



# Plant Varieties Journal

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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 eligibility 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.

The new fees, effective 1 January 1995 are:

<b>Fee Туре</b>	Fee payable (\$)
Application	300
Examination-single application	1400
Examination-application based on	1400
overseas test data	
Examination-multiple applications *	s 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.







Kate Dawes



Mark Kethro



Margaret Winsbury



Shirley Gourgaud



Elizabeth Pulsford

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.

## CLOSING DATE FOR THE MARCH ISSUE: 1 FEBRUARY 1995

## Part 1-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 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-Public Notices

## Varieties Included in this Issue:

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	Variety	page number
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, and ot	'Flavour Supreme'	5
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## 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 do	emestica x armeniaca
'Flavour	Supreme' breeder's reference '28EB12'
Application	No 94/166
Applicant:	Zaiger's Inc Genetics, California, United
States of An	nerica
Australian	Agent: Fleming's Nurseries & Associates,
Monbulk, V	ictoria
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 Corner, 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 Adelaide, 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 (>200m) 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  $4m^2$  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 m<sup>2</sup>. 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 Va	<b>rieties</b>	
(*=comparator)		
	'icarus'	*'Fiord'
SEED COLOUR		
	light green	buff
WING: MELANIN SPOT		
	present	present
STANDARD ANTHOCYANIN		
	absent	absent
HILUM COLOUR		
	black	black
WEIGHT PER SEED (g)		
	0.9	0.48
LSD 0.01	0.021	
LENGTH OF POD		
mean	6.54	5.94
LSD 0.01	0.396	

#### ΡΟΤΑΤΟ

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 657mm high. Stems of medium thickness, no anthocyanin colouration, medium foliage cover. Leaf blade medium-long (202mm), short petiole (31mm), terminal leaflet short-medium (99mm) and narrow (57mm), 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 United Kingdon	Year n -	Status Protected	Name Applied 'Nadine'
Table 2 Pot	ato Varieti	es	
(* = comparators)			
	'Nadine'	*'Crystal'	*'Sebago'
PLANT HEIGHT (m	m)		
mean	657	599	677
std. deviation	64	105	65
significance	-	NS	NS
GROWTH HABIT			
	semi-erect	semi-spreadinç	g semi-erect
STEM ANTHOCYAN	NIN		
	absent	absent	absent

Table 2 Potato Varielies	(Nedler'	*'Onvotal'	*'Sobara'
	'Nadine'	*'Crystal'	*'Sebago'
LEAF BLADE LENG	. ,	170	100
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	P<0.001	P<0.001
TERMINAL LEAFLE	T LENGTH (mn	n)	
mean	99	107	114
std. deviation	13	14	15
significance	-	NS	NS
TERMINAL LEAFLE	T WIDTH (mm)		·
mean	57	63	69
std. deviation	8	9	8
	-	-	-
LSD/significance	7	NS	P<0.05
LEAF SILHOUETTE			
	medium	medium	medium
LEAF COLOUR			
	medium	medium	medium
WAVINESS OF LEA	FLET MARGIN		
	medium	weak	weak
GLOSSINESS OF L	EAF UPPER SI	JRFACE	
	dull	medium	dull-medium
	-		
TUBER SHAPE	short-oval	short-oval	round
LIGHTSPROUT AN			
	red violet	red violet	red violet
LIGHTSPROUT PUE	BESCENCE OF		
	weak	medium-strong	weak
	BESCENCE OF	TIP	
	strong	weak	weak
LIGHTSPROUT NU	MBER OF ROO	T TIPS	
	few	medium	many
LIGHTSPROUT LAT	EBAL SHOOT	COLOUR	
	purple	green	green
			-
TUBER FLESH COL	creamy	creamy	creamy
	white	white	white
AFTER COOKING E	absent	marked	marked
SLOUGHING OF TU			-11-1
	slight	slight	slight
SOFTNESS OF TUE	BER FLESH AF	TER BOILING	
	fairly firm	fairly soft	fairly firm
FRY COLOUR OF T	UBERS		
	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 (60mm diameter), oblate shape, white flesh nectarine; with a sub-acid, mild, sweet flavour. The freestone type fruit has a small rounded stone (20mm) 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	s first sold	in the United	States of
America in 1989.			

Description prepared by Fleming's Nursery, Monbulk, Victoria

#### **Table 3 Nectarine Varieties**

(*=comparator)				
	'Arctic Rose'	*'Queen Giant'	*'Snow Quee	n' *'33EB371'
FRUIT SIZE	(diameter) (mm	ו)		
mean	59.8	63.0	62.5	58.3
std. deviation	1.0	1.5	2.2	1.4
LEAF LENGT				
mean	137.3	122.6	149.6	159.6
std. deviation	12.1	30.2	25.0	21.8

Table	З	Nectarine-Continued
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	'Arctic Rose'	*'Queen Giant' *	Snow Queen'	"33EB371"
LEAF WIDTH	(mm)			
mean std. deviation	31.0 3.0	29.8 8.6	40.3 4.7	42.1 5.2
BLOSSOM D	ATE			
	2 Sept	5-9 Sept	2-9 Sept	6-12 Sept
BLOSSOM D	URATION (days	i)		
	19	16	13-21	14-18
BLOSSOM T	/PE			
	showy	non-showy	non-showy	showy
PETAL COLO	UR			
	pink (65D)	red (66C)	red (57B)	pink (62C)
BUD DENSIT	Y			
	dense	medium	sparse	medium
FRUIT MATU	RITY			
	15-25 Jan	<b>1-</b> 12 Jan	1-10 Jan	16-26 Jan
FRUIT SHAPI	Ξ			
	oblate	oblate	globose	oblate
SKIN GROUN	ID COLOUR			
	yellow (4D)	white (155B)	yellow (5C)	yellow (11B)
SKIN ANTHO	CYANIN COLO	UR		
	red (46A)	red (45C)	red (46A)	red (45C)
REDNESS AT	STONE			
	moderate	slight	moderate	red
STONE ADHE	RENCE			
	freestone	semi -clingstone	semi -clingstone	semi -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** 

				<u> 1855. – – – – – – – – – – – – – – – – – – </u>
(* = compara	tors)			
'Ri	ch Lady' *'I	Flavorcrest'	*'Redhaven'	*'Redtop'
FRUIT SIZE (D	DIAMETER) (mr	n)		
mean	62.70	71.30	73.20	62.20
std. deviation	3.26	1.38	1.93	2.55
LEAF LENGTH	H (mm)			
mean	144.60	170.80	162.20	142.80
std. deviation	11.00	19.30	14.90	18.00
LEAF WIDTH	(mm)	· · · · · · · · · · · · · · · · · · ·		
mean	33.00	40.20	38.40	36.70
std. deviation	3.90	4.10	2.90	1.90
BLOSSOM DA	TE			
	8 Sept	4 Sept	8-11 Sept	4-9 Sept
BLOSSOM DU	IRATION (days)			
	16	19	13- <b>1</b> 4	19
BLOSSOM TY	PE			
	showy	showy	non-showy	showy
PETAL COLOU	JR			
	pink (65D)	pink (65C)	red (58C)	pink (62C)
FRUIT MATUR	RITY DATE			
	3-15 Jan	2-11 Jan	8-15 Jan	15 Jan
FRUIT SHAPE				
	oblate	oblate	globose	oblate
SKIN GROUNI	DCOLOUR			
	yellow (23C)	yellow (19A)	yellow (14C)	yellow (20B)
SKIN ANTHOO	CYANIN COLOU	JR		
	purple (60A	) red (34A)	red (34A)	red (32B)
STONE ADHE	RENCE			
	clingstone	semi -clingstone	clingstone	freestone

'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 55.7mm) blooms borne in clusters of 3-5 blooms per stem. Each double blooms has 26-34 petals. The small leaves (mean terminal leaflet length 26.7mm) dark green and glossy on the upper side. The shape of the terminal leaflet 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 55mm. 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**

<b>Country</b> Germany	<b>Year</b> December 1986	Status Granted	Name applied 'Meitonje'
France	-	Granted	'Meitonje'
Denmark	-	Granted	'Meitonje`
Great Britain	-	Granted	'Meitonje'
New Zealand	-	Applied for	'Meitonje'
Rep. South Africa	-	Granted	'Meitonje'
U.Ŝ.A.	-	Granted	'Meitonje'
'Meitonje' was fir	st sold in Ge	ermany on 1	June 1987.

Description prepared by A Kim Syrus of Melrose Park, South Australia.

Table 5 Rose Varie	eties	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	
(* = comparators)	* = 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 LENGT	Ή (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 PETIOL	LE LENGTH (mm)	
mean	6.50	13.6
std. deviation	1.12	1.59
LSD/significance	1.99	P0.01
SEPAL LENGTH (mm)		
mean	17.55	16.45
std. deviation	0.86	1.20
LSD/significance	1.16	P0.01
FLOWER DIAMETER (mm) fo	ully open	
mean	55.70	57.35
std. deviation	3.21	4.19
LSD/significance	4.70	NS
YOUNG SHOOT ANTHOCYA	NIN	
	very weak	weak
HUE OF ANTHOCYANIN		
	bronze	reddish brown
PRICKLE SHAPE: LOWER S	SIDE	
	concave	absent
PRICKLE SHAPE: UPPER SI	IDE	
	catena	flat
LEAF GLOSSINESS: UPPER		
LEAR GEODOINEOD. OF FER	glossy	dull
	<u> </u>	
LEAFLET: CROSS SECTION	concave	concave
LEAFLET: UNDULATION OF	MARGIN medium	mild
TERMINAL LEAFLET-SHAPE		worken abarrat
	obtuse	wedge-shaped
FLOWER PEDICEL THORNS		
	few	few
FLOWER BUD SHAPE		
	ovate	round
FLOWER TYPE		
	semi-double	double
NO. PETALS		
	many 28	very many 55

	'Meitonje'	*'Pink Delight
FLOWER SIZE		
	small	small
FLOWER PROFILE-UPPER		
	flattened convex	flat
FLOWER PROFILE-LOWER	<u> </u>	
	flat	flat
SEPAL EXTENSIONS		
	weak	weak
PETAL SIZE		
	small	small
PETAL COLOUR (RHS)		
midzone outside	62C	55D
midzone inside	62A	36D
margin outside	62C	55C
margin inside	62A	36D
BASAL SPOT SIZE-INSIDE (1	l=very small, 9=very la	rge)
	3	2
PETAL REFLEXING		
	weak	very strong
PETAL UNDULATION		
	medium	absent
STAMEN-COLOUR OF FILAM	IENT	
	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 diameter-106.6mm) 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 length-45.90mm) 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 20.1mm. 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' wa	as first sold in th	e United Sta	ites of America
on 1 June 199	0.		

Description prepared by A Kim Syrus of Melrose Park, South Australia.

## Table 6 Rose Varieties (\* = comparators) (Meiolice)

	'Meipitac'	*'Regensberg'
FLOWER COLOUR GF	OUP	····
	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 L	ENGTH (mm)	
mean	45.90	47.65
std. deviation	3.59	2.78
LSD/significance	1.85	P0.05
TERMINAL LEAFLET V	VIDTH (mm)	
mean	30.60	19.05
std. deviation	3.18	2.64
LSD/significance	6.16	NS
TERMINAL LEAFLET P	ETIOLE 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 ANTH	OCYANIN	
	strong	medium
HUE OF ANTHOCYANI	N	
	reddish	reddish
	brown/purple	brown/purple

	'Meipitac'	*'Regensberg
LEAF GLOSSINESS:	UPPER SIDE	
	dull	glossy
LEAFLET: CROSS SE		
	concave	concave
LEAFLET: UNDULATI	ON OF MARGIN	
	strong	medium
TERMINAL LEAFLET	obtuse	obtuse
FLOWER PEDICEL T		6
	few	few
FLOWER BUD SHAP	E	
	ovate	ovate
LOWER TYPE		
	semi double	semi double
NO. PETALS		
	many 20	many 30
LOWER SIZE		
	medium	medium
LOWER PROFILE: U	JPPER flat	flat
	IIdl	11dl
LOWER PROFILE: L		<i>.</i>
	flat	flat
SEPAL EXTENSIONS	5	
	strong	medium
PETAL SIZE		
	medium	medium
PETAL COLOUR (RH		
nidzone outside	62B	67C
nidzone inside	67D	62D
nargin outside	62D	67C
nargin inside	57A	62D
BASAL SPOT SIZE: I	NSIDE (1=very small, 9=\	very large)
	5	9
PETAL REFLEXING		
	medium	mild
PETAL UNDULATION	present	Dresent
	·	present
TAMEN: COLOUR C		
<u></u>	yelllow/green	yellow
STIGMA IN RELATION	N TO ANTHERS	
	above	same level
LOWERING HABIT		
	remontant	remontant

#### **'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. 97.15mm) 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 51.9mm) 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 25.55mm. 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
France	1988	Granted	'Meichoiju'

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

#### Table 7 Rose Varieties

#### (\* = comparator)

	'Meichoiju'	*'Kalinka'
FLOWER COLOUR G	ROUP	
	Medium Pink	Medium Pink
THORN LENGTH (mn	n)	
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

Table 7	Rose-Continue	ed
Table I	nose-Continue	su.

- ·	'Meipitac'	*'Regensberg
		negensuely
TERMINAL LEAFLET	WIDTH (mm)	
mean	40.25	
std. deviation		
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
		1 0.00
SEPAL LENGTH (mm)		0.40
mean	25.55	6.40
std. deviation	2.01	1.71
LSD/significance	6.54	NS
YOUNG SHOOT ANT	HOCYANIN	
	mild	medium
HUE OF ANTHOCYAN	lin	
	reddish brown	reddish
		brown/purple
PRICKLE SHAPE: LO		
	concave	concave
PRICKLE SHAPE: UP		
	catena	n/a
LEAF GLOSSINESS: (	JPPER SIDE	
	glossy	glossy
LEAFLET: CROSS SE	CTION	
	concave	flat
LEAFLET: UNDULATION		
	present	present
TERMINAL LEAFLET:	SHAPE OF BASE	
	obtuse	rounded
FLOWER PEDICEL TH	HORNS/PRICKLES	
	few	few
	-	
FLOWER BUD SHAPE	= ovate	ovate
	Uvale	
FLOWER TYPE		
	semi-double	semi-double
NO. PETALS		
	medium 30	medium 30
FLOWER SIZE	medium	medium
		medium
FLOWER PROFILE: U		
	flattened convex	convex
FLOWER PROFILE: L	OWER	

	'Meipitac'	*'Regensberg'
SEPAL EXTENSIONS		
	strong	medium
PETAL SIZE	· · · · · ·	
	medium	medium
PETAL COLOUR (RHS	G)	
midzone outside	52C	48D
midzone inside	52D	48C
margin outside	52B	48D
margin inside	52C	48D
BASAL SPOT SIZE: IN	ISIDE (1=very small, 9	)=very large)
	5	5
PETAL REFLEXING		
	mild	strong
PETAL UNDULATION		
	medium	medium
STAMEN: COLOUR O	F FILAMENT	
	yellow	yellow
STIGMA IN RELATION	TO ANTHERS	
	above	above
SEED VESSEL SIZE		
	medium	medium
SEED VESSEL SHAP	E	
	pitcher	pitcher
FLOWERING HABIT		
	remontant	remontant

Table 7 Rose-Continued

#### '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 65.35mm) blooms borne in clusters of 5-9 blooms per stem. Each single bloom has 5 petals. The small leaves (mean terminal leaflet length-29.65mm) 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 12.70mm. 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'<sup>(R)</sup>. 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	'Meipopul'
Republic of			
South Africa	-	Granted	'Meipopul'
'Meipopul' wa	s first sold in	France on 1st	May 1992.

Description prepared by A Kim Syrus, Melrose Park, South Australia.

#### **Table 8 Rose Varieties**

	'Meipopul'	*'Red MEIDILAND' (R
FLOWER COLOUR O		
1 LOWEN COLOUN C	pink blend	dark red
THORN LENGTH (mr	,	
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
	PETIOLE LENGTH (n	nm)
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 ANT		
TOUNG SHOUT ANT		stropa
	strong	strong
HUE OF ANTHOCYA	NIN	
	reddish brown	bronze
PRICKLE SHAPE: LC	WER SIDE	
	concave	concave
PRICKLE SHAPE: UF	PER SIDE	
	catena	catena
LEAF GLOSSINESS:	UPPER SIDE	
	glossy	dull

	'Meipopul'	*'Red MEIDILAND' (R)
LEAFLET: CROSS SEC	CTION	
	concave	concave
LEAFLET: UNDULATIO	N OF MARGIN	······································
-	medium	medium
TERMINAL LEAFLET-S	SHAPE OF BASE	
	obtuse	round
FLOWER PEDICEL TH		
	many	few
FLOWER BUD SHAPE		
	ovate	ovale
FLOWER TYPE		
	single	single
NO. PETALS		
	5	5
FLOWER SIZE		
	medium	medium
FLOWER PROFILE-UF		
	flat	flat
FLOWER PROFILE-LC	flat	flattened convex
SEPAL EXTENSIONS	week	woold
	weak	weak
PETAL SIZE		
	medium	medium
PETAL COLOUR (RHS	)	
midzone outside	55A	53D
midzone inside	52B	53B
margin outside	55A 52B	53C 53B
margin inside		
BASAL SPOT SIZE: IN		
	3	8
PETAL REFLEXING		
PETAL REFLEXING	mild	medium
PETAL REFLEXING	mild	medium
	mild	medium
	medium	
PETAL UNDULATION	medium	
PETAL UNDULATION	medium FILAMENT yellow	medium
PETAL UNDULATION	medium FILAMENT yellow	medium
PETAL UNDULATION	medium FILAMENT yellow TO ANTHERS	medium yellow
PETAL UNDULATION STAMEN: COLOUR OF STIGMA IN RELATION	medium FILAMENT yellow TO ANTHERS	medium yellow
PETAL UNDULATION STAMEN: COLOUR OF STIGMA IN RELATION	medium FILAMENT yellow TO ANTHERS below small	medium yellow same level
PETAL UNDULATION STAMEN: COLOUR OF STIGMA IN RELATION SEED VESSEL SIZE	medium FILAMENT yellow TO ANTHERS below small	medium yellow same level
PETAL UNDULATION STAMEN: COLOUR OF STIGMA IN RELATION SEED VESSEL SIZE	medium FILAMENT yellow TO ANTHERS below small	medium yellow same level small

#### 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 4.75cm and mean width 2.04cm. Leaf apex acuminate. Produces few early pink flowers. Flowers of large diameter (mean 9.33cm), 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 5cm tube trays in January 1993. The trials conducted in an open house under shade cloth in 12.5cm 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 9 Azalea Varieties					
(* = comparators)					
'Prince	ess Barbara	'*'Only One Earth'	*'Charly'		
MATURE LEAF: LENGTH					
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		_	
'Prince	ess 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	P< 0.001	
MATURE LEAF SHAPE	OF APEX		
	acuminate	rounded	rounded
INFLORESCENCE NUM	BER OF FLOWE	RS	
	few	medium	few
CALYX FORMATION OF	A COROLLA FO	 RM	
	very strong	very strong	absent
FLOWER DIAMETER (cr			
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	wide
	funnel	funnel	funnel
	-shaped	-shaped	-shaped
FLOWER TYPE OF COF	ROLLA		
	double	single	double
COROLLA LOBE COLOU	JR OF MARGIN	OF UPPER SIDE (	RHS Chart)
	61C	63A	58B
COROLLA LOBE COLOU	JR OF MIDDLE (	OF UPPER SIDE (F	HS Chart)
	67C	63B	58B
COROLLA LOBE UNDUL	ATION OF MAR	GIN	
	very weak	weak	weak
FLOWER THROAT CON	SPICUOUSNESS	OF MARKINGS	
	very	very	very
	weak	weak	weak
TIME OF FLOWERING (	weak	weak	

#### 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

19/8/94

2/8/94

5/9/94

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

#### 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 m<sup>2</sup>, 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 m<sup>2</sup>, 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	Name applied
France		19/11/1991	'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, FAIAS, 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 m<sup>2</sup>, 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 m<sup>2</sup>, 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 m<sup>2</sup>, 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 m<sup>2</sup>, 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, FAIAS, ASAS Agricultural Science Advisory Service, Winston Hills, New South Wales.

