no anthocyanin colouration and there are no spots on the stigma.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents. The breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for development on the basis of firm flower stems, specific flower shape, good number of yellowish flowers and year-round flowering. Selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) in 1992 and 1993. Measurements taken from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates, plants arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge were included in the trials and according to the Holland testing
authority (Raad voor het Kwekersrecht, Wageningen) (INC 372) 'Iberia' is clearly distinguishable from any other variety, is sufficiently homogeneous and stable.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| The Netherlands | 1992 | $15 / 12 / 1993$ | 'Iberia' |

First sold in The Netherlands in 1993
Description prepared by N F Derera AM, FAIAS, ASAS Agricultural Science Advisory Service. Winston Hills New South Wales.
'Gloria' Application No 94/038
Application Accepted 28 February 1994.
Applicant: Koninklijke Van Zanten BV, Hillegom. The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 \& Fig 15

Good stem quality, medium height, and medium thick stems. Medium dense foliage, the leaves are somewhat recurved. elliptic and short. Inflorescence medium long with a medium long branches in umbel, short pedicel, relatively large number of big distinctly orange flowers. Flowers large with large spread of tepals. Outer tepal broad obovate with a very shallow emargination and is orange with very few stripes. Inner lateral tepal is obovate, the blade orange with medium to many small dark brown stripes, the inner median tepal smaller and darker orange and has no stripes. Filaments pink without spots, anthers yellowish the ovary has very weak or no anthocyanin colouration and there are no spots on the stigma.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents The breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for development on the basis of good stem quality, more flowers per stem, high production, very distinct orange colour, and all year-round flowering. Selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) 1992 and 1993. Measurements taken from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates. Plants arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge were included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht, Wageningen) (INC 373) 'Gloria' is clearly distinguishable from any other variety, is sufficiently homogeneous and stable.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| The Netherlands | 1992 | $15 / 12 / 1993$ | 'Gloria' |

First sold in The Netherlands in 1993.
Description prepared by N F Derera AM, FAIAS, ASAS Agricultural Science Advisory Service Winston Hills, New South Wales
'Alaska' Application No 94/039
Application Accepted 28 February 1994
Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 \& Fig 16

Rigid long flower stems and thick stem. Medium dense foliage hardly susceptible to breaking, leaves straight, broad elliptic and medium long. Inflorescence medium with medium long umbel branch and the pedicel is very short to short. Has a substantial number of large white flowers. Flowers large with medium to large spread of tepals and have average flower tube length. Outer tepals obovate with shallow emargination and are white with a vaguely purple red blotch, also having very few stripes on the inner side of the blade, mostly in the centre. The inner lateral tepals are obovate white tinged yellow towards the middle zone of the blade with many medium sized brown stripes, the inner median tepal white and has fewer stripes. Filaments pink without spots, anthers brownish, the ovary has very weak or no anthocyanin colouration. Spots on the stigma.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents. The breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for development on the basis of rigid flower stems, good production, large number of big white flowers and foliage tolerant to breaking. Selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) May 1990 and 1991. Measurements taken from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates, plants arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge were included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht, Wageningen) (INC 323) 'Alaska' is clearly distinguishable from any other variety, is sufficiently homogeneous and stable.

| Prior Applications and | Sales |  |  |
| :--- | :--- | :--- | :--- |
| Country | Year | Status | Name applied |
| The Netherlands | 1990 | $12 / 08 / 1992$ | 'Alaska' |
| Germany | 1992 | in course |  |

First sold in The Netherlands in 1993
Description prepared by N F Derera AM, FA1AS, ASAS Agricultural Science Advisory Service, Winston Hills, New South Wales.

[^0]
## Description-See Table 10 \& Fig 17

Strong upright, long, thick stems. Medium dense foliage, the leaves straight, narrow elliptic and long. Inflorescence medium with a long umbel branch and has a relatively large number of pink flowers. Capable of flowering all year under greenhouse conditions. Flowers large with medium spread of tepals. Outer tepals are obovate to broad obovate with the top margin frayed and are pink without any stripes and have deep emargination. Inner lateral tepals elliptic, pink tinged yellow towards the middle zone of the blade with medium to large size and medium to many brown stripes. Filaments pink without spots, anthers brownish-yellowish with yellow pollen, the ovary has medium anthocyanin colouration and there are no spots on the stigma.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents. Breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for development on the basis of strong flower stems, high production, regular flowering, large number of big pink flowers. Selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) 1991 and 1992. Measurements taken from specimens selected at random from plots of 4 plants per m ${ }^{2} 4$ replicates, plants arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht, Wageningen) (INC 345) 'Atlanta' is clearly distinguishable from any other variety, is sufficiently homogeneous and stable.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| The Netherlands | 1991 | $15 / 03 / 1993$ | 'Atlanta' |

First sold in Italy in 1993.
Description prepared by N F Derera AM, FAIAS, ASAS Agricultural Science Advisory Service. Winston Hills New South Wales.
'Toscana' Application No 94/041
Application Accepted 28 February 1994.
Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

## Description-See Table 10 and Fig 18

Strong, medium long thick stem. Medium dense foliage, leaves straight, narrow elliptic and medium long. Inflorescence medium long with medium long branches in umbel and short pedicel. Flowers large, purple pink (cherry-red) with medium to large spread of tepals. Outer tepal broad obovate and pink without any streaks and the depth of emargination is medium (margin of the top finecrenate). Inner lateral tepal obovate, pink, yellow towards the middle zone of the blade with medium sized brown stripes, inner median tepal pink with no stripes. Filaments red-purple, anthers brownish, the ovary has weak or no anthocyanin colouration and no spots on the stigma.

## Origin

Arose from the controlled pollination of a complex number of unnamed parents. The breeder is Koninklijke Van Zanten of Hillegom, The Netherlands. Selected for strong flower stems, year-round flowering, good production and bud presentation, large number of very distinct big, carmine flowers and almost no blind stems. Selected seedlings propagated by rhizomes.

## Comparative Trials

Conducted at CPRO-DLO, Wageningen (The Netherlands) May 1991 and 1992. Measurements from specimens selected at random from plots of 4 plants per $\mathrm{m}^{2}, 4$ replicates, plants arranged in randomised complete blocks. Plants raised in soil under greenhouse conditions. The most similar varieties of common knowledge were included in the trials and according to the Holland testing authority (Raad voor het Kwekersrecht. Wageningen) (INC 339) 'Toscana' is clearly distinguishable from any other variety, and is sufficiently homogeneous and stable.

## Prior Applications and Sales

$\begin{array}{llll}\text { Country } & \text { Year } & \text { Status } & \text { Name applied }\end{array}$
The Netherlands 1991 15/03/1993 'Toscana'
First sold in The Netherlands in 1993.
Description prepared by N F Derera AM, FAIAS, ASAS Agricultural Science Advisory Service, Winston Hills New South Wales.

## ENDNOTES, REMARKS.

1 Top margin frayed
2 White with a vaguely purple-red blotch ca. RHS 70B
3 Top margin slightly darker; blotch ca. RHS 73A
4 With a large central purple-red spot ca. RHS 54A-B
5 Blotch redder ca. RHS 34B-C; more yellow at the base
6 Top white, ca. RHS 155A
7 Towards the base cream-white; top ca. RHS 73A-75C
8 Top base of blade and claw purple-red, ca. RHS 54A-B, below the top with a spot of the same colour, otherwise white with a yellow spot

|  | Alaska' | 'Atlanta' | 'Flamengo' | 'Gloria' | 'Iberia' | 'Nevada' | 'Toscana' | 'Victoria' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STEM: <br> length thickness | long <br> thick to very thick | long thick | short medium | long medium | long thick | med to long medium | medium thick | long <br> thick |
| LEAF: <br> length <br> width | medium <br> narrow | medium <br> medium | long <br> broad | short narrow | medium <br> medium | med to long <br> broad | medium <br> narrow | long <br> broad |
| INFLORESCENCE: umbel branch length pedicel length | medium very short to short | long medium | short to med med to long | medium short | medium short | med to long medium | medium short | very long very long |
| FLOWER: <br> size <br> tepals' spread | large med to large | large medium | large <br> medium | large large | large <br> large | med to large large | large <br> med to large | large medium |
| OUTER TEPAL: shape <br> main colour | obovate <br> ca.RHS <br> $155 A^{2}$ | broad obovate ${ }^{1}$ <br> ca. RHS $73 D^{3}$ | obovate <br> ca. RHS $62 B-65 A^{4}$ | broad <br> obovate <br> ca.RHS <br> 28A-169C ${ }^{5}$ | broad obovate ca. RHS $12 \mathrm{~B}-13 \mathrm{C}^{12}$ | broad elliptic <br> ca. RHS 4D <br> \& RHS 3C-D | broad obovate ca. RHS 58C -D to 61D ${ }^{13}$ | broad elliptic to round <br> ca. RHS3 1B and ca. RHS 34B-C ${ }^{14}$ |
| OUTER TEPAL: stripes INNER TEPAL: shape | present <br> obovate | absent <br> elliptic | present <br> narrow obovate | present <br> obovate | present <br> obovate | absent <br> narrow | absent <br> obovate <br> elliptic | absent <br> narrow obovate |
| INNER LATERAL TE main colour number of stripes size of stripes | PAL: ca. RHS $4 C^{6}$ <br> medium medium 10 | ca. RHS $73 D^{7}$ <br> med to many med to large 11 | ca. RHS $54 \mathrm{~A}-\mathrm{B}^{8}$ <br> medium small to med | ca. RHS $12 A^{9}$ <br> med to many med to large | ca. RHS <br> $6 A^{15}$ <br> med to many | ca.RHS <br> 3B-C ${ }^{16}$ <br> medium 18 | ca. RHS $12 A^{17}$ <br> medium | ca. RHS 12A medium |
| ANTHERS COLOUR | brownish | brownish | yellow-green | yellowish | yellowish | light orange-yellow | brownish | light red-brown |
| ANTHOCYANIN IN O | VARIES: <br> absent or very weak | medium | weak | absent or very weak | absent or very weak | absent | absent or very weak | strong ${ }^{19}$ |

9 Somewhat more intense; top orange, RHS 28A-31B
10 Colour of the base red-brown, towards the top more red-purple
11 Smaller towards the base
12 Margin lighter, ca. RHS 12C-D
13 Blotch ca. RHS 58B; lighter at the base
14 Alongside the lateral margins ca. RHS 31B, top darker ca. RHS 34D-C; below the top with a flush of purple and slightly above the basis of the blade with an irregular flush of yellow
15 Top ca. RHS 9C, extreme top lighter
16 On a lighter background
17 Lighter towards the margin and the base; upper third part ca. RHS 68A-B
18 The stripes are strikingly coloured: ca. RHS 162A-163B
19 On and in between the dorsal ribs

## MACADAMIA

Macadamia integrifolia x tetraphylla

## 'Hidden Valley A38' synonym 'A38' Application No 92/179

Application Accepted 16 December 1992
Applicant: Hidden Valley Plantations, Beerwah. Queensland

## Description-See Table 11 \& Fig 19

A vigorous semi-upright tree with a multiple node branching habit, sparse to medium foliage density, bright green new growth shoots. Internode length medium ( $25-80 \mathrm{~mm}$, mean 50.6, standard deviation 12.4). Mature leaves medium length and width, approximately $60 \%$ grow in whorls of three with the remainder in whorls of four. Leaves completely devoid of spines (except for occasionally on the tip), margin undulates slightly and sometimes rolls slightly (mainly towards the tip), secondary veins are easily observed though not particularly conspicuous. Tip of a mature leaf tends to be pointed at an angle slightly less than $90^{\circ}$; leaf has a medium length petiole ( $6-19 \mathrm{~mm}$, mean 10.8 , standard deviation 2.3 ). Raceme very long, with creamy white florets of medium length (unopened including stalk $8-11 \mathrm{~mm}$, mean 9.5 , standard deviation 0.6). Medium sized fruit (length not including stalk 33.3-47.0 mm, mean 39.0, standard deviation 2.5; width 29.9-41.9mm, mean 33.82, standard deviation 2.1 ), set in large bunches (3-30 nuts, mean 12, standard deviation 5.7), have short necks, small apical points and a thick pericarp (calculated husk thickness $3.7-7.1 \mathrm{~mm}$, mean 5.4, standard deviation 0.7). Seed (nut) of medium size (length $22.0-29.1 \mathrm{~mm}$, mean 25.4 , standard deviation 1.5 ; width 22.0-29.3, mean 25.8, standard deviation 1.7) and nearly spherical or globose in shape. Thinner than average shell smooth, medium brown in colour with some inconspicuous paler specks. Micropyle on the shell closed, and the suture line is easily observed though not particularly conspicuous. The kernel is medium large in size (2.5-3.0 gram averages 1987-1994). creamy white in colour with very little discolouration in the distal (base) half of the kernel. The kernel recovery is medium high (wt kernel/wt seed $35.5-40.4 \%$ averages 1987-1994), the percentage of first grade kernel is high (floaters in water at $1.5 \%$ moisture content 99.7-100\% averages 1987-1994) and the percentage of whole kernels after cracking is high (wholes in commercial cracker 75-90\%, averages 1987-1994).

## Origin

Arose from open pollination of 'Own Choice' by Hidden Valley Plantations, Beerwah, Queensland. The resulting seedlings were maintained in breeding blocks and selected for a number of characteristics with a view to general plant improvement. The original 'Hidden Valley A38' tree was planted in 1978 and selected for closer evaluation in 1981.

## Comparative Trial

Comparators are 'Hidden Valley A4', 'Hidden Valley A16'. 'Own Choice', and 'H.A.E.S. 246'. All of the characteristics described below from comparative trials conducted at Hidden Valley Plantations, Beerwah, Queensland 1992-1993. Trial block originally planted in 1981 and later topworked (field grafted) to the trial varieties in 1988. The block is typical of many other Macadamia orchards. and planted without irrigation at a spacing of $6 \mathrm{~m} \times 6 \mathrm{~m}$ on flat land comprising of a sandy loam soil, with an average rainfall of 1650 mm . Maintenance of the block has been according to normal orchard practices. Land drained in 1991 because it was felt that the underground water table was too high. For each of the characteristics described below, each variety was represented by four trees from which 25 measurements per tree were taken ( 100 measurements per variety). excepting 'H.A.E.S. 246' for which only three trees were available and a correspondingly larger number of measurements per tree were made.

| ( ${ }^{*}=$ comparator $)$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Variety | 'Hidden ValleyA38' | *'Hidden <br> ValleyA4' | *Hidden ValleyA16' | *Own Choice' | $\begin{aligned} & \text { *HAES } \\ & 246 ’ \end{aligned}$ |
| LEAF-LENGTH (mm-including petiole) |  |  |  |  |  |
| mean | 132.97 | 131.76 | 126.50 | 129.82 | 139.38 |
| std. deviation | 19.34 | 16.07 | 18.83 | 13.93 | 17.35 |
| LSD(0.01)/ significance | 6.30 | NS | $\mathrm{P} \leq 0.05$ | NS | $P \leq 0.05$ |
| LEAF-MAXIMUM WIDTH (mm) |  |  |  |  |  |
| mean | 39.40 | 37.13 | 47.45 | 40.67 | 40.89 |
| std. deviation | 6.33 | 5.19 | 7.17 | 4.77 | 5.84 |
| LSD(0.01)/ <br> significance | 2.17 | $\mathrm{P} \leq 0.01$ | $\mathrm{P} \leq 0.001$ | NS | NS |


| LEAF-LENGTH/MAX WIDTH (ratio) |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| mean | 3.40 | 3.57 | 2.68 | 3.21 | 3.45 |
| std. deviation | 0.38 | 0.28 | 0.28 | 0.39 | 0.45 |
| LSD(0.01)/ | 0.13 | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ | NS |
| significance |  |  |  |  |  |
|  |  |  |  |  |  |
| LEAF-SPINES (Count of spines in central 5 cm of one leat side) |  |  |  |  |  |
| mean | 0.00 | 5.20 | 0.52 | 1.62 | 0.43 |
| std. deviation | 0.00 | 1.42 | 0.76 | 1.35 | 0.74 |
| LSD(0.01)/ | 0.36 | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ |
| significance |  |  |  |  |  |


| RACEME-LENGTH (mm from start of stem to tip) |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| mean | 339.89 | 275.26 | 228.60 | 153.40 | 171.95 |
| std. deviation | 41.78 | 26.13 | 35.76 | 20.69 | 18.77 |
| LSD(0.01)/ | 10.96 | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ |
| significance |  |  |  |  |  |

## Prior Applications and Sales-

Nil

## BRACHYSCOME

Brachyscome angustifolia x formosa
'Strawberry Mousse' Application No 93/103
Application Accepted 15 April 1993
Applicant: Merricks Nursery, Merricks, Victoria

## Description-See Table 12 \& Fig 20

A low growing, compact perennial herb with numerous large purple daisy inflorescences. Leaves spathulate with deeply lobed margins. Typical inflorescences $28-38 \mathrm{~mm}$ in diameter with a golden disc $6-9 \mathrm{~mm}$ wide. The upper surface of the rays light purple (red-purple, Group 73B, RHS colour chart).

## Origin

Arose from a chance seedling at the applicant's nursery believed to be an open pollination of $B$. formosa and $B$. angustifolia. Selection was based on growth habit, flower colour and form. Propagated through ten generations of vegetative growth.

## Comparative Trials

The comparators are B. formosa and B. augustifolia. Comparative trial conducted at Merricks Nursery, Victoria January-August 1994. Measurements from 10 specimens selected at random from a trial of plants in 150 mm containers. Plants propagated by cutting and grown in a pinebark/sand media with slow release fertilisers in full sun with overhead irrigation. All measurements taken on August 161994.
Description prepared by Mark Lunghusen, Healesville. Victoria.

(* = comparator)

|  | 'Strawberry Mousse' | *'B. angustifolia' | *B. formosa' |
| :---: | :---: | :---: | :---: |
| GROWTH HABIT |  |  |  |
|  | compact | upright | compact/ suckering |
| PLANT HEIGHT (mm) |  |  |  |
| mean | 129 | 209 | 110 |
| std deviation | 9 | 14 | 33 |
| range | 110-140 | 190-240 | 20-150 |
| LENGTH OF RAY (mm) |  |  |  |
| mean | 15.1 | 9.7 | 17.3 |
| std deviation | 0.7 | 0.9 | 2.0 |
| range | 14-16 | 8-11 | 14-20 |
| INFLORESCENCE DIAMETER(mm) |  |  |  |
| mean | 34.4 | 23.1 | 41.3 |
| std deviation | 2.5 | 0.8 | 3.4 |
| range | 28-38 | 22-24 | 37-48 |

Table 12 Brachyscome-Continued

|  | 'Strawberry <br> Mousse' | *'B. angustifolia' | 'B. formosa' |
| :--- | :--- | :--- | :--- |
| PEDUNCLE LENGTH (mm) |  | 83 |  |
| mean | 92 | 94 | 21 |
| std deviation | 19 | 15 | $21-110$ |
| range | $57-140$ | $71-120$ |  |
| COLOUR OF RAY (UPPER) |  | RHS Group 73B | Violet |
|  | Red-purple | RHS |  |
|  | RHS Group | Purple | RHS Group |
|  | $84 C$ |  | $78 C$ |

## ALSTROEMERIA

Alstroemeria aurea
'Felicity' Application No 93/175
Application Accepted 6 January 1994
Applicant: Arie Van der Spek, Monbulk, Victoria
Description-See Table 13 \& Figs 21, 22
A tall Alstroemeria with thick stems and medium foliage. Leaves recurved, narrow elliptic, long and thick. Inflorescence has a medium number of branches with medium branches in the umbel and medium pedicel lengths. Flowers, mainly coloured red purple, medium size with medium spread of tepals. Outer tepals obovate, with a few stripes towards the apex and coloured red purple RHS 77 C with lighter shades towards the margins and base. Inner tepals obovate and coloured red purple RHS 77B at the apices. Lateral inner tepals lighter in colour in the centre with a faint yellow tinge and many stripes, inner median tepal lacks yellow with fewer stripes. Filaments red-purple without spots, anthers grey brown, ovaries have medium anthocyanin, there are no spots on the stigma.

## Origin

Arose from the controlled pollination of Alstroemeria butterfly type, breeders' reference ' 88305 ' by Alstroemeria butterfly type, breeders' reference ' 8990 '. The breeder was C Van Os of Berschen Hoek, Netherlands. Selected on the basis of flower colour and winter flowering and propagated by tissue culture.

## Comparative Trials

Comparator is 'Sydney'. Conducted at Monbulk September 1993-April 1994. Measurements taken from twenty specimens selected at random from ten plants arranged in split plots. Plants raised in wire trellises on red kraznozem soil in an unheated polythene house. Flowers from these plants cut in bud and transported to Devon Meadows, Victoria, and placed in a solution of 5\% sugar and $1 \mathrm{ml} /$ itre chlorine bleach. Flowers assessed five days later.

## Prior Applications and Sales.

Nil
Description prepared by David Nichols, Devon Meadows, Victoria

Table 13 Astroemeria Varieties

| (* $=$ comparator) |  |  |
| :---: | :---: | :---: |
|  | 'Felicity' | * 'Sydney' |
| STEM LENGTH (cm) |  |  |
| mean | 115.2 | 65.6 |
| std. deviation | 13.59 | 11.13 |
| LSD 0.01/significance | 9.0 | $\mathrm{P} \leq 0.01$ |
| LEAF LENGTH (mm) First leaf below umbel |  |  |
| mean | 132.7 | 108.2 |
| std. deviation | 12.21 | 13.41 |
| LSD 0.01/significance | 11.0 | $P \leq 0.01$ |
| LEAF WIDTH (mm) First leaf below umbel |  |  |
| mean | 27.7 | 25.7 |
| std. deviation | 4.04 | 3.72 |
| LSD 0.01/significance | 2.5 | P 0.05 |
| UMBEL NO. OF BRANCHES |  |  |
| mean | 5.0 | 4.1 |
| std. deviation | 1.12 | 1.07 |
| LSD 0.01/significance | 0.9 | P 0.05 |
| UMBEL LENGTH (mm) Longest to base of flower. |  |  |
| mean | 94.9 | 65.5 |
| std deviation | 31.42 | 12.34 |
| LSD 0.01/significance | 32.0 | P 0.05 |
| STEM THICKNESS |  |  |
|  | medium | medium |
| OUTER TEPAL MAIN COLOUR |  |  |
|  | RHS 77BC | RHS 70B |
| OUTER TEPAL STRIPES |  |  |
|  | Few | Absent |


| INNER LATERAL TEPAL TIP COLOUR |  |
| :--- | :--- |
| RHS 77B | RHS 72C |
| INNER LATERAL TEPAL STRIPES |  |
| Many thin | Many thick |
| INNER LATERAL TEPAL YELLOW COLOUR |  |
| Faint | RHS 3A |
| INNER MEDIAN TEPAL MAIN COLOUR |  |
| RHS 77BC | RHS 72C |
| INNER MEDIAN TEPAL STRIPES |  |
| Few thin | Medium thick |

## WHEAT

Triticum aestivum
'Pelsart' Application No 93/187
Application Accepted 26 August 1993
Applicant: The State of Queensland through its
Department of Primary Industries, Brisbane, Queensland

## Description-See Table 14 \& Fig 23

A short stature weak strawed spring wheat variety with a semi-erect growth habit. Flag leaf slightly recurved hairs
absent Colour of flag leaf auricle absent. Timing of ear emergence medium. Flag leaf glaucosity absent. Straw section thin. Ear shape tapered and ear density lax. Awns present along whole length. Hairiness of lower glumes medium. Grain colour white and brush hair length of grain short. Ear glaucosity absent to weak. Neck glaucosity of culm weak to absent.

## Origin

Derived from the cross 'Potam 70/4'*'Cook'. 'Potam' crossed to 'Cook' and the F1 crossed back to 'Cook'. Progeny selfed and evaluated for tolerance to the root lesion nematode. Tolerant progeny crossed back to 'Cook' and the resultant Fl again crossed to 'Cook'. Crossing undertaken at the Queensland Wheat Research Institute and completed in 1984. Progeny first evaluated for root lesion tolerance and then for yield, quality and resistance to stem, leaf and stripe rust through one cycle of reselection and five years of testing.

## Comparative Trials

The closest known comparator is 'Cook'. Comparative test conducted in a birdproof enclosure at the Queensland Wheat Research Institute May-November 1993, at the Plant Breeding Institute, Cobbitty July-August 1994 (presence of Sr 2 ) and at Tangalooma, Formartin MayNovember 1990 and 1992 (root lesion nematode tolerance).

## Prior Applications and Sales

Nil
Description prepared by PS Brennan, Department of Primary Industries, Toowoomba, Queensland

## Table 14 Wheat Varicties

| ( $^{*}$ = comparator) |  |  |
| :--- | :--- | :--- |
|  | 'Pelsart' | *'Cook' |
| EAR GLAUCOSITY | absent | weak |
| EAR DENSITY |  |  |
|  | lax | medium lax |
| AWNS LENGTH (cm) | 5.5 | 6.5 |
| LOWER GLUME HAIRINESS |  |  |
| PRESENCE OF Sr2 (See Fig nn) | medium | medium-strong |
| TOLERANCE OF THE ROOT LESION NEMATODE |  |  |

## WHEAT

Triticum aestivum
'Rowan' Application No 93/188
Application Accepted 27 August 1993
Applicant: The State of Queensland through its
Department of Primary Industries, Brisbane, Queensland

## Description-See Table 15 \& Fig 24

A medium tall spring wheat of erect growth habit. Relatively early maturing being approximately two days longer to flowering than the comparator variety 'Hartog'. Flag leaf rectilinear to slightly recurved and hairs absent on the sheaths, leaf blades and upper node. Head moderately lax, square with slight tapering at the tip. Glumes have short tip awns and are white to cream at harvest ripeness. Grain hard, white and plump. Resistant to stem and leaf rust and moderately resistant to stripe rust. The major distinguishing feature from the comparator variety 'Hartog' is the lack of normal length awns on the head and having a higher level of resistance to yellow spot.

## Origin

Arose from the cross 'Jaral $66^{\prime} /$ 'Gamut' $x 44^{*}$ 'Hartog' made at the Queensland Wheat Research Institute (QWRI).
'Rowan' developed by crossing a fixed line (QT2338) derived from the cross 'Jarah 66 '/'Gamut' to 'Hartog', selecting awnless plants and crossing these back to 'Hartog'. Process repeated three times and completed in 1984. The purpose of this program was to develop an awnless version of 'Hartog' which would have enhanced animal feed value from failed crops. Progeny from this cropping program selfed and then evaluated for yield and quality followed by single plant selection and four years of yield and quality evaluation.

## Comparative Trials

The closest known comparator is 'Hartog'. The composition test conducted in a bird proof enclosure in the field at QWRI May-November in 1993.

## Prior Applications and Sales

| Nil |  |
| :---: | :---: |
| Tabla 15 Mheat vancties | 晨 |
| (*=comparator) |  |
| 'Rowan' | *'Hartog' |
| FLAG LEAF ATTITUDE |  |
| slightly recurved | strongly recurved |
| FLAG LEAF GLAUCOSITY |  |
| EAR GLAUCOSITY |  |
| absent | medium |
| CULM: NECK GLAUCOSITY |  |
| STRAW SECTION |  |
| medium | thin |
| AWNS PRESENT |  |
| absent | present |
| AWNS LOCATION |  |
| absent | whole length |
| AWNS LENGTH (mm) |  |
| 2.0 | 5.5 |

## WHEAT

Triticum aestivum
'Tasman' Application No 93/189
Application Accepted 27 August 1993
Applicant: The State of Queensland through its Department of Primary Industries, Toowoomba, Queensland

## Description-See Table 16 \& Fig 25

Relatively short stature spring wheat with an erect growth habit. Very quick maturing variety with hairs absent from the culm, flag leaf and ear. Stem strong with a medium thick wall. Head compact with a tendency for very short internode length towards the tip. Head tends to be a green/yellow prior to ripening when it turns a distinctive red/brown. This colour fades with age and is the main distinguishing feature of this variety.

## Origin

Arose from a cross between a fixed line derived from the cross 'Gabato $/ \times$ Siete Cerros'x 'Bluebird’/‘CIANO' and 'Torres' made in 1981. Single heads selected from the F2 and visual selection among families practised at the F3. Yield and quality evaluation undertaken in the F4 and F5 generation. Elite families reselected, multiplied, tested for stem, leaf and stripe rust resistance before commencing a second cycle of yield and quality evaluation for each of the next five years.

## Comparative Trials

The closest known comparator is 'Torres'. Comparative test conducted in a bird proof enclosure in the field at QWRI May-November 1993.

## Prior Applications and Sales

## Nil

Descriptions prepared by Paul Brennan. Queensland Wheat Research Institute, Toowoomba.

Table 16 Wheat Varieties

|  | 'Tasman' | *'Torres' |
| :--- | :--- | :--- |
| FLAG LEAF AURICLE COLOUR |  |  |
|  | weak | absent |
| STRAW SECTION | medium | thin |
| AWNS LENGTH (cm) | 6.0 | 5.5 |
| mean | medium | absent |
| LOWER GLUMES: HAIRINESS |  |  |
| HEAD COLOUR AT MATURITY | red/brown | white |

## CHERRY

Prunus avium
'Brooks' synonym '12-28' Application No 93/220
Application Accepted 7 October, 1993
Applicant: The Regents of the University of California,
Oakland, California, United States of America
Australian Agent: Agricultural Licensing Australia Pty
Limited, North Parramatta, New South Wales

## Description-See Fig 26

An early maturing sweet cherry. Tree upright to uprightspreading with size slightly below average for the species. Leaves large, lanceolate with dark green upper surface and light green lower surface. Fruit is uniform and large, attached by medium to short stems. Fruit shape broadly oblate with flattened and sometimes depressed apex. Fruit skin colour dark red and flesh colour variable with shades of red and pink extending from skin to pith. Flesh texture firm and crisp. Stone size medium and roughly oval in shape. Distinguishing characteristics are its very high quality, early maturing fruit, and outstanding ability to develop uniformly and exceptionally large size fruit. Fruit quite symmetrical and ripens evenly about one week prior to the popular 'Bing' variety. In comparison with 'Early Burlat', the fruit of 'Brooks' is larger, of higher quality and superior firmness. 'Brooks' has a flavour which is sweet, well balanced and exceptional for early season maturity.

## Origin

Resulted from a cross of the cherry varieties 'Ranier' and 'Early Burlat' made in 1969. Selection 12-28, a seedling of the cross, planted in February 1970 and the fruit of the selection first observed in 1976. Selection 12-28 then planted at the University of California Wolfskill Ranch at Winters, California and in 1978 asexually reproduced by bud grafting. The evaluation of selection 12-28 made at a number of locations resulted in its selection as a promising cultivar'. Bred by Paul E Hansche, Davis, California. The variety will be propagated asexually by bud grafting during commercial propagation.

## Comparative Trials

The closest known comparator is 'Early Burlat'. The description was prepared from plant material obtained from a 10 year old bearing cherry tree located at a test selection block at the University of California, Kearney Agricultural Center, Parlier, California.

## Prior Applications

'Brooks' has been protected by Plant Patent (6676) in the United States of America since 1989. Plant Breeding Rights have been applied for in France since 1987. 'Brooks' has been sold in the United States of America since 1988.

## Regional Adaptation

'Brooks' has demonstrated its ability to perform well in the warmer areas in the State of California.

Description prepared by Peter Vaughan Agricultural Licensing Australia. North Parramatta, New South Wales.

## WHEAT

Triticum aestivum
'Stretton' synonym '80Y:1117' Application No 93/228 Application Accepted 21 October 1993
Applicant: The Chief Executive Officer of the Department of Agriculture, Perth, Western Australia.

Description-See Table 17 \& Fig 27
An awned, spring wheat of medium height and maturity, producing a white grain of hard awned spring wheat quality. Promoted because it has maintained its adult resistance to stripe rust (and leaf rust), while out yielding current awned spring wheat lines.

## Origin

Arose from the controlled pollination of 'IRN62-101:Z501 (AUS18446)' by 'Bodallin' in 1980. The breeder is IR Barclay of Perth, Western Australia. Selected for development on the basis of yield, quality and disease characteristics, propagated by the F2 progeny method through seven generations.

## Comparative Trials

'Egret' and 'Bodallin' are the closest known comparators. Conducted at South Perth June 1993-December 1993. Measurements taken from 100 specimens selected at random from 2,000 plants arranged in complete blocks. Plants raised in soil in open beds.

## Adaptation

Out yields its awn spring wheat comparators ('Spear', 'Kulin', 'Gutha'. 'Schomburgk', 'Machete') in most regions, but is particularly suited to the medium rainfall areas of Western Australia. Some conditions may produce screening losses higher than 'Spear' and 'Gutha', which will necessitate grading. Adult resistance to leaf and stripe rust, insensitive to gibberellin.
Description prepared by SA Morgan of the Western Australian Department of Agriculture.

| Table 17 Wheat Va |  |  |
| :---: | :---: | :---: |
| (* = comparator) |  |  |
| 'Stretton' | *'Egret' | *'Bodallin' |
| PLANT HABIT(scale:-1=erect, 9=prostrate) |  |  |
| 1=erect | $3=$ semi-erect | 1=erect |
| EAR EMERGENCE(scale:-1=v.early, $9=$ v.late) |  |  |
| 6=medium | $7=$ late | 6=medium |
| 94 days | 101 days | 90 days |
| SHEATH GLAUCOSITY(scale:-1=absent, $9=\mathrm{v}$.strong) |  |  |
| 5=medium | 5=medium | 5=medium |
| LEAF GLAUCOSITY(scale:-1=absent, $9=\mathrm{v}$.strong) |  |  |
| $5=$ medium | $3=$ weak | 3=weak |
| GLAUCOSITY(scale:-1=absent, $9=v$. strong $)$ |  |  |
| 3=weak | 3=weak | 3=weak |
| CULM, NECK GLACOSITY(scale:-1=absent, $9=\mathrm{v}$.strong) |  |  |
| 5=medium | 5=medium | 5=medium |



AWN DISTRIBUTION(scale: $1=$ tip, $5=$ whole length)

| $5=$ whole length | $5=$ whole length $5=$ whole length |  |
| :--- | :---: | :---: |
| SCURS AT TIP(scale: $1=$ v.short, $9=$ v.long) |  |  |
| $3=$ short | $3=$ short | $5=$ medium |
| AWNS AT TIP(scale: $1=$ v.short, $9=$ v.long) |  |  |
| $5=$ medium | $7=$ long | $5=$ medium |


| APICAL RACHIS HAIRINESS(scale: | $1=$ absent, $9=$ v.strong) |  |
| ---: | ---: | ---: |
| $1=$ absent | $1=a b s e n t$ | $1=a b s e n t$ |

GLUME SHOULDER WIDTH(scale: $1=\mathrm{v}$.narrow, $9=\mathrm{v}$.broad)


| GLUME BEAK SHAPE(scale: $1=$ straight, $5=$ geniculate) |  |  |
| :---: | :---: | :---: |
| $2=$ slightly | $2=$ slightly | $1=$ straight |
| curved | curved |  |


| GLUME INTERNAL HAIRS(scale: 3=weak, 7=strong) |  |  |
| ---: | :---: | :---: |
| 3=weak | 3=weak | 3=weak |

GLUME INTERNAL IMPRINT(scale: $1=$ absent, $9=$ v.large)

| $2=$ small $\quad 2=$ small | 2=small |
| :---: | :---: |
| LEMMA BEAK(scale: $1=$ straight, $5=$ geniculate) |  |
| $3=\mathrm{mod}$ curved $\quad 1=$ straight | 2=slightly <br> curved |
| GRAIN SHAPE(scale: $1=$ rounded, $3=$ elongated) |  |
| $2=$ ovoid $2=$ ovoid | 2=ovoid |
| GRAIN COLOR(scale: $1=$ white, $2=$ red |  |
| 1=white $\quad 1=$ white | 1=white |
| GRAIN BRUSH HAIR(scale: $3=$ short, $7=$ long) |  |
| $5=$ medium $5=$ medium | 5=medium |
| SEASON TYPE(scale: $1=$ winter, $3=$ spring ) |  |
| Spring Spring | Spring |

## WHEAT

Triticum aestivum
'Amery' synonym '81Y:971' Application No 93/229
Application Accepted 21 October 1993
Applicant: The Chief Executive Officer of the
Department of Agriculture, Perth, Western Australia.

## Description-See Table 18 \& Fig 28

A fully awned spring wheat, with a hard, light coloured grain and a long narrow flag leaf, develops a thick pithed stem and a tapered, lax head.

## Origin

Selected from a backcross of 'Bodallin' made at the National Rust Control Program of 'Lr21'-‘SrX/2'* 'Shotim'//‘3* Bodallin' in 1981. Breeders are D The, Sydney, New South Wales, and AA Rosielle and IR Barclay of the Western Australian Department of Agriculture. Selected for development on the basis of rust resistance (not secured), yield and hard awned spring wheat quality and propagated by F2 progeny method through seven generations.

## Comparative Trials

Comparators are 'Kulin' and 'Gutha'. Conducted at South Perth June 1993-December 1993. Measurements taken from 100 specimens selected at random from 2000 plants arranged in complete blocks. Plants raised in open beds. All observations and measurements have been confirmed by the breeder, IR Barclay.

## Adaptation

A high yielding, hard, awned spring wheat quality variety with Australian Hard Wheat potential. Designed to replace 'Kulin' in the awned spring wheat class, and recommended for the medium and low rainfall areas of Western Australia, particularly for late sowing. Resistant to flag smut and is insensitive to gibberellin.
Description prepared by SA Morgan of the Western Australian Department of Agriculture.

## Table 18 Wheat Varieties

( ${ }^{*}=$ comparator)

| 'Amery' | * Kulin' | *'Gutha' |
| :---: | :---: | :---: |
| GROWTH HABIT(scale: $1=$ erect, $9=$ prostrate) |  |  |
| 1 =erect | 1 =erect | 3=semi-erect |
| EAR EMERGENCE(scale: $1=$ v.early, $9=$ v.late) |  |  |
| $5=$ medium | $5=$ medium | 5=medium |
| 83 days | 84 days | 87 days |
| SHEATH GLAUCOSITY(scale: $1=$ absent, $9=\mathrm{v}$. strong) |  |  |
| 5=medium | $5=$ medium | 5=medium |
| LEAF GLAUCOSITY(scale: $\uparrow=$ absent, $9=\mathrm{v}$. strong) |  |  |
| 3=weak | $4=$ medium | 2=absent-weak |
| EAR GLAUCOSITY(scale: $1=$ absent, $9=\mathrm{v}$. strong) |  |  |
| $3=$ weak | $3=$ weak | 3=weak |


| 'Amery' | * 'Kulin' | *'Gutha' |
| :---: | :---: | :---: |
| CULM GLAUCOSITY(scale: 1=absent, $9=\mathrm{v}$. strong) |  |  |
| 5=medium | $5=$ medium | 5=medium |
| ANTHER, ANTHOCYANIN COLORATION(scale: $1=$ absent, $9=$ present) |  |  |
| 1=absent | 1=absent | $1=$ absent |
| CULM, NODE HAIRINESS(scale: $1=a b s e n t, 9=v$. strong) |  |  |
| 3=weak | $3=$ weak | 3=weak |
| HEIGHT(scale: $1=\mathrm{v}$.short, v. long) |  |  |
| $5=$ medium | $5=$ medium | 5=medium |
| 60 cm | 60 cm | 70 cm |
| STRAW SECTION(scale: 3=thin pith, 7=thick) |  |  |
| 6=thick | 3=thin | $3=$ thin |
| EAR COLOUR(scale: $1=$ white, $2=$ coloured) |  |  |
| 1=white | 1=white | 1-white |
| EAR SHAPE(scale: $1=$ tapering, $5=$ clavate) |  |  |
| 1=tapering | $1=$ tapering | 1=tapering |
| EAR DENSITY(scale: $1=\mathrm{v}$. lax, $9=\mathrm{v}$. dense) |  |  |
| $3=1 \mathrm{ax}$ | $3=\operatorname{lax}$ | 5=medium |
| AWNS(scale: 1=absent, 3=present) |  |  |
| 3=present | 3=present | $3=$ present |
| AWN DISTRIBUTION(scale: 1-tip, 5=whole length) |  |  |
| $5=$ whole length | $5=$ whole length | 5=whole length |
| SCURS AT TIP(scale: $1=\mathrm{v}$.short, $9=\mathrm{v}$.long) |  |  |
| $7=10 n g$ | 7=long | 6=medium-long |
| AWNS AT TIP(scale: $1=$ v.short, $9=$ v.long) |  |  |
| 7=long | 7=long | 5=medium |
| APICAL RACHIS HAIRINESS(scale: $1=a b s e n t, 9=\mathrm{v}$.strong) |  |  |
| 1 =absent | 1 =absent | $1=a b s e n t$ |
| GLUME SHOULDER WIDTH(scale: $1=\mathrm{v}$.narrow $9=\mathrm{v}$.broad) |  |  |
| 4=narrow-med | 5=medium | $5=$ medium |
|  |  |  |
| GLUME SHOULDER SHAPE(scale. 1-sloping, J=elevaled with 2nd point) |  |  |
| GLUME BEAK LENGTH(scale: $1=\mathrm{v}$.short, $9=\mathrm{v}$.long) |  |  |
| 6=med-long | 6=med-long | 6=med-long |
| GLUME BEAK SHAPE(scale: $1=$ straight, $5=$ geniculate) |  |  |
| $3=\mathrm{mod}$. curved $2=$ slightly curved $5=$ geniculate |  |  |
| GLUME INTERNAL HAIRS(scale: $3=$ weak, $7=$ strong) |  |  |
| 3=weak | 3=weak | 3=weak |
| GLUME INTERNAL IMPRINT(scale: $1=\mathrm{absent}, 9=\mathrm{v}$.large) |  |  |
| 2=small | $2=$ small | 2=small |
| LEMMA BEAK(scale: $1=$ straight, $5=$ geniculate) |  |  |
| $3=\mathrm{mod}$. curved | $3=\mathrm{mod}$ curved | $3=\mathrm{mod}$. |
| GRAIN SHAPE(scale: $1=$ rounded, $3=$ elongated) |  |  |
| 2=ovoid | $2=0$ void | 2=ovoid |
| GRAIN COLOR(scale: $1=$ white, $2=$ red |  |  |
| $1=$ white | 1=white | $1=$ white |
| GRAIN BRUSH HAIR(scale: $3=$ short, $7=$ long) |  |  |
| $5=$ medium | $5=$ medium | 6=medium-long |

OAT
Avena sativa
'Carrolup' synonym '81Q:346'
Application No 93/231
Application Accepted 21 October 1993
Applicant: The Chief Executive Officer of the Department of Agriculture, Perth, Western Australia.

## Description-See Table 19 \& Fig 29

A mid-season, non-dwarf, spring oat with good straw strength. It has high milling quality with a high hectolitre weight, groat per cent and a bright grain colour.

## Origin

Arose from the controlled pollination of 'Mortlock' (seed parent') by '80Q256' (pollen parent) in 1981. The breeder is Dr R McLean, Perth, Western Australia. Selected for development on the basis of yield and quality, and propagated by an F2 progeny method through seven generations.

## Comparative Trials

'Winjardie' and 'Mortlock' are the closest known comparators. Conducted at South Perth June, 1993December, 1993. Measurements taken from 100 specimens selected at random from 2,000 plants arranged in complete blocks. Plants raised in soil in open beds.

## Adaptation

Designed to replace 'Mortlock' as a milling quality oat, not expected to compete with the yields of recommended feed oats. Performs better than 'Mortlock' in all rainfall regions, but is better adapted to the southern regions of Western Australia, to earlier planting, and to stem and crown rust free sites.
Description prepared by SA Morgan of the Department of Agriculture. Western Australian.

## Table 19 Oat Varieties

( ${ }^{*}=$ comparator)

| 'Carrolup' | * 'Mortlock' | *'Winjardie' |
| :---: | :---: | :---: |
| GROWTH HABIT (scale: $1=$ erect, $9=$ prostrate) |  |  |
| 3 = semi erect | 3 = semi erect | $1=\mathrm{erect}$ |
| LEAF SHEATH HAIRINESS(scale: 1 =weak, $9=\mathrm{v}$.strong) |  |  |
| 1 = weak | 1 = weak | 1 = weak |
| LEAF MARGIN HAIRINESS (scale: 1 =weak, $9=\mathrm{v}$.strong) |  |  |
| 2 = weak | 2 = weak | 3 = weak |

TIME OF PANICLE EMERGENCE(scale: $1=\mathrm{v}$. early, $9=\mathrm{v}$. late)

| Ranking | 5 = medium | 5 = medium | 5 = medium |
| :---: | :---: | :---: | :---: |
| Days afte seeding | 102 day | 108 days | 110 days |

FLAG LEAF ATTITUDE(scale: $1=$ rectilinear, $9=\mathrm{v}$.strongly recurved)
2 = rectilinear $\quad 3$ =slightly $\quad 1$ = rectilinear

Table 19 Oat-Continued

| STEM NODE HAIRINESS(scale: $1=$ absent, $9=$ present) |  |  |
| :---: | :---: | :---: |
| 1 = absent | 1 = absent | 1 = absent |
| STEM NODE HAIR INTENSITY(scale: $1=\mathrm{v}$. weak, $9=\mathrm{v}$. strong) |  |  |
| 1 = absent | 1 = absent | 1 = absent |
| PANICLE ORIENTATION(scale: $1=$ unilateral, $3=$ equilateral) |  |  |
| 2 = sub-unilateral $2=$ sub-unilateral $3=$ sub-unila |  |  |
| PANICLE, BRANCH ATTITUDE(scale: $1=$ erect, 9 =strongly drooping) |  |  |
| 4 = semi-erect | 4 = semi-erect | 5 = horizontal |
| SPIKELET ATTITUDE(scale: $1=$ erect, $2=$ pendulous) |  |  |
| 2 = pendulous | 2 = pendulous | $2=$ pendulous |
| GLUME LENGTH(scale: 3=short, 7=long) |  |  |
| 5 = medium | 5 = medium | $5=$ medium |
| GLUME GLAUCOSITY(scale: $1=$ absent, $9=v . s t r o n g$ ) |  |  |
| 7 = strong | 7 = strong | 2 = very weak |
| LEMMA GLAUCOSITY(scale: $1=$ absent, $9=$ present) |  |  |
| 1 = absent | 1 = absent | $1=a b s e n t$ |

LEMMA GLAUCOSITY, INTENSITY(scale: $1=\mathrm{v}$. weak, $9=\mathrm{v}$. strong)

|  | 1 = v. weak | 1 = v. weak | 1 = v. weak |
| :---: | :---: | :---: | :---: |
| PLANT HEIGHT(scale: $1=$ v.short, $9=\mathrm{v}$.long) |  |  |  |
| Ranking | 5 = medium | 5 = medium | 5 = medium |
| Mean height | 78 cm | 81 cm | 76 cm |

GRAIN HUSK(scale: $1=$ absent, $9=$ present)

| $9=$ present | $9=$ present | $9=$ present |
| :---: | :---: | :---: |
| GRAIN AWNS(scale: $1=$ absent, $9=\mathrm{v}$. strong) |  |  |
| $1=$ absent | $1=$ absent | $9=\mathrm{v}$. strong |

LEMMA LENGTH(scale: $1=\mathrm{v}$.short, $9=\mathrm{v}$.long)

| $5=$ medium | $5=$ medium |
| :---: | :---: |
| LEMMA COLOUR(scale: $1=$ white, $5=$ black) | $5=$ medium |
| $2=$ yellow | $2=$ yellow |$\quad 2=$ yellow |  |
| :---: |

LEMMA HAIR(scale: $1=$ absent, $9=$ present)

| 1 = absent | 1 = absent | $9=$ present |
| :---: | :---: | :---: |
| GRAIN BASE HAIR(scale: $1=$ absent, $9=v$. strong |  |  |
| 1 = absent | $2=$ v. weak | 7 = strong |
| BASAL HAIR LENGTH(scale: 3=short, 7=strong) |  |  |
| 1 = absent | 5 = medium | 7 = long |
| RACHILLA LENGTH(scale: 3=short, 7=long) |  |  |
| 4 = short | 4 = short | 5 = medium |
| RACHILLA WIDTH(scale: $3=$ narrow, 7 =wide) |  |  |
| $5=$ medium | 5 = medium | 4 = narrow |
| RACHILLA GROOVES(scale: $1=$ absent, $9=\mathrm{v}$.strong) |  |  |
| 7 = strong | 1 = absent | 1 = absent |

SEASON TYPE(scale: 1=winter, 3=spring)
$3=$ spring $\quad 3=$ spring $\quad 3=$ spring

STEM RUST RESISTANCE. Results curtesy of J Oates, Cobbity, NSW.
Race $20 \quad 3=$ susceptible $0 ; 3=$ resistant $3=$ susceptible stem rust
Race $24 \quad 3=$ susceptible $\quad 2-2=$ resistant $\quad 3=$ susceptible stem rust

## LETTUCE

## Lactuca sativa

'Diamond' Application No 93/239
Application Accepted 23 November 1993
Applicant: Coastal Seeds Inc, California, United States of America
Australian Agent: South Pacific Seeds, Griffith, New South Wales

## Description-See Table 20 \& Fig 30

A smooth leaf crisphead lettuce with resistance to downy mildew. Distinct from other downy mildew resistant cultivars which have a similar horticultural appearance due to its brown seed colour.