#### '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

#### 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<sup>2</sup> 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 m<sup>2</sup>, 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**

Country	Year	Status	Name applied
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'	'lberia'	'Nevada'	'Toscana'	'Victoria'
STEM:	``							
length	long	long	short	long	long	med to long	medium	long
thickness	thick to very thick	thick	medium	medium	thick	medium	thick	thick
LEAF:								· · · · · ·
length	medium	medium	long	short	medium	med to long	medium	long
width	narrow	medium	broad	narrow	medium	broad	narrow	broad
INFLORESCENCE.								
umbel branch length		long	short to med	medium	medium	med to long	medium	very long
pedicel length	very short to short	medium	med to long	short	short	medium	short	very long
FLOWER:				<del>_</del>				·
size	large	large	large	large	large	med to large	large	large
tepals' spread	med to large	medium	medium	large	large	large	med to large	medium
OUTER TEPAL:								
shape	obovate	broad	obovate	broad	broad	broad elliptic	broad	broad elliptic to round
		obovate 1		obovate	obovate		obovate	
main colour	ca.RHS	ca. RHS	ca. RHS	ca.RHS	ca. RHS	ca. RHS 4D	ca. RHS 58C	ca. RHS3 1B and
	155A <sup>2</sup>	73D <sup>3</sup>	62B-65A <sup>4</sup>	28A-169C 5	12B-13C12			ca. RHS 34B-C 14
OUTER TEPAL:								
stripes	present	absent	present	present	present	absent	absent	absent
INNER TEPAL:								
shape	obovate	elliptic	narrow obovate	obovate	obovate	narrow	obovate elliptic	narrow obovate
INNER LATERAL TE	PAL:							
main colour	ca. RHS 4C <sup>6</sup>	ca. RHS 73D 7	ca. RHS	ca. RHS	ca. RHS	ca.RHS	ca. RHS	ca. RHS 12A
			54A-B <sup>8</sup>	12A <sup>9</sup>	6A <sup>15</sup>	3B-C <sup>16</sup>	12A <sup>17</sup>	
number of stripes	medium	med to many	medium	med to many	med to many	medium 18	medium	medium
size of stripes	medium 10	med to large 11	small to med	med to large	·····,			
			- <u> </u>				<u></u>	
ANTHERS COLOUR	: brownish	brownish	vollow groco	vollowich	vollowish	liaht	brownish	light red-brown
	brownish	Drownish	yellow-green	yellowish	yellowish	orange-yellow	Drowinsh	light (ed-brown
ANTHOCYANIN IN C	VARIES:							
	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 (25-80mm, 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°; leaf has a medium length petiole (6-19mm, mean 10.8, standard deviation 2.3). Raceme very long, with creamy white florets of medium length (unopened including stalk 8-11mm, 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 3.7-7.1mm, mean 5.4, standard deviation 0.7). Seed (nut) of medium size (length 22.0-29.1mm, 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 6m x 6m on flat land comprising of a sandy loam soil, with an average rainfall of 1650mm. 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.

#### **Table 11 Macadamia Varieties**

(* = comparate	or)				
Variety	'Hidden ValleyA38'	*'Hidden ValleyA4'	*'Hidden ValleyA16'	*'Own Choice'	*'HAES 246'
LEAF-LENGTH	(mm-includ	ing 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	P≤0.05	NS	P≤0.05
LEAF-MAXIMU	· ·	'			
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)/ significance	2.17	P≤0.01	P≤0.001	NS	NS
LEAF-LENGTH	MAX WIDT	H (ratio)			
mean std. deviation LSD(0.01)/ significance	3.40 0.38 0.13	3.57 0.28 P≤0.001	2.68 0.28 P≤0.001	3.21 0.39 P≤0.001	3.45 0.45 NS
LEAF-SPINES	(Count of sp	ines in cent	ral 5cm of o	ne leaf side	e)
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)/ significance	0.36	P≤0.001	P≤0.001	P≤0.001	P≤0.001
RACEME-LEN	GTH (mm fro	om start of s	tem 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)/ significance	10.96	P≤0.001	P≤0.001	P≦0.001	P ≤0.001

#### **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 28-38mm in diameter with a golden disc 6-9mm 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 150mm 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 16 1994.

Description prepared by Mark Lunghusen, Healesville, Victoria.

#### Table 12 Brachyscome Varieties

(\* = comparator)

	'Strawberry Mousse'	* 'B. angustifolia'	*'B. formosa
GROWTH HABIT			<u> </u>
	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
INFLORESCENC	E DIAMETER(mm)	)	
mean	34.4	23.1	41.3
std deviation	2.5	0.8	3.4
range	28-38	22-24	37-48

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

#### 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 77C 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 ml/litre chlorine bleach. Flowers assessed five days later.

#### **Prior Applications and Sales.**

#### Nil

Description prepared by David Nichols, Devon Meadows, Victoria

#### Table 13 Alstroemeria Varieties

#### (\* = comparator)

	'Felicity'	* 'Sydney'
STEM LENGTH (cm)		
mean	115.2	65.6
std. deviation	13.59	11.13
LSD 0.01/significance	9.0	P≤0.01
LEAF LENGTH (mm) First lea	af below umbel	
mean	132.7	108.2
std. deviation	12.21	13.41
LSD 0.01/significance	11.0	P≤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) Long	est 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 COLOU	JR	
	RHS 77BC	RHS 70B
OUTER TEPAL STRIPES		
	Few	Absent
INNER LATERAL TEPAL TIP	COLOUR	
	RHS 77B	RHS 72C
INNER LATERAL TEPAL STR	RIPES	
	Many thin	Many thick
INNER LATERAL TEPAL YEL	LOW COLOUR	
	Faint	RHS 3A
INNER MEDIAN TEPAL MAIN	N COLOUR	
	RHS 77BC	RHS 72C
INNER MEDIAN TEPAL STR	IPES	
	Few thin	Medium thicl

#### 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 Sr2) and at Tangalooma, Formartin May-November 1990 and 1992 (root lesion nematode tolerance).

#### **Prior Applications and Sales**

#### Nil

Description prepared by PS Brennan, Department of Primary Industries, Toowoomba, Oueensland

	'Pelsart'	*'Cook'
EAR GLAUCOSITY		
	absent	weak
EAR DENSITY		
	lax	medium lax
AWNS LENGTH (cm)		
	5.5	6.5
LOWER GLUME HAIRINESS		
	medium	medium-strong
PRESENCE OF Sr2 (See Fig n	n)	
	present	absent
TOLERANCE OF THE ROOT L	ESION NEMATODE	
	very tolerant	intolerant

#### 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'/'Gamut'x4\*'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

Table 15 Wh	eat Varieties	
(*=comparator)		
	'Rowan'	*'Hartog'
FLAG LEAF ATTITUE	DE	
	slightly recurved	strongly recurved
FLAG LEAF GLAUCO	DSITY	
	absent	weak
EAR GLAUCOSITY		
_	absent	medium
CULM: NECK GLAUC	COSITY	
	weak	medium
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'/'Siete Cerros'x'Bluebird'/'ClANO' 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 COLOUF	}	
	weak	absent
STRAW SECTION		
	medium	thin
AWNS LENGTH (cm)		
mean	6.0	5.5
LOWER GLUMES: HAIRINESS		
	medium	absent
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.

	'Stretton'	*'Egret'	*'Bodallin
PLANT HABIT	(scale:-1=erect, 9=p	prostrate)	
	1=erect	3=semi-erect	1=erect
EAR EMERG	ENCE(scale:-1=v.ea	rly, 9=v.late)	
	6=medium	7=late	6=medium
	94 days	101 days	90 days
SHEATH GLA	UCOSITY(scale:-1=	absent, 9=v.strong)	
	5=medium	5=medium	5=medium
LEAF GLAUC	OSITY(scale:-1=abs	ent, 9=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=v.stron	g)

	'Stretton'	*'Earot'	*'Bodalli-'
	'Stretton'	*'Egret'	*'Bodallin'
ANTHER: ANTH	IOCYANIN COLOUR 1=absent	(scale:-1=absent, 1=absent	9=present) 1=absent
oulm: Node H	AIRINESS(scale: 1= 7=strong	absent, 9=v. strong 5=medium	g) 1=weak
HEIGHT(scale: 1	=v.short, 9=v.long)	<u></u>	<u>.</u>
,	5=medium	7=long	6=medium
	65cm	80cm	75cm
STRAW SECTIC	DN(scale: 3=thin pith, 3=thin	7=thick) 3=thin	4=thin-medium
EAR COLOUR(s	cale: 1=white, 2=colo 1=white	oured) 1=white	1=white
EAR SHAPE(sca	ale: 1=tapering, 5=cla 1=tapering	avate) 2=parallel	3=fusiform
		·	
	cale: 1=v. lax, 9=v. d 5=medium	lense) 5=medium	5=medium
	absent, 3=present)		
www.scale. 1=	3=present	3=present	3=present
	TION(scale: 1=tip, 5=		<u> </u>
	5=whole length	5=whole length	5=whole length
SCURS AT TIP(s	scale: 1=v.short, 9=v. 3=short	long) 3=short	5=medium
AWNS AT TIP(so	cale: 1=v.short, 9=v.k 5=medium	ong) 7=long	5=medium
APICAL RACHIS	HAIRINESS(scale:	1=absent, 9=v.stro	ong)
	1=absent	1=absent	1=absent
GLUME SHOULI	DER WIDTH(scale: 1	l=v.narrow, 9=v.bro	oad)
	5=medium	3=narrow	5=medium
GLUME SHOUL	DER SHAPE(scale: 1	sloping, 5=eleva 5=with	ted with 2nd point) 5=with
	1-01014104	2nd point	2nd point
GLUME BEAK I	ENGTH(scale: 1=v.s	hort, 9=v.lona)	
	7=long	7=long	7=long
GLUME BEAK S	HAPE(scale: 1=strai	aht. 5=aeniculate)	
	2=slightly curved	2=slightly curved	1=straight
GLUME INTERN	AL HAIRS(scale: 3= 3=weak	weak, 7=strong) 3=weak	3=weak
	AL IMPRINT(scale:	1-absent 9-v laro	<u></u>
	2=small	2=small	2=small
	cale: 1=straight, 5=g	eniculate)	
	3=mod curved	1=straight	2=slightly curved
GRAIN SHAPE(S	scale: 1=rounded, 3= 2=ovoid	elongated) 2=ovoid	2=ovoid
BRAIN COLOR(	scale: 1=white, 2=rec 1=white	d) 1=white	1=white
		7=long)	
ARAIN BRUSH I	5=medium	5=medium	5=medium

## 26

#### 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.

	'Amery'	* 'Kulin'	*'Gutha'		
GROWTH	HABIT(scale: 1=er	ect, 9=prostrate)			
	1=erect	1=erect	3=semi-erect		
EAR EMER	RGENCE(scale: 1=	v.early, 9=v.late)			
	5=medium	5=medium	5=medium		
	83 days	84 days	87 days		
SHEATH G	LAUCOSITY(scale	e: 1=absent, 9=v. strong	j)		
	5=medium	5=medium	5=medium		
		LEAF GLAUCOSITY(scale: 1=absent, 9=v. strong)			
LEAF GLA	UCOSITY(scale: 1:	absent, 9=v. strong)			
LEAF GLA	UCOSITY(scale: 1: 3=weak	=absent, 9=v. strong) 4=medium-weak	2=absent-weak		
	3=weak	<b>e</b> ,	2=absent-weak		

\_\_\_\_\_

CULM GLAUCOSITY(scale: 1=absent, 9=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=absent, 9=v. strong) 3=weak 3=weak 3=weak HEIGHT(scale: 1=v.short, v. long) 5=medium 5=medium 5=medium 60cm 60cm 70cm STRAW SECTION(scale: 3=thin pith, 7=thick) 6=thick 3=thin 3=thin EAR COLOUR(scale: 1=white, 2=coloured) 1=tapering 1=tapering 1=tapering EAR DENSITY(scale: 1=v. hay, 9=v. dense) 3=lax 3=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 SCURS AT TIP(scale: 1=v.short, 9=v.long) 7=long 7=long 6=medium-long AWNS AT TIP(scale: 1=v.short, 9=v.long) 7=long 7=long 5=medium AVINS AT TIP(scale: 1=v.short, 9=v.long) 7=long 7=long 5=medium APICAL RACHIS HAIRINESS(scale: 1=absent, 9=v.strong) 1=absent 1=absent 1=absent GLUME SHOULDER WIDTH(scale: 1=v.narrow, 9=v.broad) 4=narrow-med 5=medium 5=medium GLUME SHOULDER SHAPE(scale: 1=vshort, 9=v.long) 6=med-long 6=med-long 6=med-long GLUME BEAK LENGTH(scale: 1=vshort, 9=v.long) 1=absent 1=absent 1=absent GLUME SHAPE(scale: 1=vshort, 9=v.long) 6=med-long 6=med-long 6=med-long GLUME BEAK LENGTH(scale: 1=vshort, 9=v.long) 1=absent 2=silphtly curved 5=geniculate GLUME INTERNAL HAIRS(scale: 1=vshort, 9=v.long) 6=med-long 6=med-long 6=med-long GLUME BEAK LENGTH(scale: 1=vshort, 9=v.long) 3=weak 3=weak 3=weak GLUME INTERNAL HAIRS(scale: 1=straight, 5=geniculate) 3=mod. curved 2=slightly curved 3=mod. GRAIN SHAPE(scale: 1=straight, 5=geniculate) 3=mod. curved 3=mod. curved 3=mod. GRAIN SHAPE(scale: 1=straight, 5=geniculate) 3=mod. curved 3=mod. curved 3=mod. GRAIN SHAPE(scale: 1=white, 2=red) 1=white 1=white 1=white GRAIN BRUSH HAIR(scale: 3=short, 7=long) 5=medium 5=medium 5=medium 6=medium-long		'Amery'	* 'Kulin'	*'Gutha'
1=absent1=absent1=absentCULM, NODE HAIRINESS(scale: 1=absent, 9=v.strong) 3=weak3=weak3=weakHEIGHT(scale: 1=v.short, v. long) 5=medium5=medium5=medium60cm60cm70cmSTRAW SECTION(scale: 3=thin pith, 7=thick) 6=thick3=thin3=thin6Attrick3=thin3=thinEAR COLOUR(scale: 1=white, 2=coloured) 1=white1=white1=whiteEAR COLOUR(scale: 1=tapering, 5=clavate) 1=tapering1=tapering1=taperingEAR DENSITY(scale: 1=v. tax, 9=v. dense) 3=lax3=lax5=mediumAWNS(scale: 1=absent, 3=present) 3=present3=present3=presentAWNS(scale: 1=absent, 3=present) 3=present3=present3=presentAWN DISTRIBUTION(scale: 1=tip, 5=whole length) 5=whole length5=whole length5=whole lengthSCURS AT TIP(scale: 1=v.short, 9=v.long) 7=long7=long5=mediumAPICAL RACHIS HAIRINESS(scale: 1=absent, 9=v.strong) 1=absent1=absent1=absentGLUME SHOULDER WIDTH(scale: 1=v.narrow, 9=v.broad) 4=narrow-med5=medium5=mediumGLUME SHOULDER SHAPE(scale: 1=straight, 5=geniculate) 3=mod. curved2=sliphtly curved5=geniculateGLUME BEAK SHAPE(scale: 1=v.short, 9=v.long) 6=med-long6=med-long6=med-longGEUME BEAK SHAPE(scale: 1=straight, 5=geniculate) 3=mod. curved2=small2=smallGLUME BEAK SHAPE(scale: 1=straight, 5=geniculate)3=mod. curved3=weakGLUME BEAK SHAPE(scale: 1=straight, 5=geniculate)3=mod. curved3=mod.GRAIN	CULM GLAU	•		5=medium
3=weak3=weak3=weakHEIGHT(scale: 1=v.short, v. long)5=medium5=medium60cm60cm70cmSTRAW SECTION(scale: 3=thin pith, 7=thick)6=thick3=thin6=thick3=thin3=thinEAR COLOUR(scale: 1=white, 2=coloured)1=white1=white1=white1=white1=whiteEAR COLOUR(scale: 1=tapering, 5=clavate)1=tapering1=tapering1=tapering1=tapering1=taperingS=hAPE(scale: 1=v.lax, 9=v. dense)3=lax3=medium3=present3=present3=present3=present3=present3=presentAWNS(scale: 1=absent, 3=present)3=present3=presentS=redium5=whole length5=whole length5=whole length5=whole length5=whole lengthSCURS AT TIP(scale: 1=v.short, 9=v.long)7=long7=long7=long7=long5=mediumAPICAL RACHIS HAIRINESS(scale: 1=absent, 9=v.strong)1=absent1=absent1=absent1=absentGLUME SHOULDER WIDTH(scale: 1=v.narrow, 9=v.broad)4=narrow-med4=narrow-med5=medium5=mediumGLUME SHAPE(scale: 1=v.short, 9=v.long)6=med-long6=med-long6=med-long6=med-long6=med-long6=med-long6=med-longG=med-long6=med-long5=geniculate)3=mod. curved3=weak3=weakGLUME BEAK LENGTH(scale: 1=straight, 5=geniculate)3=mod.3=weak3=weak3=weakGLUME BEAK LENGTH(scale:	ANTHER, AN			
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5=whole length       5=whole length       5=whole length         SCURS AT TIP(scale: 1=v.short, 9=v.long)       7=long       6=medium-long         AWNS AT TIP(scale: 1=v.short, 9=v.long)       7=long       5=medium         AWNS AT TIP(scale: 1=v.short, 9=v.long)       7=long       5=medium         APICAL RACHIS HAIRINESS(scale: 1=absent, 9=v.strong)       1=absent       1=absent         1=absent       1=absent       1=absent         GLUME SHOULDER WIDTH(scale: 1=v.narrow, 9=v.broad)       4=narrow-med       5=medium         GLUME SHOULDER SHAPE(scale: 1=sloping, 5=elevated with 2nd point       5=medium         GLUME BEAK LENGTH(scale: 1=v.short, 9=v.long)       6=med-long       6=med-long         6=med-long       6=med-long       6=med-long         GLUME BEAK SHAPE(scale: 1=straight, 5=geniculate)       3=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=absent, 9=v.large)       2=small       2=small         2=small       2=small       2=small       2=small         LEMMA BEAK(scale: 1=straight, 5=geniculate)       3=mod. curved       3=mod.         GRAIN SHAPE(scale: 1=rounded, 3=elongated)       2=ovoid       2=ovoid       2=ovoid <tr< td=""><td>,</td><td></td><td></td><td>3=present</td></tr<>	,			3=present
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3=mod. curved     3=mod. curved     3=mod.       GRAIN SHAPE(scale: 1=rounded, 3=elongated)     2=ovoid     2=ovoid       2=ovoid     2=ovoid     2=ovoid       GRAIN COLOR(scale: 1=white, 2=red)     1=white     1=white       1=white     1=white     1=white	GLUME INT	,		-
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1=white     1=white       GRAIN BRUSH HAIR(scale: 3=short, 7=long)	GRAIN SHA	•	•	2=ovoid
	GRAIN COL		•	1=white
	GRAIN BRU	SH HAIR(scale: 3-4	short 7=long)	
				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**

**Table 19 Oat Varieties** 

'Winjardie' and 'Mortlock' 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

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.