## Origin

Controlled pollination of 'Van Sal 210' x 'Salinas 105' by 'Alpha' (pollen parent). Selected for its brown seed colour, downy mildew resistance to Californian pathotypes I, IIA and III. The breeder is Donald G Bergam of Coastal Seeds, California, United States of America.

## Comparative Trials

The comparator is 'Target'. Conducted at Griffith, New South Wales March 1994-June 1994. Observation of characteristics taken from 100 specimens selected at random from a total of 150 plants, replicated three times in randomised complete blocks. Transplanted into soil in open bed culture.


Table 19 Millet-Continued

| 'Indus 87' | 'Indus 93' | *'Japanese' | *'Siberian' |
| :---: | :---: | :---: | :---: |
| LENGTH OF FLAG LEAF (mm) |  |  |  |
| mean 259.1 | 255.5 | 152.1 | 197.5 |
| std. deviation 38.1 | 38.2 | 32.3 | 28.2 |
| significance | NS | $\mathrm{P}<0.001$ | $\mathrm{P}<0.001$ |
| WIDTH OF FLAG LEAF (mm) |  |  |  |
| mean 16.8 | 17.3 | 15.1 | 22.6 |
| std. deviation 1.8 | 1.5 | 2.4 | 2.4 |
| significance | NS | P<0.001 | $\mathrm{P}<0.001$ |

1. Plants had begun to flower at time of transplanting

## AZALEA <br> Rhododendron simsii

'Colleen Fahey' Application No 94/068
Application Accepted 10 March 1994
Applicant: Rodger Max Davidson, Galston, New South Wales

## Description-See Table 22 \& Fig 32

An upright bushy azalea. Leaves of dark green upper sides and light green lower sides, elliptic, mean length 5.60 cm , and mean width 2.06 cm . Leaf apex shape mucronate. Flowers few with calyx, large size (mean diameter 7.70 cm ), open funnel-shaped, double, medium undulation of corolla lobe margin, very weak throat markings, the colour of the throat being the same as the middle of the upper side of the corolla lobe, the pistil longer than the stamens. Characterised by distinctive flower colours.

## Origin

Arose as a spontaneous mutation of 'South Seas'. It was selected by RM Davidson on the basis of distinctive flower colours.

## Comparative Trials

The comparators are 'South Seas' and 'Cha Cha'. The comparative trial conducted at Glenorie, New South Wales May 1994-October 1994. Measurements taken from twelve plants arranged in randomised complete blocks. Plants propagated by cuttings in 5 cm tube trays in January 1993. The trials conducted in an open house under shade cloth in 12.5 cm pots. The plants grown in a standard azalea potting mix supplemented with slow release fertiliser, a granular herbicide being applied. A wide range of insecticides, miticides and fungicides used. The pots hand watered regularly.

## Prior Applications and Sales

Nil
Description prepared by Mike Barrett and Associates, Beecroft, New South Wales.
Photography by Lawrence Greenup, Thornleigh New South Wales.

## Table 22 Azalea varieties

( ${ }^{*}=$ comparators)

|  | 'Colleen Fahey' *'South Seas' | *Cha Cha' |  |
| :--- | :--- | :--- | :--- |
| MATURE LEAF LENGTH (cm) |  |  |  |
| mean | 5.60 | 5.28 | 4.65 |
| std. deviation | 0.220 | 0.200 | 0.236 |

Table 22 Azalea-Continued

|  | 'Colleen Fahey' *'South Seas' | *Cha Cha' |
| :--- | :--- | :--- |
| LSD 0.01/ <br> significance | 0.89 | $\mathrm{P}<0.01$ |


| MATURE LEAF WIDTH (cm) |  |  |  |
| :---: | :---: | :---: | :---: |
| mean | 2.06 | 2.02 | 1.75 |
| std. deviation | 0.104 | 0.095 | 0.112 |
| LSD 0.01/ significance | 0.43 |  |  |
| MATURE LEAF SHAPE OF APEX |  |  |  |
|  | mucronate | mucronate | mucronate |
| INFLORESCENCE NUMBER OF FLOWERS |  |  |  |
|  | few | few | few |

CALYX FORMATION OF A COROLLA FORM

|  | very weak | very weak | very strong |
| :--- | :--- | :--- | :--- |
| FLOWER DIAMETER $(\mathrm{cm})$ |  |  |  |
| mean | 7.70 | 7.24 | 8.50 |
| std. deviation | 0.254 | 0.230 | 0.272 |
| LSD 0.01/ 1.04 $\mathrm{P}<0.01$ |  |  |  |
| significance |  |  |  |


| FLOWER SHAPE |  |  |
| :---: | :---: | :---: |
| open funnel-shaped | open funnel-shaped | open funnel-shaped |
| FLOWER TYPE OF COROLLA double | double | double |
| COROLLA LOBE COLOUR OF MARGIN OF UPPER SIDE (RHS Chart) |  |  |
| 71D | 76D | 67A |
| COROLLA LOBE COLOUR OF MIDDLE OF UPPER SIDE (RHS Chart) |  |  |
| 74D | 75D | 74D |
| COROLLA LOBE UNDULATION medium | MARGIN medium | weak-medium |
| FLOWER THROAT CONSPICUOUSNESS OF MARKINGS |  |  |
| very weak | very weak | weak |
| TIME OF FLOWERING (Galston New South Wales) |  |  |
| 14/9/94 | 15/9/94 | 28/9/94 |

'Ostalett' Application No. 94/069
Application Accepted 10 March 1994
Applicant: Gartenbaubetrieb Stahnke-Dettmer, Sassenburg, Germany
Australian Agent: Roger Max Davidson, Galston, New South Wales

## Description-See Fig 33

A wide bushy plant. Leaves of medium size, elliptic, with blue green upper surfaces and medium green undersides, the leaf apex rounded. The few flowers large, wide funnelshaped, double, few petals with calyx. Flowers violet (RHS 78A) exhibiting weak undulation of corolla lobe margin, the throat of the same colour as the corolla lobe with strong markings (RHS 71A-spots not touching each other). The date of first flowering at Galston was 23 September 1994 (medium).

## Origin

Arose from the controlled pollination of two unnamed varieties. Bred by Otto Stahnke Griebendorf, Kries Gifhorn, Germany in 1983. Selected for its conspicuous shiny leaves. Propagated by cuttings.

## Comparative Trials

This description is derived from the official test report of the German Plant Breeders Rights Authority and confirmed at Galston, New South Wales.

## Prior Applications And Sales

| Country | Year | Status | Variety Name |
| :--- | :--- | :--- | :--- |
| Germany | 1988 | Approved | 'Ostalett' |

'Ostalett' was first sold in Germany in 1992.
Description prepared by Mike Barrett \& Associates, Beecroft New South Wales. Photography by Lawrence Greenup, Thornleigh, New South Wales.
'Theo' Application No 94/070
Application Accepted 10 March 1994
Applicant: Gartenbaubetrieb Stahnke-Dettmer, Sassenburg, Germany
Australian Agent: Rodger Max Davidson, Galston, New South Wales

## Description-See Fig 34

A wide bushy plant. Leaves short, narrow, elliptic with medium green upper and lower surfaces, the leaf apex acuminate. The few flowers medium to large, wide funnelshaped, double with few petals with calyx. Flowers pink (RHS 68A) exhibiting weak undulation of the corolla leaf margin, the throat of lighter colour than the corolla lobe with medium/strong markings (RHS 64B-spots touching each other). The pistil longer than the stamens which carry violet anthers. The date of first flowering at Galston was 23 September 1994 (medium).

## Origin

Arose from the controlled pollination of two unnamed varieties. Bred by Otto Stahnke Griebendorf, Kries Gifhorn, Germany in 1983. Selected for its bright green leaves. Propagated by cuttings.

## Comparative Trials

This description is derived from the official test report of the German Plant Breeders Rights Authority and confirmed at Galston, New South Wales.

## Prior Applications And Sales:

| Country | Year | Status | Variety Name |
| :---: | :---: | :---: | :---: |
| Germany | 1991 | Approved | 'Theo' |
| 'Theo' was first sold in Germany in 1992. |  |  |  |
| Description prepared by Mike Barrett \& Associates. Beecroft. New South Wules. |  |  |  |
| Photography | nce Gre | ornleigh New |  |

'Ostali' synonym: ‘Ostalie’ Application No 94/072 Application Accepted 10 March 1994
Applicant: Gartenbaubetrieb Stahnke-Dettmer, Sassenburg, Germany
Australian Agent: Rodger Max Davidson, Galston, New South Wales

## Description-See Fig 35

An upright bushy plant. Leaves short, broad, elliptic with dark green upper and medium green lower surfaces, the leaf apex being acuminate. The many flowers small, open fun-nel-shaped, single with calyx. Flowers violet (RHS 72B) exhibiting very weak undulation of the corolla lobe margin, the throat of lighter colour than the corolla lobe with conspicuous markings (RHS 59B-spots touching each other). The pistil longer than the stamens which carry violet anthers. The date of first flowering at Galston was 30 August 1994 (medium).

## Origin

Arose from the controlled pollination of two unnamed varieties. Bred by Otto Stahnke, Griebendorf, Kries Gifhorn, Germany in 1983. Selected for development on the basis of shiny leaves and erect growth habit. 'Ostali' propagated by cuttings.

## Comparative Trials

This description is derived from the official test report of the German PBR Authority and confirmed at Galston, New South Wales.

## Prior Applications And Sales

| Country | Year | Status | Variety <br> Germany |
| :--- | :--- | :--- | :--- |
| 1991 | Approved | 'Ostali' |  |

'Ostali' was first sold in Germany in 1991.
Description prepared by Mike Barrett \& Associates, Beecroft. New South Wales. Photography by Lawrence Greenup, Thornleigh, New South Wales

## SOYBEAN

Glycine max
'Nitrobean 60' synonym 'PS16' Application No 94/076 Application Accepted 29 March 1994
Applicant: Pacific Seeds, Toowoomba, Queensland
Description-See Table 23 \& Fig 36
Distinct from any other known variety in having a supernodulating root system: a determinate plant growth habit; medium mature plant height; presence of anthocyanin in hypocotyl; ovate leaf shape; violet coloured flowers; tawny pubescence; medium brown pods; a spherical seed with yellow seed coat, dull lustre and a black coloured hilum. 'Nitrobean 60 ' differs from comparators in having a supernodulating root system (with twice the number of nodules), a feature governed by a single recessive gene derived from the 'ntsll16' mutant. Gene is covered by a patent protection (Patent No. AU-A-43318/85) granted to the Australian

National University by the Australian Patents Office. 'Nitrobean 60' differs from its comparators by showing presence of anthocyanin in the hypocotyl and presence of violet flowers. 'Forrest', 'Bragg' and 'Centaur' show absence of anthocyanin and presence of white flowers. 'Nitrobean 60' differs from 'Centaur' in 'Nitrobean 60' having black hilum in the seed, tawny pubescence and medium brown pods, whereas 'Centaur' has buff hilum, grey pubescence and light brown pods.

## Comparative Growing Trials

Comparators are 'Bossier', 'A5939', 'Bragg', 'Nessen'. 'Forrest' and 'Centaur'. Comparisons made from a field trial planted at Pacific Seeds Nursery, Toowoomba December 1993-May 1994. Plots consisted of single 5 metre rows for each variety, replicated 3 times in completely randomised block design. Each row consisted of plants spaced at 70 cm apart. Measurements in tables are from 10 random plants of each replicate. Additional comparison from root studies were undertaken in the greenhouse with 10 plants of each variety grown in sand-vermiculite (50:50) media, inoculated with Bradyrhizobium japonicum 'CB1809'. Seedlings examined for nodulation characteristic at six weeks after planting.

## Origin

Selected following controlled pollination between 'nts1116' and 'Nessen'. The progeny was isolated at the F2 stage for the supernodulating character using the sand-vermiculite media in the greenhouse. Then advanced to F6 when selected plants bulked to form 'Nitrobean 60 ', which was field evaluated in 1991-94.

## Agronomy

'Nitrobean 60' adapted for growing in the Darling Downs, Lockyer Valley and Fassifern of Queensland and the North Coast of New South Wales. Field trials in 1991-94 demonstrated its high yield relative to other commercial varieties. In addition, the supernodulating trait in 'Nitrobean 60' has been associated with a higher level of nitrogen fixation. Beneficial residual response from the extra nitrogen fixed found in higher yield of oats and barley when grown on these sub-plots.
Description prepared by the breeder. Leonard Song, Pacific Seeds, Toowoomba, Queensland.
Reference
Carroll BJ, McNeil DL and Gresshoff PM (1985) Isolation and properties of soybean (Glycine max) mutants that nodulate in the presence of high nitrate concentrations, Proc. Nat. Acad. Sci. USA 82:4162-4166
Song L, Carroll BJ, Gresshoff PM and Herridge DF Field assessment of supernodulating genotypes of soybean for yield, N 2 fixation and benefit to subsequent crops, Soil Biology and Biochemistry (In press).

## Table 23 Soybean Varicties

( ${ }^{*}=$ comparators)

| 'Nitrobean 60' | *'Bossier' | *'A5939’ | *'Bragg' | *'Nessen' | *'Forrest' | *'Centaur’ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PLANT: HYPOCOTYL (ANTHOCYANIN COLORATION) |  |  |  |  |  |  |
| present | present | present | absent | present | absent | absent |
| PLANT: DAYS TO FLOWER |  |  |  |  |  |  |
| Mean 44 | 56 | 44 | 43 | 42 | 45 | 50 |
| LSD 1.5 | $\mathrm{P}<0.001$ | NS | NS | NS | NS | $\mathrm{P}<0.01$ |
| PLANT: HEIGHT AT MATURITY (cm) |  |  |  |  |  |  |
| mean 50 | 60 | 45 | 41 | 49 | 35 | 42 |
| LSD 9.8 | $\mathrm{P}<0.01$ | NS | NS | NS | $\mathrm{P}<0.001$ | NS |
| PLANT: COLOUR OF HAIRS tawny | tawny | tawny | grey | grey | tawny | grey |
| ROOT NODULATION (Super = Supernodulation) |  |  |  |  |  |  |
| super | normal | normal | normal | normal | normal | normal |
| LENGTH OF THIRD TERMINAL LEAFLET (mm) |  |  |  |  |  |  |
| mean 135 | 153 | 70 | 129 | 144 | 119 | 109 |
| LSD 20 | NS | $\mathrm{P}<0.001$ | NS | NS | NS | $\mathrm{P}<0.01$ |
| WIDTH OF TERMINAL LEAFLET (mm) |  |  |  |  |  |  |
| mean 80 | 99 | 37 | 83 | 93 | 72 | 71 |
| LSD 16 | $\mathrm{P}<0.01$ | $\mathrm{P}<0.001$ | NS | NS | NS | NS |
| LENGTH/WIDTH |  |  |  |  |  |  |
| mean 1.69 | 1.54 | 1.98 | 1.54 | 1.54 | 1.66 | 1.53 |
| LSD 0.38 | NS | NS | NS | NS | NS | NS |
| SIZE OF LARGEST LEAFLET medium | large | medium | large | medium | medium | large |
| FLOWER COLOUR violet | violet | violet | white | violet | white | white |


| 'Nitrobean 60' | *'Bossier' | *'A5939' | *'Bragg' | *Nessen' | *'Forrest' | *'Centaur' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| POD COLOUR (shades of brown) medium | medium | medium | medium | light | medium | light |
| $\begin{gathered} \text { SEED SIZE (gm/100 seeds) } \\ 24.9 \end{gathered}$ | 20.6 | 19.3 | 24.8 | 23.4 | 19.8 | 28.3 |
| SEED LUSTRE dull | shiny | shiny | shiny | dull | shiny | dull |
| SEED HILUM COLOUR black | black | black | black | grey | black | buff |
| PHYTOPHTHORA ROOT ROT resistant | susceptible | immune | susceptible | immune | susceptible | resistant |

## HARDENBERGIA

Hardenbergia violacea
'Bushy Blue’ Application No 94/105
Application Accepted 9 May 1994
Applicant: Mrs E Weidner, Encinitas, California, United States of America
Australian Agent: Redlands Greenhouses Holdings, Redland Bay, Queensland.

## Description-See Table 24 \& Fig 37

Erect twining, sparsely branched shrub to 1 m high, broad lanceolate leaves $76 \pm 9 \mathrm{~mm}$ long and $34 \pm 6 \mathrm{~mm}$ wide. Flowering shoots $659 \pm 177 \mathrm{~mm}$ long, internode length $50 \pm$ 16 mm . Clusters of long racemes ( $84 \pm 18 \mathrm{~mm}$ ) arise from leaf axils on primary shoots, occasionally terminal on secondary shoots. Florets $9.7 \pm 1.0 \mathrm{~mm}$ wide across the wings and purple/violet (RHS 81A), medium flowering (mid July).

## Origin

Arose from an open pollination of Hardenbergia violacea in California. The breeder is Mr R Weidner of Encinitas, California, United States of America. Selected for development on the basis of its distinctive upright bushy growth habit, and large number of flowers produced, and propagated vegetatively through several generations.

## Comparative Trials

The comparators are the common form of Hardenbergia violacea and 'Mini Ha-Ha'. Trials conducted at Redlands Greenhouses Holdings Pty Ltd, Redland Bay. Cuttings taken in late 1993 and tubes potted to 140 mm containers on 21 January 1994 and then into 175 mm on 22 April 1994. A composted sawdust, pinebark, and sand mix, used with a slow release fertiliser. Fifteen specimens of each variety arranged in a randomised complete block design in full sun. Ten specimens of each selected for evaluation at flowering.

## Prior Applications and Sales

NIL
'Bushy Blue' was first sold in the United States of America in 1993.

[^1]
## Table 24 Hardenbergia Varieties

( ${ }^{*}$ = comparator)

|  | 'Bushy Blue' | *'Hardenbergia violacea' | *'Mini Ha-Ha’ |
| :---: | :---: | :---: | :---: |
| PLANT GROW | H HABIT erect/twining | trailing/twining | erect |
| PLANT HEIGH | AT MATURITY <br> medium shrub | low vine | small shrub |
| MATURE LEAF mean std. deviation LSD 0.01/ significance | $\begin{aligned} & \text { LENGTH OF BL } \\ & 76.85 \\ & 9.42 \\ & 13.15 \end{aligned}$ | $\begin{aligned} & D E(\mathrm{~mm}) \\ & 106.05 \\ & 14.78 \\ & \mathrm{P} \leq 0.001 \end{aligned}$ | $\begin{aligned} & 42.78 \\ & 5.54 \\ & P \leq 0.001 \end{aligned}$ |
| MATURE LEAF mean std. deviation LSD 0.01/ significance | WIDTH OF BLA <br> 34.00 <br> 6.07 <br> 5.64 | $\begin{aligned} & E(\mathrm{~mm}) \\ & 18.78 \\ & 3.63 \\ & P \leq 0.001 \end{aligned}$ | $\begin{aligned} & 17.27 \\ & 3.51 \\ & \mathrm{P} \leq 0.001 \end{aligned}$ |
| MATURE LEAF | SHAPE <br> broad lanceolate | narrow lanceolate | lanceolate |
| FLOWERING S mean std. deviation LSD 0.01/ significance | OOOT LENGTH <br> 659 <br> 177 <br> 157.1 | $\begin{aligned} & m) \\ & 889 \\ & 127 \\ & P \leq 0.001 \end{aligned}$ | $\begin{aligned} & 283 \\ & 21 \\ & \mathrm{P} \leq 0.001 \end{aligned}$ |

FLOWERING SHOOT : NUMBER OF NODES

| mean | 13.4 | 11.7 | 18.2 |
| :--- | :--- | :--- | :--- |
| std. deviation | 2.0 | 1.9 | 2.2 |
| LSD 0.01/ | 2.57 | NS | NS |
| significance |  |  |  |

FLOWERING SHOOT : INTERNODE LENGTH (mm)

| mean | 50.41 | 76.88 | 15.84 |
| :--- | :--- | :--- | :--- |
| std. deviation | 16.74 | 10.44 | 2.78 |
| LSD 0.01/ | 14.24 | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ |

Table 24 Hardenbergia Varieties

|  | 'Bushy Blue' | *'Hardenbe violacea' | *'Mini Ha-Ha' |
| :---: | :---: | :---: | :---: |
| FLOWERING SHOOT : NUMBER OF LATERALS |  |  |  |
| mean | 7.1 | 7.7 | 14.0 |
| std. deviation | 2.5 | 4.2 | 2.1 |
| LSD 0.01/ significance | 3.7 | NS | $\mathrm{P} \leq 0.001$ |
| FLOWERING SHOOT : TOTAL NUMBER OF RACEMES |  |  |  |
| mean | 45.8 | 25.0 | 40.8 |
| std. deviation | 11.4 | 8.1 | 9.9 |
| LSD 0.01/ significance | 12.26 | $\mathrm{P} \leq 0.001$ | NS |
| FLOWERING SHOOT : PREDOMINANT POSITION OF RACEMES |  |  |  |
|  | primary leaf axils | primary and secondary leaf axils | secondary <br> leaf axils |
| FLOWERING SHOOT : NUMBER OF RACEMES IN PRIMARY LEAF AXIL |  |  |  |
| mean | 28.8 | 0.4 | 1.0 |
| std. deviation | 8.6 | 0.7 | 0.8 |
| LSD 0.01/ significance | 6.19 | $\mathrm{P} \leq 0.001$ | $\mathrm{P} \leq 0.001$ |
| RACEME : ATTITUDE |  |  |  |
|  | erect | drooping | erect |
| RACEME : NUMBER OF FLORETS |  |  |  |
| mean | 33.3 | 30.4 | 29.9 |
| std. deviation | 7.4 | 7.9 | 2.9 |
| LSD 0.01/ significance | 8.06 | NS | NS |


| RACEME : DENSITY <br> medium | loose | dense |  |
| :--- | :--- | :--- | :--- |
| RACEME : LENGTH (mm) |  |  |  |
| mean | 84.3 | 106.4 | 38.4 |
| std. deviation | 18.2 | 28.6 | 10.7 |
| LSD 0.01/ 25.4 $\mathrm{P} \leq 0.05$ | $\mathrm{P} \leq 0.001$ |  |  |
| significance |  |  |  |


| FLORET : DIAMETER ACROSS WINGS (mm) |  |  |  |
| :--- | :--- | :--- | :--- |
| mean | 9.71 | 10.2 | 10.0 |
| std. deviation | 1.0 | 1.0 | 1.2 |
| LSD 0.01/ | 1.36 | NS | NS |
| significance |  |  |  |


| FLORET : COLOUR OF WINGS (UPPERSIDE) |  |  |
| :---: | :---: | :--- |
| purple violet | violet | purple violet |
| RHS 81A | RHS 87B | RHS 82A |
| TIME OF BEGINNING OF FLOWERING |  |  |
| mid July | late June | mid August |

## AZALEA <br> Rhododendron simsii

'Evonne Goolagong’ Application No 94/136
Application Accepted 21 June 1994
Applicant: Rodger Max Davidson, Galston, New South Wales

## Description-See Table 25 \& Fig 38

A wide bushy azalea. Leaves of dark green upper sides and light green lower sides, elliptic, mean length 4.45 cm , and mean width 2.06 cm . Leaf apex shape rounded. Flowers few with calyx present, large size (mean diameter 8.73 cm ), open funnel-shaped, single petals, pink margins, weak undulation of corolla lobe margin, weak flower throat markings, colour of the throat being the same as the middle of the upper side of the corolla lobe, pistil longer than the stamens which are prominent and the same colour as the corolla lobe margin. This variety is characterised by its distinctive flower colouration.

## Origin

Arose as a spontaneous mutation of 'White Bouquet'. It was selected by RM Davidson on the basis of distinctive flower colour.

## Comparative Trials

The comparators are 'White Bouquet' and 'Cha-Cha' The comparative trial conducted at Glenorie, New South Wales May 1994-October 1994. Measurements taken from twelve plants arranged in randomised complete blocks. Plants propagated by cuttings in 5 cm tube trays in January 1993. Trials conducted in an open house under shade cloth in 12.5 cm pots. Plants grown in a standard azalea potting mix supplemented with slow release fertiliser, a granular herbicide being applied. A wide range of insecticides, miticides and fungicides used. The pots hand watered regularly.

## Prior Applications and Sales:

## Nil

Description prepared by Mike Barrett and Associates, Beecroft, New South Wales. Photography by Lawrence Greenup, Thornleigh, New South Wales

## Table 25 Azalea Varieties

( ${ }^{*}=$ comparators)

|  | 'Evonne <br> Goolagong' | *'White <br> Bouquet' | *'Cha Cha' |
| :--- | :--- | :--- | :--- |
| MATURE LEAF: LENGTH (cm) |  |  |  |
| mean | 4.45 | 4.36 | 4.83 |
| std. deviation | 0.147 | 0.155 | 0.182 |
| LSD 0.01/ <br> significance | 0.89 |  |  |


| MATURE LEAF: | WIDTH (cm) |  |  |
| :--- | :--- | :--- | :--- |
| mean | 2.06 | 2.22 | 1.70 |
| std. deviation | 0.095 | 0.100 | 0.117 |
| LSD 0.01/ | 0.43 |  |  |
| significance |  |  |  |


| MATURE LEAF: SHAPE OF APEX rounded mucronate | mucronate |
| :---: | :---: |
| INFLORESCENCE: NUMBER OF FLOWERS few few | few |
| CALYX FORMATION OF A COROLLA FORM very strong very strong | very strong |



Fig 1- Faba Bean: 'Icarus'
Seeds of 'Icarus' (left) 'Fiord' (right) illustrating the differences in seed, size and colour.


Fig 3- Potato: 'Nadine'
Light sprouts of "Sebago' (left). "Nadine" (centre) and 'Crystal' (right). Note stronger pubescence of lightsprout tips of 'Nadine". 'Nadine" also has purple lateral shoots while the other Iwo varieties have green lateral shoots.


Fig 5- Peach: 'Rich Lady'
Fruit of the 'Rich Lady' and comparators


Fig 2- Potato: 'Nadine’ Leaves of 'Sebago'(left), 'Nadine' (centre) and 'Crystal' (right) showing shorter petiole and wavier margin of 'Nadine'.


Fig 4- Nectarine: 'Artic Rose'
Fruit of 'Artic Rose' and comparators

Fig 6- Rose:
'Meitonje'



Fig 7- Rose: 'Meipitac'

Fig 8- Rose: 'Meichoiju'


Fig 9- Rose: 'Meipopul'

Fig 10- Azalea: 'Princess Barbara' Flowers and Leaves



Fig 11- Alstroemeria: 'Flamengo'


Fig 12- Alstroemeria: 'Nevada'


Fig 13- Alstroemeria: 'Victoria'

Fig 14- Alstroemeria: 'Iberia'



Fig 15- Alstroemeria: 'Gloria'


Fig 17- Alstroemeria: 'Alanta'


Fig 16- Alstroemeria: 'Alaska'


Fig 18- Alstroemeria: 'Toscana'


Fig 19- Macadamia: 'Hidden Valley' Leaves of 'Hidden Valley A38' (centre) with comparators


Fig 21- Alstroemeria: 'Felicity'
'Felicity' (left) with 'Sydney' (right)


Fig 23- Wheat: 'Pelsart'
Seeding leaves of 'Pelsart' (bottom) and 'Cook' infected with stem rust. 'Pelsart' develops a systemic yellowing while 'Cook' remains green excepl for the infection sites.


Fig 20- Brachyscome: 'Strawberry Mousse' 'Suawberry Mousse' (centre) with comparators B. augustifolia (left) with B. formosa (right)


Fig 22- Alstroemeria: 'Felicity’


Fig 24- Wheat: 'Rowan'
Heads of 'Rowan' and 'Hartog' showing the difference between 'Rowan' (awnless) and 'Hartog' awned.


Fig 25- Wheat: 'Tasman'
Heads of 'Torres', 'Tasman' and 'Harlog' showing the head colour difference between 'Torres' and 'Tasman'.


Fig 27- Wheat: 'Stretton'
'Stretton' (left) with its comparators 'Egret' and 'Bodallin'.


Fig 29- Oat: 'Carrolup’
'Mortlock' (top) with 'Carrolup' (centre) and
'Winjardie'.


Fig 26-Cherry: 'Brooks'
Shows a cluster of fruit and leaves typical of 'Brooks'.


Fig 28- Wheat: 'Amery'
'Amery' (left) with its comparators 'Gutha' and 'Kulin'.


Fig 30-Lettuce: 'Diamond'
Seeds of 'Diamond' (right) with 'Targel'.


Fig 31- Millet: 'Indus'
Mature heads of 'Indus' (lefl) with 'Japanese' (centre) and 'Siberian' millets.


Fig 33- Azalca: 'Ostalett' Leaves and flowers


Fig 32- Azalea: 'Colleen Fahcy’ Leaves and flowers


Fig 34- Azalea: 'Theo'
Leaves and flowers


Fig 35- Azalea: 'Ostali’ Leaves and flowers.


Fig 36- Soybcan: 'Nitrobean 60 '
'Nitrobean 60 ' ((left) here shown as 'PS16') with 'Bragg'.


Fig 37. Hardenbergia: 'Bushy Blue


Fig 38- Azalea: 'Evonne Goolagong' Leaves and flowers


Fig 39- Azalea: 'Princess Sharon' Leaves and flowers


Fig 40-Azalea: 'Otto'
Leaves and flowers


Fig 41- Azalea: 'Princess Pal' Leaves and flowers


Fig 42- Lettuce: 'Marksman'
Leaf of 'Marksman' (centre) with comparators 'Greenway' (left) and 'El Toro'.

|  | 'Evonne Goolagong' | *'White Bouquet' | *'Cha Cha' |
| :---: | :---: | :---: | :---: |
| FLOWER: DIAMETER (cm) |  |  |  |
| mean | 8.73 | 8.86 | 8.12 |
| std. deviation | 0.188 | 0.197 | 0.232 |
| LSD 0.01/ significance | 0.84 |  |  |
| FLOWER: SHAPE |  |  |  |
|  | open funnel-shaped | open funnel-shaped | open funnel-shaped |
| FLOWER: TYPE OF COROLLA |  |  |  |
|  | single | single | double |
| COROLLA LOBE: COLOUR OF MARGIN OF UPPER SIDE (RHS Chart) |  |  |  |
|  | 67B | 155D | 67A |
| COROLLA LOBE | COLOUR OF MID | DLE OF UPPER | SIDE (RHS Chart) |
|  | 73B | 155D | 74D |
| COROLLA LOBE | UNDULATION O weak | MARGIN weak | weak |
| FLOWER THROAT: CONSPICUOUSNESS OF MARKINGS |  |  |  |
|  | weak | weak | weak |
| TIME OF FLOWERING (Galston, New South Wales) |  |  |  |
|  | 30/8/94 | 23/8/94 | 28/9/94 |

## AZALEA <br> Rhododendron hybrid

'Princess Sharon' Breeders Reference 'MD 68-13-3'
Application No 94/137
Application Accepted 21 June 1994
Applicant: James B Shanks, Beltsville, Maryland, United States of America
Australian Agent: Rodger Max Davidson, Galston, New South Wales

## Description-See Table 26 \& Fig 39

A wide compact azalea. Leaves of a dark glossy green upper sides and medium green lower sides, slightly ovate, mean length 3.93 cm and mean width 1.93 cm . Leaf apex shape mucronate. Flowers few with calyx present, medium size (mean diameter 6.41 cm ), wide, funnel-shaped, double, white, weak undulation of corolla lobe margin, medium flower throat markings, colour of the flower throat being slightly greenish (RHS 145D), pistil length in relation to stamen length variable. Characterised by dark glossy leaves/flower buds with light green tinge and stamens with prominent yellow anthers.

## Origin

Arose from controlled pollination of 'White Christmas' and an unnamed variety. Bred by James B Shanks, University of Maryland, Beltsville, United States of America in 1968. 'Princess Sharon' (breeders reference 'MD 68-13-3') selected for development on the basis of its wide compact growth habit, dwarfness, glossy green leaves and strong budding habit.

## Comparative Trials

The comparators are 'Aline' and 'White Gish'. Comparative trial conducted at Glenorie, New South Wales, May 1994 October 1994. Measurements taken from twelve plants arranged in randomised complete blocks. Plants propagated by cuttings in 5 cm tube trays in January 1993. The trials conducted in an open house under shade cloth in 12.5 cm pots. Plants grown in a standard azalea potting mix supplemented with slow release fertiliser, a granular herbicide being applied. A wide range of insecticides, miticides and fungicides used. The pots hand watered regularly.

## Prior Applications and Sales

## Nil

'Princess Sharon' was first sold in the United States of America in April 1993.
Description prepared by Mike Barrett and Associates, Beecroft, New South Wales. Photography by Lawrence Greenup. Thornleigh, New South Wales.

## Table 26 Azalea Varieties

( ${ }^{*}=$ comparators )

|  | 'Princess <br> Sharon' | *'Aline' | *'White Gish' |
| :--- | :--- | :--- | :--- |
| MATURE LEAF: LENGTH (cm) |  |  |  |
| mean 3.93 4.85 5.69 <br> std. deviation 0.197 0.217 0.228 <br> LSD 0.01/ <br> significance 0.88  $\mathrm{P}<0.01$ l |  |  |  |


| MATURE LEAF: | WIDTH (cm) |  |  |
| :--- | :--- | :--- | :--- |
| mean | 1.93 | 1.95 | 2.40 |
| std. deviation | 0.101 | 0.112 | 0.118 |
| LSD 0.01/ | 0.46 |  | $\mathrm{P}<0.01$ |
| significance |  |  |  |


| MATURE LEAF: SHAPE OF APEX mucronate | mucronate | mucronate |
| :---: | :---: | :---: |
| INFLORESCENCE: NUMBER OF F few | OWERS medium | medium |
| CALYX FORMATION OF A COROL weak | A FORM weak | strong |
| FLOWER: DIAMETER $(\mathrm{cm})$  <br> mean 6.41 <br> std. deviation 0.178 <br> LSD 0.01/ 0.81 <br> significance  | $\begin{aligned} & 6.40 \\ & 0.196 \end{aligned}$ | $\begin{aligned} & 7.66 \\ & 0.206 \\ & \mathrm{P}<0.01 \end{aligned}$ |
| FLOWER: SHAPE <br> wide funnel-shaped | wide funnel-shaped | open <br> funnel-shaped |
| FLOWER: TYPE OF COROLLA double | double | double |
| $\begin{aligned} & \text { COROLLA LOBE: COLOUR OF MA } \\ & \text { 155D } \end{aligned}$ | GIN OF UPPER 155D | SIDE (RHS Chart) 155D |
| COROLLA LOBE: COLOUR OF MID 155D | DLE OF UPPER 155D | IDE (RHS Chart) 155D |

Table 26 Azalea-Continued


## AZALEA

Rhododendron simsii
'Otto' Application No 94/071
Application Accepted 10 March 1994
Applicant: Gartenbaubetrieb Stahnke-Dettmer Sassenburg, Germany
Australian Agent: Rodger Max Davidson, Galston, New South Wales

## Description-See Fig 40

An upright bushy plant. Leaves of medium size narrow to medium width elliptic with dark green upper and medium green lower surfaces, the leaf apex mucronate. The number of flowers medium, large to very large, open funnel-shaped, double, medium number of petals, with calyx. Flowers dark crimson (RHS 53C) exhibiting weak undulation of corolla lobe margin, the throat of the same colour as the corolla lobe with weak markings (RHS 53A-spots not touching each other). The pistil longer than the stamens which carry violet anthers. The date of first flowering at Galston was 5 September 1994 (medium).

## Origin

Arose from the controlled pollination of two unnamed varieties. Bred by Otto Stahnke, Griebendorf, Kries Gifhorn, Germany in 1986. Selected for its white stripes on leaves during winter. Propagated by cuttings.

## Comparative Trials

This description is derived from the official test report of the German Plant Breeders Rights Authority and confirmed at Galston, New South Wales.

## Prior Applications And Sales

| Country | Year | Status | Variety Name |
| :--- | :--- | :--- | :--- |
| Germany | 1992 | Approved | 'Otto' |

'Otto' was first sold in Germany in 1992.
Description prepared by Mike Barrett \& Associates. Beecroft. New South Walcs.
Photography by Lawrence Greenup, Thornleigh, New South Wales.

AZALEA<br>Rhododendron hybrid<br>'Princess Pat' Breeder's Reference 'MD 70-27-1' Application No 94/138<br>Application Accepted 21 June 1994

Applicant: James B Shanks, Beltsville. Maryland, United States of America
Australian Agent: Rodger Max Davidson, Galston, New South Wales

## Description-See Table 27 \& Fig 41

A wide bushy azalea. Leaves of dark green upper sides and medium green lower sides, elliptic, mean length 5.88 cm and mean width 2.39 cm . Leaf apex shape acute. Flowers few with calyx present, medium size (mean diameter 7.23 cm ), wide funnel-shaped double pink, weak undulation of corolla lobe margin, medium flower throat markings, the colour of the flower throat being the same as the corolla lobe, the pistil longer than stamens. Characterised by free branching dwarfness, petaloidy of sepals and stamens and early flowering.

## Origin

Arose from controlled pollination of two unnamed varieties. Bred by James B Shanks, University of Maryland, Beltsville, United States of America in 1970. 'Princess Pat' (breeders reference 'MD 70-27-1') selected for development on the basis of free branching dwarfness and the petaloidy of sepals and stamens. It was propagated by cuttings.

## Comparative Trials

The comparators are 'Ripples' and 'Redwings'. Comparative trial conducted at Glenorie, New South Wales May 1994-October 1994. Measurements taken from twelve plants arranged in randomised complete blocks. Plants propagated by cuttings in 5 cm tube trays in January 1993. Trials conducted in an open house under shade cloth in 12.5 cm pots. The plants grown in a standard azalea potting mix supplemented with slow release fertiliser, a granular herbicide being applied. A wide range of insecticides, miticides and fungicides used. The pots were hand watered regularly.

## Prior Applications and Sales:

Nil
Description prepared by Mike Barrett and Associates, Beecroft, New South Wakes. Photography by Lawrence Greenup, Thomleigh, New South Wales.

## Table 27 Azalea Varietics

## (* = comparators)

|  | 'Princess Pat' | *'Ripples' | *'Redwings' |
| :--- | :--- | :--- | :--- |
| MATURE LEAF: | LENGTH (cm) |  |  |
| mean | 5.88 | 3.51 | 4.25 |
| std. deviation | 0.142 | 0.149 | 0.149 |
| LSD 0.01/ <br> significance | 0.64 | $\mathrm{P}<0.01$ | $\mathrm{P}<0.01$ |


| MATURE LEAF: WIDTH (cm) |  |  |  |
| :--- | :--- | :--- | :--- |
| mean | 2.39 | 1.47 | 1.69 |
| std. deviation | 0.068 | 0.071 | 0.071 |
| LSD 0.01/ 0.03 $\mathrm{P}<0.01$ $\mathrm{P}<0.01$ <br> significance    |  |  |  |
| MATURE LEAF: SHAPE OF APEX |  |  |  |
|  | acute | mucronate | mucronate |

Table 27 Azalea-Continued

|  | 'Princess Pat' | *Ripples' | *'Redwings' |
| :---: | :---: | :---: | :---: |
| INFLORESCEN | CE: NUMBER OF few | LOWERS few | few |
| CALYX: FORN | TION OF A CORO very weak | LA FORM very weak | strong |
| FLOWER: DIAN mean std. deviation LSD 0.01/ significance | $\begin{aligned} & \text { ETER (cm) } \\ & 7.23 \\ & 0.165 \\ & 0.74 \end{aligned}$ | $\begin{aligned} & 6.13 \\ & 0.174 \\ & P<0.01 \end{aligned}$ | $\begin{aligned} & 7.24 \\ & 0.174 \end{aligned}$ |
| FLOWER: SHA | E <br> wide funnel-shaped | wide funnel-shaped | open funnel-shaped |
| FLOWER: TYP | OF COROLLA double | double | single |
| COROLLA LO | : COLOUR OF M $61 \mathrm{C}$ | RGIN OF UPPER $59 \mathrm{D}$ | SIDE (RHS Chart) 53C |
| COROLLA LO | : COLOUR OF M $61 \mathrm{C}$ | DLE OF UPPER $59 \mathrm{D}$ | SIDE (RHS Chart) $53 C$ |
| COROLLA LOBE | UNDULATION weak | MARGIN medium | strong |
| FLOWER THRO | AT: CONSPICUOU medium | SNESS OF MARK weak | INGS medium |
| TIME OF FLOW | ERING (Galston N $12 / 8 / 94$ | w South Wales) 2/9/94 | 23/9/94 |

## LETTUCE

Lactuca sativa
'Marksman' Application No 94/195
Application Accepted 24 October 1994
Applicant: Arthur Yates \& Co Ltd, Narromine, New South Wales.

## Description-See Table 28 and Fig. 42.

A medium-green Iceberg lettuce in the Salinas-Vanguard-El Toro class which, under the described trial conditions has a frame diameter of 64 cm , a spherical firm head of 16 cm diameter, weighing 119 lg . Butt shape flat to moderately raised, core diameter and height 39 mm and 33 mm respectively. Mature 66 days from transplanting, produced a bolting stem 67 days from seeding in mid-summer and height of the inflorescence 113 cm . Seedlings produced large, broadelliptic cotyledons and at the 12 -leaf stage leaves are semierect, slightly lobed and lack anthocyanin. Seed colour black. At maturity wrapper leaves transverse-broad elliptic, thick, erect, slightly blistered with frequent slight dentations. Possesses the Din genes 10 and 11 for Bremia lactucae (isolates SF3 and TV respectively at HRI, Wellesbourne, U.K.) and will be resistant to Turnip Mosaic Virus.

## Origin

'Marksman' developed by crossing 'El Toro' (female) with 'Capitan' (male) and the resultant progeny backcrossed 6 times to 'El Toro'. Prior to backcrossing on each occasion
the progeny screened in vitro for resistance to an Australian isolate of downy mildew (B. lactucae). Subsequent to the completion of backcrossing, 10 resistant plants selfed and the seed harvested, December 1988. From these 10, 14 resistant plants again selfed and the progeny screened for homozygosity for resistance to mildew in April, 1989. Field selections over three nurseries identified phenotypically acceptable plants. The breeder is Mr DS Trimboli, Narromine, New South Wales. Field selections for three generations identified phenotypically acceptable, stable plants.

## Comparative Trials

Comparators are 'El Toro' and 'Greenway'. Comparative trials of 'Marksman', 'El Toro' and 'Greenway' sown 8 March 1993 and transplanted 30 March 1993. Grown on a silty loam soil at the Yates Research Farm, Narromine, New South Wales, $32^{\circ}, 148^{\circ} \mathrm{W}$. Two replicates of 50 plants each were sown on raised beds of 150 cm centres, two rows of plants per bed. Plants spaced 36 cm apart and 50 cm between rows. Twenty plants of each variety were assessed over a period of four days. Similar bolting data collected from a trial in which seed was sown direct into the beds 10 November, 1993 and the plants were grown under agronomic conditions described above.

## Prior Applications and Sales

| Country | Year | Status | Name applied |
| :--- | :--- | :--- | :--- |
| U.S.A. | 1993 | Pending | 'Marksman' |

'Marksman' was first sold in the U.S.A. in 1994.
Description prepared by Mr DS Trimboli of Arthur Yates $\&$ Co Ltd, Narromine, New South Wales.