1 cale l e	le out rune		
(* = compa	rator)		
	'Carrolup'	* 'Mortlock'	*'Winjardie'
GROWTH H	IABIT (scale: 1=ere	ect, 9=prostrate)	
	3 = semi erect	3 = semi erect	1 = erect
LEAF SHEA	TH HAIRINESS(so	ale: 1=weak, 9=v.str	ong)
	1 = weak	1 = weak	1 = weak
LEAF MARC	GIN HAIRINESS (s	cale: 1=weak, 9=v.sti	rong)
	2 = weak	2 = weak	3 = weak
TIME OF PA		ICE(scale: 1=v. early	, 9=v. late)
Ranking	5 = medium	5 = medium	5 = medium
Days after seeding	102 day	108 days	110 days
FLAG LEAF	ATTITUDE(scale:	1=rectilinear, 9=v.str	ongly recurved)
	2 = rectilinear	3 = slightly recurved	1 = rectilinea

#### Table 19 Oat-Continued

	Continued		
STEM NOD	E HAIRINESS(scale 1 = absent	e: 1=absent, 9=presen 1 = absent	t) 1 = absent
STEM NOD	E HAIR INTENSITY 1 = absent	'(scale: 1=v.weak, 9=v 1 = absent	.strong) 1 = absent
PANICLE C		: 1=unilateral, 3=equila I 2 = sub-unilateral	
PANICLE, E	BRANCH ATTITUDE 4 = semi-erect	(scale: 1=erect, 9=stro 4 = semi-erect	ongly drooping) 5 = horizontal
SPIKELET	ATTITUDE(scale: 1= 2 = pendulous	erect, 2=pendulous) 2 = pendulous	2 = pendulous
GLUME LEI	NGTH(scale: 3=shoi 5 = medium	rt, 7=long) 5 = medium	5 = medium
GLUME GL	AUCOSITY(scale: 1 7 = strong	=absent, 9=v.strong) 7 = strong	2 = very weak
LEMMA GL	AUCOSITY(scale: 1 1 = absent	=absent, 9=present) 1 = absent	1 = absent
Lemma GL	AUCOSITY, INTENS 1 = v. weak	SITY(scale: 1=v. weak, 1 = v. weak	9=v. strong) 1 = v. weak
PLANT HEI Ranking Mean	GHT(scale: 1=v.sho) 5 = medium 78cm	rt, 9=v.long) 5 = medium 81cm	5 = medium 76cm
height	SK(scale: 1=absent,	-	
	9 = present	9 = present	9 = present
GRAIN AWI	NS(scale: 1=absent, 1 = absent	9=v.strong) 1 = absent	9 = v. strong
	NGTH(scale: 1=v.sh 5 = medium	ort, 9=v.long) 5 = medium	5 = medium
LEMMA CO	LOUR(scale: 1=whit 2 = yellow	ie, 5=black) 2 = yellow	2 = yellow
LEMMA HA	IR(scale: 1=absent, 1 = absent	9=present) 1 = absent	9 = present
GRAIN BAS	E HAIR(scale: 1=ab 1 = absent	esent, 9=v.strong) 2 = v. weak	7 = strong
BASAL HAII	R LENGTH(scale: 3: 1 = absent	=short, 7=strong) 5 = medium	7 = long
RACHILLA	LENGTH(scale: 3=s 4 = short	hort, 7=long) 4 = short	5 = medium
RACHILLA	WIDTH(scale: 3=nar 5 = medium	rrow, 7=wide) 5 = medium	4 = narrow
RACHILLA	GROOVES(scale: 1: 7 = strong	=absent, 9=v.strong) 1 = absent	1 = absent
SEASON TY	/PE(scale: 1=winter 3 = spring	, 3=spring) 3 = spring	3 = spring
STEM RUS	T RESISTANCE. Be	sults curtesy of J Oate	es, Cobbity, NSW.
Race 20 stem rust	3=susceptible	0;3=resistant	3=susceptible
Race 24 stem rust	3=susceptible	2-2=resistant	3=susceptible

#### 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 20 Lett		
(*=comparator)		
	'Diamond'	*'Target'
PLANT DIAMETER		
	large	large
PLANT: HEAD FORMA	TION	
	closed head	closed head
HEAD: SHAPE IN LON	GITUDINAL SECTION	
	circular	circular
LEAF: COLOUR OF O	JTER LEAVES	
	green	green
LEAF: INTENSITY OF	COLOUR OF OUTER LE	AVES
	dark	dark
LEAF: ANTHOCYANIN	COLOURATION	
	absent	absent
LEAF BLISTERING		
	weak	weak
SEED COLOUR		
	brown	black
SEEDLING ANTHOCY	ANIN COLOURATION	
	absent	absent
RESISTANCE TO DOV	VNY MILDEW (Bremia lac	ctucae)
	Californian	Californian
	pathotypes I, IIA, III	pathotypes I, IIA, II

#### Table 19 Millet-Continued

	ʻIndus 87'	ʻIndus 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	P<0.001	P<0.001	
WIDTH OF FLA	WIDTH OF FLAG LEAF (mm)				
mean	16.8	17.3	15.1	22.6	
std. deviation significance	1.8	1.5 NS	2.4 P<0.001	2.4 P<0.001	

1. Plants had begun to flower at time of transplanting

#### AZALEA

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 5.60cm, and mean width 2.06cm. Leaf apex shape mucronate. Flowers few with calyx, large size (mean diameter 7.70cm), 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 5cm tube trays in January 1993. The trials conducted in an open house under shade cloth in 12.5cm 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-C	ontinued		
	'Colleen Fahey'	*'South Seas'	*'Cha Cha'
LSD 0.01/ significance	0.89		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
INFLORESCEN	ICE NUMBER OF FL	OWERS	
	few	few	few
CALYX FORMA	TION OF A COROL	LA FORM	
	very weak	very weak	very strong
FLOWER DIAM	ETER (cm)		
mean	7.70	7.24	8.50
std. deviation	0.254	0.230	0.272
LSD 0.01/ significance	1.04	P < 0.01	
FLOWER SHAP	РЕ		
	open funnel-shaped	open funnel-shaped	open funnel-shaped
FLOWER TYPE	OF COROLLA		
	double	double	double
COROLLA LOB	E COLOUR OF MAR	RGIN OF UPPER	SIDE (RHS Chart) 67A
	E COLOUR OF MID 74D	75D	74D
COROLLA LOB	E UNDULATION OF medium	MARGIN medium	weak-medium
FLOWER THRC	DAT CONSPICUOUS	NESS OF MARK very weak	INGS weak
TIME OF FLOW	ERING (Galston Ne	w South Wales) 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 funnel-shaped, 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 Wales. Photography by **Lawrence Greenup**, Thornleigh New South Wales. **'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 funnel-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	Name
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 'nts1116' 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 70cm 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, N2 fixation and benefit to subsequent crops, *Soil Biology and Biochemistry* (In press).

#### Table 23 Soybean Varieties

(\* = comparators)

	'Nitrobean 60'	*'Bossier'	*'A5939'	*'Bragg'	*'Nessen'	*'Forrest'	*'Centaur
PLANT: H	YPOCOTYL (ANTHOC	YANIN COLORATI	ON)				
	present	present	present	absent	present	absent	absent
PLANT: D/	AYS TO FLOWER						
Mean	44	56	44	43	42	45	50
LSD	1.5	P<0.001	NS	NS	NS	NS	P<0.01
PLANT: HI	EIGHT AT MATURITY (	(cm)					
mean	50	60	45	41	49	35	42
LSD	9.8	P< 0.01	NS	NS	NS	P<0.001	NS
PLANT: CO	OLOUR OF HAIRS						
	tawny	tawny	tawny	grey	grey	tawny	grey
ROOT NO	DULATION (Super = S	upernodulation)			····		
	super	normal	normal	normal	normal	normal	normal
LENGTH (	OF THIRD TERMINAL	LEAFLET (mm)					
mean	135	153	70	129	144	119	109
LSD	20	NS	P<0.001	NS	NS	NS	P<0.01
WIDTH OF	TERMINAL LEAFLET	(mm)			~~~		
mean	80	99	37	83	93	72	71
LSD	16	P<0.01	P<0.001	NS	NS	NS	NS
LENGTHA	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 L	ARGEST 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 COLOUI	R (shades of brown) medium	medium	medium	medium	light	medium	light
SEED SIZE (g	gm/100 seeds) 24.9	20.6	19.3	24.8	23.4	19.8	28.3
SEED LUSTF	RE dull	shiny	shiny	shiny	dull	shiny	dull
SEED HILUM	COLOUR black	black	black	black	grey	black	buff
РНҮТОРНТН	IORA 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 1m high, broad lanceolate leaves  $76 \pm 9$ mm long and  $34 \pm 6$ mm wide. Flowering shoots  $659 \pm 177$ mm long, internode length  $50 \pm 16$ mm. Clusters of long racemes ( $84 \pm 18$ mm) arise from leaf axils on primary shoots, occasionally terminal on secondary shoots. Florets  $9.7 \pm 1.0$ 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 140mm containers on 21 January 1994 and then into 175mm 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

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

Description prepared by Kerry Bunker, Redlands Greenhouses Holdings Pty Ltd. Redland Bay, Queensland

#### Table 24 Hardenbergia Varieties

```
(* = comparator)
```

	'Bushy Blue'	* 'Hardenbergia violacea'	*'Mini Ha-Ha'
PLANT GROWT	TH HABIT		
	erect/twining	trailing/twining	erect
PLANT HEIGHT	AT MATURITY		
	medium shrub	low vine	small shrub
MATURE LEAF	: LENGTH OF BL	ADE (mm)	
mean	76.85	106.05	42.78
std. deviation	9.42	14.78	5.54
LSD 0.01/ significance	13.15	P≤0.001	P≤0.001
MATURE LEAF	: WIDTH OF BLAD		
mean	34.00	18.78	17.27
std. deviation	6.07	3.63	3.51
LSD 0.01/ significance	5.64	P≤0.001	P≤0.001
MATURE LEAF	: SHAPE		
	broad lanceolate	narrow Ianceolate	lanceolate
FLOWERING SI	HOOT LENGTH (n	nm)	
mean	659	889	283
std. deviation	177	127	21
LSD 0.01/ significance	157.1	P≤0.001	P≤0.001
FLOWERING SI	HOOT : NUMBER	OF NODES	
mean	13.4	11.7	18.2
std. deviation	2.0	1.9	2.2
LSD 0.01/ significance	2.57	NS	NS
FLOWERING SI	HOOT : INTERNO	DE LENGTH (mm)	
mean	50.41	76.88	15.84
std. deviation	16.74	10.44	2.78
LSD 0.01/ significance	14.24	P≤0.001	P≤0.001

Table 24 Hardenber	rgia Varieties		
	'Bushy Blue'	* 'Hardenbergia violacea'	*'Mini Ha-Ha'
FLOWERING SH	HOOT : 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	P≤0.001
FLOWERING SH	HOOT : TOTAL NU	MBER OF RACEME	S
mean	45.8	25.0	40.8
std. deviation	11.4	8.1	9.9
LSD 0.01/ significance	12.26	P≤0.001	NS
FLOWERING SH	HOOT : PREDOMI	NANT POSITION OF	RACEMES
	primary leaf axils	primary and secondary leaf axils	secondary leaf axils
FLOWERING SH	IOOT : NUMBER C	F RACEMES IN PR	IMARY LEAF AXIL
mean	28.8	0.4	1.0
std. deviation	8.6	0.7	0.8
LSD 0.01/ significance	6.19	P≤0.001	P≤0.001
RACEME : ATTI	TUDE		
	erect	drooping	erect
RACEME : NUM	BER OF FLORETS	8	
mean	33.3	30.4	29.9
std. deviation	7.4	7.9	2.9
LSD 0.01/ significance	8.06	NS	NS
RACEME : DENS	SITY		
	medium	loose	dense
RACEME : LENG	GTH (mm)		
mean	84.3	106.4	38.4
std. deviation	18.2	28.6	10.7
LSD 0.01/ significance	25.4	P≤0.05	P≤0.001
FLORET : DIAM	ETER ACROSS W	INGS (mm)	
mean	9.7 <b>1</b>	10.2	10.0
std. deviation	1.0	1.0	1.2
LSD 0.01/ significance	1.36	NS	NS
FLORET : COLC	UR OF WINGS (U	PPERSIDE)	
	purple violet	violet	purple violet
	RHS 81A	RHS 87B	RHS 82A
TIME OF BEGIN	NING OF FLOWEI	RING	
	mid July	late June	mid August

#### AZALEA

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 4.45cm, and mean width 2.06cm. Leaf apex shape rounded. Flowers few with calyx present, large size (mean diameter 8.73cm), 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 5cm tube trays in January 1993. Trials conducted in an open house under shade cloth in 12.5cm 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

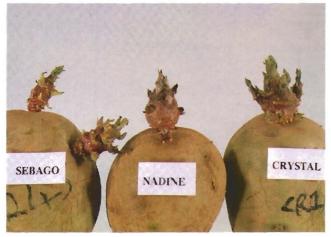
(* = comparators)				
	'Evonne Goolagong'	*'White Bouquet'	*'Cha Cha'	
MATURE LEAF:	LENGTH (cm)			
mean	4.45	4.36	4.83	
std. deviation	0.147	0.155	0.182	
LSD 0.01/ significance	0.89			
MATURE LEAF:	WIDTH (cm)			
mean	2.06	2.22	1.70	
std. deviation	0.095	0.100	0.117	
LSD 0.01/ significance	0.43			
MATURE LEAF:	SHAPE OF APEX	· · · · · · · · · · · · · · · · · · ·		
	rounded	mucronate	mucronate	
INFLORESCEN	CE: NUMBER OF	FLOWERS	<u></u>	
	few	few	few	
CALYX FORMAT	TION OF A CORO	LLA 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 2- Potato: 'Nadine' Leaves of 'Sebago'(left), 'Nadine' (centre) and 'Crystal' (right) showing shorter petiole and wavier margin of 'Nadine'.



- 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 two varieties have green lateral shoots.



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

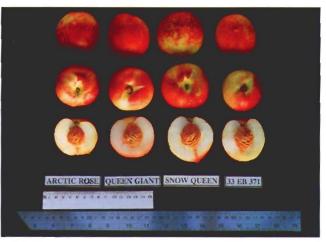


Fig 4- Nectarine: 'Artic Rose' Fruit of 'Artic Rose' and comparators

Fig 6- Rose:

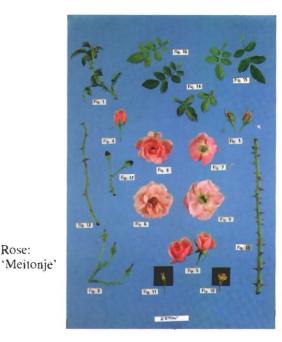
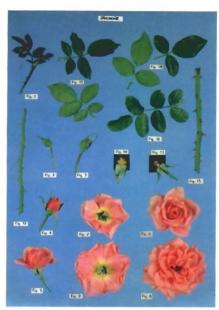




Fig 7- Rose: 'Meipitac'

Fig 8- Rose: 'Meichoiju'



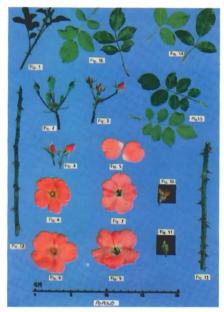


Fig 9- Rose: 'Meipopul'



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



Fig 11- Alstroemeria: 'Flainengo'



Fig 12- Alstroemeria: 'Nevada'

### Fig 13- Alstroemeria: 'Victoria'





Fig 14- Alstroemeria: 'Iberia'



Fig 15- Alstroemeria: 'Gloria'



Fig 16- Alstroemeria: 'Alaska'



Fig 17- Alstroemeria: 'Alanta'



Fig 18- Alstroemeria: 'Toscana'



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



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



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

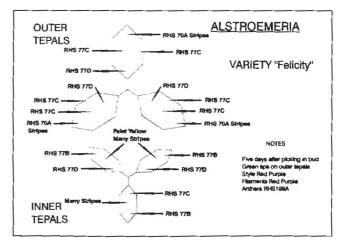


Fig 22- Alstroemeria: 'Felicity'

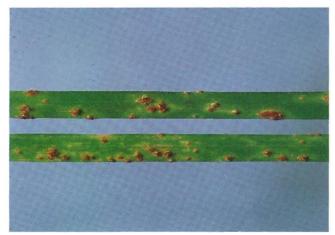


Fig 23- Wheat: 'Pelsart' Seeding leaves of 'Pelsart' (bottom) and 'Cook' infected with stem rust. 'Pelsart' develops a systemic yellowing while 'Cook' remains green except for the infection sites.



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 'Hartog' showing the head colour difference between 'Torres' and 'Tasman'.

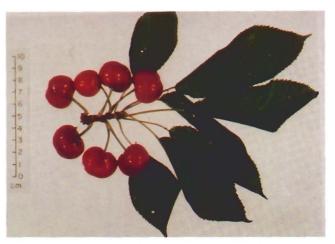


Fig 26- Cherry: 'Brooks' Shows a cluster of fruit and leaves typical of 'Brooks'.



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



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



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



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



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

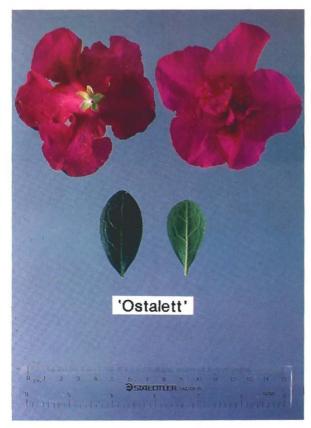


Fig 33- Azalea: 'Ostalett' Leaves and flowers

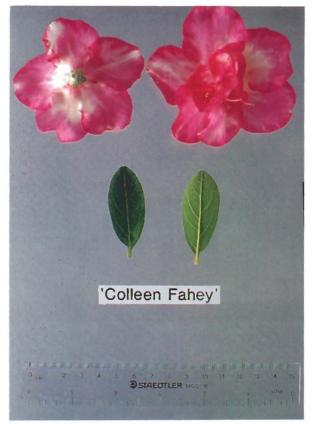


Fig 32- Azalea: 'Colleen Fahey' Leaves and flowers

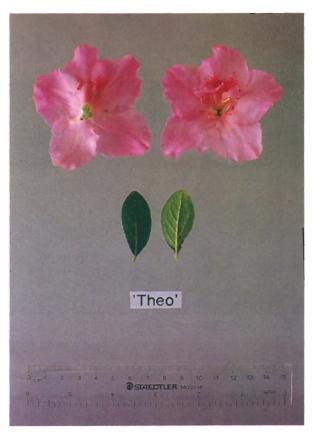


Fig 34- Azalea: 'Theo' Leaves and flowers



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

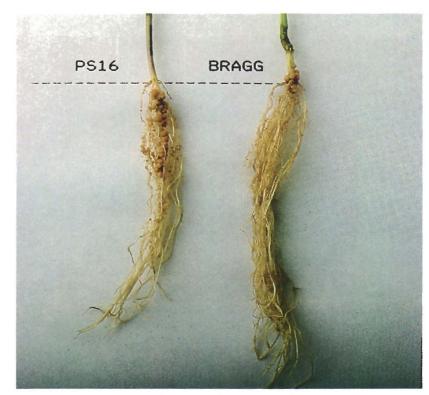


Fig 36- Soybean: 'Nitrobean 60' 'Nitrobean 60' ((left) here shown as 'PS16') with 'Bragg'.

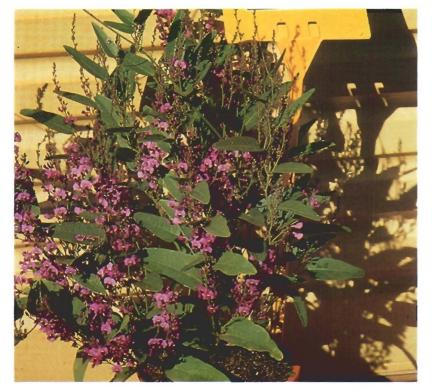


Fig 37- Hardenbergia: 'Bushy Blue'

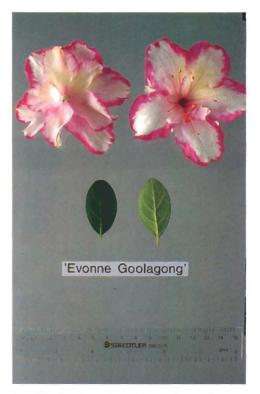


Fig 38- Azalea: 'Evonne Goolagong' Leaves and flowers

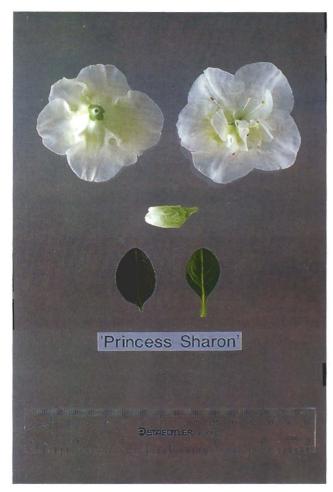


Fig 39- Azalea: 'Princess Sharon' Leaves and flowers

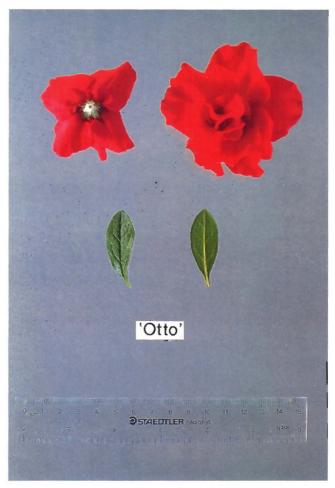


Fig 40- Azalea: 'Otto' Leaves and flowers



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

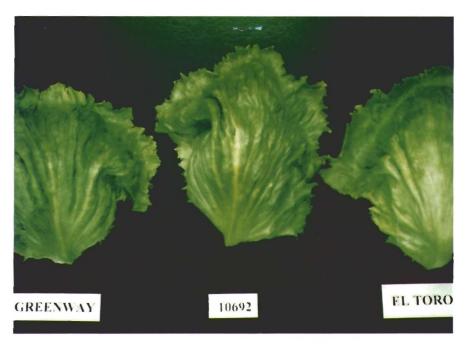


Fig 42- Lettuce: 'Marksman' Leaf of 'Marksman' (centre) with comparators 'Greenway' (left) and 'El Toro'.

	'Evonne Goolagong'	*'White Bouquet'	*'Cha Cha'
FLOWER: DIAM	ETER (cm)		
mean	8.73	8.86	8.12
std. deviation	0.188	0.197	0.232
LSD 0.01/ significance	0.84		
FLOWER: SHAF	PE		
	open funnel-shaped	open funnel-shaped	open funnel-shaped
FLOWER: TYPE	OF COROLLA		· ·
	single	single	double
COROLLA LOBI	E: COLOUR OF MA	RGIN OF UPPER	SIDE (RHS Chart
	67B	155D	67A
COROLLA LOBI	E: COLOUR OF MI	DDLE OF UPPER	SIDE (RHS Chart)
	73B	155D	74D
COROLLA LOBI	E: UNDULATION O	F MARGIN	
	weak	weak	weak
FLOWER THRO	AT: CONSPICUOU	SNESS OF MARK	INGS
	weak	weak	weak
TIME OF FLOW	ERING (Galston, Ne	ew South Wales)	
	30/8/94	23/8/94	28/9/94

### AZALEA

*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 3.93cm and mean width 1.93cm. Leaf apex shape mucronate. Flowers few with calyx present, medium size (mean diameter 6.41cm), 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 5cm tube trays in January 1993. The trials conducted in an open house under shade cloth in 12.5cm 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

(\* comporatora)

'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

	'Princess Sharon'	*'Aline'	*'White Gish'
MATURE LEAF:	LENGTH (cm)		
mean	3.93	4.85	5.69
std. deviation	0.197	0.217	0.228
LSD 0.01/ significance	0.88		P < 0.01
MATURE LEAF:	WIDTH (cm)		
mean	1.93	1.95	2.40
std. deviation	0.101	0.112	0.118
LSD 0.01/ significance	0.46		P < 0.01
MATURE LEAF:	SHAPE OF APEX		
	mucronate	mucronate	mucronate
INFLORESCEN	CE: NUMBER OF F	LOWERS	
	few	medium	medium
CALYX FORMAT	TION OF A COROL	LA FORM	
	weak	weak	strong
FLOWER: DIAM	ETER (cm)		-
mean	6.41	6.40	7.66
std. deviation	0.178	0.196	0.206
LSD 0.01/ significance	0.81		P < 0.01
FLOWER: SHAF	PE		
	wide	wide	open
	funnel-shaped	funnel-shaped	funnel-shaped
FLOWER: TYPE	OF COROLLA	·	
	double	double	double
COROLLA LOBI	E: COLOUR OF MA	RGIN OF UPPER	SIDE (RHS Chai
	155D	155D	155D
COROLLA LOBE	E: COLOUR OF MIL	DDLE OF UPPER	SIDE (RHS Char

Table 26 Azalea-Continued			
	'Princess Sharon'	*'Aline'	*'White Gish'
COROLLA LO	BE: UNDULATION	OF MARGIN	
	weak	medium	weak
FLOWER TH	ROAT: CONSPICUC	USNESS OF MAR	RKINGS
	medium	very weak	medium
TIME OF FLC	WERING (Galston,	New South Wales	)
	14/9/94	12/8/94	27/9/94

### 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 Wales. Photography by Lawrence Greenup, Thornleigh, New South Wales.