## Table 28 Letuce Varicties

( $^{*}$ = comparator)

|  | 'Marksman' | *'El Toro' | *'Greenway' |
| :--- | :--- | :--- | :--- |
| MATURITY (days from transplant) |  |  |  |
| mean | 65.7 | 65.6 | 65.5 |
| std. deviation | 0.8 | 0.7 | 0.6 |
| t-value/ <br> significance | NS | 1.45 | 2.03 |


| SPREAD |  |  |  |
| :--- | :--- | :--- | :--- |
| OF | FRAME LEAVES (cm) |  |  |
| mean | 63.7 | 64.8 | 63.3 |
| std. deviation | 3.1 | 3.1 | 3.5 |
| t-value/ | NS | 1.05 | 0.39 |

significance
HEAD WEIGHT (g)

| mean | 1191.3 | 1133.8 | 1153.8 |
| :--- | :--- | :--- | :--- |
| std. deviation | 152.0 | 125.5 | 121.5 |
| t t-value/ | NS | 1.14 | 0.39 |
| significance |  |  |  |


| HEAD DIAMETER $(\mathrm{mm})$ |  |  |  |
| :--- | :--- | :--- | :--- |
| mean | 157.8 | 151.8 | 158.5 |
| std. deviation | 9.4 | 8.9 | 10.3 |
| t-value/ | NS | 1.14 | 0.87 |
| significance |  |  |  |


|  | 'Marksman' | *El Toro' | *'Greenway' |
| :---: | :---: | :---: | :---: |
| HEAD HEIGHT (cm) |  |  |  |
| mean | 158.5 | 156.3 | 164.8 |
| std. deviation | 9.0 | 9.4 | 9.1 |
| $t$-value/ significance | NS | 0.68 | 1.99 |
| CORE HEIGHT (mm) |  |  |  |
| mean | 33.3 | 27.8 | 35.5 |
| std. deviation | 9.1 | 6.2 | 7.2 |
| t-value/ significance | NS | 2.56 | 0.88 |
| CORE DIAMETER (mm) |  |  |  |
| mean | 39.0 | 37.8 | 38.5 |
| std. deviation | 2.1 | 3.4 | 2.4 |
| t-value/ significance | NS | 1.42 | 0.62 |
| TIME TO BOLTING (days) |  |  |  |
| mean | 67.3 | 64.7 | 63.5 |
| std. deviation | 2.4 | 1.8 | 1.8 |
| t-value/ significance | P0.01 | 5.84 | 6.44 |
| HEIGHT OF BOLTING PLANT (cm) |  |  |  |
| mean | 113.2 | 113.8 | 105.9 |
| std.deviation | 6.6 | 6.0 | 4.2 |
| t-value/ significance | P0.01 | P0.01 | 3.10 |
| Dm genes |  |  |  |
|  | 10, 11 | 10 | 1,3 |

## Grants

The following are now protected varieties under the Plant Breeder's Rights Act 1994

## WAXFLOWER

Chamelaucium uncinatum
'White Spring'
Application No 90/008
Grantee: Australian Wax Farms
Certificate No 347
Expiry Date 8 February 2010

## WAXFLOWER

Chamelaucium uncinatum x ciliatum

## 'Eric John'

Application No 90/009
Grantee: Australian Wax Farms
Certificate No 348
Expiry Date 8 February 2010

## WAXFLOWER

Chamelaucium uncinatum
'Variegated Blush'
Application No 90/010

Grantee: Australian Wax Farms
Certificate No 349
Expiry Date 8 February 2010
WAXFLOWER
Chamelaucium uncinatum
'Lady Jennifer'
Application No 90/011
Grantee: Australian Wax Farms
Certificate No 350
Expiry Date 8 February 2010
WAXFLOWER
Chamelaucium uncinatum
'Elegance'
Application No 90/100
Grantee: Australian Wax Farms
Certificate No 351
Expiry Date 6 December 2010
'Triumphant'
Application No 91/043
Grantee: Australian Wax Farms
Certificate No 352
Expiry Date 23 May 2011

## IMPATIENS

Impatiens hybrid
'Illusion'
Application No 92/137
Grantee: Biotech Plants Pty Ltd
Certificate No 353
Expiry Date 6 October 2012

## 'Blazon'

Application No 92/138
Grantee: Biotech Plants Pty Ltd
Certificate No 354
Expiry Date 6 October 2012

## 'Heathermist'

Application No 92/139
Grantee: Biotech Plants Pty Ltd
Certificate No 355
Expiry Date 6 October 2012

## 'Rosetta'

Application No 92/140
Grantee: Biotech Plants Pty Ltd
Certificate No 356
Expiry Date 6 October 2012

## 'Charade'

Application No 92/155
Grantee: Biotech Plants Pty Ltd
Certificate No 357
Expiry Date 6 October 2012

## 'Radiance'

Application No 92/142
Grantee: Biotech Plants Pty Ltd
Certificate No 358
Expiry Date 6 October 2012

## 'Ambrosia'

Application No 92/153
Grantee: Biotech Plants Pty Ltd
Certificate No 359
Expiry Date 6 October 2012

## 'Innocence'

Application No 92/154
Grantee: Biotech Plants Pty Ltd
Certificate No 360
Expiry Date 6 October 2012

## RIVER WATTLE

Acacia cognata
'Green Mist'
Application No 92/020
Grantee: Tree Planters Nursery Pty Ltd
Certificate No 361
Expiry Date 18 March 2012

## IMPATIENS

Impatiens hybrid
'Nebulous'
Application No 92/143
Grantee: Biotech Plants Pty Ltd
Certificate No 362
Expiry Date 6 October 2012

## 'Antares'

Application No 92/141
Grantee: Biotech Plants Pty Ltd
Certificate No 363
Expiry Date 6 October 2012

## ALTROEMERIA

Alstroemeria hybrid
'Staronic' synonym 'Veronica'
Application No 89/113
Grantee: Van Staaveren BV
Certificate No 364
Expiry Date 25 May 2010
'Stapurzul' synonym 'Azula'
Application No 89/116
Grantee: Van Staaveren BV
Certificate No 365
Expiry Date 25 May 2010
'Stayeli' synonym 'Yellow Libelle'
Application No 89/118
Grantee: Van Staaveren BV
Certificate No 366
Expiry Date 25 May 2010
'Stabuwit' synonym 'Amanda'
Application No 90/057
Grantee: Van Staaveren BV
Certificate No 367
Expiry Date 25 May 2010
'Stayelor' synonym 'Helios'
Application No 90/059
Grantee: Van Staaveren BV
Certificate No 368
Expiry Date 25 May 2010

## LIMONIUM

Limonium altaica
'Emille'
Application No 91/028
Grantee: Miyoshi \& Co Ltd
Certificate No 369
Expiry Date 18 April 2011

## LIMONIUM

Limonium caspia x latifolium
'Beltlaard'
Application No 91/029
Grantee: Miyoshi \& Co Ltd
Certificate No 370
Expiry Date 18 April 2011

## WAXFLOWER

Chamelaucium uncinatum $\times$ micranthum
'Supernova' synonym 'Microwax 63(F)'
Application No 91/032
Grantee: NSW Department of Agriculture
Certificate No 371
Expiry Date 23 July 2011
'Moonstruck' synonym 'White Miniwax 300(A)'
Application No 91/033
Grantee: NSW Department of Agriculture
Certificate No 372
Expiry Date 23 July 2011
'Plumwhite' synonym 'Miniwax (28)'
Application No 91/034
Grantee: NSW Department of Agriculture
Certificate No 373
Expiry Date 23 July 2011
'Earlybird' synonym 'Early White 1166(E)'
Application No 91/035
Grantee: NSW Department of Agriculture
Certificate No 374
Expiry Date 23 July 2011
'Comet' synonym 'Mid Microwax (63(A))'
Application No 91/037
Grantee: NSW Department of Agriculture
Certificate No 375
Expiry Date 23 July 2011
'Moonstar' synonym 'Late Microwax (63)'
Application No 91/045
Grantee: NSW Department of Agriculture
Certificate No 376
Expiry Date 23 July 2011

## PROTEA

## Protea amplexicaulis

## 'Joey'

Application No 91/007
Grantee: Proteaflora Enterprises Pty Ltd
Certificate No 377
Expiry Date 22 January 2011

## PERENNIAL RYEGRASS

Lolium perenne
'Vedette' synonym 'LP11'
Application No 92/076
Grantee: New Zealand Agrseeds Ltd
Certificate No 378
Expiry Date 3 July 2012

## DWARF MOUNTAIN PINE

## Pinus mugo

'Amber Gold'
Application No 93/177
Grantee: Ferny Creek Nurseries Pty Ltd
Certificate No 379
Expiry Date 19 August 2013

## WHITE CLOVER

Trifolium repens
'Prop' synonym 'WEF'
Application No 93/193
Grantee: New Zealand Pastoral Agriculture Research

## Institute Limited

Certificate No 380
Expiry Date 7 September 2013

## APPLE

Malus domestica
'GB 63-43'
Application No 92/079
Grantee: The State of Queensland through its Department of Primary Industries
Certificate No 381
Expiry Date 3 July 2012

## LIMONIUM

Limoniun hybrid
'Daicean' synonym 'Ocean Blue' (Holland)
Application No 92/057
Grantee: DAI-ICHI SEED Co. Ltd.
Certificate No 382
Expiry Date 21 May 2012

## CANOLA

Brassica napus
'Narendra'
Application No 92/010
Grantee: The Chief Executive Officer of the Department of Agriculture
Certificate No 383
Expiry Date 4 March 2012

## ROSE

Rosa
'Meiflopan' synonym 'Alba Meidiland'

Application No 91/076
Grantee: SNC Meilland et Cie
Certificate No 384
Expiry Date 26 August 2011
'Meineble' synonym 'Red Meidiland'
Application No 91/049
Grantee: SNC Meilland et Cie
Certificate No 385
Expiry Date 15 May 2011

## RICEFLOWER

Ozothamnus diosmifolius
'Cook's Snow White'
Application No 92/184
Grantee: EG Cook \& ER Cook
Certificate No 386
Expiry Date 4 January 2013
'Cook's Tall Pink'
Application No 92/185
Grantee: EG Cook \& ER Cook
Certificate No 387
Expiry Date 4 January 2013

## BRACHYSCOME

Brachyscome multifida
'Pink Haze'
Application No 92/021
Grantee: Plant Growers Australia Pty Ltd
Certificate No 388
Expiry Date 23 March 2012

## 'Lemon Drops'

Application No 92/023
Grantee: Plant Growers Australia Pty Ltd
Certificate No 389
Expiry Date 23 March 2012

## 'Blue Haze'

Application No 92/022
Grantee: Plant Growers Australia Pty Ltd
Certificate No 390
Expiry Date 23 March 2012

## BORONIA

Boronia heterophylla
'Just Margaret'
Application No 92/167
Grantee: J \& M Pringle
Certificate No 391
Expiry Date 9 November 2012

## FRENCH BEAN

Phaseolus vulgaris
'XPB 247' synonym 'Matador'
Application No 93/032
Grantee: Asgrow Seed Company
Certificate No 392
Expiry Date 3 February 2013

## LIMONIUM

Limonium altaica
‘Pink Emille’

Application No 92/128
Grantee: Miyoshi \& Co Ltd
Certificate No 393
Expiry Date 9 September 2012

## LIMONIUM

Limonium hybrid
'Oceanic Blue'
Application No 92/058
Grantee: DAI-ICHI SEED Co Ltd
Certificate No 394
Expiry Date 21 May 2012

## SHORT LIVED RYEGRASS

Lolium multiflorum
'Eclipse' synonym 'PG61'
Application No 93/195
Grantee: Valley Seeds Pty Ltd \& Pyne Gould Guinness Ltd Certificate No 395
Expiry Date 9 September 2013

## FRENCH BEAN

Phaseolus vulgaris

## 'Jade'

Application No 91/119
Grantee: Rogers-NK Seed Company
Certificate No 396
Expiry Date 11 December 2011

## SOYBEAN

Glycine max
'9582' synonym 'Soya 582'
Application No 91/122
Grantee: Pioneer Hi-Bred International Inc Certificate No 397
Expiry Date 14 January 2012

## '9641' synonym 'Soya 641'

Application No 91/123
Grantee: Pioneer Hi-Bred International Inc
Certificate No 398
Expiry Date 14 January 2012

## HELIPTERUM

Helipterum anthenoides
'Paper Star' synonym 'APS 91/B1'
Application No 92/l64
Grantee: Plant Growers Australia Pty Ltd
Certificate No 399
Expiry Date 9 November 2012

## FRENCH BEAN

Phaseolus vulgaris
'Phoenix'
Application No 93/073
Grantee: Rogers-NK Seed Company
Certificate No 400
Expiry Date 1 March 2013

## Applications Varied

## BUDDLEIA

Buddleia asiatica
Application No 93/129
The denomination of this variety has been changed from 'Spring Promise' to 'Sweet Promise'.

## Applications Withdrawn

The following applications have been withdrawn at the request of the applicant. Povisional protection no longer applies to the following varieties:

Cheiranthus mutabilis variety ‘Joy Gold’ Application No 92/152
Dianthus x plumaris varieties 'Checkmate' and 'Neat n Tidy' with Application Nos 93/190 and 93/191.

## Application Surrendered (S52)

'Narayen' Cicer arietinum Application No 89/082.
Submissions objecting to this surrender must be lodged with the Registrar 30 days from the end of the month in which this public notice is published.

## Objections

Formal objections (S35 of the PBR Act) against any of the above 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 provisions of S35 cannot be met.

A fee of $\$ 200$ is payable at the time of lodging a formal objection and $\$ 70 /$ hour will be charged if the examination of the objection by the PBR Office takes more than 2 hours.

Comments: Any person not falling into the above category may make comment on the eligibility of any of the above applications for PBR. There is no charge for this.

A person submitting a formal objection or a comment 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.

All formal objections and comments relating to the above applications must be lodged with the Registrar by close of business on 31 June 1995.

## Appendix 1

| PBR Fees | $\mathbf{\$}$ |
| :--- | ---: |
| Application | 300 |
| Examination-single application | 1400 |
| Examination-application based on overseas test data | 1400 |
| Examination-multiple applications* | 1200 |
| Certificate of PBR | 300 |
| Total Basic Fees | 2000 |

* Applicable to 2 or more varieties of the same species tested at the same site when applications are lodged simultaneously by the same applicant, and descriptions are subsequently lodged and examined simultaneously.

Annual Fee

## Other Fees

Variation to application 100
Copy of an application, an objection or a detailed description 50
Lodging an objection
100
Application for declaration of essential derivation 800
Application for
(a) revocation of a PBR
(b) revocation of a declaration of essential derivation

## Compulsory license

Request under subsection 19(11) for exemption from public access-varieties with no direct use as a consumer product

Amendment of the Register on notification of assignment

Copy of an entry in the Register
Annual subsciption to Plant Varieties Journal 40
Back issues of Plant Varieties Journal 14
Other work relevant to PBR-per hour or part of an hour 75

## Payment of Fees

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

```
Plant Breeders Rights Australia DPIE
GPO Box 858
Canberra, ACT 2601
```

The application fee ( $\$ 300$ ) must accompany the application at the time of lodgement.
The appropriate examination fee must be paid before the expiry of the 12 th month from the date of acceptance of the application. The PBR Office will routinely invoice the applicant or their agent for the examination fee at the time nominated on the application form. At the end of the 11th month after acceptance of the application, should the examination fee not have been paid, a final invoice (reminder) will be despatched to the applicant. Extensions of provisional protection or deferment of fees may be requested.

## 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 'nonvalid' and neither assigned an application number nor examined for acceptance pending the payment of the fee.

## Examination fee

If fee payment has not been deferred, non-payment of the examination fee before the expiry of 12 months from the date of acceptance of an application will automatically result at the end of 12 months 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 requires the prior payment of the examination fee if commercialisation has taken place.

## 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.

## Renewal fee

Should an annual renewal fee not be paid within 30 days after the due date the grant of PBR will be revoked under S50 of the PBR Act. To assist grantees the PBR Office will invoice grantees or their Australian agents for annual fees.

## Inactive applications

An application will be deemed inactive if, after 24 months of provisional protection (or 12 months in the case of nonpayment 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 breeders 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.

## Appendix 2

## PLANT BREEDER'S RIGHTS ADVISORY COMMITTEE (PBRAC)

(Members of the PBRAC hold office in accordance with S85 of the Plant Breeder's Rights Act 1994.

Dr Kevin Boyce
Principal Officer, Seed Services
Plant Services Division
South Australian Department of Agriculture
GPO Box 1671
ADELAIDE SA 5001
Representative with appropriate qualifications and experience

## Dr Bryan Cox

General Manager, Research \& Development, Goodman Fielder Ingredients Ltd
Private Bag 396
GLADESVILLE NSW 2111
Representative of consumers
Mr Rodney Field
WMR Box 758
ESPERANCE WA 6450
Representative with appropriate qualifications and experience

Dr Andrew Granger
Senior Research Officer, South Australian Research and Development Institute
c/-Lenswood Horticultural Centre
LENSWOOD SA 5240
Representative of breeders
Dr Brian Hare
Director of Research
Pacific Seeds
PO Box 337
TOOWOOMBA QLD 4350
Representative of breeders.
Dr Mick Lloyd (Chair)
Registrar Plant Breeders Rights
GPO Box 858
CANBERRA ACT 2601
Mr Edgar (Ben) Swane
Director Swane Bros P/L
Galston Road
DURAL NSW 2158
Representative of producers

## 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 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 I the plant group for which you are applying;
- listed in the right column are the names of accredited qualified persons from whom 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 I 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 <br> (TELEPHONE AND AREA IN TABLE 2) |
| :---: | :---: |
| Apple | Baxter, Leslie Jotic, Predo Mackay, Alastair Robinson, James Scholefield, Peter Sterne, Peter Tancred, Stephen Valentine, Bruce |
| Aquatic | Birkill, Ann-Marie |
| Aroid | Clarke, Charles |
| Azalea | Barrett, Mike <br> Hempel, Maciej <br> Paananen, lan |
| Barley (Common) | Trethowan, Richard |
| Berry Fruit | Robinson, James <br> Scholefield, Peter <br> Wilson, Stephen |
| Biueberry | Barthold, Graham |
| Brassica | Aberdeen, lan Cross, Richard Kadkol, Gururaj Robinson, James Scholefield, Peter |
| Bromeliads | Clarke, Charles |
| Buddleia | Robb, John |
| Butterlly Bush | Paananen, lan |
| Camellia | Paananen, Ian John, Robb |
| Carnivorous Plants | Clarke, Charles |
| Cereals | Bullen, Kenneth Cook, Bruce Cooper, Kath Cross, Richard Davidson, James Derera, Nicholas AM Hare, Raymond Law, Mary Ann Oates, John Poulsen, David Reid, Robert Rose, John Smart, Geoffrey Stearne, Peter Stuart, Peter Vertigan, Wayne Williams, Warren Wilson, Frances |


| PLANT GROUP/SPECIES/FAMILY | CONSULTANT'S NAME <br> (TELEPHONE AND AREA IN TABLE 2) | PLANT <br> GROUP/SPECIES/FAMILY | CONSULTANT'S NAME <br> (TELEPHONE AND AREA IN TABLE 2) |
| :---: | :---: | :---: | :---: |
| Cherry | Kennedy, Peter <br> Mackay, Alastair <br> Robinson, James <br> Scholefield, Peter | Industrial Crops | Milthorpe, Peter |
|  |  | Jojoba | Dunstone, Bob |
|  |  |  | Dunstone, Bob |
|  |  | Kangaroo Paw | Kirby, Greg |
| Citrus | Edwards, Megan | Legumes | Aberdeen, lan |
|  | Fox, Primrose |  | Bowman, Alison |
|  | Lee, Slade |  | Bray, Robert |
|  | McDonald, David |  | Cook, Bruce |
|  | Mitchell, Leslie |  | Hacker, Byran |
|  | Robinson, James |  | Imrie, Bruce |
|  | Scholefield, Peter |  | Kirby, John |
|  | Sykes, Stephen |  | Knights, Edmund |
| Clover | Nichols, Phillip |  | Law, Mary Ann |
| Conifer | Stearne, Peter |  | Lock, Don |
| Cotton | Bullen, Kenneth <br> Constable, Greg <br> Derera, Nicholas AM <br> Leske, Richard <br> Reid, Peter <br> Thomson, Norman |  | Rose, John |
|  |  | Lucerne | Nichols, Phillip |
|  |  | Magnolia | Paananen, lan |
|  |  |  |  |
|  |  | Myrtaceae | Dunstone, Bob |
|  |  |  | Reid, Robert |
| Cucurbits | Cross, Richard Herrington, Mark Robinson, James Scholefield, Peter Sykes, Stephen | Neem | Friend, Joe |
|  |  |  |  |
|  |  | Oat | Trethowan, Richard |
|  |  | Oilseed crops | Poulsen, David |
|  |  |  |  |
| Cydonia | Baxter, Leslie | Onions | Fennell, John |
| Dogwood | Stearne, Peter |  | Robinson, James |
|  |  |  | Scholefield, Peter |
| Feijoa | McDonald, David |  | Strange, Pamela |
|  | Robinson, James |  |  |
|  | Scholefield, Peter | Orchids | Clarke, Charles |
| Fig | FitzHenry, Daniel | Ornamentals-Exotic | Armitage, Paul |
| Forage Grasses | Bray, Robert |  | Birkill, Ann-Marie |
|  | Kirby, Greg |  | Collins, Ian |
|  | Waterhouse, Douglas |  | Cooling, Beth |
| Fruit | Bath, Geoffrey |  | Cross, Richard |
|  | Beal, Peter |  | Dawson, lain <br> Derera, Nicholas AM |
|  | Lenoir, Roland |  | Fisk, Anne Marie |
|  | Pearson, Craig |  | Hempel, Maciej |
|  | Robinson, James |  | Kirkham, Roger |
|  | Scholefield, Peter |  | Lenoir, Roland |
| Grapes |  |  | Lowe, Greg |
|  | Bath, Geoffrey |  | Lunghusen, Mark |
|  | Biggs, Eric |  | Nichols, David |
|  | Robinson, James |  | Oates, John |
|  | Scholetield, Peter |  | Paananen, Ian |
|  | Stearne, Peter |  | Robb, John |
|  | Sykes, Stephen |  | Robinson, James |
| Grevillea | Herrington, Mark |  | Scholefield, Peter <br> Singh, Deo |
| Halophyte species (Australian) | Waterhouse, Douglas |  | Stewart, Angus |
| Hydrangea | Hanger, Brian |  | Strange, Pamela Watkins, Phillip |


| PLANT GROUP/SPECIES/FAMILY | CONSULTANT'S NAME (TELEPHONE AND AREA IN TABLE 2) | PLANT GROUP/SPECIES/FAMILY | CONSULTANT'S NAME (TELEPHONE AND AREA IN TABLE 2) |
| :---: | :---: | :---: | :---: |
| Ornamentals-Indigenous | Barrett, Mike | Potatoes | Cross, Richard |
|  | Beal, Peter |  | Fennell, John |
|  | Boden, Robert |  | Kirkham, Roger |
|  | Bound, Sally Anne |  | Robinson, James |
|  | Collins, lan |  | Scholefield, Peter |
|  | Cooling, Beth |  | Strange, Pamela |
|  | Dawson, lain |  | Stearne, Peter |
|  | Derera, Nicholas AM | Proteaceae | Reid, Robert |
|  | Hockings, David |  | Robinson, James |
|  | Jack, Brian |  | Scholefield, Peter |
|  | Jusaitis, Manfred | Pulse Crops | Bullen, Kenneth |
|  | Kirby, Greg |  | Cross, Richard |
|  | Kirkham, Roger |  | Oates, John |
|  | Lowe, Greg | Prunus | Mackay, Alastair |
|  | Lunghusen, Mark |  | Topp, Bruce |
|  | Milthorpe, Peter |  |  |
|  | Molyneux, W M | Raspberry | Barthold, Graham |
|  | Nichols, David |  | Martin, Stephen |
|  | Oates, John |  | Robinson, James |
|  | Robinson, James |  | Scholefield, Peter |
|  | Scholefield, Peter | Rhododendron |  |
|  | Singh, Deo |  | Barrett, Mike |
|  | Sedgley, Margaret |  | Paananen, lan |
|  | Strange, Pamela | Roses |  |
|  | Tan, Beng |  |  |
|  | Watkins, Phillip |  | Cross, Richard |
|  | Worrall, Ross |  | Fox, Primrose |
|  |  |  | Hanger, Brian |
| Ornithopus | Nichols, Phillip |  | Lee, Peter |
| Osmanthus |  |  | McDonald, David |
|  | Robb, John |  | Robinson, James |
| Pastures \& Turf | Aberdeen, lan |  | Stearne, Peter |
|  | Avery, Angela |  | Strange, Pamela |
|  | Bowman, Alison |  | Swane, Geoff |
|  | Cook, Bruce | Rye (Common) | Trethowan, Richard |
|  | Cunningham, Peter |  |  |
|  | Harrison, Peter | Sesame | Imrie, Bruce |
|  | Hacker, Bryan | Stone Fruit | Barrett, Mike |
|  | Kirby, Greg |  | Boucher, Wayne |
|  | Lee, Choo Kiang |  | Robinson, James |
|  | Loch, Don |  | Scholefield, Peter |
|  | Miller, Jeff |  | Valentine, Bruce |
|  | Rose, John | Strawberry |  |
|  | Smith, Raymond |  | Barthold, Graham |
|  | Waterhouse, Douglas |  | Martin, Stephen |
|  | Williams, Warren |  | Morrison, Bruce |
|  | Wilson, Frances |  | Robinson, James |
| Pear | Baxter, Leslie |  | Scholefield, Peter |
|  | Mackay, Alastair |  | Strange, Pamela |
|  | Robinson, James |  | Wilson, Stephen |
|  | Scholefield, Peter | Tomato | Cross, Richard |
|  | Tancred, Stephen |  | Herrington, Mark |
|  | Valentine, Bruce |  | Martin, Stephen |
| Photinia | Robb, John |  | Robinson, James |
| Pistacia | Sykes, Stephen |  | Strange, Pamela |


| PLANT <br> GROUP/SPECIES/FAMILY | CONSULTANT'S NAME <br> (TELEPHONE AND AREA IN TABLE 2) |
| :--- | :--- |
| Triticale (x Triticosecale Witmack) | Trethowan, Richard |
| Tropical/Sub-Tropical Crops | Bullen, Kenneth |
|  | Robinson, James |
|  | Scholefield, Peter |
| Umbrella Tree | Paananen, lan |
| Vegetables | Bath, Geoffrey |
|  | Beal, Peter |
|  | Cross, Richard |
|  | Derera, Nicholas AM |
|  | Frkovic, Edward |
|  | Kirkham, Roger |
|  | Lenoir, Roland |
|  | Oates, John |
|  | Pearson, Craig |
|  | Robinson, James |
|  | Scholefield, Peter |
|  | Scott, Peter |
|  | Strange, Pamela |
|  | Van Holthe, Jan Westra |
| Waratah | Alexander, Susan |
| Wheat | Trethowan, Richard |
| Aestivum \& Durum Groups) |  |