### AZALEA

*Rhododendron* hybrid

**'Princess Pat'** Breeder's Reference **'MD 70-27-1'** Application No 94/138 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 5.88cm and mean width 2.39cm. Leaf apex shape acute. Flowers few with calyx present, medium size (mean diameter 7.23cm), 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**

comparators are 'Ripples' and 'Redwings'. 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 5cm tube trays in January 1993. Trials conducted in an open house under shade cloth in 12.5cm 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 Wales.

Photography by Lawrence Greenup, Thornleigh, New South Wales.

	'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/ significance	0.64	P < 0.01	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/ significance	0.03	P < 0.01	P < 0.01
MATURE LEAF:	SHAPE OF APEX		
	acute	mucronate	mucronate

	'Princess Pat'	*'Ripples'	*'Redwings'
INFLORESCEN	CE: NUMBER OF F	LOWERS	
	few	few	few
CALYX: FORMA	TION OF A CORO	LLA FORM	-
	very weak	very weak	strong
FLOWER: DIAN	IETER (cm)		_
mean	7.23	6.13	7.24
std. deviation	0.165	0.174	0.174
LSD 0.01/ significance	0.74	P < 0.01	
FLOWER: SHAF	PE		
	wide	wide	open
	funnel-shaped	funnel-shaped	funnel-shaped
FLOWER: TYPE	OF COROLLA		
	double	double	single
COROLLA LOB	E: COLOUR OF MA	RGIN OF UPPER	SIDE (RHS Chart)
	61C	59D	53C
COROLLA LOB	E: COLOUR OF MI	DDLE OF UPPER	SIDE (RHS Chart)
	61C	59D	53C
COROLLA LOB	E: UNDULATION O	F MARGIN	
	weak	medium	strong
FLOWER THRC	AT: CONSPICUOU	SNESS OF MARK	(INGS
	medium	weak	medium
TIME OF FLOW	ERING (Galston Ne	w South Wales)	
	12/8/94	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 64cm, a spherical firm head of 16cm diameter, weighing 1191g. Butt shape flat to moderately raised, core diameter and height 39mm and 33mm respectively. Mature 66 days from transplanting, produced a bolting stem 67 days from seeding in mid-summer and height of the inflorescence 113cm. 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 *Dm* 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°, 148° W. Two replicates of 50 plants each were sown on raised beds of 150cm centres, two rows of plants per bed. Plants spaced 36cm apart and 50cm 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 Lettuce Varieties

#### (\* = comparator)

	'Marksman'	*'El Toro'	*'Greenway'
MATURITY (day	s from transplant)		
mean	65.7	65.6	65.5
std. deviation	0.8	0.7	0.6
t-value/ significance	NS	1.45	2.03
SPREAD OF FR	AME LEAVES (cm	n)	
mean	63.7	64.8	63.3
std. deviation	3.1	3.1	3.5
t-value/ significance	NS	1.05	0.39
HEAD WEIGHT	(g)		·
mean	1191.3	1133.8	1153.8
std. deviation	152.0	125.5	121.5
t-value/ significance	NS	1.14	0.39
HEAD DIAMETE	:R (mm)		
mean	157.8	151.8	158.5
std. deviation	9.4	8.9	10.3
t-value/ significance	NS	1.14	0.87

	'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 DIAMETE	R (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 BOLTI	NG (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 BOI	_TING 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			and the second

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 x 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 92/164 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**

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and senses

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	\$
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.

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	500
(b) revocation of a declaration of essential derivation	500
Compulsory license	500
Request under subsection 19(11) for exemption from public access-varieties with no direct use as a consumer product	100
Amendment of the Register on notification of assignment	100
Copy of an entry in the Register	50
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 12th 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

300

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



### INDEX OF ACCREDITED CONSULTANT 'QUALI-FIED 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 1 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 1 of the application form;
- When you are notified that your nomination of a consultant qualified person is acceptable in the letter of acceptance of your application for PBR you should again consult the qualified person when planning the rest of the application for PBR.

### TABLE 1

PLANT GROUP/SPECIES/FAMILY	CONSULTANT'S NAME (TELEPHONE AND AREA IN TABLE 2)
Apple	Baxter, Leslie Jotic, Predo Mackay, Alastair Robinson, James Scholefield, Peter Sterne, Peter Tancred, Stephen Valentine, Bruce
Aquatic	Birkill, Ann-Marie
Aroid	Clarke, Charles
Azalea	Barrett, Mike Hempel, Maciej Paananen, Ian
Barley (Common)	Trethowan, Richard
Berry Fruit	Robinson, James Scholefield, Peter Wilson, Stephen
Blueberry	Barthold, Graham
Brassica	Aberdeen, Ian Cross, Richard Kadkol, Gururaj Robinson, James Scholefield, Peter
Bromeliads	Clarke, Charles
Buddleia	Robb, John
Butterfly Bush	Paananen, lan
Camellia	Paananen, lan 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 (TELEPHONE AND AREA IN TABLE 2)	PLANT GROUP/SPECIES/FAMILY	CONSULTANT'S NAME (TELEPHONE AND AREA IN TABLE 2)
Cherry	Kennedy, Peter	Industrial Crops	Milthorpe, Peter
	Mackay, Alastair Robinson, James	Jojoba	Dunstone, Bob
	Scholefield, Peter	Kangaroo Paw	Kirby, Greg
Citrus	Edwards, Megan Fox, Primrose Lee, Slade McDonald, David Mitchell, Leslie Robinson, James Scholefield, Peter Sykes, Stephen	Legumes	Aberdeen, Ian Bowman, Alison Bray, Robert Cook, Bruce Hacker, Byran Imrie, Bruce Kirby, John Knights, Edmund
Clover	Nichols, Phillip		Law, Mary Ann
Conifer	Stearne, Peter		Lock, Don Reid, Robert Rose, John
Cotton	Bullen, Kenneth Constable, Greg		Nichols, Phillip
	Derera, Nicholas AM	Magnolia	Paananen, lan
	Leske, Richard Reid, Peter Thomson, Norman	Myrtaceae	Dunstone, Bob Reid, Robert
Cucurbits	Cross, Richard	Neem	Friend, Joe
	Herrington, Mark Robinson, James	Oat	Trethowan, Richard
	Scholefield, Peter Sykes, Stephen	Oilseed crops	Poulsen, David
Cydonia	Baxter, Leslie	Onions	Cross, Richard Fennell, John
Dogwood	Stearne, Peter		Robinson, James
Feijoa	McDonald, David		Scholefield, Peter
	Robinson, James Scholefield, Peter	Orchids	Strange, Pamela Clarke, Charles
Fig	FitzHenry, Daniel	Ornamentals-Exotic	Armitage, Paul
Forage Grasses	Bray, Robert Kirby, Greg Waterhouse, Douglas		Bath, Geoffrey Birkill, Ann-Marie Collins, Ian Cooling, Beth
Fruit	Bath, Geoffrey Beal, Peter Lenoir, Roland Pearson, Craig Robinson, James Scholefield, Peter		Cross, Richard Dawson, Iain Derera, Nicholas AM Fisk, Anne Marie Hempel, Maciej Kirkham, Roger Lenoir, Roland
Grapes	Bath, Geoffrey Biggs, Eric Robinson, James Scholefield, Peter Stearne, Peter Sykes, Stephen		Lowe, Greg Lunghusen, Mark Nichols, David Oates, John Paananen, Ian Robb, John Robinson, James Scholofield, Poter
Grevillea	Herrington, Mark		Scholefield, Peter Singh, Deo
Halophyte species (Australian)	Waterhouse, Douglas		Stewart, Angus Strange, Pamela
Hydrangea	Hanger, Brian		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 Beal, Peter Boden, Robert Bound, Sally Anne Collins, Ian Cooling, Beth Dawson, Iain	Potatoes	Cross, Richard Fennell, John Kirkham, Roger Robinson, James Scholefield, Peter Strange, Pamela Stearne, Peter
	Derera, Nicholas AM Fisk, Anne Marie Hockings, David Jack, Brian	Proteaceae	Reid, Robert Robinson, James Scholefield, Peter
	Jusaitis, Manfred Kirby, Greg Kirkham, Roger Lenoir, Roland	Pulse Crops	Bullen, Kenneth Cross, Richard Oates, John
	Lowe, Greg Lunghusen, Mark	Prunus	Mackay, Alastair Topp, Bruce
	Milthorpe, Peter Molyneux, W M Nichols, David Oates, John Robinson, James	Raspberry	Barthold, Graham Martin, Stephen Robinson, James Scholefield, Peter
	Scholefield, Peter Singh, Deo Sedgley, Margaret	Rhododendron	Barrett, Mike Paananen, Ian
	Strange, Pamela Tan, Beng Watkins, Phillip Worrałl, Ross	Roses	Barrett, Mike Cross, Richard Fox, Primrose Hanger, Brian
Ornithopus Osmanthus	Nichols, Phillip Paananen, Ian Robb, John		Lee, Peter McDonald, David Robinson, James Scholefield, Peter
Pastures & Turf	Aberdeen, Ian Avery, Angela Bowman, Alison		Stearne, Peter Strange, Pamela Swane, Geoff
	Cook, Bruce	Rye (Common)	Trethowan, Richard
	Cunningham, Peter Harrison, Peter	Sesame	Imrie, Bruce
	Hacker, Bryan Kirby, Greg Lee, Choo Kiang Loch, Don Miller, Jeff	Stone Fruit	Barrett, Mike Boucher, Wayne Robinson, James Scholefield, Peter Valentine, Bruce
	Rose, John Smith, Raymond Waterhouse, Douglas Williams, Warren Wilson, Frances	Strawberry	Barthold, Graham Herrington, Mark Martin, Stephen Morrison, Bruce Robinson, James
Pear	Baxter, Leslie Mackay, Alastair Robinson, James		Scholefield, Peter Strange, Pamela Wilson, Stephen
	Scholefield, Peter Tancred, Stephen Valentine, Bruce	Tomato	Cross, Richard Herrington, Mark Martin, Stephen Robinson, Jamos
Photinia	Robb, John		Robinson, James Scholefield, Peter
Pistacia	Sykes, Stephen	·	Strange, Pamela

.

!

		CONSULTANT'S NAME	NAME	TELEPHONE	AREA OF OPERATION
GROUP/SPECIES/		(TELEPHONE AND AREA IN TABLE 2)	Dawson, lain	06-251 2293	ACT, South East NSW
Triticale (x Triticose	cale Wittmack)	Trethowan, Richard	Derera, Nicholas AM	02-639 3072	Australia
Tranical/Out T : /		Dullan Kanasth	Dunstone, Bob	06-281 1754	Southern & Western NSW
Tropical/Sub-Tropic	·	Bullen, Kenneth	Edwards, Megan	050-245603	Victoria/NSW
		Robinson, James	Edwards, Megari	030-243000	VICIONANOVI
		Scholefield, Peter	Fennell, John	004-240 201	Tasmania
Umbrella Tree		Paananen, lan	Fisk, Anne Marie	059-89 2817	Melbourne region
			FitzHenry, Daniel	048-622 487	Sydney and surrounding districts
Vegetables		Bath, Geoffrey	Fox, Primrose	02-629 2245	Sydney and surrounding districts
		Beal, Peter	Friend, Joe	070 914 188	Northern QLD and NT
		Cross, Richard	Frkovic, Edward	069 62 7333	Australia
		Derera, Nicholas AM	Hacker, Bryan	07-377 0210	Queensland, NSW
		Frkovic, Edward	Hanger, Brian	03-756 7532	Victoria
		Kirkham, Roger	Hare, Raymond	067 641-463	QLD, NSW & SA
		Lenoir, Roland	Harrison, Peter	089-851894	Casuarina, Northern Territory
		Oates, John			and NW of WA
		Pearson, Craig	Hempel, Maciej	046-28 0376	Australia
		Robinson, James	Herrington, Mark	07-286 1488	Queensland
		Scholefield, Peter	Hockings,	074-943385	Southern Queensland
		Scott, Peter	Francis David	07-2393112	
		Strange, Pamela Van Holthe, Jan Westra	Imrie, Bruce	07-377 0238	North Central Queensland
Waratah		Alexander, Susan	Jack, Brian	099 525 040	Coorow, WA
			Jotic, Predo	002-664305	Tasmania
Wheat (Aestivum & Duru		Trethowan, Richard	Jusaitis Manfred	08 336 3755	Adelaide
		······	Kadkol, Gururaj	053-82 1269	North Western Victoria
TABLE 2			Kennedy, Peter	063-82 1077	Central West New South Wales
 NAME	TELEPHONE	AREA OF OPERATION	Kirby, Greg	08-201 2176	South Australia
	TELEPHONE	AREA OF OPERATION	Kirkham, Roger	059-629218	Victoria
Aberdeen, Ian	057-82 1029	Victoria	Knights, Edmund	067 641 479	Northern New South Wales
Alexander, Susan	002-784 333	Tasmania	Law, Mary Ann	076-38 4322	Toowoomba region
Armitage, Paul	03-756 7233	Victoria	Lenoir, Roland	06-231 881	Australia
Avery, Anglea	060-262205	South Eastern Australia	Lee, Choo Kiang	055-730900	South East Victoria
Barthold, Graham	059 97 1413	Southern Victoria	Lee, Peter	003-301147	SE Australia
Barrett, Mike	02-875 3087	NSW	Lee, Slade	071 556 244	Queensland/Nthn New South Wale
Bath, Geoffrey	057-625520	Victoria, Southern NSW, Tas	Leske, Richard	076-713136	Cotton growing regions of Australia
Baxter, Leslie	002-784 358	Tasmania	Loch, Don	074-821522	Queensland
Beal, Peter	07 28 61488	South East Queensland	Lowe, Greg	043-23 6210	Sydney, Central Coast NSW
Biggs, Eric		ax)NSW, Victoria, South Aust	Lunghusen, Mark	03-728 1464	Australia
Birkill, Ann-Marie	07-374 1839	Queensland	Mackay, Alastair	097-711 299 (Ph)	Western Australia
Boden, Robert	06-295 7720	Australia		097-712 544 (fax)	
Boucher, Wayne	002-664 305	Tasmania	Martin, Stephen	002-784307	Tasmania
Bound, Sally Anne	002-784 357	Tasmania	McDonald, David	058-212021	Victoria/NSW/SA/QLD
-	066-420 420	Southern Qld/Central West NSW	Miller, Jeffrey	64-6-358-6019	Manawatu region, New Zealand
Bowman, Alison		Brisbane, Qld	-	(extn 8106)	
Bowman, Alison Bray, Robert	07 377 0209			000 050000	Condobolin dist, New South Wale
Bray, Robert	07 377 0209 063-62 4539	Qld/NSW/Vic	Milthorpe, Peter	068-952099	CONDODUIN DISC, MENA COULIN ANDIC
Bray, Robert Bullen, Ken	063-62 4539	Qld/NSW/Vic	Milthorpe, Peter Mitchell, Leslie	058-952099	SE Australia
Bray, Robert Bullen, Ken Cameron, Stephen	063-62 4539 003-36 5238	Qld/NSW/Vic Tasmania			
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles	063-62 4539 003-36 5238 077 81 5727	Qld/NSW/Vic Tasmania North Queensland	Mitchell, Leslie	058-212021	SE Australia
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian	063-62 4539 003-36 5238 077 81 5727 045 666 177	Qld/NSW/Vic Tasmania North Queensland Sydney	Mitchell, Leslie Molyneux, William Morrison, Bruce	058-212021 03-728 1222 03-2109222	SE Australia Victoria Melbourne, Victoria
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland	Mitchell, Leslie Molyneux, William	058-212021 03-728 1222	SE Australia Victoria Melbourne, Victoria SE Melbourne, Momington Peninsul
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce	063-62 4539 003-36 5238 077 81 5727 045 666 177	Qld/NSW/Vic Tasmania North Queensland Sydney	Mitchell, Leslie Molyneux, William Morrison, Bruce	058-212021 03-728 1222 03-2109222	SE Australia Victoria Melbourne, Victoria
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce Cooling, Beth	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522 075-934 253 (w)	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland	Mitchell, Leslie Molyneux, William Morrison, Bruce Nichols, David Nichols, Phillip	058-212021 03-728 1222 03-2109222 059-774755 09 368 3229	SE Australia Victoria Melbourne, Victoria SE Melbourne, Momington Peninsul and Dandenong Ranges, Victoria Western Australia
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce Cooling, Beth Cooper, Katharine	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522 075-934 253 (w) 075-332 277 (a/h)	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland Gilston, Queensland	Mitchell, Leslie Molyneux, William Morrison, Bruce Nichols, David	058-212021 03-728 1222 03-2109222 059-774755	SE Australia Victoria Melbourne, Victoria SE Melbourne, Momington Peninsu and Dandenong Ranges, Victoria
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce Cooling, Beth Cooper, Katharine Constable, Gregory	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522 075-934 253 (w) 075-332 277 (a/h) 08-372 2280	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland Gilston, Queensland Australia NSW, Queensland	Mitchell, Leslie Molyneux, William Morrison, Bruce Nichols, David Nichols, Phillip	058-212021 03-728 1222 03-2109222 059-774755 09 368 3229	SE Australia Victoria Melbourne, Victoria SE Melbourne, Momington Peninsul and Dandenong Ranges, Victoria Western Australia
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce Cooling, Beth Cooper, Katharine Constable, Gregory	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522 075-934 253 (w) 075-332 277 (a/h) 08-372 2280 067-93 1105	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland Gilston, Queensland Australia NSW, Queensland ) New Zealand	Mitchell, Leslie Molyneux, William Morrison, Bruce Nichols, David Nichols, Phillip Oates, John	058-212021 03-728 1222 03-2109222 059-774755 09 368 3229 046 51 2601	SE Australia Victoria Melbourne, Victoria SE Melbourne, Momington Peninsu and Dandenong Ranges, Victoria Western Australia Strathfield, NSW
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522 075-934 253 (w) 075-332 277 (a/h) 08-372 2280 067-93 1105 64 3 325 6400 (ph	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland Gilston, Queensland Australia NSW, Queensland ) New Zealand	Mitchell, Leslie Molyneux, William Morrison, Bruce Nichols, David Nichols, Phillip Oates, John Paananen, Ian	058-212021 03-728 1222 03-2109222 059-774755 09 368 3229 046 51 2601 043-72 1210	SE Australia Victoria Melbourne, Victoria SE Melbourne, Momington Peninsul and Dandenong Ranges, Victoria Western Australia Strathfield, NSW Sydney/Newcastle
Bray, Robert Bullen, Ken Cameron, Stephen Clarke, Charles Collins, Ian Cook, Bruce Cooling, Beth Cooper, Katharine Constable, Gregory Cross, Richard	063-62 4539 003-36 5238 077 81 5727 045 666 177 074-82 1522 075-934 253 (w) 075-332 277 (a/h) 08-372 2280 067-93 1105 64 3 325 6400 (ph 64 3 325 2074 (fax	Qld/NSW/Vic Tasmania North Queensland Sydney Queensland Gilston, Queensland Australia NSW, Queensland ) New Zealand	Mitchell, Leslie Molyneux, William Morrison, Bruce Nichols, David Nichols, Phillip Oates, John Paananen, Ian Pearson, Craig	058-212021 03-728 1222 03-2109222 059-774755 09 368 3229 046 51 2601 043-72 1210 02-692 2222	SE Australia Victoria Melbourne, Victoria SE Melbourne, Mornington Peninsul and Dandenong Ranges, Victoria Western Australia Strathfield, NSW Sydney/Newcastle Australia

NAME	TELEPHONE	AREA OF OPERATION
Robb, John	043-76 1330	Kulnura, New South Wales
	043-76 1271 (fax)	
Robinson, James	08 373 2488	Australia
Rose, John	076-61 2944	SE Queensland
Scholefield, Peter	08 373 2488	Australia
Scott, Peter	06-653 1362	Sydney region
Sedgley, Margaret	08-372 2242	Adelaide
Singh, Deo	018-880 787	Queensland
	07-207 5998 (fax)	
Smart, Geoffrey	046 512 600	New South Wales
Smith, Stuart	003-36 5234	SE Australia
Stearne, Peter	03-654 2088	Melbourne
Stewart, Angus	043-72 1210	New South Wales
Strange, Pamela	08-373 2488	Adelaide, South Australia
Stuart, Peter	076-301 666	Toowoomba
Swane, Geoff	068-89 1545	Central western NSW
Tan, Beng	09-351 7168	Perth
Tancred, Stephen	076-81 1255	QLD
Thomson, Norman	067-93 1105	NSW, Queensland
Topp, Bruce	076 811 255	Queensland
Trethowan, Richard	067 92 1588	NW New South Wales
Valentine, Bruce	063 61 3919	Orange, New South Wales
Van Holthe Jan Westra	03-706 3033	Australia
Vertigan, Wayne	003-36 5221	Tasmania
Waterhouse, Douglas	063-42 1811	Eastern Australia
_	063-42 4551 (fax)	
Watkins, Phillip	09-525 1800	Perth Region
Williams, Warren	64-6-356 8019	New Zealand
Wilson, Frances	64 3 318 8514	Canterbury, New Zealand
Wilson, Stephen	002-784 364	SE Australia
Worrall, Ross	043-280 300	Australia

# **Appendix 4**

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

### **AUSTRALIA**

Registrar	Telephone (06) 272 4228
Plant Breeders Rights	Telex 61 289
GPO Box 858	Telefax (06) 272 3650
CANBERRA ACT 2601	

### BELGIUM

Telephone (02) 211 7211
Telex 22 033 agrila
Telefax (02) 211 7216

### CANADA

```
The Commissioner of Plant Telephone (613) 995 79 00
Breeders' Rights
Plant Industry Directorate
Plant Products Division
K W Neatby Bldg
960 Carling Ave
Ottawa, Ontario
KIA 0C6
```

Telex 053-3283 canagric ott Telefax (613) 992 5219

### **CZECH REPUBLIC**

Federal Ministry of Economy Telephone 0042-2-389 22 79 Division of Agriculture Telex 121 404 and Food Telefax 37 5641 Nabr. kpt. Jarose 1000 170 32 Prague 7

### DENMARK

Plantenyhedsnaevnet Teglvaerksvej 10 Tystofte DK-4230 Skaelskoer Telephone 45 53 59 6141 Telefax 45 53 59 0166

### 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

Telephone 42 75 9314 Telex 250 648 Telefax 42 75 9425

### GERMANY

```
Bundessortenamt
Osterfelddamm 80
D-30627 Hannover
Germany
```

Telephone (49-511) 956 6681 Telex 9.21.109 bsaha d Telefax (49-511) 563 362

#### HUNGARY

Office national des inventions Telephone (01) 112 893 Orszagos Talalmanyi Hivatal Telex 224 700 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 353.1.78 90 11 Telex 93607 Telefax 353.1.61 62 63

### ISRAEL

Plant Breeders' Rights Council The Volcani Center PO Box 6 Bet-Dagan 50 250 Telephone (972)-3-968 34 92 Telex 381 476 arovc il Telefax (972)-3-968 34 92

### ITALY

Ufficio Centrale Brevetti e Telephone (6) 47 05 30 68 Marchi Telefax (6) 47 05 30 35 Ministero dell'Industria, del Commercio e dell'Artigianato 19, via Molise N. 19 I-00187 Roma

### JAPAN

Director of Seeds and Telephone (03) 591 05 24 Seedlings Division Telefax (3) 580 85 92 Agricultural Production Bureau Ministry of Agriculture, Forestry and Fisheries 1-2-1 Kasumigaseki-Chiyoda-ku Tokyo

### NETHERLANDS

Raad voor het KwekersrechtTelephone (08370) 190 31Postbus 104Telex 75 180 rikiltNL-6700 AC WageningenTelefax (08370) 258 67

### NEW ZEALAND

Commissioner of Plant Variety Rights Plant Variety Rights Office PO Box 24 Lincoln Telephone (64-3) 325 6355 Telefax (64-3) 325 2946

### NORWAY

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

### POLAND

The Director Research Center of Cultivars Testing (COBORU) 63-022 Slupia Wielka Telephone Sroda Wielkopolska 53558 (Prof. E. Bilski) or 52341 Telex 412 276 cobo pl

### SLOVAKIA

Plant Breeders Rights Department Central Agricultural Control and Testing Institute UKSUP Matoskova 21 83316 Bratislavia

### **SOUTH AFRICA**

Department of Agriculture Directorate of Plant and Quality Control Private Bag X179 Pretoria 0001 Telephone (012) 206-2360 Telefax (012) 206 27 86

#### SPAIN

Registro de VariedadesTelephone (1) 347 69 00Instituto Nacional deTelex 47 698 insm eSemillas y Plantas de ViveroTelefax (1) 442 82 64Jose Abascal, 56E-28003 Madrid

### SWEDEN

Postal AddressTelephone (08) 655 24 00Statens vaxtsortnamndTelex 15 466Box 1247Telefax (1) 442 82 64S-171 24 SolnaAddress for Visitors

Sundbybergsvagen 9 Solna

### UNITED KINGDOM

The Plant Variety Rights Office White House Lane Huntingdon Road Cambridge CB3 OLF Telephone (0223) 27 71 51 Telex 817 422 pvscam g Telefax (0223) 34 23 86

UNITED STATES OF AMERICA

The Commissioner of Patents Telephone (1703) 305 86 00

U.S. Department of	Telex 710 955 06 71
Commerce	Telefax (1703) 305 92 63
Patent and Trademark Office	
Washington, D.C. 20231	
The Commissioner	Telephone 1-703-305.93.00
Plant Variety Protection	Telefax 1-703-305.88.85
Office	
Agricultural Marketing Serv	ice
Department of Agriculture	
Beltsville, Maryland 20705-	2351

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Where no public notice is indicated, the description is the first public notice of acceptance of that variety

### Genus

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'Variety	Public name'	Description Notice	Grant	Withdrawn/ Revoked/ Refused	'Sangria' 'Serena'
		<u> </u>			'Starbec'
Gold Lace'		2(2)	2(1) 4		'Stabelstri'
	5(2) 25	2(2)	3(1) 4		'Stabuwit'
'Green Mist'	5(2) 35	6(4) 19	7(4) 39		'Stadutia'
'Olympic Gold'	6(4) 8 2(4) 2(				'Stajugro'
'Tasmanian Pink'	3(4) 36				'Stajured'
Acalypha					'Stalan'
'Pink Candles'		2(4) 23	3(3) 5		'Stalove'
Acmena					'Stalbel'
	7(1) 7				'Stalibla'
'Hedgemaster'	7(1) 7				'Stalibron'
Acer					'Stalilas'
'Crimson Prince'	3(3) 26			6(1) 31	'Stalsam'
'Keithsform'	6(2) 34				'Stalvir'
'Warrensred'	6(2) 34				'Stapripur'
A					'Stapurzul'
Aeschynomene	5(4) 22				'Staranlo'
'Lee'	5(4) 33				'Staronic'
Agapanthus					'Starover'
'Snow Storm'	2(1) 14				'Stasilva'
					'Staterpa'
Aglaonema					'Staverpi'
'Northern Lightning'	/(1) 5				'Stayeli'
Agonis					'Stayelor'
'Peppermint Cream'	6(1) 28			7(2) 29	'Sydney'
	6(4) 54				'Toscana'
'Royal Flush'	5(4) 34			7(3) 49	'Victoria'
	. /				'Wilhelmin
Allium					'Zanta'
'Orbex'	5(1) 25			7(3) 49	'Zelblanca'
Alnus					'Zelpado
'Royal Cascade'	4(4) 22	5(4) 14	7(1) 32		'Zelrosa'

Alstroemeria			
'Alaska'	7(2)4	7(4) 19	
'Andes'	7(1)6		
'Atlanta'	7(2) 5	7(4) 19	
'Cavalier'	4(3) 24	7(2) 13	
'Cobra'	7(1) 7		
'Diana`	7(4) 6		
'Felicity'	7(1) 5	7(4) 22	
'Flamengo'	5(4) 34		
'Gloria'	7(2) 4	7(4) 18	
'Golden Delight'	4(3) 24		
'Iberia'	7(2) 4	7(4) 18	
'La Paz'	2(4) 38	3(2) 13	4(2) 4
'Minerva'	7(1) 6	× /	
'Nevada'	5(4) 34	7(4) 17	
'Orange Delight'	4(3) 24		
'Paloma'	2(4) 38	3(2) 13	4(2) 4
'Sangria'	4(3) 24		
'Serena'	2(4) 38	3(3) 7	4(3) 6
'Starbec'	2(4) 30 7(3) 5	5(5)7	4(3)0
'Stabelstri'	3(2) 32	3(4) 12	7(2) 29
'Stabuwit'	3(2) 32		7(4) 39
'Stadutia'	3(2) 32		4(4) 4
'Stajugro'	3(2) 32 3(2) 32	3(4) 14	6(1) 7
'Stajured'	4(1) 24	./(ㅋ) 1ㅋ	5(1) 26
'Stalan'	3(2) 32	2(4) = 6	
'Stalove'	5(2) 52 6(3) 44	3(4) 6	4(4) 4 6(1) 7
'Stalbel'		2(4) 12	A(A) 5
'Stalibla'	3(2) 32		4(4) 5
'Stalibron'	3(2) 32 3(2) 32		
'Stalilas'	3(2) 32	3(4) 14	4(4) 4 6(1) 7
'Stalsam'	3(2) 32	3(4) 10	6(1) 7 4(4) 4
'Stalvir'	3(2) 32	3(4) 7	4(4) 4
'Stapripur'	4(1) 24	5(4)7	4(4) 4
'Stapurzul'	3(2) 32	3(4) 15	7(4) 20
'Staranlo'	3(2) 32 4(1) 24	5(4) 15	7(4) 39
'Staronic'	3(2) 32	3(4) 7	5(1) 26
'Starover'	3(2) 32 3(2) 32		7(4) 39 4(4) 5
*Stasilva*	3(2) 32 4(1) 24	3(4) 8	
'Staterpa'	4(1) 24		5(1) 26 6(2) 25
'Staverpi'	4(1) 24 3(2) 32	3(4) 8	6(2) 35
'Stayeli'	3(2) 32		6(1) 7 7(4) 39
'Stayelor'	3(2) 32 3(2) 32	3(4) 10	7(4) 39
'Sydney'	6(2) 32 6(2) 33	7(1) 28	7(4) 39
'Toscana'	0(2) 55 7(2) 5	7(1) 28	
'Victoria'			
	5(4) 34 2(4) 28	7(4) 17	4(2) (
'Wilhelmina'	2(4) 38	3(3) 6	4(3) 6
'Zanta'	7(4) 6	2(4) 12	7(2) 20
'Zelblanca'	3(2) 32	3(4) 13	7(2) 29
'Zelpado	3(2) 33		7(2) 29
'Zelrosa'	3(2) 33	3(4) 15	6(1) 7

Anigozanthos					Daubaia				
Anigozanthos 'Bush Ember'	7(2) 6				Banksia	(12) 1(	2(1) 5	2(4) 4	
					'Birthday Candles'	6(3) 46	3(1) 5	3(4) 4	
'Bush Heritage' 'Bush Ochre'	7(2) 6 7(2) 6				'Waite Crimson'	6(1) 28			
'Bush Splendor'					'Waite Flame'	7(4) 4			
'Bush Sunshine'	7(2) 6 7(2) 6				'Waite Orange'		4(2) 9	5(2)6	
'Bush Twilight'	7(2) 6				Betula				
'Firefly'	/(2)0	1(4) 10	2(4) = 5	7(3) 49	'Barossa Wintergreen	3(2) 33	3(4) 19	4(4) 5	
'Joey Confetti'	7(3) 8	7(3) 44	2(4) 5	7(3) 49	-				
'Joey Fireworks'	7(3) 8	7(3) 44			Boronia			- (2)	
'Joey Rouge'	7(3) 8	/(3) 44			'Cameo'		3(4) 25	5(2) 6	
'Lemon Whizz'	3(4) 37	4(3) 18	5(3) 5	7(3) 49	'Golden Nola'	(1) <b>2</b> 0	4(3) 22		7(3) 49
'Masquerade'	5(4) 57	4(3) 18 3(4) 27	5(5)5	7(3) 49	'Just Margaret'	6(1) 28	6(4) 42	7(4) 4	
'Sunglow'	6(4) 8	3(4) 27		/(3) 49	'Moonglow'		3(4) 25	5(2)6	
'Uluru Sunset'	0(4) 8	2(1)70		7(3) 49	Bothriochloa				
Ululu Sullset		3(4)28		/(3) 49	'Bisset'		3(2) 9	4(1) 4	
Anthurium					'Dawson'	3(3) 25	5(1)7	6(1) 6	
'Arabella'		4(1) 14	4(4) 5		'Medway'	5(5) 25	5(1) 8	6(1) 6	
'Ruth Morat'	7(3) 6				-		5(1)0	0(1)0	
Annahia					Brachyscome				
Arachis		2(4) 20	2(2) 6		'92.PGASEG/1'	7(3) 7			
'Amarillo'		2(4) 28	3(3) 6		'Blue Haze'	5(2) 35	6(2) 14	7(4) 4	0
Arenaria					'Just Jayne'	6(4) 9	7(3) 40		
'White Pearls'	7(2) 7				'Lemon Drops'	5(2) 35	6(2) 15	7(4) 4	0
4					'PGA.BRAC 93/3'	7(3) 7			
Argyranthemum	7(4) (				'PGA.BRAC 93/6'	7(3)7			
'Polly Anna'	7(4) 6				'PGA.BRAC 93/8'	7(3) 7			
'Rosetta'	7(4) 6				'PGA FORM 93/1'	7(3) 7			
'Summer Angel'	7(2) 8				'PGA FORM 93/2'	7(3) 7			
'Surprise Party'	7(2) 8				'Pink Haze'	5(2) 35	6(2) 13	7(4) 4	0
'Summer Pink'	7(3) 6				'Strawberry Mousse	, 6(2) 32	7(4) 22		
Asplenium					'Sunburst'	6(4) 8	7(3) 38		
'Crinkle Cut'	3(2) 34			7(3) 49	'Tiny Tots'	6(1) 29			
'Victoria'	6(2) 33	7(1) 11			'Toucan Tango'		5(2) 34	6(1) 6	
Aster					- -				
	3(1) 36				Brassica				
'Blue Butterfly' 'Pink Butterfly'	3(1) 36				'Barossa'	3(1) 36	3(3) 9	4(3) 6	
'Rose Butterfly'	3(1) 36				'Dunkeld'	7(2) 5	<b></b>	<b>.</b>	
'White Butterfly'	3(1) 36				'Hobson'	1(4) 23	2(2) 12	3(1) 4	
while Bulletty	5(1) 50				'Monola-31'	4(4) 21			5(1) 26
Avena					'Monola-32'	4(4) 21			5(1) 26
'Carrolup'	6(4) 9	7(4) 27			'Narendra'	5(2) 35	6(4) 18	7(4)	
'Cleanleaf'	•	3(4) 26	5(4) 5		'Oscar'	5(2) 35			
'Condamine'	6(2) 32	6(3) 38			'Rainbow'	7(2) 5			
'Ensiler'	6(2) 33				'Siren'	7(2) 8			
'Enterprise'	4(4) 22	5(4) 12	6(3) 6		'Yickadee'	3(1) 36	3(3) 8	4(3) 6	
'Euro'	7(3) 5				Bromus				
'Graza 50'	6(4) 6	7(2) 23			'Grasslands Gala'	4(4) 22	5(1) 12	6(1) 6	
'Graza 70'	6(4) 6	7(2) 25						-(-) 0	
	7(1) 33				Buchloe				
'Nobby'	5(2) 35	5(4) 18	6(3) 6		'609'	5(4) 33			
'Riel'		5(1) 22	6(1) 6			6(4) 54			