TABLE 2

| NAME | TELEPHONE | AREA OF OPERATION |
| :--- | :--- | :--- |
| Aberdeen, lan | $057-821029$ | Victoria |
| Alexander, Susan | $002-784333$ | Tasmania |
| Armitage, Paul | $03-7567233$ | Victoria |
| Avery, Anglea | $060-262205$ | South Eastern Australia |
| Barthold, Graham | 059971413 | Southern Victoria |
| Barrett, Mike | $02-8753087$ | NSW |
| Bath, Geoffrey | $057-625520$ | Victoria, Southern NSW, Tas |
| Baxter, Lesiie | $002-784358$ | Tasmania |
| Beal, Peter | 072861488 | South East Queensland |
| Biggs, Eric | $050-232400$ (ph/fax) NSW, Victoria, South Aust |  |
| Birkill, Ann-Marie | $07-3741839$ | Queensland |
| Boden, Robert | $06-2957720$ | Australia |
| Boucher, Wayne | $002-664305$ | Tasmania |
| Bound, Sally Anne | $002-784357$ | Tasmania |
| Bowman, Alison | $066-420420$ | Southern Qld/Central West NSW |
| Bray, Robert | 073770209 | Brisbane, Qld |
| Bullen, Ken | $063-624539$ | Qld/NSW/Vic |
| Cameron, Stephen | $003-365238$ | Tasmania |
| Clarke, Charles | 077815727 | North Queensland |
| Collins, lan | 045666177 | Sydney |
| Cook, Bruce | $074-821522$ | Queensland |
| Cooling, Beth | $075-934253$ (w) | Gilston, Queensland |
| Cooper, Katharine | $075-332277$ (a/h) |  |
| Constable, Gregory | $067-9722280$ | Australia |
| Cross, Richard | 6433256400 (ph) | NSW, Queensland Zealand |
| Cunningham, Peter | $055-730900$ | Temperate regions of Australia |
| Davidson, James | $06-2465071$ | High rainfall zone of temperate |
|  |  | Australia |
|  |  |  |
|  |  |  |


| NAME | TELEPHONE | AREA OF OPERATION |
| :--- | :--- | :--- |
| Robb, John | $043-761330$ | Kulnura, New South Wales |
|  | $043-761271$ (fax) | Australia |
| Robinson, James | 083732488 | SE Queensland |
| Rose, John | $076-612944$ |  |
| Scholefield, Peter | 083732488 | Australia |
| Scott, Peter | $06-6531362$ | Sydney region |
| Sedgley, Margaret | $08-3722242$ | Adelaide |
| Singh, Deo | $018-880787$ | Queensland |
|  | $07-2075998$ (fax) |  |
| Smart, Geoffrey | 046512600 | New South Wales |
| Smith, Stuart | $003-365234$ | SE Australia |
| Stearne, Peter | $03-6542088$ | Melbourne |
| Stewart, Angus | $043-721210$ | New South Wales |
| Strange, Pamela | $08-3732488$ | Adelaide, South Australia |
| Stuart, Peter | $076-301666$ | Toowoomba |
| Swane, Geoff | $068-891545$ | Central western NSW |
| Tan, Beng | $09-3517168$ | Perth |
| Tancred, Stephen | $076-811255$ | QLD |
| Thomson, Norman | $067-931105$ | NSW, Queensland |
| Topp, Bruce | 076811255 | Queensland |
| Trethowan, Richard | 067921588 | NW New South Wales |
| Valentine, Bruce | 063613919 | Orange, New South Wales |
| Van Holthe Jan Westra 03-706 3033 | Australia |  |
| Vertigan, Wayne | $003-365221$ | Tasmania |
| Waterhouse, Douglas | $063-421811$ | Eastern Australia |
|  | $063-424551$ (fax) |  |
| Watkins, Phillip | $09-5251800$ | Perth Region |
| Williams, Warren | $64-6-3568019$ | New Zealand |
| Wilson, Frances | 6433188514 | Canterbury, New Zealand |
| Wilson, Stephen | $002-784364$ | SE Australia |
| Worrall, Ross | $043-280300$ | Australia |
|  |  |  |

## Appendix 4

## Addresses of Plant Breeders Protection Offices in UPOV Member States

AUSTRALIA

Registrar
Plant Breeders Rights
GPO Box 858
CANBERRA ACT 2601

## BELGIUM

Ministere de l'agriculture Telephone (02) 2117211
Service de la protection des Telex 22033 agrila
obtentions vegetales
Telefax (02) 2117216
Manhattan Center
Office Tower, 14eme etage
Avenue du Boulevard, 21
B-1210 Bruxelles

## CANADA

The Commissioner of Plant Telephone (613) 9957900
Breeders’ Rights
Plant Industry Directorate Telefax (613) 9925219
Plant Products Division
K W Neatby Bldg
960 Carling Ave
Ottawa, Ontario
KIA 0C6

## CZECH REPUBLIC

Federal Ministry of Economy Telephone 0042-2-389 2279
Division of Agriculture Telex 121404 and Food

Telefax 375641
Nabr. kpt. Jarose 1000
17032 Prague 7
DENMARK
Plantenyhedsnaevnet Telephone 4553596141
Teglvaerksvej 10
Tystofte
DK-4230 Skaelskoer

## FINLAND

Plant Variety Rights Office
Ministry of Agriculture and Forestry
PO Box 250
00171 Helsinki

## FRANCE

Comite de la protection
des obtentions vegetales
11 , rue Jean Nicot
F-75007 Paris

## GERMANY

Bundessortenamt
Osterfelddamm 80
D-30627 Hannover Germany

## HUNGARY

Office national des inventions Telephone (01) 112893
Orszagos Talalmanyi Hivatal Telex 224700 oth h
Garibaldi-u.2-B.P. 552
H-1370 Budapest 5

## IRELAND

Controller of Plant
Breeders' Rights
Agriculture House
Kildare Street
Dublin 2

Telephone 42759314
Telex 250648
Telefax 42759425

Telephone (49-511) 9566681
Telex 9.21.109 bsaha d
Telefax (49-511) 563362

## ISRAEL

Plant Breeders' Rights
Council
The Volcani Center
Telephone (972)-3-968 3492
Telex 381476 arove il
Telefax (972)-3-968 3492
PO Box 6
Bet-Dagan 50250

## ITALY

Ufficio Centrale Brevetti e
Marchi
Telephone (6) 47053068
Telefax (6) 47053035
Ministero dell'Industria, del
Commercio e dell'Artigianato
19, via Molise N. 19
I-00187 Roma

## JAPAN

Director of Seeds and
Seedlings Division
Telephone (03) 5910524
Telefax (3) 5808592
Agricultural Production Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigaseki-Chiyoda-ku
Tokyo

## NETHERLANDS

Raad voor het Kwekersrecht Telephone (08370) 19031
Postbus 104 Telex 75180 rikilt
NL-6700 AC Wageningen
Telefax (08370) 25867

## NEW ZEALAND

Commissioner of Plant
Variety Rights
Telephone (64-3) 3256355
Telefax (64-3) 3252946
Plant Variety Rights Office
PO Box 24
Lincoln

## NORWAY

Plantesortsnemda
The Plant Variety Board
Telephone (47) 64-94.75.04
Telefax (47) 64-94.02.08
Fellesbygget
N-1432 AS

## POLAND

The Director
Research Center of
Cultivars Testing
(COBORU)
63-022 Slupia Wielka

## SLOVAKIA

Plant Breeders Rights Department
Central Agricultural Control and Testing
Institute
UKSUP

Matoskova 21
83316 Bratislavia

## SOUTH AFRICA

Department of Agriculture Telephone (012) 206-2360
Directorate of Plant and Telefax (012) 2062786
Quality Control
Private Bag X179
Pretoria 0001

## SPAIN

Registro de Variedades Telephone (1) 3476900
Instituto Nacional de Telex 47698 insm e
Semillas y Plantas de Vivero Telefax (1) 4428264
Jose Abascal, 56
E-28003 Madrid

## SWEDEN

Postal Address Telephone (08) 6552400
Statens vaxtsortnamnd Telex 15466
Box 1247
Telefax (1) 4428264
S-171 24 Solna
Address for Visitors
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| :--- | :--- | :--- | | Withdrawn/ |
| :--- |
| Revoked/ <br> Refused |

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'Stabelstri'
'Stabuwit'
'Stadutia'
'Stajugro'
‘Stajured’
'Stalan'
'Stalove'
'Stalbel'
'Stalibla'
'Stalibron'
'Stalilas'
'Stalsam'
‘Stalvir`
'Stapripur'
'Stapurzul'
'Staranlo'
'Staronic’
'Starover’
'Stasilva'
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7(2) 28
-Edwards Summer
Navel` 2(1)14 3(2) 34 -Eloise \(\quad 6(3) 45\) 'Monarch' 7(3)6 'Powell Late Navel' 2(1) 14 'Rohde Summer Navel' 2(1) 14 'Success \({ }^{\circ} \quad 5(3) 18\) \({ }^{\bullet}\) Summer Gold Late \(\begin{array}{llll}\text { Navel } & 2(1) 14 & 6(2) 5 & 7(2) 28\end{array}\) ‘Sunset` 4(3) $23 \quad 5(3) 6$

- Toomey Summer
Navel $\quad 2(1) 14 \quad 3(2) 34$
'Tsunokaori $\quad 7(2) 7$
'Wellered' 5(4) 34


## Cordyline

‘Kiwi Dazzler` 6(4) 6

## Coreopsis

$\begin{array}{lll}\bullet \text { Summer Gold } & \text { 3(1) } 35 & \text { 3(4) } 4\end{array}$

## Cucumis

-Rainbow’ 2(3)21 4(1) 25

## Cucurbita

'Redlands Trailblazer' 3(4) 36 4(2) $5 \quad 5(2) 6$

## Cuphea

'Golden Ruby'

## X Cupressocyparis

‘Atlas' 6(2) 31
'Gold Medal' $\quad 5(2) 10 \quad 6(1) 7$
'Gold Rider'
3(1) $21 \quad 3(4) 4$
'Grelive'
6(1) 28

## Cupressus

'Golden Halo’
‘Limelight’
'Olympic Gold'
3(2) $33 \quad 4(1) 6 \quad 5(1) 7$
4(3) $22 \quad 5(3) 5$

## Cyathea

'Allyn Lace' 7(3) 9

## Cynara

'Imperial Star' $\quad 6(4) 8 \quad 7(3) 39$

## Cynodon

'Cheyenne'
'Windsor Green'

## Dactylis

'Grasslands Kara'
2(3) $19 \quad 3(2) 5$

## Dahlia

| 'Dappled Dancer' | $7(2) 5$ |  |
| :--- | :--- | :--- |
| 'Elly' | $6(1) 31$ | $7(2) 29$ |
| 'Jodie' | $7(2) 5$ |  |
| 'Kaleidoscope' | $7(2) 5$ |  |
| 'Robetty' | $6(1) 31$ | $7(2) 29$ |
| 'Rolinda' | $6(1) 31$ | $7(2) 29$ |
| 'Rosconnie' | $6(1) 31$ | $7(2) 29$ |
| 'Rosmargareth' | $6(1) 31$ | $7(2) 29$ |
| 'Rowendy' | $6(1) 31$ | $7(2) 29$ |
| 'Simon' | $6(1) 31$ | $7(2) 29$ |

## Danthonia

'Bunderra' 4(4) $22 \quad 5(1) 20 \quad 6(1) 5$
'Taranna'
$4(4) 23 \quad 5(1) 18 \quad 6(1) 5$

## Daphne

'Star White' 7(3)6

## Desmanthus

| 'Bayamo' | $5(3) 18$ |
| :--- | :--- |
| 'Marc' | $5(3) 18$ |
| 'Uman' | $5(3) 18$ |

## Dianthus

'Cana'
3(3) $36 \quad 3(3) 14$
‘Chandenn’
'Charodeyka'
'Checkmate'
'Crossover'
$\begin{array}{llll}1(3) 13 & 2(1) 9 & 3(1) 4 & 5(3) 6\end{array}$
1(3) $13 \quad 2(1) 6 \quad 3(1) 4$
6(4) $6 \quad 7(4) 41$ 7(4)

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| 'Green Variant' | $7(3) 5$ |  |  |
| 'Redward' | $3(4) 37$ |  |  |
| 'Utrbrae Gem' | $4(2) 23$ |  |  |
| 'Whiteward' | $3(4) 37$ |  |  |
| 'Woolward' | $3(4) 37$ |  |  |
| 'Yelloward' | $3(4) 37$ |  |  |
| Eupatorium |  |  |  |
| 'Snowdrift' | $5(4) 33$ |  |  |
| Euphorbia |  |  |  |
| 'Lemon Drop' | $5(3) 19$ | $5(4) 30$ | $6(4) 53$ |
| 'Milkmaid' | $5(3) 19$ |  |  |
| 'Pink Peppermint' | $5(3) 19$ | $5(4) 31$ | $6(3) 6$ |
| 'Stibia' | $6(1) 29$ | $6(3) 36$ | $7(2) 29$ |
| 'Stigaro' | $3(2) 33$ | $3(3) 11$ | $4(2) 4$ |
| 'Stiloga' | $3(2) 33$ | $3(3) 11$ | $4(2) 4$ |
| 'Stirot' | $3(2) 33$ | $3(3) 11$ | $4(2) 4$ |

Feijoa
'Duffy' $\quad 4(3) 25 \quad 5(4) 9 \quad 6(3) 6$

## Festuca

‘Bombina’ 7(3) 7
'Grasslands Advance' $\quad 6(3) 45 \quad 6(3) 417(3) 47$
'Midwin' 7(2) 8
Ficus

| 'Bonsai Buoy' | $7(3) 5$ |  |
| :--- | :--- | :--- |
| 'Citation' | $6(1) 31$ | $7(3) 19$ |
| 'Reginald' | $5(3) 20$ | $7(3) 16$ |

## Fragaria

| 'Anaheim' | 6(3) 45 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 'Camarosa' | 6(3) 46 |  |  |  |
| 'Capitola' | 3(4) 37 |  |  |  |
| 'Carlsbad' | $6(3) 46$ |  |  |  |
| 'Chandler' | 2(4) 37 | 5(2) 6 | 6(2) 4 |  |
| 'Coogee ${ }^{\prime}$ | $6(3) 43$ | $7(2) 21$ |  |  |
| 'Cuesta' | $6(3) 46$ |  |  |  |
| 'Dorit' | 5(4) 32 |  |  |  |
| 'Fern' | 2(4) 37 | 5(2) 6 | 6(2) 4 |  |
| 'Irvine' | 2(4) 37 |  |  |  |
| 'Laguna' | 6(3) 46 |  |  |  |
| 'Mindarie' | 6(3) 43 | 7(2) 17 |  |  |
| 'Mrak' | 2(4) 37 |  |  |  |
| 'Muir' | 2(4) 37 |  |  |  |
| 'Ofra' | 5(4) 32 |  |  |  |
| 'Oso Grande' | 2(4) 37 |  |  |  |
| 'Pandora' | 4(2) 22 |  |  | 7(1) 33 |
| 'Parker' | 2(4) 37 | 5(2) 7 | 6(2) 4 |  |
| 'Pink Panda' | 6 (1) 28 |  |  |  |
| 'Redland's Delight' | 5(3) 19 |  |  | 6(4) 54 |

'Redland's Horizon' 4(3) 25
6(4) 54

| -Redland's Hope' | 5(3) 19 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 'Redland's Joy' | 5(3) 19 |  |  |  |
| 'Redland's Pinnacle' | '5(3) 19 |  |  |  |
| 'Redland's Rose' | 5(3) 19 |  |  | 6(4) 54 |
| 'Redland's Surprise' | 5(3) 19 |  |  | 6(4) 54 |
| 'Saaid ${ }^{\text {S }}$ | 5(4) 32 |  |  |  |
| 'Santana' | 2(4) 37 | 5(2) 7 | 6(2) 4 |  |
| 'Seascape' | 3(4) 34 |  |  |  |
| 'Selva' | 2(4) 37 | 5(2) 7 | $6(2) 4$ |  |
| 'Shalom' | 5(4) 32 |  |  |  |
| 'Smadar' | 5(4) 32 |  |  |  |
| 'Sequel' | 2(4) 37 |  |  | 7(2) 29 |
| 'Sunset' | 6(3) 45 |  |  |  |
| 'Tustin' | 2(4) 37 |  |  | 7(2) 29 |
| 'Yolo' | 2(4) 37 |  |  |  |

## Galtonia

$\begin{array}{llll} \\ & \text { Moonbeam' } & \text { 4(1)24 } 24 & \text { 4(2) } 8 \quad 6(1) 6\end{array}$

## Gaura

| 'Corrie's Gold' | $6(4) 7$ |
| :--- | :--- |
| 'Jo Adela' | $6(4) 7$ |

## Glycine

'9582'
'9641’
'9791'
‘A5474’
‘A5939’
'A5980’
'A6520'
‘Capella’
'Koala'
'Manark'
'Nitrobean 60

- Oxley
$5(1) 25 \quad 6(4) 15 \quad 7(4) 41$
$5(1) 25 \quad 6(4) 16 \quad 7(4) 41$
5(1) $25 \quad 6(4) 17$
$1(3) 12 \quad 2(2) 5 \quad 6(2) 5$
1(3) 12 2(2) $4 \quad 3(1) 4$
4(1) 24
2(2) $7 \quad 6(2) 5$
$7(1) 7 \quad 7(2) 26$
$6(2) 33 \quad 7(3) 49$
2(1) $14 \quad 2(2) 6 \quad 3(1) 4$
$7(2) 7 \quad 7(4) 31$
4(2) $22 \quad 4(3) 19 \quad 5(3) 5$
'PNR2’
'PNR7'
'Warrigal'
5(1) 2
6(1) 31
5(1) 25
6(1) 31
$5(2) 14 \quad 6(4) 53$


## Gossypium

'CS 50'
‘CS 7S'
5(1) $24 \quad 5(2) 12 \quad 6(2) 5$
$5(1) 25 \quad 5(2) 12 \quad 6(2) 5$
7(2) 7
${ }^{\prime} \mathrm{DP} 891^{\prime} \quad 5(3) 18 \quad 7(3) 13$
'DP 5415' $\quad 6(4) 8$
'DP 5690 6(4) 8
$\begin{array}{lllll} & \text { Sicala 34' } \quad 5(1) 25 & 5(2) 13 & 6(2) 5\end{array}$
'Sicala V-2' 7(2) 7
'Siokra L23' 5(1) $25 \quad 5(2) 13 \quad$ 6(2) 5
'Siokra V-15’ 7(2) 7

## Grevillea

'Landcare'
'Honey Wonder’
'Sunkissed Waters'

## Hardenbergia

'Bushy Blue'
'Free 'n’ Easy'
'Mini-haha'
'Pink Fizz'
'Purple Falls'

## Hebe

'Rosie' 7(1) 5

## Hedysarum

'Necton' 3(3) $19 \quad 7(2) 28$

## Helianthus

'Daniel'
7(3) 5

## Helipterum

'Paper Cascade'
4(2) $22 \quad 4(4) 8 \quad 5(3) 6$
'Paper Star'
$6(1) 27 \quad 6(4) 42 \quad 7(4) 41$

## Heterocentron

'Green Cascade' 4(4) $20 \quad 5(3) 6 \quad 7(3) 49$

## Hordeum

'Cask' ('Ashton') 4(3) $24 \quad 4(4) 12 \quad 6(1) 5$
'Franklin'
2(2) 22 3(1) 4
'Morrell'
6(4) 9
'Osprey'
6(2) $31 \quad 7(3) 22$

## Humulus

'Hokuto Ace'
7(2) 8

## Hydrangea

‘Helen Rankin’
6(2) 32
'Kirsten'
‘LK49’
'Messalina'
5(3) 17
'Rotenfels'
5(3) 17

## Iberis

$\begin{array}{ll}\text { 'Candy Glow' } & \text { 5(1) } 24 \\ \text { 'Mount Hood Dusk' } \\ 7(4) 6\end{array}$
'White Cloud' $5(3) 19$

## Impatiens

'Ambience'
7(3) 9
'Ambrosia'
'Anaea'
'Antares'
'Antigua'
'Apollon'
'Arctia'
7(1) 7
$4(3) 25 \quad 4(4) 12 \quad 5(4) 3$
$4(2) 11 \quad 5(2) 6$

7(2) $9 \quad 7(4) 33$
$6(1) 29 \quad 6(3) 20 \quad 7(2) 28$
3(2) $31 \quad 4(1) 4$
$5(3) 20 \quad 5(4) 31 \quad 6(3) 6$
$4(3) 24 \quad 5(1) 11 \quad 6(4) 52$
'Rosetta'
'Samoa'
'Saturnia'
'Selenia'
'Sesia’
'Shadow'
‘Sphinx’
'Sylvine'
'Tahiti'
'Tempest'
'Thecla'
'Tobago'
'Tonga'
'Trinidad'
'Vulcain'
'Yuletide'

## Juniperus

'Blue Arrow'

## Kalanchoe

## 'Blues'

'Mazurka'
'Polka'
'Tarantella"

## Koeleria

'Barkoel'

## Lactuca

'Bronco’
'Bulls Eye'
'Diamond'
'Greenway'
'Frillice'
'Impact'
'Magnum'
'Marksman'
'Mustang'
'Rodeo'
3(2) 33
3(2) $33 \quad 4(1)$
3(2) 33
3(2) 33