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Name in the interval of the in	Buddleia				Chloris				
7(2) 29         Finacut $6(2) 3$ Callistermon         Topcal <sup>1</sup> $7(4) 4$ $7(6) 4$ $7(6) 4$ $7(6) 3$		6(3) 43				6(2) 31			
r(4)'Topcut'(62) 3'CalistemonChoisen'''''''''''''''''''''''''''''''''	5 weet 1 formse				•				
<t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
"Great Balls of Fire" 3(4) 37       4(1) 10       5(1) 7       Lich       2(2) 30       3(2) 8       4(1) 25         Canellia       (3) 44       7(3) 33       "Cantilla Ponticelli 3(3) 26       (3) 14       7(3) 34       "Cantilla Ponticelli 3(3) 26       (3) 15       6 (2) 5         Paradis Linke (6) 44       7(3) 35       "Sigarbaby       6(3) 44       7(3) 35       "Sigarbaby       6(3) 44       7(2) 4       Sigarbaby       6(3) 45         Paradis Linke (6) 45       7(1) 33       "Sigarbaby       6(3) 45       Sigarbaby       8(3) 16       6(2) 5       Sigarbaby       8(3) 16       6(2) 5       Sigarbaby       8(3) 16       6(2) 5       Sigarbaby       8(3) 16       8(		7(+) +1				-(_)			
Crimetian       Chrysanthemum         Cametian       Cametian         Paradise fedinda       6(3) 44       7(3) 33         Cametian       Cametian       Cametian       Cametian         Paradise fedinda       6(3) 44       7(3) 35       S(3) 15       6(2) 5         Paradise fedinda       6(3) 44       7(3) 35       Sugarbalay       6(3) 44         Paradise Venessa       6(3) 44       7(2) 4       7(2) 4       Clipsinith       7(2) 4       7(2) 1 </td <td>Callistemon</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>	Callistemon				-				
"Paradix Belinda"       6(3) 44       7(3) 33       "Camilla Ponticelli"       3(3) 26         "Paradix Link Line"       6(3) 44       7(3) 32       "Sugarbaly"       6(3) 44         "Paradixe Venessa"       6(3) 44       7(3) 32       "Sugarbaly"       6(3) 44         "Paradixe Venessa"       6(3) 45       7(1) 33       "Sugarbaly"       6(3) 45       "Sugarbaly"       6(3) 45         "Viva"       6(3) 45       7(1) 31       "Tanya"       7(2) 4       "Uyssis"       5(3) 15       6(2) 5         "Canchros       "Canchros"       5(3) 15       6(2) 5       "Tanya"       7(2) 4       Tanya"       7(2) 4       Tanya"       7(2) 4<	'Great Balls of Fire	e' 3(4) 37	4(1) 10	5(1) 7	'Lich'	2(2) 30	3(2) 8		4(1) 25
Paradise Belinda'       6(3) 44       7(3) 33       Camilla Ponticelli       3(3) 2         Paradise Lithe Lane (62) 44       7(3) 32       Carean Star       5(3) 15       6(2) 5         Paradise Venessa       6(3) 44       7(3) 35       Sugardose)       6(3) 45       7(2) 4       1         Paradise Venessa       6(3) 45       7(3) 35       Yu Gin'       7(2) 4       5(3) 15       6(2) 5         Paradise Venessa       6(3) 45       7(1) 29       Yu Gin'       7(2) 4       5(3) 15       6(2) 5         'Yu a'       6(3) 45       7(1) 29       Yu Gin'       7(2) 4       5(3) 15       6(2) 5         'Wardose Venessa       6(3) 45       7(1) 31       Yu Gin'       7(2) 4       5(3) 16       7(3) 49         'Blondic'       7(3) 35       Venessa       Yu Gin'       7(1) 40       7(1) 49       7(1) 40	Camellia				Chrysanthemum				
Cream Star $T = Sample Signal Signa$	'Paradise Belinda'	6(3) 44	7(3) 33		<sup>•</sup> Camilla Ponticelli	3(3) 26			
Paradise Venesa       63, 344       7(3) 32       Signabab'       6(3) 44       7(3) 32         Paradise Venesa       63, 14       7(3) 35       Signabab'       7(2) 4       Ulysis       5(3) 15       6(2) 5         Cenchrus       Viva'       6(3) 45       7(1) 29       Yus Gin'       7(2) 4       Yus Gin'       7(2)			. ,		'Cream Star'		5(3) 15	6(2) 5	
Paradise Venessa       6(3) 43       7(3) 35       Tanya'       7(2) 4 $Tanya'$ 7(2) 4         Cenchrus       ''Us'       6(3) 45       7(1) 29       ''Us'       7(2) 4       ''S         ''Bella'       6(3) 45       7(1) 29       ''Us'       7(2) 4       ''S       ''S         ''Us'       6(3) 45       7(1) 31       ''S					'Sugarbaby'	6(3) 44			
Cenchrow       'Ulysis'       5(3) 15       6(2) 5         'Bella'       6(3) 45       7(1) 29       'Yu Gin'       7(2) 4       ''         'Nira'       6(3) 45       7(1) 31       ''	'Paradise Venessa'	. ,			'Tanya'	7(2) 4			
Bella'       6(3) 45       7(1) 29       Reven       Circer         'Viva'       6(3) 45       7(1) 31       'Barwon'       3(2) 28       5(2) 6         Chamelaucium       7(3) 9       'Narayen'       2(4) 26       3(3) 6       7(3) 49         'Blondie'       7(3) 5       ''       ''Narayen'       5(3) 16       6(2) 5         'Cascade Browl'       6(3) 45       ''       ''Norwin'       5(3) 16       6(2) 5         'Cascade Browl'       6(3) 45       ''       ''Norwin'       5(3) 16       6(2) 5         'Cascade Jowel'       6(3) 45       ''       ''Narayen'       2(1) 14       ''       ''         'Conerd'       4(3) 25       6(4) 13       7(4) 39       ''       ''       ''       ''         ''Eric John'       3(1) 17       ''       7(4) 38       ''       ''       ''       ''       ''       ''         ''Eric John'       3(1) 17       ''					'Ulyssis'		5(3) 15	6(2) 5	
'Viva' $63)$ 45       '/1' 3!       Cicer         'Barwon'       '/2 28       5(2) 28       5(2) 28       5(3) 6       7(3) 49         'Blondie'       7(3) 9       '       ''Narayen'       2(4) 26       3(3) 6       7(3) 49         ''Cascade Brook'       6(3) 45       ''Norwin'       ''S(3) 16       ''S(3) 17					'Yu Giri'	7(2) 4			
'Nva' $6(3)$ 45 $7(1)$ 31'Barwon' $3(2)$ 28 $5(2)$ 6'Banelaucium''Narayen' $2(4)$ 26 $3(3)$ 6 $7(3)$ 49''Slondie' $7(3)$ 45''Norwin' $5(3)$ 16 $6(2)$ 5''Cascade Brook' $6(3)$ 45''Narayen' $2(1)$ 14 $6(2)$ 5 $6(2)$ 5''Cascade Mist' $6(3)$ 45''Narayen' $2(1)$ 14 $(1)$ 7 $(1)$ 39''Narayen' $2(1)$ 14 $(1)$ 7''Comet' $4(3)$ 25 $6(4)$ 12 $7(4)$ 39''Navel' $2(1)$ 14 $(1)$ 7 $(2)$ 64 $(2)$ 7 $(2)$ 28''Elegance' $4(1)$ 9 $7(4)$ 38''Navel' $2(1)$ 14 $(2)$ 6 $7(2)$ 28''Elegance' $3(1)$ 17 $7(4)$ 38''Navel' $2(1)$ 14 $(2)$ 6 $7(2)$ 28''Bannfield Late''Navel' $2(1)$ 14 $(2)$ 6 $7(2)$ 28''Bannfield' Late''Navel' $2(1)$ 14 $(2)$ 7 $7(2)$ 28''Namate' $7(3)$ 6''Navel' $2(1)$ 14 $(2)$ 7 $7(2)$ 28''Namate' $7(3)$ 6''Navel' $7(3)$ 6''Navel' $7(3)$ 6''Namate' $7(3)$ 6''Navel' $7(3)$ 7''Navel' $7(3)$ 7''Navel'''Namate' $7(3)$ 6''Navel' $7(1)$ 14 $7(2)$ 7 <th''navel'< th=""></th''navel'<>					Cicer				
Chamelaucium       ````````````````````````````````````	'Viva'	6(3) 45	7(1) 31				3(2) 28	5(2) 6	
Blondie'7(3) 9Navel'5(3) 166(2) 5'Cascade Brook'6(3) 45'Norwin'5(3) 166(2) 5'Cascade Mewel'6(3) 45'Navel'2(1) 14'Navel'2(1) 14'Cascade Mis'6(3) 45'Navel'2(1) 14'Navel'2(1) 14'Cascade Mis'6(3) 256(4) 127(4) 39'Navel'2(1) 14'Navel''Comet'4(3) 256(4) 127(4) 39'Navel'2(1) 146(2) 67(2) 28'Earlybird'4(3) 256(4) 177(4) 38'Navel'2(1) 146(2) 67(2) 28'Bannfiel Late'Navel'2(1) 146(2) 67(2) 28'Navel'3(2) 34'Jubilec'5(3) 17'''''''''''''Jubilec'5(3) 17'''''''''''''Malonan'6(4) 7'''''''''''''Malonan'6(4) 7'''''''''''''Moonstruck'4(3) 256(4) 127(4) 39'''''''''Niribi'4(3) 256(4) 12''''<	Chamelaucium						· ,		7(3) 49
Cascade Brook       6(3) 45       Cirrus         'Cascade Mist'       6(3) 45       'Autumn Gold Late         'Cascade Mist'       6(3) 45       'Autumn Gold Late         'Comet'       4(3) 25       6(4) 13       7(4) 39         'Comet'       4(3) 25       6(4) 12       7(4) 39         'Earlybird'       4(3) 25       6(4) 12       7(4) 39         'Elegance'       4(1)9       7(4) 38       Navel'       2(1) 14       6(2) 6       7(2) 28         'Elegance'       4(1)9       7(4) 38       Navel'       2(1) 14       6(2) 6       7(2) 28         'Eiric John'       3(1) 17       7(4) 38       Navel'       2(1) 14       6(2) 6       7(2) 28         'Eisegance'       4(1)9       7(4) 38       Navel'       2(1) 14       6(2) 6       7(2) 28         'Kismet'       5(3) 17       'Stanch'       7(3) 6       'Stanch'       7(3) 6       'Stanch'       3(2) 34         'Madonna'       6(4) 7       'Stanch'       Stanch'       7(3) 6       'Stanch'       3(2) 34         'Monastruc'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       6(2) 5       7(2) 28         'Madonna'       6(4) 7       'Stanch'		7(3) 9			-				(3) 12
Cascade Jewel       6(3) 45       Carris       Carris         'Cascade Mist' $6(3) 45$ $7(3) 35$ 'Autumn Gold Late       'Autumn Gold Late         'Comet' $4(3) 25$ $6(4) 13$ $7(4) 39$ 'Navel' $2(1) 14$ 'Barnfield Late         'Comet' $4(3) 25$ $6(4) 12$ $7(4) 39$ 'Navel' $2(1) 14$ $6(2) 6$ $7(2) 28$ 'Earlybird' $4(3) 25$ $6(4) 12$ $7(4) 38$ 'Navel' $2(1) 14$ $6(2) 6$ $7(2) 28$ 'Eire John' $3(1) 17$ $7(4) 38$ 'Navel' $2(1) 14$ $6(2) 6$ $7(2) 28$ 'Eine John' $5(3) 17$ $7(4) 38$ 'Edwards Summer $7(1) 14$ $3(2) 34$ 'Lady Jennifer' $5(3) 17$ $7(4) 38$ 'Powell Late Navel' $2(1) 14$ $8(2) 5$ $7(2) 28$ 'Madonna' $6(4) 7$ $7(4) 39$ 'Navel' $2(1) 14$ $8(2) 5$ $7(2) 28$ 'Madonná' $6(3) 25$ $5(1) 11$ $6(1) 5$ 'Navel' $2(1) 14$ $6(2) 5$ $7(2) 28$ 'Madonná' $6(3) 25$ $5(1) 11$ $6(1) 5$ Navel'							5(5)10	0(2) 5	
Cascade Mist (1) 33(3) 45 (1) 337(3) 36 (1) 33Navel (2) 12(1) 14 (1) 14'Comet'4(3) 25 (4) 126(4) 13 (4) 397(4) 39 (4) 39Navel' (2(1) 142(1) 14 (4) 14 $(2) 6$ (2) 28'Elegance'4(3) 25 (4) 197(4) 38 (1) 17Navel' (4) 382(1) 14 (4) 34 $(2) 6$ (2) 147(2) 28 (2) 28'Elegance'5(3) 17 (1) 177(4) 38 (1) 17Navel' (1) 182(1) 14 (1) 14 $(2) 6$ (2) 28'Jubilee'5(3) 17 (1) 177(4) 38 (1) 19Powell Late Navel' (2) 1142(1) 14 (1) 14 $(2) 34$ 'Madonna'6(4) 7 (3) 177(4) 39Navel' (2) 1142(1) 14 (1) 14 $(2) 2$ 7(2) 28'Monstar'4(3) 25 (3) 177(4) 39Navel' (2) 1142(1) 14 (4) 25 $(2) 13$ (1) 14 $(2) 13$ (2) 114'Monstar'4(3) 25 (4) 127(4) 39Navel' (2) 1142(1) 14 (4) 23 $(2) 28$ 'Niribi'4(3) 25 (4) 127(4) 39Navel' (2) 114 $(2) 13$ (2) 114 $(2) 23$ 'Nauche a Mauve' 'Pearl Buttons' $(4) 2$ 25 (4) 12 $(4) 39$ Navel' (2) 114 $(2) 23$ 'Piristine' $(2) 15$ (2) 11 $(2) 13$ (2) 11 $(2) 114$ (2) 14 $(3) 23$ $(3) 23$ 'Piristine' $(2) 16$ $(2) 16$ (1) 28'Navel' (2) 11 $(2) 114$ (2) 14 $(3) 23$ 'Piristine' $(2) 16$ $(2) 16$ (1) 28'Navel' (2) 11 $(2) 114$ (2) 14 $(3) 23$ <	'Cascade Jewel'								
7(1) 33Navel2(1) 14'Comer'4(3) 256(4) 137(4) 39'Barnfield Late'Earlybird'4(3) 256(4) 127(4) 39Navel' $2(1) 14$ 'Elegance'4(1)97(4) 38'Navel' $2(1) 14$ $6(2) 6$ $7(2) 28$ 'Eiric John'3(1) 177(4) 38'Barnfield LateNavel' $2(1) 14$ $3(2) 34$ 'Jenny Jane'5(3) 17'INavel' $2(1) 14$ $3(2) 34$ 'Jubilee'5(3) 17'I'Monarch' $7(3) 6$ 'IIII''Kismet'5(3) 17'I'Monarch' $7(3) 6$ 'IIII''Lady Jennifer'3(1) 197(4) 38'Powell Late Navel' $2(1) 14$ 'III''Madonna' $6(4) 7$ 'Rohde Summer' $2(1) 14$ 'III''III'''Moonstruck'4(3) 25 $6(4) 13$ $7(4) 39$ Navel' $2(1) 14$ 'III'''III''''Moonstruck'4(3) 25 $6(4) 12$ $7(4) 39$ Navel' $2(1) 14$ $(3) 25$ $7(2) 28$ 'Painted Lady' $6(4) 7$ 'Summer Gold Late'III'' $3(2) 34$ 'III''' $3(2) 34$ 'Painted Lady' $6(1) 2$ $7(4) 39$ Navel' $2(1) 14$ $3(2) 35$ $5(3) 16$ 'Painted Lady' $6(1) 2$ $7(4) 39$ Navel' $2(1) 14$ $3(2) 34$ $7(2) 28$ 'Painted Lady' $4(3) 25$ $6(4) 12$ $7(4) 39$ Navel' $2(1) 14$ $3(2) 34$ 'Paintel Lady' $4(2) 16$ $7(4) 39$ Navel' $2(1) 14$ $3(2) 34$ <	'Cascade Mist'		7(3) 36						
Concet'       4(3) 25       6(4) 13       7(4) 39       Navel'       2(1) 14       2(1) 14         'Earlybird'       4(3) 25       6(4) 12       7(4) 39       'Navel'       2(1) 14       6(2) 6       7(2) 28         'Elegance'       4(1)9       7(4) 38       'Navel'       2(1) 14       6(2) 6       7(2) 28         'Eric John'       5(3) 17       7(4) 38       'Navel'       2(1) 14       3(2) 34         'Jubilee'       5(3) 17       'I       'I       'Navel'       2(1) 14       3(2) 34         'Lady Jennifer'       3(1) 19       7(4) 38       'Navel'       2(1) 14       'I       3(2) 34         'Madonna'       6(4) 7       'I       'I       'Rontect Late Navel'       2(1) 14       'I       3(2) 34         'Madonna'       6(4) 7       'I       'I       'Ronde Summer'       7(3) 6       'I       'I<						2(1) 14			
Earlybird4(3) 256(4) 127(4) 39Navel2(1) 14'Elegance'4(1)97(4) 38'Chislett Summer''Eno, Jane'5(3) 17'V4) 38'Navel'2(1) 146(2) 67(2) 28'Jubilee'5(3) 17'V4) 38'Navel'2(1) 143(2) 34'Jubilee'5(3) 17'V4) 38'Powell Late Navel'2(1) 14'S(2) 34'Kismet'5(3) 17'V4) 38'Powell Late Navel'2(1) 14'S(2) 34'Madonna'6(4) 7'Navel'2(1) 14'V'S(2) 34'Madonna'6(4) 7'Navel'2(1) 14'V'S(2) 34'Moonstar'4(3) 256(4) 127(4) 39Navel'2(1) 14'V'Moonstar'4(3) 255(1) 116(1) 5Navel'2(1) 14'V'Niribi'4(3) 255(1) 116(1) 5Navel'2(1) 14'S(2) 28'Painted Lady'6(4) 7'Summer Gold Late'Summer Gold Late'Sumer'4(3) 235(3) 6'Pristine'4(2) 15'Y(4) 39Navel'2(1) 14'S(2) 34'S(2) 34'Pristine'4(3) 256(4) 127(4) 39Navel'2(1) 14'S(2) 34'Pristine'4(3) 256(4) 127(4) 39Navel'2(1) 14'S(2) 34'Pristine'4(3) 256(4) 12'Y(4) 40'Summer Gold''S(4) 34'Supernova'4(3) 256(4) 12'Y(4) 40'Summer Gold''Summer Gold''Summer Gold''Tudy'6(4) 7	'Comet'		6(4) 13	7(4) 39		<b>A</b> (1) <b>( A</b> )			
*Elegance       4(19)       7(4) 38       Navel       2(1) 14       6(2) 6       7(2) 28         'Eric John'       3(1) 17       7(4) 38       Navel'       2(1) 14       6(2) 6       7(2) 28         'Jenny Jane'       5(3) 17       Navel'       2(1) 14       6(2) 6       7(2) 28         'Jubilee'       5(3) 17       Navel'       2(1) 14       3(2) 34         'Kismet'       5(3) 17       Navel'       2(1) 14       3(2) 34         'Kismet'       5(3) 17       Navel'       2(1) 14       3(2) 34         'Madonna'       6(4) 7       Nonstar'       7(4) 38       Powell Late Navel'       2(1) 14         'Madonna'       6(4) 7       Rohde Summer       Yeinem Gold Late       Yeinem Gold Late       Yeinem Gold Late         'Ninibi'       4(3) 25       5(1) 11       6(1) 5       Navel'       2(1) 14       6(2) 5       7(2) 28         'Painted Lady'       6(4) 7       Yeinem Gold Late       Yeine       Yeine       Yeine Gold Yeine       Yeinegate       <						2(1) 14			
'Eric John'       3(1) 17       7(4) 38       'Ravel'       2(1) 14       0(2) 6       7(2) 28         'Jenny Jane'       5(3) 17       '''       ''''       ''''       ''''       '''''       '''''       '''''       '''''       '''''       ''''''       ''''''       '''''''       '''''''       ''''''''       ''''''''''''''''''''''''''''''''''''	-	,				0/12/14			
'Jenny Jane'       5(3) 17       Navel'       2(1) 14       3(2) 34         'Jubilee'       5(3) 17       'Eloise'       6(3) 45       3(2) 34         'Kismet'       5(3) 17       'Monarch'       7(3) 6       'Monarch'       7(3) 6         'Lady Jennifer'       3(1) 19       7(4) 38       'Powell Late Navel'       2(1) 14       'Endet Summer'         'Moonstruck'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       'Endet Summer'         'Moonstruck'       4(3) 25       6(1) 12       7(4) 39       Navel'       2(1) 14       'Endet Summer'         'Moonstruck'       4(3) 25       5(1) 11       6(1) 5       Navel'       2(1) 14       'Endet Summer'         'Niribi'       4(3) 25       5(1) 11       6(1) 5       Navel'       2(1) 14       6(2) 5       7(2) 28         'Painted Lady'       6(4) 7       'Endet Summer'       'Endet Summer'       3(2) 34       'Endet Summer'       3(2) 34         'Pristine'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       3(2) 34         'Pristine'       4(3) 25       6(4) 12       7(4) 40       Cordytine       'Kiwi Dazzler'       6(4) 6         'Tutu'       6(4) 7 <td< td=""><td>-</td><td></td><td></td><td></td><td></td><td>2(1) 14</td><td>6(2) 6</td><td>7(2) 28</td><td>5</td></td<>	-					2(1) 14	6(2) 6	7(2) 28	5
Jubilee'       5(3) 17       Start'       2(1) 14       5(2) 54         'Kismet'       5(3) 17       'Eloise'       6(3) 45         'Lady Jennifer'       3(1) 19       7(4) 38       'Monarch'       7(3) 6         'Madonna'       6(4) 7       'Rohde Summer'       2(1) 14       'Start'         'Moonstar'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14         'Moonstar'       4(3) 25       6(4) 12       7(4) 39       'Success'       5(3) 18         'Muchea Mauve'       5(3) 17       'Summer Gold Late       'Summer Gold Late       'Summer'       4(3) 23       5(3) 6         'Painted Lady'       6(4) 7       'Susset'       4(3) 23       5(3) 6       'Susset'       4(3) 23       5(3) 6         'Plumwhite'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       3(2) 34         'Pristine'       4(2) 15       'Toomey Summer'       'Ui 14'       3(2) 34         'Pristine'       4(2) 16       'Toomey Summer'       'Ui 14'       3(2) 34         'Supernova'       4(3) 25       6(4) 12       'Y(4) 40       'Supernova'       4(3) 25       6(4) 13       'Supernova'       3(1) 35       3(4) 4         'Variegated	'Jenny Jane'	5(3) 17		<b>X</b>		2(1) 14			2(2) 24
'Kismet'       5(3) 17       'Monarch'       7(3) 6         'Lady Jennifer'       3(1) 19       7(4) 38       'Powell Late Navel'       2(1) 14         'Madonna'       6(4) 7       'Rohde Summer'       2(1) 14       'Rohde Summer'         'Moonstar'       4(3) 25       6(4) 12       7(4) 39       'Navel'       2(1) 14         'Moonstruck'       4(3) 25       6(4) 12       7(4) 39       'Success'       5(3) 18         'Muchea Mauve'       5(3) 17       'Summer Gold Late       'Summer Gold Late         'Niribi'       4(3) 25       5(1) 11       6(1) 5       Navel'       2(1) 14       6(2) 5       7(2) 28         'Painted Lady'       6(4) 7       ''       ''       ''       ''       ''       ''       ''         'Pearl Buttons'       4(2) 15       ''       '	'Jubilee'	5(3) 17							5(2) 54
'Lady Jennifer'3(1) 197(4) 38'Powell Late Navel'2(1) 14'Madonna' $6(4)$ 7'Rohde Summer'?(1) 14'Rohde Summer''Moonstar' $4(3)$ 25 $6(4)$ 137(4) 39Navel' $2(1)$ 14.'Moonstruck' $4(3)$ 25 $6(4)$ 127(4) 39'Success' $5(3)$ 18'Muchea Mauve' $5(3)$ 17'Summer Gold Late'Summer Gold Late'Niribi' $4(3)$ 25 $5(1)$ 11 $6(1)$ 5Navel' $2(1)$ 14 $6(2)$ 5 $7(2)$ 28'Painted Lady' $6(4)$ 7'Sunset' $4(3)$ 23 $5(3)$ 6'Toomey Summer' $4(3)$ 23 $5(3)$ 6'Pearl Buttons' $4(2)$ 15'Toomey Summer' $2(1)$ 14 $6(2)$ 5 $7(2)$ 28'Pistine' $4(2)$ 15'Toomey Summer' $2(1)$ 14 $3(2)$ 34'Pristine' $4(2)$ 16'Toimokaori' $7(2)$ 7'Yeellered' $5(4)$ 34'Supernova' $4(3)$ 25 $6(4)$ 12 $7(4)$ 40'Tsunokaori' $7(2)$ 7'Revelation' $6(1)$ 28'Yeellered' $6(4)$ 6'Yeellered' $6(4)$ 6'Triumphant' $4(2)$ 16 $7(4)$ 38'Coreopsis'Yeellered' $3(1)$ 35 $3(4)$ 4'Whitefire' $4(3)$ 25 $6(4)$ 13'Summer Gold' $3(1)$ 35 $3(4)$ 4'Whitefire' $4(3)$ 25 $6(4)$ 13'Summer Gold' $3(1)$ 35 $3(4)$ 4'White Spring' $3(1)$ 17 $7(4)$ 38'Summer Gold' $3(1)$ 21 $4(1)$ 25'White Spring' $3(1)$ 17 $7(4)$ 38<	'Kismet'	5(3) 17							
'Madonna' $6(4)$ 7'Rohde Summer'Moonstar' $4(3)$ 25 $6(4)$ 13 $7(4)$ 39Navel' $2(1)$ 14'Moonstruck' $4(3)$ 25 $6(4)$ 12 $7(4)$ 39'Success' $5(3)$ 18'Muchea Mauve' $5(3)$ 17'Summer Gold Late'Summer Gold Late'Niribi' $4(3)$ 25 $5(1)$ 11 $6(1)$ 5Navel' $2(1)$ 14 $6(2)$ 5 $7(2)$ 28'Painted Lady' $6(4)$ 7'Sunset' $4(3)$ 23 $5(3)$ 6'Tomey Summer'Pearl Buttons' $4(2)$ 15'Tomey Summer'Tomey Summer' $3(2)$ 34'Pristine' $4(2)$ 16'Tomey Summer' $7(2)$ 7'Supernova''Revelation' $6(1)$ 28'Tsunokaori' $7(2)$ 7'Supernova''Supernova' $4(3)$ 25 $6(4)$ 12 $7(4)$ 40'Summer''Supernova''Supernova' $4(3)$ 25 $6(4)$ 12 $7(4)$ 40'Cardyline''Supernova''Titukled Pink' $5(2)$ 11 $6(1)$ 7 $6(3)$ 6'Kiwi Dazzler' $6(4)$ 6'Triumphant' $4(2)$ 16 $7(4)$ 38'Summer Gold' $3(1)$ 35'Variegated Blush' $3(1)$ 18 $7(4)$ 38'Summer Gold' $3(1)$ 35'White Spring' $3(1)$ 17 $7(4)$ 38'Summer Gold' $2(3)$ 21 $4(1)$ 25'White Spring' $3(1)$ 17 $7(4)$ 38'Summer Gold' $2(3)$ 21 $4(1)$ 25'Cheiranthus $3(1)$ 17 $7(4)$ 38'Summer Gold' $3(2)$ 21 $4(1)$ 25	'Lady Jennifer'		3(1) 19	7(4) 38					
'Moonstar'4(3) 256(4) 137(4) 39Navel'2(1) 14'Moonstruck'4(3) 256(4) 127(4) 39'Success'5(3) 18'Muchea Mauve'5(3) 17'Summer Gold Late'Summer Gold Late'Niribi'4(3) 255(1) 116(1) 5Navel'2(1) 146(2) 57(2) 28'Painted Lady'6(4) 7''Susset'4(3) 235(3) 6'Toomey Summer'Pearl Buttons'4(2) 15'Toomey Summer'2(1) 14'Success'3(2) 34'Pristine'4(2) 16'Toomey Summer'2(1) 14'Success'3(2) 34'Pristine'4(2) 16'Toomey Summer'7(2) 7'Supernova'3(3) 256(4) 12'T(4) 40'Supernova'4(3) 256(4) 12'T(4) 40'Supernova'5(2) 116(1) 7 6(3) 6'Kiwi Dazzler'6(4) 6'Summer Gold''Summer Gold'3(1) 353(4) 4'Tutu'6(4) 7'Supernova'3(1) 18'T(4) 38'Summer Gold'3(1) 353(4) 4'Variegated Blush'3(1) 17'T(4) 38'Summer Gold''Summer Gold'3(1) 353(4) 4'White Spring'3(1) 17'T(4) 38'Rainbow'2(3) 214(1) 25'CheiranthusSut 11'T(4) 38'Rainbow'2(3) 214(1) 25	'Madonna'	6(4) 7							
'Muchea Mauve'       5(3) 17       'Summer Gold Late         'Niribi'       4(3) 25       5(1) 11       6(1) 5       Navel'       2(1) 14       6(2) 5       7(2) 28         'Painted Lady'       6(4) 7       'Summer Gold Late       'Summer Gold Late       'A(3) 23       5(3) 6         'Pearl Buttons'       4(2) 15       'Sunset'       4(3) 23       5(3) 6         'Pearl Buttons'       4(2) 15       'Toomey Summer       'Supernova'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       3(2) 34         'Pristine'       4(2) 16       'Toomey Summer       'Tsunokaori'       7(2) 7       'Wellered'       5(4) 34         'Supernova'       4(3) 25       6(4) 12       7(4) 40       'Supernova'       5(2) 11       6(1) 7 6(3) 6       'Kiwi Dazzler'       6(4) 6       'Estive Coreopsis       'Summer Gold'       3(1) 35       3(4) 4         'Yariegated Blush'       3(1) 18       7(4) 38       'Summer Gold'       3(1) 35       3(4) 4         'White Spring'       3(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25         'Cheiranthus       S(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25	'Moonstar'	4(3) 25	6(4) 13	7(4) 39		2(1) 14			
'Niribi'       4(3) 25       5(1) 11       6(1) 5       Navel'       2(1) 14       6(2) 5       7(2) 28         'Painted Lady'       6(4) 7       'Sunset'       4(3) 23       5(3) 6         'Pearl Buttons'       4(2) 15       'Toomey Summer'       4(3) 23       5(3) 6         'Plumwhite'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       3(2) 34         'Pristine'       4(2) 16       7(4) 39       Navel'       2(1) 14       3(2) 34         'Pristine'       4(2) 16       7(4) 40       'Tsunokaori'       7(2) 7       3(2) 34         'Supernova'       4(3) 25       6(4) 12       7(4) 40       'Wellered'       5(4) 34       -       -         'Supernova'       4(3) 25       6(4) 12       7(4) 40       'Wellered'       6(4) 6       -       -       -         'Supernova'       4(3) 25       6(4) 12       7(4) 40       'Kiwi Dazzler'       6(4) 6       -       -       -         'Tutu'       6(4) 7       -       -       Summer Gold'       3(1) 35       3(4) 4         'WhiteSpring'       3(1) 17       7(4) 38       'Summer Gold'       3(1) 21       4(1) 25         'White Spring'       3(1) 17       <	'Moonstruck'	4(3) 25	6(4) 12	7(4) 39	'Success'	5(3) 18			
'Painted Lady' $6(4)$ 7'Sunset' $4(3)$ 23 $5(3)$ 6'Pearl Buttons' $4(2)$ 15'Toomey Summer'Toomey Summer'Plumwhite' $4(3)$ 25 $6(4)$ 12 $7(4)$ 39Navel' $2(1)$ 14 $3(2)$ 34'Pristine' $4(2)$ 16'Toomey Summer'Tsunokaori' $7(2)$ 7'Wellered' $5(4)$ 34'Supernova' $4(3)$ 25 $6(4)$ 12 $7(4)$ 40'Cordyline'Kiwi Dazzler' $6(4)$ 6'Trickled Pink' $5(2)$ 11 $6(1)$ 7 $6(3)$ 6'Kiwi Dazzler' $6(4)$ 6''Tutu' $6(4)$ 7 $3(1)$ 18 $7(4)$ 38'Summer Gold' $3(1)$ 35 $3(4)$ 4'White Spring' $3(1)$ 17 $7(4)$ 38'Rainbow' $2(3)$ 21 $4(1)$ 25'Cheiranthus $Summer Sond'$ $S(3)$ 21 $4(1)$ 25	'Muchea Mauve'	5(3) 17			Summer Gold Late	2			
'Pearl Buttons' $4(2)$ 15'Toomey Summer'Plum white' $4(3)$ 25 $6(4)$ 12 $7(4)$ 39Navel' $2(1)$ 14 $3(2)$ 34'Pristine' $4(2)$ 16'Tsunokaori' $7(2)$ 7'Revelation' $6(1)$ 28'Wellered' $5(4)$ 34'Supernova' $4(3)$ 25 $6(4)$ 12 $7(4)$ 40 <b>Cordyline</b> 'Tickled Pink' $5(2)$ 11 $6(1)$ 7 $6(3)$ 6'Kiwi Dazzler' $6(4)$ 6'Triumphant' $4(2)$ 16 $7(4)$ 38 <b>Coreopsis</b> 'Summer Gold' $3(1)$ 35 $3(4)$ 4'Whitefire' $4(3)$ 25 $6(4)$ 13 <b>Cucumis</b> 'Summer Gold' $3(1)$ 35 $3(4)$ 4'White Spring' $3(1)$ 17 $7(4)$ 38'Rainbow' $2(3)$ 21 $4(1)$ 25 <b>CheiranthusCucurbitaCucurbita</b> $4(1)$ 25	'Niribi'	4(3) 25	5(1) 11	6(1) 5	Navel	2(1) 14	6(2) 5	7(2) 28	3
'Plumwhite'       4(3) 25       6(4) 12       7(4) 39       Navel'       2(1) 14       3(2) 34         'Pristine'       4(2) 16       'Tsunokaori'       7(2) 7       'Wellered'       5(4) 34         'Revelation'       6(1) 28       'Wellered'       5(4) 34       'Supernova'       4(3) 25       6(4) 12       7(4) 40       'Wellered'       5(4) 34         'Supernova'       4(3) 25       6(4) 12       7(4) 40       'Cordyline       'Kiwi Dazzler'       6(4) 6         'Tritumphant'       4(2) 16       7(4) 38       'Coreopsis       'Summer Gold'       3(1) 35       3(4) 4         'Whitefire'       4(3) 25       6(4) 13       'Cucumis       'Summer Gold'       3(1) 35       3(4) 4         'White Spring'       3(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25         'Cheiranthus       Status       Status       'Rainbow'       2(3) 21       4(1) 25	'Painted Lady'	6(4) 7			'Sunset'		4(3) 23	5(3)6	
'Pristine' $4(2) 16$ 'Tsunokaori' $7(2) 7$ 'Revelation' $6(1) 28$ 'Wellered' $5(4) 34$ 'Supernova' $4(3) 25$ $6(4) 12$ $7(4) 40$ $Cordyline$ 'Tickled Pink' $5(2) 11$ $6(1) 7$ $6(3) 6$ 'Kiwi Dazzler''Triumphant' $4(2) 16$ $7(4) 38$ $Coreopsis$ 'Tutu' $6(4) 7$ $Summer Gold'$ $3(1) 35$ 'Variegated Blush' $3(1) 18$ $7(4) 38$ 'Summer Gold''Whitefire' $4(3) 25$ $6(4) 13$ $Cucumis$ 'White Spring' $3(1) 17$ $7(4) 38$ 'Rainbow''Cheiranthus $Cucurbita$ $2(3) 21$ $4(1) 25$	'Pearl Buttons'		4(2) 15		'Toomey Summer				
'Revelation' $6(1) 28$ 'Wellered' $5(4) 34$ 'Supernova' $4(3) 25$ $6(4) 12$ $7(4) 40$ <b>Cordyline</b> 'Tickled Pink' $5(2) 11$ $6(1) 7$ $6(3) 6$ 'Kiwi Dazzler' $6(4) 6$ 'Triumphant' $4(2) 16$ $7(4) 38$ <b>Coreopsis</b> 'Tutu' $6(4) 7$ $3(1) 18$ $7(4) 38$ 'Summer Gold' $3(1) 35$ $3(4) 4$ 'Whitefire' $4(3) 25$ $6(4) 13$ <b>Cucumis</b> 'White Spring' $3(1) 17$ $7(4) 38$ 'Rainbow' $2(3) 21$ $4(1) 25$ <b>CheiranthusCheiranthusCucurbitaCucurbita</b>	'Plumwhite'	4(3) 25	6(4) 12	7(4) 39					3(2) 34
'Supernova'       4(3) 25       6(4) 12       7(4) 40       Cordyline         'Tickled Pink'       5(2) 11       6(1) 7       6(3) 6       'Kiwi Dazzler'       6(4) 6         'Triumphant'       4(2) 16       7(4) 38       Coreopsis       'Summer Gold'       3(1) 35       3(4) 4         'Variegated Blush'       3(1) 18       7(4) 38       'Summer Gold'       3(1) 35       3(4) 4         'Whitefire'       4(3) 25       6(4) 13       Cucumis       'Sainbow'       2(3) 21       4(1) 25         Cheiranthus       Status       Status       'Cucurbita       Cucurbita       Status       Status	'Pristine'		4(2) 16						
'Tickled Pink'       5(2) 11       6(1) 7       6(3) 6       'Kiwi Dazzler'       6(4) 6         'Triumphant'       4(2) 16       7(4) 38       'Coreopsis       'Summer Gold'       3(1) 35       3(4) 4         'Variegated Blush'       3(1) 18       7(4) 38       'Summer Gold'       3(1) 35       3(4) 4         'Whitefire'       4(3) 25       6(4) 13       Cucumis       'Rainbow'       2(3) 21       4(1) 25         'Cheiranthus       'Cheiranthus       Cucurbita       Cucurbita       Cucurbita       Cucurbita	'Revelation'	6(1) 28			'Wellered'	5(4) 34			
'Tickled Pink'       5(2) 11       6(1) 7       6(3) 6       'Kiwi Dazzler'       6(4) 6         'Triumphant'       4(2) 16       7(4) 38       'Coreopsis       3(1) 35       3(4) 4         'Tutu'       6(4) 7       'Summer Gold'       3(1) 35       3(4) 4         'Whitefire'       4(3) 25       6(4) 13       Cucumis         'White Spring'       3(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25         Cheiranthus       Cheiranthus       Cucurbita       Cucurbita       Cucurbita	'Supernova'	4(3) 25	6(4) 12	7(4) 40	Cordyline				
'Tutu'       6(4) 7       Coreopsis         'Variegated Blush'       3(1) 18       7(4) 38       'Summer Gold'       3(1) 35       3(4) 4         'Whitefire'       4(3) 25       6(4) 13       Cucumis         'White Spring'       3(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25         Cheiranthus       Cucurbita	'Tickled Pink'		5(2) 11	6(1) 7 6(3) 6	-	6(4) 6			
'Variegated Blush'       3(1) 18       7(4) 38       'Summer Gold'       3(1) 35       3(4) 4         'Whitefire'       4(3) 25       6(4) 13       Cucumis         'White Spring'       3(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25         Cheiranthus       Cucurbita	'Triumphant'		4(2) 16	7(4) 38	<b>G</b>				
'Whitefire'     4(3) 25     6(4) 13     Cucumis       'White Spring'     3(1) 17     7(4) 38     'Rainbow'     2(3) 21     4(1) 25       Cheiranthus     Cucurbita	'Tutu'	6(4) 7			-		2(1) 25	2(1) 1	
'White Spring'       3(1) 17       7(4) 38       'Rainbow'       2(3) 21       4(1) 25         Cheiranthus       Cucurbita	•		3(1) 18	7(4) 38	Summer Gold		5(1) 35	3(4) 4	
Cheiranthus Cucurbita	'Whitefire'	4(3) 25	6(4) 13		Cucumis				
	'White Spring'		3(1) 17	7(4) 38	'Rainbow'	2(3) 21			4(1) 25
	Cheiranthus				Cucurbita				
		5(4) 34				.' 3(4) 36	4(2) 5	5(2)6	
	-								

Cuphea					'Fantastic'	1(3) 13	2(1) 4	3(1) 5	5(3) 6
'Golden Ruby'		3(3) 21		5(1) 7	'Far North'	6(4) 6			
X Cupressocyparis					'Far Out'	7(4)			
'Atlas'	6(2) 31				'Grozdana'	1(3) 13	2(1) 4	3(1) 4	5(3) 6
'Gold Medal'	0(2) 51	5(2) 10	6(1)7		'Kovalya'	3(3) 25			
'Gold Rider'		3(1) 21	3(4) 4		'Mechta'	1(3) 13	2(1) 7	3(1)4	5(3) 6
'Grelive'	6(1) 28	5(1) 21	5(+) +		'Neat 'n' Tidy'	6(4) 6			7(4) 41
	0(1) 20				'Neshka'	1(3) 13	2(1) 7	3(2) 5	5(3) 6
Cupressus					'Odile'	1(3) 13	2(1) 4	3(1)4	5(3) 6
'Golden Halo'	3(2) 33	4(1) 6	5(1)7		'Pirin'	1(3) 13	2(1) 8	3(2)5	5(3)6
'Limelight'		4(3) 22	5(3) 5		'Prolet'	1(3) 13	2(1) 9	3(1) 5	5(3)6
'Olympic Gold'	7(2) 8				'Rubinen'	1(3) 13	2(1) 8	3(1)4	5(3) 6
Cyathea					'Srebrina'	3(3) 26	3(3) 13		
'Allyn Lace'	7(3) 9				'Stacorpi'		3(4) 36		6(1)7
·	. (2) /						7(3) 49		
Cynara					'Stagibrig'		4(1) 16	5(1)6	
'Imperial Star'	6(4) 8	7(3) 39			'Stagidark'		4(1) 15	5(1)7	
Cynodon					'Stagigi'		4(1) 15		7(3) 49
'Cheyenne'	3(4) 36			4(3) 26	'Stagilac'		4(1) 15	5(1)7	
'Windsor Green'		6(2) 29	7(1) 32	2	'Stagiten'		4(1) 15	5(1)7	
<b>D</b>					'Stalipink'		3(4) 36		
Dactylis		a (a) 4.0	2(2) 5		'Staroang'	3(4) 36			
'Grasslands Kara'		2(3) 19	3(2) 5		'Statas'	4(1) 23			
Dahlia					'Statropur'	3(4) 36			
'Dappled Dancer'	7(2) 5				'Stayelpa'	3(4) 36			
'Elly'	6(1) 31			7(2) 29	'Valya'	1(3) 13	2(1) 6	3(2) 5	5(3) 6
'Jodie'	7(2) 5				'Zlatka`	1(3) 13	2(1) 8	3(1) 5	5(3) 6
'Kaleidoscope'	7(2) 5				'Zora'	1(3) 13	2(1) 9	3(1)4	
'Robetty'	6(1) 31			7(2) 29	'Zornitza'	1(3) 13	2(1)4	3(2) 5	5(3) 6
'Rolinda'	6(1) 31			7(2) 29	Dimain				
'Rosconnie'	6(1) 31			7(2)29	Diascia	$\epsilon(A)$ 7			
'Rosmargareth'	6(1) 31			7(2) 29	'Jacquelines' Joy'	6(4) 7			
'Rowendy'	6(1) 31			7(2) 29	'Joyce's Choice'	6(4) 7			
'Simon'	6(1) 31			7(2) 29	'Lilac Belle'	6(4) 8 6(4) 7			
Danthonia					'Lilac Mist'	6(4) 7			
'Bunderra'	4(4) 22	5(1) 20	6(1) 5		'Salmon Supreme'	6(4) 6			
'Taranna'	4(4) 23	5(1) 20 5(1) 18	6(1) 5		'Strawberry Sundae	e 7(2) 8			
	.(.)==	-(1)			Dieffenbachia				
Daphne					'Golden Sunset'	5(1) 25	6(2) 13		
'Star White'	7(3) 6				'T.S. 8567'		6(2) 30		
Desmanthus					Dionaea				
'Bayamo'	5(3) 18				'Royal Red'	6(2) 31	7(2) 16		
'Marc'	5(3) 18				Royal Red	6(4) 54	7(2)10		
'Uman'	5(3) 18					6(4) 34 7(3) 49			
D' de s						/(3) 49			
Dianthus	2(2) 26	2(2) 14			Echinochloa				
'Cana' 'Chandenn'	3(3) 36 1(3) 13	3(3) 14 2(1) 9	3(1) 4	5(3) 6	'Indus'	7(1) 5	7(4) 29		
Charodeyka'	1(3) 13	2(1) 9 2(1) 6	3(1) 4 3(1) 4	5(5)0	Eucalyptus				
'Checkmate'	6(4) 6	2(1)0	5(1)4	7(4) 41	'Blackward'	3(4) 37			5(4) 35
'Crossover'	7(4)			, (T <i>)</i> T1	'Candleward'	3(4) 37			5(4) 35
2105070	111				Cullaroward	5(1)51			0(1)00