7(1) 7

7(3) 6
$1(3) 12 \quad 1(4) 5 \quad 2(3) 4$
$7(1) 5 \quad 7(4)$
3(1) $7 \quad 3(4) 4$
6(4) 8
$5(1) 23 \quad 6(1) 7$
5(2) $24 \quad 6(3) 6$
$7(4) \quad 7(4)$
7(3) 6
6(4) 8
7(2) 29
'Target'
'Wintersalad'

## Lantana

| 'Malans Gold' | $7(4) 5$ |  |
| :--- | :--- | :--- |
| 'Monsuee' | $5(2) 35$ | $7(1) 10$ |
| 'Rosie' | $6(3) 45$ |  |

## Lavandula

| 'Helmsdale' | $7(1) 5$ |
| :--- | :--- |
| 'Henri Dunant', | $6(3) 46$ |
| 'Marshwood' | $7(1) 5$ |
| 'Sidonie' | $6(4) 7$ |
| 'White Lace' | $7(3) 6$ |

## Lechenaultia

‘Autumn Blue’
'Flamingo'
'Starburst'
'Ultraviolet'

## Leptospermum

'Aphrodite'
'Rhiannon'

## Leucadendron

| 'Katie's Blush' | $3(3) 25$ | $4(1) 8$ | $5(1) 7$ |
| :--- | :--- | :--- | :--- |
|  | $7(3) 48$ |  |  |

## Leucospermum

'High Gold'
7(4) 7

## Lilium

| 'Geneve' | 2(3) 22 |  |  | 3(1) 36 |
| :---: | :---: | :---: | :---: | :---: |
| 'Grand Cru' | 2(3) 22 |  |  | 3(1) 36 |
| 'Lucca' | 2(3) 22 |  |  | 3(1) 36 |
| 'Menton' | 2(3) 22 |  |  | 3(1) 36 |
| 'Mona Lisa' | 2(3) 23 | 4(4) 5 | 5(4) 3 |  |
| 'Monte Rosa' | 2(3) 23 |  |  | 3(1) 36 |
| 'Sancerre' | 2(3) 23 |  |  | 3(1) 36 |
| 'Toscane' | 2(3) 23 |  |  | 3(1) 36 |
| 'Venezia' | 2(3) 23 | 4(2) 4 | 5(2) 5 |  |

## Limonium

| 'Ballerina Rose' | 3(2) 34 | 7(3) 9 |  |
| :---: | :---: | :---: | :---: |
| 'Beltlaard' | 4(2) 22 | 6(4) 11 | 7(4) 39 |
| 'Crystal Yellow' | 5(4) 33 |  | 7(3) 49 |
| 'Daicean' | 5(3) 17 | 6(4) 20 | 7(4) 40 |
| 'Emille’ | 4(2) 22 | 6(4) 10 | 7(4) 39 |
| 'La Mer' | 5(4) 33 |  | 7(3) 49 |
| 'Lavender Emille' | 5(4) 33 |  | 7(3) 49 |
| 'Oceanic Blue' | 5(3) 17 | 6(4) 20 | 7(4) 41 |
| 'Oceanic White’ | 5(3) 17 |  |  |
| 'Pink Emille' | 5(4) 33 | 6(4) 23 | 7(4) 40 |
| 'Saint Pierre' | 4(2) 23 |  | 7(2) 29 |
| 'Sunday Light Blue | 5(4) 33 |  |  |
| 'Sunday Pink' | 5(4) 33 |  | 7(3) 49 |

## Linum

'Eyre'
'Wallaga'

## Lolium

'Banks'
'Boomer'
'Conker'
'Cordura'

4(4) $22 \quad 5(4) 14 \quad 6(4) 53$
$4(4) 22 \quad 5(4) 13$
6(4) 53

5(3) $20 \quad 7(3) 14$
$6(2) 34$
5(4) $32 \quad 6(3) 14 \quad 7(2) 29$
7(1) 9
$6(2) 31 \quad 7(3) 21$

| 'Eclipse' | $6(4) 6$ |  | $7(4) 41$ |  |
| :--- | :--- | :--- | :--- | :--- |
| 'Embassy' | $4(2) 22$ | $7(3) 10$ |  |  |
| 'Grasslands |  |  |  |  |
| 'Greenstone' |  | $3(4) 20$ | $5(1) 6$ |  |
| 'Grasslands |  |  |  |  |
| 'Lincoln' ('Pacific') | $5(2) 35$ | $6(3) 11$ | $7(3) 48$ |  |
| 'Guard' | $5(3) 20$ | $7(2) 16$ |  |  |
| 'Jackaroo' | $4(1) 23$ | $5(1) 9$ | $6(1) 7$ |  |
| 'LP15' | $6(2) 31$ | $7(3) 20$ |  |  |
| 'Noble', | $6(3) 44$ | $6(3) 40$ |  |  |
| 'Progrow' | $1(3) 12$ | $1(4) 7$ | $2(3) 4$ | $2(1) 15$ |
| 'Roper' | $3(2) 33$ | $6(2) 7$ |  |  |


\section*{Lomandra <br> | 'Limeglow' | $7(3) 9$ |
| :--- | :--- |
| Lophostemon |  |
| 'Billy Bunter' | $6(4) 5$ |}

## Lotus

| 'Grasslands Goldie' $5(3) 20$ | $6(2) 24$ | $7(3) 48$ |  |
| :--- | :--- | :--- | :--- |
| 'Merlin's Gold' | $6(1) 31$ |  |  |
| 'Sharnae' | $6(4) 5$ | $7(2) 23$ |  |


| Lycopersicon |  |
| :--- | :--- |
| 'Alka' |  |

## Lysimachia

| 'Golden Harvest' | $6(3) 45$ |
| :--- | :--- |
| 'Outback Sunset' | $6(2) 33$ |
| 'Silverbird' | $5(3) 19$ |
|  | $7(2) 29$ |

## Macadamia

| 'Hidden Valley A4' | $1(2) 7$ | $2(1) 4$ |
| :--- | :--- | :--- |
| 'Hidden Valley A16' | $1(2) 9$ | $2(1) 4$ |

'Hidden Valley A38' 6(1)28
7(4) 21

## Macroptilium

'Aztec' 7(1) $7 \quad 7(2) 27$
Magnolia
'Vulcan' 5(4) 34

## Malus

| 'Big Time' | $3(3) 25$ | $4(4) 6$ | $6(1) 7$ |
| :--- | :--- | :--- | :--- |
| 'Cepiland' | $2(3) 22$ |  |  |
| 'GB63-43' | $5(3) 19$ | $6(2) 15$ | $7(4) 40$ |
|  | $6(3) 46$ |  |  |
|  |  |  |  |
| 'Galaxy' | $7(1) 9$ |  |  |
| 'Jonagored' | $2(2) 30$ |  |  |
| 'Lancep' | $2(3) 22$ |  |  |

## Nephrolepis

'Capricorn Gold' 6(4) 8

## Ornithopus

'Grasslands Koha’ 1(4) $16 \quad$ 2(4) 5

## Ozothamnus

‘Cook's Snow White’ 6(1) 29 6(4) 43 7(4) 40
‘Cook's Tall Pink' 6(1) 29 6(4) $45 \quad 7(4) 40$
'Redlands Sandra' 7(4) 6

## Panicum

$\left.\begin{array}{llll}\text { 'Natsukaze' } & & \text { 2(2) } 20 & 5(1) 6 \\ \text { 'Natsuyutaka' } & 4(2) 22 & 6(2) 8 & 7(3) 48\end{array} \quad \begin{array}{lll}\text { 'Shadegro' } & 7(3) 6 & 7(3) 43\end{array}\right)$

## Petunia

|  |  |
| :--- | :--- |
| 'Abundance' | $6(1) 30$ |
| 'Aurora' | $6(2) 32$ |
| 'Batavian Night' | $6(1) 30$ |
| 'Blue Highlights' | $7(3) 8$ |
| 'Blue Opal' | $6(1) 30$ |
| 'Blue Wren' | $6(1) 29$ |
| 'Blushing Pink' | $7(3) 8$ |
| 'Bonnie Belle' | $6(1) 30$ |
| 'Cimbrian Glow' | $6(1) 30$ |
| 'Cobbitty Rose' | $6(1) 30$ |
| 'Colour Flip' | $6(1) 30$ |
| 'Corsican Love' | $6(1) 29$ |
| 'Crimean Flame' | $6(1) 30$ |
| 'Eureka' | $6(2) 32$ |
| 'Fire Flash' | $6(1) 30$ |
| 'Firewalker' | $6(1) 30$ |
| 'Galactic Flame' | $6(1) 30$ |
| 'Hotlips' | $6(1) 30$ |
| 'Kilkenny Bells' | $6(2) 32$ |
| 'Liberty Bell' | $6(1) 30$ |
| 'Lollipop' | $6(2) 32$ |
| 'Maralinga' | $6(1) 30$ |
| 'Mariposa Red' | $6(1) 30$ |
| 'Merriman' | $6(1) 30$ |
| 'Midnight Sun' | $6(1) 30$ |
| 'Mixtecan Fireworks' $6(1) 30$ |  |
| 'Montezuma Sunset' $6(1) 30$ |  |
| 'Musicmaker' | $6(2) 32$ |
| 'Orion' | $6(2) 32$ |

'Palmyra' 6(1) 30
'Pampas Fire'
$6(1) 29 \quad 7(1) 15$
'Pink Confusion’
$6(2) 32$
'Pink Flirt' 6(1) 30
'Pink Highlights' 7(3) 8
'Pink Mischief' 6(1) 29
'Pink Organdy' 6(1) 30
'Pink Panther' 6(1) 29 7(1) 16
'Pink Victory' $\quad 6(4) 9 \quad 7(1) 17$
'Poulina' 5(4) 32
'Purple Flip' 6(1) 30
'Purple Frills' 6(1) 30
'Purple Starlight' 6(1) 30
'Purple Sunspot' 6(1) 30
'Pygmy Rose’ 6(1) 30
'Rainbow Warrior' 6(1) 30
'Ravenna Purple' 6(1) 30
'Red Cavalier' 6(2) 32
'Revolution
Brilliantpink' $\quad 6(2) 34$
'Revolution
Brilliantpink-Mini' 6(2) 34
'Revolution
Pastelpink'
6(2) 34
7(2) 29
'Revolution Purple
Pink' 6(2) 34
'Revolution White' 6(2) 34
'Ruby Jewel' 6(2) 32
'Starfire' 6(2) 32
'Scarlet Dixie' 6(1) 29
'Sierra Snow' 6(1) 29
'Snow Pet' 6(1) 30
'Southern Desire' 6(1) 30
'St. Elmos Fire' 6(1) 29
$\begin{array}{ll}\text { 'Star Rider' } & 6(1) 30 \\ \text { 'Starfire' }\end{array}$
$\begin{array}{ll}\text { 'Starfire' } & 6(2) 32 \\ \text { 'Sunfire' } & 6(2) 32\end{array}$
'Sunangel' 7(1) 8
'Sunangelface' $7(1) 8$
'Sunbride' 7(1) 8
'Suncharmer' 7(1)8
'Suncocktail 7(1) 8
'Suncool' 7(1) 8
'Suneclipse' 7(I) 8
'Sunfrills' 7(I) 8
'Sungazer' 7(1) 8
'Sunkiss’ 7(1)8
‘Sunlace’ 7(1) 8
'Sunlark' 7(2) 7
'Sunmarble’ 7(1) 8
'Sunprom' 7(1) 8

|  |  |
| :--- | :--- |
| 'Sunseeker' | $6(2) 32$ |
| 'Sunsnow' | $6(1) 30$ |
|  | $7(1) 33$ |

## Phalaris

'Holdfast'

## Phaseolus

'Barracuda'
'Bronco'
'Celtic’
'Gresham’
'Jade'
7(2) 6
'Matador'
'Phoenix'
'Rainbird'
'Rosario'
1(4) $23 \quad 2(2) 13 \quad 3(1) 5$
7(2) 6
3(1) $13 \quad 3(4) 4$
'Sarande'
'Sirius’
'Spearfelt'
'XPB 247’

## Photina

'Allyn Sprite' $\quad 7(4) 7$

## Pimelea

'Pink Bouquet'

## Pinus

$\begin{array}{llll} & \text { 'Amber Gold' } & 6(4) 5 & 6(4) 49 \\ 7(4) & 40\end{array}$

## Pisum

'Bluey'
'Bonzer'
'Dinkum'
'Flinders'
'Frolic'
'Jupiter'
'Solara'

## Plumbago

'Monott'
5(3) $19 \quad 7(2) 14$

## Protea

| 'Joey' | $4(1) 24$ | $6(4) 9$ | $7(4) 40$ |
| :--- | :--- | :--- | :--- |
| 'Pixie' | $6(4) 7$ |  |  |
| 'Possum Magic' | $4(1) 24$ | $6(1) 7$ |  |

Prunus

| '110GDIl' | 7(3) 8 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 'Afterglow' | 4(1) 24 |  |  | 4(3) 26 |
| 'April Glo' | 7(3) 8 |  |  |  |
| 'Arctic Queen' | 7(3) 8 |  |  |  |
| 'Arctic Rose' | 5(3) 20 | 7(4) 9 |  |  |
| 'Arctic Snow' | 7(3) 8 |  |  |  |
| 'Atlas' | 7(4) 6 |  |  |  |
| 'Brooks' | 6(4) 8 | 7(4) 25 |  |  |
| 'Camil' | 6(2) 32 |  |  |  |
| 'Celeste' | 7(2) 5 |  |  |  |
| 'Citation' | 6 (3) 45 |  |  |  |
| 'Damil' | $6(2) 32$ |  |  |  |
| 'Empress' | 4(2) 22 | 5(2) 8 | $6(1) 7$ |  |
| 'Flavor Queen' | 7(4) 5 |  |  |  |
| 'Flavor Supreme' | 7(4) 5 |  |  |  |
| 'Gaudion' | 2(3) 22 |  |  |  |
| 'GM9' | 6(2) 32 |  |  |  |
| 'Harmonie' | 2(4) 37 |  |  | 3(4) 37 |
| 'Junecrest' | 2(3) 21 | 7(2) 9 |  |  |
| 'Lapins' | 4(1) 23 |  |  | 5(1)7 |
| 'Melodie' | 2(4) 37 | $7(2) 12$ |  |  |
| 'Nectarzee' | 7(3) 8 |  |  |  |
| 'Pixzee' | 7(3) 8 |  |  |  |
| 'Primetime' | 7(1) 7 |  |  |  |
| 'Red Velvet' | 3(3) 25 |  |  | 7(3) 49 |
| 'Rich Lady' | 5(3) 20 | 7(4) |  |  |
| 'Rich May' | 7(4) 5 |  |  |  |
| 'Royal Velvet |  |  |  |  |
| 'Plumcot' | 5(3) 18 |  |  | 7(3) 49 |
| 'Showtime' | $7(1) 7$ |  |  |  |
| 'Snow Diamond' | 4(2) 22 |  |  | 7(3) 49 |
| 'Summerland' | 7(2) 5 |  |  |  |
| 'Sweetheart' | 7(1) 9 |  |  |  |
| 'Sylvia' | $7(2) 5$ |  |  |  |
| 'Symphonie’ | 2(4) 37 | 7(2) 11 |  |  |
| 'Tasty Zee' | 2(3) 21 | 7(2) 9 |  |  |
| 'Venus' | 7(4) 6 |  |  |  |
| 'Winter Sun' |  | 3(4) 21 |  | 5(1) 7 |
| 'Zee Glo' | 6(3) 45 |  |  |  |
| 'Zee Lady' |  | 7 (2) 10 |  |  |
| Pyrus |  |  |  |  |
| 'Claremont' | 4(2) 23 |  |  | 6(3) 46 |
| 'Daisui Li' | 2(4) 38 |  |  |  |
| 'Shin Li' | 2(4) 38 |  |  |  |
| 'Sophia's Pride' |  | 6(2) 26 | 7(2) 28 |  |
| Radermachera |  |  |  |  |
| 'Kaprima' | 3(4) 37 | 4(4) 7 | 5(4) 5 |  |
| Rhipsalis |  |  |  |  |

'Matilda' $\quad 6(4) 9$

## Rhododendron

'Australian Cameo' 6(3) 45
'Australian Rainbow' 6(3) 44
'Australian Sunset' 6(3) 45
'Coconut Ice’
3(3) $20 \quad 4(2) 4$
'Colleen Fahey' 7(2) 6 7(4) 30
'Evonne Goolagong' 7(3) 7 7(4) 34
'Fiesta'
4(4) $16 \quad 6(3) 6$
'Maria's Choice' 6(3) 44
'Ostalett' 7(2)6 7(4) 30
'Ostali’ 7(2)6 7(4) 31
'Otto' 7(2) 6 7(4) 36
'Princess Barbara' 7(3) 7 7(4) 16
'Princess Charlotte' 7(3) 7

| 'Princess Pat' | $7(3) 7$ | $7(4)$ |
| :--- | :--- | :--- |
| 6 |  |  |

‘Princess Sharon’ 7(3) 7 7(4) 35
'Sydney's Sesqui' 5(1) $24 \quad 5(4) 15$
‘Theo' 7(2)6 7(4) 31

## Robinia

'Purple Crown' 3(3) 25

## Rosa

|  | $4(4) 22$ |  | $6(1) 31$ |
| :--- | :--- | :--- | :--- |
| 'Adelfi' |  |  |  |
| 'Aotearoa' | $5(1) 25$ | $5(3) 7$ | $6(2) 5$ |
| 'Arobipy' | $3(2) 34$ | $3(2) 17$ | $4(1) 4$ |
| 'Arotrusim' | $3(2) 34$ | $3(2) 18$ | $4(1) 4$ |
| 'Ausblush' | $3(2) 33$ | $6(3) 8$ | $7(2) 29$ |
| 'Ausbord' | $4(2) 22$ |  |  |
| 'Ausbreak' | $7(1) 9$ |  |  |
| 'Auscot' | $3(2) 33$ | $6(3) 6$ | $7(2) 29$ |
| 'Auscrim' | $6(2) 33$ | $7(3) 24$ |  |
| 'Ausfin' | $6(2) 33$ | $7(3) 24$ |  |
| 'Ausmit' | $5(3) 18$ | $7(3) 12$ |  |
| 'Ausreef' | $7(1) 9$ |  |  |
| 'Ausvelvet' | $7(1) 9$ |  |  |
| 'Auswhite' | $4(2) 22$ | $6(3) 9$ | $7(2) 28$ |
| 'Auswonder' | $7(1) 9$ |  |  |
| 'Benfig' | $6(3) 44$ | $7(3) 35$ |  |
| 'Breathless' | $7(1) 6$ |  |  |
| 'Brigadoon' | $5(1) 25$ | $5(3) 9$ | $6(2) 5$ |
| 'Bruninitial' | $6(2) 31$ | $7(1) 24$ |  |
| 'Catherine McAuley' $6(1) 29$ | $6(3) 34$ | $7(3) 48$ |  |
| 'Cecilia' |  | $4(2) 19$ | $5(3) 5$ |
| 'Chameleon', | $5(4) 34$ |  |  |
| 'Class Act' | $5(1) 25$ | $5(3) 8$ | $6(2) 5$ |
| 'Cocdestin' | $3(2) 33$ | $4(2) 12$ | $5(4) 3$ |
| 'Coral Parade' |  |  |  |
| ('Poulals') | $5(4) 32$ |  |  |
| 'Crimson |  |  |  |


| 'Miniwonder' | 6(2) 34 |  |  |
| :---: | :---: | :---: | :---: |
| 'Delicious' | 5(2) 35 |  |  |
| 'Devilk' | 6(3) 43 |  |  |
| 'Devnovia' | $6(3) 43$ |  |  |
| 'Devrise' | 6(3) 43 |  |  |
| 'Devtinta' | $6(3) 43$ |  |  |
| 'Dicmoppet' | 6(2) 31 | 7(1) 26 |  |
| 'Dicobey' |  | 5(2) 15 | 7(2) 28 |
| 'Dollar' | 4(4) 22 | $6(1) 7$ | 6 (4) 53 |
| 'Dorothea Howard' | 7(4) 7 |  |  |
| 'Fairy Fire' | $6(2) 32$ |  |  |
| 'Frystar' | 7 (4) 7 |  |  |
| 'Frytranquil' | 7(4) 7 |  |  |
| 'Frytrooper' | 7(4) 7 |  |  |
| 'Golden Friendship' |  | 4(2) 14 | 5(4) 3 |
| 'Hans Christian |  |  |  |
| 'Anderson' | 4(1) 24 | 4(3) 17 | 5(3) 6 |
| 'Happy Days' | 4(1) 24 | 4(3) 11 | 5(3) 5 |
| 'Harwoey' | 7(3) 5 |  |  |


|  |  | $4(1) 20$ | $5(4) 3$ |
| :--- | :--- | :--- | ---: |
| 'Interlien' |  | $4(1) 20$ | $5(4) 3$ |
| 'Intermotto' |  | $4(1) 21$ | $5(4) 3$ |
| 'Interniki' | $6(3) 44$ | $4(2) 18$ | $7(3) 325(4) 3$ |
| 'Interonly' | (1) |  |  |
| 'Interpeach' | $7(2) 9$ |  |  |
|  | $7(4) 5$ |  |  |


| 'Interprince' |  | 4(1) 20 |  | 5(4) 3 |
| :---: | :---: | :---: | :---: | :---: |
| 'Interpur' | 7(1) 5 |  |  |  |
| 'Intersept' | 7(1) 9 |  |  |  |
| 'Intersiree' | 7(1) 5 |  |  |  |
| 'Intertyn' | 7(1) 5 |  |  |  |
| 'Jacable' | 7(1) 6 |  |  |  |
| 'Jacdash' | 7(1) 6 |  |  |  |
| 'JACient' | 6(1) 29 | 6(3) 35 | 7(3) 47 |  |
| 'JACpif' | 6(1) 29 | 6(3) 33 |  |  |
| 'JACyef' | 6(1) 29 | 6(3) 32 |  |  |
| 'Keijourna' | 2(1) 14 | 2(3) 5 | 3(2) 5 |  |
| 'Keimove' | 7(3) 8 |  |  |  |
| 'Keinoumi' | 3(4) 36 | 4(3) 8 | 5(3) 5 |  |
| Keitaibu' | 3(3) 25 | 4(3) 8 | 5(3) 5 |  |
| 'Keizoubo' | 5(3) 19 | 5(4) 21 | $6(3) 6$ |  |
| 'Kimba' | 5(1) 24 |  |  |  |
| 'Kooiana Daybreak' |  | 3(2) 19 | 4(1) 4 |  |
| 'Korbacol' | 7(2) 8 |  |  |  |
| 'Korbolak' | 3(1) 36 | 3(2) 22 | 4(1) 4 |  |
| 'Korcilmo' | 7(2) 8 |  |  |  |
| 'Korcrisett' | 7(2) 8 |  |  |  |
| 'Kordaba' | $7(2) 7$ |  |  |  |
| 'Korferse’ |  | 4(2) 20 | 6(4) 53 |  |
| 'Korkunde' | 3(1) 36 | 3(2) 23 | 4(1) 4 |  |
| 'Korlaper' | 7(2) 8 |  |  |  |
| 'Kormador' | 3(1) 36 | 3(2) 24 | 4(1) 4 |  |


| 'Korokis' | 3(1) 36 | 3(2) 24 | 4(1) 4 | 'Meirutral' |  | 3(1) 31 | 3(4) 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'Korpinka' | 7 (2) 7 |  |  | 'Meiselgra' | 4(4) 22 | 5(4) 10 | $6(4) 52$ |
| 'Korschwama' | $7(2) 8$ |  |  |  | 6 (2) 34 |  |  |
| 'Korsorb' | 4(2) 23 | 6(2) 12 | 7(2) 28 | 'Meispreyo' | 6(4) 5 |  |  |
| 'Korveril' | 3(1) 36 | 3(2) 24 | 4(1) 4 | 'Meitifran' |  | 3(1) 25 | 3(4) 4 |
| 'Korwilma' | 6(1) 29 | $6(3) 36$ | 7(3) 47 | 'Meitobla' | 6(4) 7 |  |  |
| 'Lavdoll' | 7(2) 5 |  |  | 'Meitonje' | 5(3) 20 | 7(4) 11 |  |
| 'Lavglo' | 4(4) 22 | $5(4) 11$ | $6(4) 536(2) 34$ | 'Meitralur' | 6(3) 46 | 5(4) 17 | $6(4) 53$ |
| 'Lavjack' | $5(1) 25$ | $6(3) 10$ |  | 'Meivamo' | $6(4) 5$ |  |  |
| 'Legend' | 7(1) 6 |  |  | 'Meivouplix' |  | 2(3) 13 | 3(2) 5 |
| 'Lavquest' | 7(2) 6 |  |  | 'Meivrofix' |  | 2(3) 13 | 3(2) 5 |
| 'Macerupt' | 3(1) 36 | 3(2) 15 | 4(1) 4 | 'Meixerul' |  | 3(1) 32 | 3(4) 4 |
| 'Many Happy |  |  |  | 'Meixtraflo | 3(3) 25 | 4(3) 10 | 5(3) 5 |
| Returns' | 6 (2) 31 | 7(1) 25 |  | 'Meixtrony' |  |  |  |
| 'Meibarke' |  | 3(1) 23 | 3(4) 4 | 'Meizaipur' | 2(1) 14 | 2(3) 4 | 3(2) 5 |
| 'Meiblonver' | 6(4) 5 |  |  | 'Meizogrel' | 4(4) 22 | 5(4) 10 | $6(4) 52$ |
| 'Meicairma' | $7(3) 6$ |  |  |  | 6 (2) 34 |  |  |
| 'Meichevil' | 3(3) 25 |  | 3(4) 37 | 'Melinda Gainsford | $7(1) 6$ |  |  |
| 'Meichoiju' | 5(3) 20 | 7(4) |  | 'Michelle Joy' | 4(1) 24 | 4(3) 10 | 5(3) 6 |
| 'Meidanclar' | 5(1) 25 | 5(4) 16 | 6(4) 53 | 'Noaschnee' | 5(3) 18 | 6(3) 13 | 7(3) 47 |
|  | $6(3) 46$ |  |  | 'Noatraum' | 3(4) 36 | 5(2) 9 | $6(1) 7$ |
| 'Meidalnu' | $6(4) 6$ |  |  |  | 6 (2) 34 |  |  |
| 'Meideuji' | $6(4) 7$ |  |  | 'Olympic Gold' | $6(4) 8$ |  |  |
| 'Meidiaplou' | 3(3) 25 |  | 3(4) 37 | 'Olytel' | 6(4) 6 |  |  |
| 'Meidrofal' | $7(4) 6$ |  |  | 'Pekcoujenny' | 5(4) 33 | 7(3) 18 |  |
| 'Meiflopan' | 4(4) 22 | 6(2) 11 | 7(4) 40 | 'Pink Iceberg' | 7 (1) 7 |  |  |
| 'Meifrony' | 3(3) 25 | 4(3) 7 | 5(3) 5 | 'Pink Kardinal' | $7(2) 7$ |  |  |
| 'Meiglassol' | 6(2) 33 | 6(3) 39 | 7(3) 47 | 'Poulals' | $5(4) 32$ |  |  |
| 'Meigormon' | 7 (3) 8 |  |  | 'Poulann' | 5(4) 32 |  |  |
|  | 3(1) 28 |  |  | 'Poulcar' | 5(4) 32 |  |  |
| 'Meigovin' | 3(1) 28 | 3(4) 4 |  | 'Poulci' | 5(4) 33 |  |  |
| 'Meigronurisar' | 4(4) 22 | 6(1) 15 | 6(4) 53 | 'Poulester' | 5(4) 32 |  |  |
|  | 7 (1) 33 |  |  | 'Poulina' | 5(4) 32 |  |  |
| 'Meijaudiair' | 3(4) 36 | 4(3) 9 | 5(3) 5 | 'Pouloral' | 5(4) 33 |  |  |
| 'Meikister' | $6(4) 5$ |  |  | 'Poulspor' | 5(4) 32 |  |  |
| 'Meikrusa' |  | 2(3) 10 | 3(2) 5 | 'Poulstar' | 5(4) 32 |  |  |
| 'Meilarac' | 7(4) |  |  | 'Poulvic' | 5(4) 32 |  |  |
| 'Meilipo' | 6(1) 29 | 6(3) 19 |  | 'Precious Michelle' | 4(1) 24 | 4(3) 12 | 5(3) 5 |
| 'Meilivar' |  | 3(4) 32 | 5(3) 5 | 'Quaker Star' |  | 4(2) 13 | 5(4) 3 |
| 'Meimagul' | $7(4) 6$ |  |  | 'Queen Parade' | 5(4) 32 |  |  |
| 'Meineble' | 4(2) 23 | $6(2) 10$ | 7(4) 40 | 'Pink Parade' | 5(4) 32 |  |  |
| 'Meinivoz' | $7(3) 6$ |  |  | 'Remember Me' |  | 4(2) 12 |  |
| 'Meinochot' | 5(1) 25 | 6(3) 10 | 7(3) 48 | 'Rock \& Roll' | 4(1) 24 | 4(3) 12 | 5(3) 6 |
| 'Meioffic' | 6 (4) 7 |  |  | 'Royal Parade’ | 5(4) 32 |  |  |
| 'Meiperol' | 5(3) 19 | 5(4) 28 | 6(3) 6 | 'Ruialex' | $7(1) 9$ |  |  |
| 'Meipinjid' |  | 2(2) 24 | 3(1) 4 | 'Ruicharm' | 7(1) 8 |  |  |
| 'Meipitac' | 5(3) 20 | 7(4) 12 |  | 'Ruichris' | 7(1) 9 |  |  |
| 'Meiplatin' | 4(4) 22 | 6(1) 14 | 6(4) 53 | 'Ruidiggel' | 7(1) 8 |  |  |
| 'Meiponal' |  | 3(1) 29 | 3(4) 4 | 'Ruidriko' | $5(4) 33$ | 7(3) 17 |  |
| 'Meipopul' | 5(4) 33 | $7(4) 14$ |  | 'Ruifire' | 7(1) 8 |  |  |
| 'Meirolour' |  | 2(3) 11 | 3(2) 5 | 'Ruigal' | 7(1) 8 |  |  |


| 'Ruipipi' | 7(1) 9 |  |  |
| :---: | :---: | :---: | :---: |
| 'Ruirodella' | 7(1) 8 |  |  |
| 'Ruirovingi' | 7(1) 6 |  |  |
| 'Ruizesac' | 6(3) 44 | 7(3) 31 |  |
|  | 6(4) 54 |  |  |
| 'San-Ka' | 6(2) 31 | 7(1) 27 |  |
| 'Savabear' | 7(2) 5 |  |  |
| 'Savaje' | 6(3) 46 | 5(4) 18 | 7(2) 28 |
| 'Savoy Hotel' |  | 5(2) 16 | 7(2) 28 |
| 'Schobitet' |  | 3(1) 27 | 3(4) 4 |
| 'Selalu' | 4(4) 22 | $6(1) 13$ | 6(4) 54 |
| 'Selargon' | 4(4) 22 | $6(1) 10$ | 6(4) 54 |
| ${ }^{\text {'Selcarbonium }}$ | 7(1) 6 |  |  |
| 'Selchroom' | 7(1) 6 |  |  |
| 'Selferr' | 4(4) 22 | 6(1) 10 | 6(4) 54 |
| 'Selhafnium' | $7(1) 6$ |  |  |
| 'Selnessee' | 5(1) 24 | $6(1) 12$ | $6(4) 54$ |
| 'Selscandium' | 7(1) 6 |  |  |
| 'Selspray' | 4(4) 22 | 6(1) 11 | 6(4) 54 |
| 'Seltitaan' | 4(4) 22 | 6(1) 13 | 6(4) 54 |
| 'Sheer Bliss' | 5(1) 25 | 5(3) 6 | $6(2) 5$ |
| 'Smooth Melody' | 7(1) 6 |  |  |
| 'Smooth Perfume' | 7(1) 6 |  |  |
| 'Smooth Prince' | 7(1) 6 |  |  |
| 'Spevu' | 7(2) 5 |  |  |
| 'Stebigpu’ |  | 3(2) 16 | 4(1) 4 |
| 'Starlight Parade' | 5(4) 32 |  |  |
| 'Summer Fragrance' |  | 4(2) 13 | 5(4) 3 |
| 'Suntink' | 6 (1) 28 | 7(3) 18 |  |
| 'Sunwend' | 6(1) 28 | 7(3) 18 |  |
| 'Sweet Inspiration' | 7 (1) 6 |  |  |
| 'Tanakinom' | 5(4) 35 | 7(1) 12 |  |
| 'Taneitber' | 6(2) 35 | 5(2) 16 | 7(2) 28 |
| 'Tanfudermos' |  |  | $6(2) 4$ |
| 'Tanireb' | 5(4) 35 |  |  |
| 'Tanschaubud' |  | 3(2) 21 | 4(1) 4 |
| 'Tenessee' | 4(4) 22 | 6(1) 7 | 6(4) 54 |
| 'Tineke' | 3(4) 36 | 4(2) 6 |  |
| 'Victory Parade' | 5(4) 33 |  |  |
| 'Welpeach' | 7(1) 5 |  |  |
| 'Welpink' | 7(1) 5 |  |  |
| 'Welred' | 7(1) 5 |  |  |
| 'White Simplicity' | 5(1) 25 | 5(3) 8 | $6(2) 5$ |
| 'Woman's Day' | 5(3) 17 |  |  |
| 'Young at Heart' |  | 1(2) 13 | 2(2) 4 |
| 'Yu Giri' | 7(2) 4 |  |  |

## Santalum

'Powell's Number One' 6(1) 27

## Santolina

'Lemon Fizz' 7(4) 6

## Sanvitalia

'Pizzaro's Button' 5(2) 35
7 (3) 49

## Sapium

'Johan Harder' (4) 21
Scabiosa
'Butterfly Blue' $\quad 5(3) 18 \quad 5(4) 20 \quad 6(4) 53$
$6(2) 35$
'Pink Mist' $\quad 5(3) 18 \quad 5(4) 20 \quad 6(4) 53$
$6(2) 35$

## Scaevola

'Golden Fanfare' 7(2) 8
'Petite Cascade' $\quad 5(3) 19 \quad 6(2) 24 \quad 7(1) 32$
6(4) 54
'Royal Fanfare' $\quad 7(3) 6$

## Schlumbergera

'Aspen’ 7(3) 7
'Bridgeport' 2(4) $30 \quad$ 3(3) 5
'Cambridge’
'Christmas Fantasy'
'Gold Fantasy'
2(4) $31 \quad 3(3) 5$
3(2) $10 \quad 4(1) 4$
2(4) $34 \quad 5(1) 6$
'Holiday Splendor' 6(3) 44
'Lavender Fantasy’
3(4) $22 \quad 4(3) 6$
1(3) $7 \quad 2(2) 4$
$3(4) 22 \quad 4(3) 6$
2(4) 35 3(3) 5
'Pasadena' 7(3) 7
'Sanibel ${ }^{\prime}$
'Santa Cruz'
5(3) $19 \quad 7(2) 14$
2(4) $36 \quad 3(3) 5$
'Sleigh Bells'
$6(3) 44$
'Windsor'
5(3) $19 \quad 7(2) 15$

## Scholtzia

-White Cascade' 6(4) 7

## Serruria

'Sugar'n'Spice' 3(4) $30 \quad$ 4(4) 4
'Superb Blush'
6(4) 7
Sesamum
'Aussie Gold' $\quad 6(1) 28 \quad 7(1) 14$
‘Beech's Choice' 6(1) $28 \quad 7(1) 13$

## Setaria

'Splenda'
1(3) $10 \quad 2(2) 4$
Simmondsia
'Barindji’
'Wadi Wadi'
'Waradgery'

## Solanum

'Azur'
$7(1) 7$

| 'Forta' | $7(1) 7$ |  |  |
| :--- | :--- | :--- | :--- |
| 'Gladiator' | $7(2) 6$ |  |  |
| 'HiLite Russet' | $6(1) 28$ | $6(3) 16$ | $7(2) 28$ |
| 'Karlena' | $6(2) 32$ |  |  |
| 'Liseta' | $4(4) 21$ | $5(4) 6$ | $6(3) 6$ |
| 'Maradonna' | $4(4) 21$ | $5(4) 6$ | $6(3) 6$ |
| 'Mondial' | $4(4) 21$ | $5(4) 6$ | $6(3) 6$ |
| 'Morene' | $1(3) 13$ | $3(2) 6$ | $5(1) 6$ |
| 'Nadine' | $5(3) 18$ | $7(4) 8$ |  |
| 'Panda' | $5(1) 25$ |  |  |
| 'Pepo' | $7(1) 7$ |  |  |
| 'Snow Gem' | $6(3) 43$ |  |  |
| 'Wilwash' |  | $4(2) 17$ | $5(4) 5$ |
| 'Winlock' |  | $3(2) 7$ | $4(1) 4$ |

## Spathiphyllum

| 'Bond A' | $7(3) 6$ |  |
| :--- | :--- | :--- |
| 'Caroline' | $5(1) 26$ | $7(1) 9$ |
| 'Gorgusis 1' | $4(4) 22$ |  |
| 'Leprechaun' | $6(4) 9$ |  |
| 'Sandra' | $6(2) 33$ | $7(1) 23$ |
| 'Tamborine Gold' | $6(2) 32$ |  |

## Stenanthemum

'White Mischief' $\quad 5(2) 35 \quad 6(1) 24 \quad 7(1) 32$

## Stylosanthes

| 'Amiga' | $3(3) 23$ | $5(1) 7$ |
| :--- | :--- | :--- |
| 'Feira' | $3(4) 33$ | $4(4) 5$ |
| 'Jecuipe' | $3(4) 33$ | $4(4) 5$ |
| 'Recife' | $3(4) 33$ | $4(4) 5$ |

## Syngonium

'Ultra'
$5(2) 35 \quad 6(1) 22 \quad 6(4) 53$

## Syzygium

'Blaze'
'Hedgemaster'
-Lillyput'
'Undercover'
6(3) $45 \quad 7(3) 38$
7(1) 7
$5(1) 25 \quad 6(1) 22 \quad 6(4) 53$
6(4) 5

## Telopea

'Cardinal' 7(3)7
-Fire and Brimstone'7(2) 8

| 'Olympic Flame' |  | $3(3) 16$ | $5(2) 5$ |
| :--- | :--- | :--- | :--- |
| 'Sunburst' | $3(3) 16$ |  |  |
| 'Sunflare' |  | $3(3) 16$ | $5(2) 5$ |

## Trifolium

| 'Astred' | $4(1) 23$ | $5(4) 7$ | $6(1) 7$ |
| :--- | :--- | :--- | :--- |
| 'Clever Club' | $7(4) 7$ |  |  |
| 'Denmark' |  | $4(4) 18$ | $6(3) 6$ |
| 'Gosse' | $5(4) 34$ | $7(1) 13$ |  |

'Astred'
'Denmark’
5(4) $34 \quad 7(1) 13$
'Goulburn' 4(4) 19 6(3) 6
'Grasslands Colenso'
3(3) $225(4) 3$
'Grassiands Demand'
$6(1) 29 \quad 6(3) 417(3) 48$
‘Grasslands Kopu’ 2(2) 28 4(3) 6
'Grasslands Prestige
$6(1) 29 \quad 6(3) 217(3) 48$
2(2) $28 \quad 3(2) 5$
2(2) $17 \quad 3(1) 4$
4(2) $7 \quad 6(1) 5$
3(1) $11 \quad 4(1) 4$
$6(4) 6 \quad 6(4) 50 \quad 7(4) 40$
2(2) $19 \quad 3(3) 6$
$6(4) 9 \quad 7(3) 41$

## X Triticosecale

'Abacus’
'Maiden'
$6(2) 31$

## Triticum

'Amery"
'Lawson'
'Pelsart'
'Rowan'
'Stretton'
'Sunstate'
'Stiletto'
'Tasman'
'Wollaroi’

## Vicia

$\begin{array}{lll}\text { 'Icarus' } & 7(1) 5 \quad 7(4) 7\end{array}$

## Vigna

'Big Buff'
$6(1) 28 \quad 6(3) 17 \quad 7(3) 48$
6(2) 35
'Black Pearl’ 7(2)7 7(3) 43
'Emerald'
'Holstein'

## Viola

'White Angel' 6(1) 27

## Vitis

'King Husainy' 4(4) 22
'Moss'
'Ralli Seedless'
1(4) $23 \quad 3(4) 5 \quad 6(1) 6$
5(4) 34
'Sugraone' 4(3) 25
7(1) 32
'Sugrafive' 4(3) 25

## Xanthostemon

‘Tropic Splendor’
5(1) $24 \quad 6(1) 5$

## Zoysia

'El Toro' 5(3) 18

## MILLET

Echinochloa frumentacea
'Indus' Application No 93/248
Application Accepted 6 December 1993
Applicant: CSIRO Division of Tropical Crops and
Pastures, St Lucia, Queensland

## Description-See Table 21 \& Fig 31

An annual forage millet intermediate in maturity between the grain types of 'Japanese', 'Shirohoe' and the late flowering forage variety 'Siberian'. Distinguished from these three varieties using the following characters: intermediate height, intermediate inflorescence length, high tiller number (similar to 'Siberian') and long flag leaf length. Slightly more erect than the 'Siberian' millet.

## Origin

The release of this variety arose from a comparative study of about 300 accessions of small grain millet (Setaria italica, Panicum miliaceum and Echinochloa frumentacea) accessions introduced for a research program to identify superior grain millet varieties. Although cv. 'Indus", originally 'CPI 108621', had very few of the attributes of a grain millet such as high grain yield, large grain size and early maturity, its vegetative characteristics in the initial characterisation of the millet collection suggested that it would be useful for grazing or for the reclamation of disturbed areas such as roadsides, real estate developments and generally as a pioneer "nurse" crop. 'Indus' was collected in 1954 in a market in Dera Ismail Khan in northern Pakistan and was introduced by CSIRO Division of Tropical Crops and Pastures in 1986 from the United States Department of Agriculture, Plant Introduction Station, Ames, Iowa, United States of America (USDA PI No. 219608). In 1987, an experiment to compare 'Indus' and the forage millet 'Siberian' was conducted at Lawes. The grain millet Setaria italica cv. Panorama was also included as a control. The results from that experiment indicated that 'Indus' had greater tiller production than either 'Siberian' or 'Panorama'. Total dry matter production and distribution of that production throughout the summer in 'Indus' was similar to that of 'Siberian'.

## Comparative trials

Two cultivars of the same species selected for inclusion in the comparative experiment: the grain variety 'Japanese' and the forage variety 'Siberian'. Two generations of 'Indus' ('Indus 1987 ' and 'Indus 1993') were included in the study to determine stability in the cultivar over time. The comparative test conducted at Lawes, southeastern Queensland November 1993-February 1994. Seedlings raised in a glasshouse and transplanted to the field on 11 November 1993. Trial arranged in a complete block experiment with four replicates. In each replicate, plants arranged in two rows of 15 plants with 0.5 m between rows and 0.5 m between plants within the rows. Plants at either end of the rows were treated as guards and so data were recorded from 26 plants in each replicate ( 104 plants in total). The experiment was assessed for flowering twice weekly from the time of transplanting. Tiller number and the angle of the tillers to the soil surface were recorded on

16-21 December. Height to flag leaf, flag leaf size and inflorescence morphology measurements taken for each variety when heads reached maturity. In 'Japanese', flowering commenced within a few days days of transplanting to the field in most plants and no flowering data were collected for individual plants for this entity. Using notes taken during the experiment, an estimate of time to anthesis was possible. Both generations of 'Indus' were significantly different from 'Japanese' and 'Siberian' in height to flag leaf, stem angle to the soil, inflorescence length, angle of basal raceme to the stem and in length and width of the flag leaf. Time to flowering in 'Siberian' significantly later than either of the 'Indus' generations which in turn were later than 'Japanese'. However, the two generations of 'Indus' were significantly different from each other in time to flowering and in tiller number. In both attributes the differences were slight and associated with small deviations from the means Coefficients of variation for 'Indus' were small in all characteristics and at least comparable with those recorded for 'Japanese' and 'Siberian' millet varieties.

## Adaptation

The combination of later flowering (compared to 'Japanese') and high tiller number make 'Indus' suitable for use as a pioneer nurse crop especially in reclamation of disturbed areas such as roadsides and real estate developments.
Description prepared by Mr BC Pengelly, CSIRO Division of Tropical Crops and Pastures, St Lucia, Queensland.

## Thble 21 Millet varieties

( ${ }^{*}=$ comparator)

| 'Indus 87' | 'Indus 93' | *'Japanese’ | *'Siberian' |
| :---: | :---: | :---: | :---: |
| TIME TO FLOWERING (days after 1 November) |  |  |  |
| mean 38.9 | 41.9 | 33 | 80.2 |
| std. deviation 6.9 | 6.2 | N/A ${ }^{1}$ | 5.7 |
| significance | $\mathrm{P}<0.01$ | N/A | $\mathrm{P}<0.001$ |
| HEIGHT TO FLAG LEAF (cm) |  |  |  |
| mean 50.6 | 50.6 | 36.6 | 81.4 |
| std. deviation 6.8 | 6.2 | 7.0 | 8.2 |
| significance | NS | P<0.001 | P<0.001 |
| TILLER NUMBER |  |  |  |
| mean 48.5 | 40.0 | 15.2 | 49.9 |
| std. deviation 10.6 | 7.3 | 4.0 | 11.0 |
| significance | $\mathrm{P}<0.001$ | $\mathrm{P}<0.001$ | NS |
| STEM ANGLE TO SOIL SURFACE (degrees) |  |  |  |
| mean 59.0 | 59.5 | 62.7 | 52.4 |
| std. deviation 9.2 | 8.0 | 5.1 | 6.5 |
| significance | NS | $\mathrm{P}<0.001$ | $\mathrm{P}<0.001$ |
| INFLORESCENCE LENGTH (cm) |  |  |  |
| mean 152.0 | 150.2 | 81.4 | 162.0 |
| std. deviation 18.7 | 15.6 | 15.8 | 19.6 |
| significance | NS | $\mathrm{P}<0.001$ | $P<0.001$ |
| ANGLE OF LOWEST RACEME TO STEM (degrees) |  |  |  |
| mean 67.4 | 67.7 | 24.0 | 79.8 |
| std. deviation 12.7 | 10.6 | 12.2 | 8.4 |
| significance | NS | $\mathrm{P}<0.001$ | $\mathrm{P}<0.001$ |



This is great news if you are a breeder, importer, or involved in a seed company or nursery.

Plant Variety Rights (PVR) are a form of intellectual property which allow plant breeders to decide how new varieties are to be distributed and marketed.

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If you would like more information please contact PVR Office, DPIE.GPO Box 858
Canberra ACT 2601. Telephone 062724228.
Facsimile 062723650.
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## Plant Breeders Rights Australia

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Telephone: (06) 2724228 Facsimile: (06) 2723650


[^0]:    'Atlanta' Application No 94/040
    Application Accepted 28 February 1994
    Applicant: Koninklijke Van Zanten BV, Hillegom, The Netherlands
    Australian Agent: Spruson \& Ferguson, Sydney, New South Wales

[^1]:    Description prepared by Kerry Bunker, Redlands Greenhouses Holdings Pty Ltd. Redland Bay, Queensland