	7/22 5			<b>, , , , , , , , , , , , , , , , , , , </b>	5(2) 10		
'Green Variant'	7(3) 5		5(4) 25	'Redland's Hope'	5(3) 19		
'Redward'	3(4) 37		5(4) 35	'Redland's Joy'	5(3) 19		
'Urrbrae Gem'	4(2) 23		6(3) 46	'Redland's Pinnacl			
'Whiteward'	3(4) 37		5(4) 35	'Redland's Rose'	5(3) 19		6(4) 54
'Woolward'	3(4) 37		5(4) 35	'Redland's Surpris	e' 5(3) 19		6(4) 54
'Yelloward'	3(4) 37		5(4) 35	'Saaid'	5(4) 32		
Eupatorium				'Santana'	2(4) 37	5(2) 7	6(2) 4
'Snowdrift'	5(4) 33		7(3)49	'Seascape'	3(4) 34		
r				'Selva'	2(4) 37	5(2) 7	6(2) 4
Euphorbia	5(2) 10	5(4) 20	((4) 52	'Shalom'	5(4) 32		
'Lemon Drop'	5(3) 19	5(4) 30	6(4) 53	'Smadar'	5(4) 32		
'Milkmaid'	5(3) 19 5(2) 10	5(4) 21	C(2)	'Sequel'	2(4) 37		7(2) 29
'Pink Peppermint'	5(3) 19	5(4) 31	6(3) 6 7(2) 20	'Sunset'	6(3) 45		
'Stibia'	6(1) 29	6(3) 36	7(2) 29	'Tustin'	2(4) 37		7(2) 29
'Stigaro'	3(2) 33	3(3) 11	4(2) 4	'Yolo'	2(4) 37		
'Stiloga'	3(2) 33	3(3) 11	4(2) 4				
'Stirot'	3(2) 33	3(3) 11	4(2) 4	Galtonia			
Feijoa				'Moonbeam'	4(1) 24	4(2) 8	6(1) 6
'Duffy'	4(3) 25	5(4) 9	6(3) 6	Gaura			
Festuca				'Corrie's Gold'	6(4) 7		
'Bombina'	7(3) 7			'Jo Adela'	6(4) 7		
Grasslands Advan		6(3) 45	6(3) 41 7(3) 47	50 Macia	0(+) /		
'Midwin'		0(3) 43	0(3) 41 7(3) 47	Glycine			
Midwill	7(2) 8			<b>'9582'</b>	5(1) 25	6(4) 15	7(4) 41
Ficus				<b>'9641'</b>	5(1) 25	6(4) 16	7(4) 41
'Bonsai Buoy'	7(3) 5			<b>'</b> 9791'	5(1) 25	6(4) 17	
'Citation'	6(1) 31	7(3) 19		'A5474'	1(3) 12	2(2) 5	6(2) 5
'Reginald'	5(3) 20	7(3) 16		'A5939'	1(3) 12	2(2) 4	3(1) 4
Fragaria				'A5980'	4(1) 24	<i>,</i>	
'Anaheim'	6(3) 45			'A6520'		2(2) 7	6(2) 5
'Camarosa'	6(3) 46			'Capella'	7(1)7	7(2) 26	
'Capitola'	3(4) 37			'Koala'	6(2) 33		7(3) 49
'Carlsbad'	6(3) 46			'Manark'	2(1) 14	2(2) 6	3(1) 4
'Chandler'	2(4) 37	5(2)6	6(2) 4	'Nitrobean 60'	7(2) 7	2(2) 3 7(4) 31	
'Coogee'	6(3) 43	7(2) 21	0(2)4	'Oxley'	4(2) 22	4(3) 19	5(3) 5
'Cuesta'	6(3) 45 6(3) 46	(2)21		'PNR2'		H(J) I J	6(1) 31
'Dorit'	5(4) 32			'PNR7'	5(1) 25		6(1) 31 6(1) 31
'Fern'	2(4) 37	5(2) 6	6(2) 4	`Warrigal`	5(1) 25	5(2) 14	6(4) 53
'Irvine'	2(4) 37	5(2)0	O(2)	Manigar		5(2) 14	0(4) 55
'Laguna'	6(3) 46			Gossypium			
'Mindarie'	6(3) 43	7(2) 17		'CS 50'	5(1) 24	5(2) 12	6(2) 5
'Mrak'	2(4) 37	(2) : (		°CS 7S'	5(1) 25	5(2) 12	6(2) 5
'Muir'	2(4) 37			•CS 8S*	7(2) 7		
'Ofra'	5(4) 32			'DP 891'	5(3) 18	7(3) 13	
'Oso Grande'	2(4) 37			'DP 5415'	6(4) 8		
'Pandora'	4(2) 22		7(1) 33	'DP 5690'	6(4) 8		
'Parker'	4(2) 22 2(4) 37	5(2) 7	6(2) 4	'Sicala 34'	5(1) 25	5(2) 13	6(2) 5
'Pink Panda'	6(1) 28	- (-) '		'Sicala V-2'	7(2) 7	<u> - /</u>	· ·
'Redland's Delight'			6(4) 54	'Siokra L23'	5(1) 25	5(2) 13	6(2) 5
'Redland's Horizon			0(1)01	'Siokra V-15'	7(2) 7	2 (2) 10	
3				5.5 <b>Mu</b> + 15	. (2) /		

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Grevillea				'Argus'	2(3) 21	2(4) 6	3(3) 5
'Landcare'	7(1) 7			'Aruba'		5(2) 33	6(1) 6
'Honey Wonder'	4(3) 25	4(4) 12	5(4) 3	'Aurore'	2(3) 21	2(4) 6	3(3) 5 7(3) 49
'Sunkissed Waters'		4(2) 11	5(2) 6	'Barbados'		5(2) 30	6(1) 6
Hardenbergia				'Becky'	7(4) 5		
'Bushy Blue'	7(2) 9	7(4) 33		'Blazon'	5(4) 33	6(4) 25	7(4) 38
'Free 'n' Easy'	6(1) 29	6(3) 20	7(2) 28	'Bora Bora'		5(2) 31	6(1) 6
'Mini-haha'		3(2) 31	4(1) 4	'Celebration Bright			
'Pink Fizz'	5(3) 20	5(4) 31	6(3) 6	Coral'	7(3) 5		
'Purple Falls'	4(3) 24	5(1) 11	6(4) 52	'Celebration Candy	r		
Hebe				Pink'	7(3) 5		
'Rosie'	7(1) 5			'Celebration Cherry	1		
KOSIC	(1) 5			Star'	7(3) 5		
Hedysarum				'Celebration Hot			
'Necton'		3(3) 19	7(2) 28	Pink`	7(3) 5		
TT I day				'Celebration Light			
Helianthus	7/2 5			Lavender'	7(3) 5		
'Daniel'	7(3) 5			'Celebration Pure			
Helipterum				White	7(3) 5		
'Paper Cascade'	4(2) 22	4(4) 8	5(3) 6	'Celebration Salmo	n'7(3) 5		
'Paper Star'	6(1) 27	6(4) 42	7(4) 41	'Celerio'	2(3) 21	2(4) 8	3(3) 5
				'Celsia'		4(1) 12	4(4) 5
Heterocentron				'Charade'	5(4) 34	6(4) 41	7(4) 38
'Green Cascade'		4(4) 20	5(3) 6 7(3) 49	'Delias'	2(3) 21	2(4) 8	3(3) 5
Hordeum				'Dunya'		4(1) 13	4(4) 5
'Cask' ('Ashton')	4(3) 24	4(4) 12	6(1) 5	'Epia'	2(3) 21	2(4) 8	3(3) 5
'Franklin'	((3) = )	2(2) 22	3(1) 4	'Eurema'	2(3) 21	2(4) 12	3(3) 5
'Morrell'	6(4) 9	2(2) 22		'Fiji'	_(-)	5(2) 32	6(1) 6
'Osprey'	6(2) 31	7(3) 22		'Flambee'	2(3) 22	2(4) 12	3(3) 5
Ospicy	0(2) 31	,(3) ==		'Golden Anniversary		-(-)	- ( ) -
Humulus				'Golden Girl'	6(2) 33		
'Hokuto Ace'	7(2) 8			'Golden Surprise'	7(1) 8	7(3) 42	
Hydrangea				'Heathermist'	5(4) 33	6(4) 25	7(4) 38
'Helen Rankin'	6(2) 32			'Illusion'	5(4) 33	6(4) 24	7(4) 38
'Kirsten'	5(2) 36	5(3) 10	6(2) 4	'Innocence'	5(4) 34	6(4) 32	7(4) 39
LK49'	5(2) 50	5(3) 10 5(3) 10	6(2) 5	'Isis'	5(1)51	5(2) 25	6(1) 6
'Messalina'	5(3) 17	5(5) 10		'Isopa'		3(2) 29 3(2) 29	4(1) 4
'Rotenfels'	5(3) 17			'Jasius'	2(3) 22	2(4) 12	3(3) 5
Rotemens	5(5)17			'Lanai'	2(3) 22	5(2) 30	6(1) 6
Iberis				'Lysandra'	3(2) 33	3(4) 19	4(4) 5
'Candy Glow'	5(1) 24		7(2) 29	'Marpesia'	5(2) 55	5(2) 31	6(1) 6
'Mount Hood Dusk	? 7(4) 6			'Maui'		5(2) 29	6(1) 6
'White Cloud'	5(3) 19			'Marumba'	2(3) 22	2(4) 14	3(3) 5
Impatiens				'Melissa'	2(3) 22	5(2) 27	6(1) 6
'Ambience'	7(3) 9			'Mimas'	2(3) 22	2(4) 14	3(3) 5 7(3) 49
'Ambrosia'	5(4) 34	6(4) 31	7(4) 39	'Nebulous'	2(3) 22 5(4) 34	6(4) 28	7(4) 39
'Anaea'	5(4) 54	4(1) 13	4(4) 5	'Octavia'	5(7) 54	5(2) 26	6(1) 6
'Antares'	5(4) 34	4(1) 13 6(4) 27	7(4) 39	'Papete'		5(2) 20 5(2) 28	6(1) 6
	5(4) 54	5(2) 33	6(1) 6	'Petula'		3(2) 28 3(2) 30	4(1) 4
'Antigua' 'Apollon'	2(3) 21	3(2) 33 2(4) 6	3(3) 5	'Phoebis'		$3(2) \ 30$ $2(4) \ 20$	3(3) 6 7(3) 49
'Arctia'	2(3) 21	2(4) 0 2(4) 20	3(3) 5 3(3) 6	'Radiance'	5(4) 34	2(4) 20 6(4) 27	7(4) 38
1 noua		2(4) 20	5(5) 0	manufice	5(7) 54	5(7) 21	

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	540.24	6 (A) 06	7(4) 20		Lechenaultia			
'Rosetta'	5(4) 34	6(4) 26 5(2) 20	7(4) 38		'Autumn Blue'	2(3) 21	4(1) 5	4(4) 5
'Samoa'		5(2) 29	6(1) 6 2(2) 5		'Flamingo'	2(3) 21	4(1) 5 1(4) 13	2(3) 4 7(3) 49
'Saturnia'	2(3) 22	2(4) 14	3(3) 5		'Starburst'		1(4) 13	2(3) 4 7(3) 49 2(3) 4 7(3) 49
'Selenia'	2(3) 22	2(4) 18	3(3) 5				1(4) 13	2(3) 4 7(3) 49 2(3) 4 7(3) 49
'Sesia'	2(3) 22	4(1) 11	4(4) 5		'Ultraviolet'		1(4) 15	2(3) 4 7(3) 49
'Shadow'	7(3) 9	- (2) 2-	(1) (		Leptospermum	5(7) 10	6(1) 26	6(4) 57
'Sphinx'		5(2) 25	6(1) 6	2) 40	'Aphrodite'	5(3) 18	6(1) 26	6(4) 53
'Sylvine'		2(4) 20		3) 49	'Rhiannon'	7(3)7		
'Tahiti'		5(2) 32	6(1) 6		Leucadendron			
'Tempest'	7(3) 9	2(4) 10		2) 40	'Katie's Blush'	3(3) 25	4(1) 8	5(1) 7
'Thecla'	2(3) 22	2(4) 18	3(3) 5 7(3	3) 49		7(3) 48		
'Tobago'		5(2) 27	6(1) 6		'World Vision'	7(1) 7		
'Tonga'		5(2) 27	6(1) 6		-			
'Trinidad'		5(2) 28	6(1) 6		Leucospermum			
'Vulcain'	2(3) 22	2(4) 18	3(4) 4		'High Gold'	7(4) 7		
'Yuletide'	6(2) 33				Lilium			
Juniperus					'Geneve'	2(3) 22		3(1) 36
'Blue Arrow'	6(1) 29				'Grand Cru'	2(3) 22		3(1) 36
					'Lucca'	2(3) 22		3(1) 36
Kalanchoe			- / I		'Menton'	2(3) 22		3(1) 36
'Blues'	3(2) 33	4(1) 7	5(1)7		'Mona Lisa'	2(3) 23	4(4) 5	5(4) 3
'Mazurka'	3(2) 33	4(1)7	5(1) 7		'Monte Rosa'	2(3) 23		3(1) 36
'Polka'	3(2) 33		6(4) 54		'Sancerre'	2(3) 23		3(1) 36
'Tarantella'	3(2) 33		6(4) 54		'Toscane'	2(3) 23		3(1) 36
Koeleria					'Venezia'	2(3) 23	4(2) 4	5(2) 5
'Barkoel'	7(1) 7				Limonium			
Lactuca					'Ballerina Rose'	3(2) 34	7(3) 9	
'Bronco'	7(3) 6				'Beltlaard'	4(2) 22	6(4) 11	7(4) 39
'Bulls Eye'	1(3) 12	1(4) 5	2(3) 4		'Crystal Yellow'	f(2) 22 5(4) 33	0(4) 11	7(3) 49
'Diamond'	7(1) 5	7(4)	2(3) 4		'Daicean'	5(3) 17	6(4) 20	7(4) 40
'Greenway'	7(1) 5	3(1) 7	3(4) 4		'Emille'	4(2) 22	6(4) 10	7(4) 39
'Frillice'	6(4) 8	5(1)7	5(4)4		'La Mer'	5(4) 33	0(4) 10	7(3) 49
	0(4) 8	5(1) 23	6(1)7		'Lavender Emille'	5(4) 33		7(3) 49
'Impact'		5(1) 25			'Oceanic Blue'	5(3) 17	6(4) 20	7(4) 41
'Magnum'	7(4)		6(3) 6		'Oceanic White'		0(4) 20	/(4) 41
'Marksman'	7(4)	7(4)			'Pink Emille'	5(3) 17 5(4) 22	6(4) 23	7(4) 40
'Mustang' 'Rodeo'	7(3) 6 6(4) 8		7(	2) 29	'Saint Pierre'	5(4) 33 4(2) 23	0(4) 23	7(4) 40
'Target'	1(3) 12	1(4) 6	2(3) 4	2) 29	'Sunday Light Blue			7(2) 29
'Wintersalad'	I(3) I Z	3(1) 7	2(3) 4 5(2) 5		'Sunday Pink'	5(4) 33		7(3) 49
w intersatau		J(1) /	5(2)5		'Tall Emille'	7(3) 8		7(3) 49
Lantana						(5) 8		
'Malans Gold'	7(4) 5				Linum			
'Monsuee'	5(2) 35	7(1) 10			'Eyre'	4(4) 22	5(4) 14	6(4) 53
'Rosie'	6(3) 45				'Wallaga'	4(4) 22	5(4) 13	6(4) 53
Lavandula					Lolium			
'Helmsdale'	7(1) 5				'Banks'	5(3) 20	7(3) 14	
'Henri Dunant'	6(3) 46					6(2) 34		
'Marshwood'	7(1) 5				'Boomer'	5(4) 32	6(3) 14	7(2) 29
'Sidonie'	6(4) 7				'Conker'	7(1) 9		
'White Lace'	7(3) 6				'Cordura'	6(2) 31	7(3) 21	

'Eclipse'	6(4) 6		7(4) 41	'Merlyn'	7(2) 5		
'Embassy'	4(2) 22	7(3) 10		'Pink Rose'	6(3) 44		
'Grasslands					7(2) 29		
'Greenstone'		3(4) 20	5(1) 6	'Rafzubin'	1(4) 23		
'Grasslands				'Red Elstar'	2(1) 14		
'Lincoln' ('Pacific')		6(3) 11	7(3) 48	'SA 244-20'	6(2) 33		
'Guard'	5(3) 20	7(2) 16		'SA 251-18'	6(2) 33		
'Jackaroo'	4(1) 23	5(1) 9	6(1) 7	10 A 050 1051	6(3) 46		
'LP15'	6(2) 31	7(3) 20		'SA 252-107'	6(2) 33		
'Noble'	6(3) 44	6(3) 40		(0) 07( 0)	6(3)46		
'Progrow'	1(3) 12	1(4) 7	2(3) 4 2(1) 15	'SA 256-24'	6(2) 33		
'Roper'	3(2) 33	6(2) 7			6(3) 46		<i>(</i> (1) <b>21</b>
'Taurus'	7(1) 9			'Southern Star'	4(2) 22		6(1) 31
'Vedette'	5(3) 19	6(4) 21	7(4) 40	'Summertime'	7(2) 7		
'Yatsyn 1'		1(3) 5	2(2) 4	'Sun Lady'	6(3) 44		
Lomandra					7(1) 33		
'Limeglow'	7(3) 9			Mandevilla			
-	. ,			'Cinderella'	6(4) 5		
Lophostemon				'My Fair Lady'		5(1) 2	6(1) 5
'Billy Bunter'	6(4) 5			'Pale Face'	7(4) 7		
Lotus				'Scarlet Pimpernel'		3(2) 12	4(1) 4
'Grasslands Goldie	, 5(3) 20	6(2) 24	7(3) 48	Medicago			
'Merlin's Gold'	6(1) 31			'Aquarius'	6(4) 9		
'Sharnae'	6(4) 5	7(2) 23		'Caliph'	5(3) 18	6(1) 26	6(4) 53
				'Eureka'	7(3) 5	0(1) 20	0(4) 55
Lycopersicon				'Flairdale'	7(2) 7		
'Alka'	7(3)9			'Herald'	7(4) 7		
Lysimachia				'Jindera'	7(3) 5		
'Golden Harvest'	6(3) 45			'L69'	5(2) 36	7(3) 11	
'Outback Sunset'	6(2) 33			'Mogul'	5(2) 35	6(1) 23	7(1) 32
'Silverbird'	5(3) 19			'Orion'	7(2) 7	-(-)	
	7(2) 29			'Prime'		4(1) 18	5(2) 5
14				'Quadrella'	3(2) 34	3(3) 18	4(2) 4
Macadamia		1(2) 7	2(1) 4	'Rivoli'	4(2) 23	4(4) 9	5(4) 3
'Hidden Valley A4'		1(2) 7	2(1) 4	'Sceptre'	5(3) 20		- ( )
'Hidden Valley A16		1(2) 9	2(1) 4	·5454'	6(2) 34		
'Hidden Valley A38	0(1)28	7(4) 21		14 1 1			
Macroptilium				Melaleuca			
'Aztec'	7(1) 7	7(2) 27		'Lemon, Lime and Dry'	6(1) 28		
Magnolia				'Phytogen'	7(1) 7		
'Vulcan'	5(4) 34			Thytogen	7(1)7		
	-(.)			Metrosideros			
Malus				'Midas'	3(4) 37		7(3) 49
'Big Time'	3(3) 25	4(4) 6	6(1) 7	Microlaena			
'Cepiland'	2(3) 22			'Griffin'	7(3) 6		
'GB63-43'	5(3) 19	6(2) 15	7(4) 40	'Shannon'	7(3) 6		
	6(3) 46			'Wakefield'	7(3) 6		
'Galaxy'	7(1) 9				× / -		
'Jonagored'	2(2) 30			Nandinia			
'Lancep'	2(3) 22			'Gulf Stream'	7(1)7		

					'Palmyra'	6(1) 30		
Nephrolepis	(4) 0				'Pampas Fire'	6(1) 29	7(1) 15	
'Capricorn Gold'	6(4) 8				'Pink Confusion'	6(2) 32	(1) 15	
Ornithopus					'Pink Flirt'	6(1) 30		
'Grasslands Koha'		1(4) 16	2(4) 5		'Pink Highlights'	7(3) 8		
0 4					'Pink Mischief'	6(1) 29		
Ozothamnus	6(1) 20	6(4) 43	7(4) 40		'Pink Organdy'	6(1) 30		
'Cook's Snow White'	6(1) 29 6(1) 29	6(4) 45	7(4) 40		'Pink Panther'	6(1) 29	7(1) 16	
'Cook's Tall Pink' 'Redlands Sandra'	7(4) 6	0(+)+5	7(4) 40		'Pink Victory'	6(4) 9	7(1) 17	
Reulanus Sanura	/(+)0				'Poulina'	5(4) 32		
Panicum					'Purple Flip'	6(1) 30		
'Natsukaze'		2(2) 20	5(1) 6		'Purple Frills'	6(1) 30		
'Natsuyutaka'	4(2) 22	6(2) 8	7(3) 48		'Purple Starlight'	6(1) 30		
'Shadegro'	7(3) 6	7(3) 43			'Purple Sunspot'	6(1) 30		
Paspalum					'Pygmy Rose'	6(1) 30		
'Riba'	7(3) 8				'Rainbow Warrior'	6(1) 30		
Kiba	7(5) 0				'Ravenna Purple'	6(1) 30		
Persea					'Red Cavalier'	6(2) 32		
'Esther'	2(4) 38			5(1) 26	'Revolution			
'Gwen'	2(4) 38				Brilliantpink'	6(2) 34		
'Whitsell'	2(4) 38			5(1) 26	'Revolution			
Petunia					Brilliantpink-Mini'	6(2) 34		
'Abundance'	6(1) 30				'Revolution			
'Aurora'	6(2) 32				Pastelpink'	6(2) 34		7(2) 29
'Batavian Night'	6(1) 30				'Revolution Purple			
'Blue Highlights'	7(3) 8				Pink'	6(2) 34		
'Blue Opal'	6(1) 30				'Revolution White'	6(2) 34		
'Blue Wren'	6(1) 29				'Ruby Jewel'	6(2) 32		
'Blushing Pink'	7(3) 8				'Starfire'	6(2) 32		
'Bonnie Belle'	6(1) 30				'Scarlet Dixie'	6(1) 29		
'Cimbrian Glow'	6(1) 30				'Sierra Snow'	6(1) 29		
'Cobbitty Rose'	6(1) 30				'Snow Pet'	6(1) 30		
'Colour Flip'	6(1) 30				'Southern Desire'	6(1) 30		
'Corsican Love'	6(1) 29				'St. Elmos Fire'	6(1) 29		
'Crimean Flame'	6(1) 30				'Star Rider'	6(1) 30		
'Eureka'	6(2) 32				'Starfire'	6(2) 32		
'Fire Flash'	6(1) 30				'Sunfire'	6(2) 32		
'Firewalker'	6(1) 30				'Sunangel'	7(1) 8		
'Galactic Flame'	6(1) 30				'Sunangelface'	7(1) 8		
'Hotlips'	6(1) 30				'Sunbride'	7(1) 8		
'Kilkenny Bells'	6(2) 32				'Suncharmer'	7(1) 8		
'Liberty Bell'	6(1) 30				'Suncocktail'	7(1) 8		
'Lollipop'	6(2) 32				'Suncool'	7(1) 8		
'Maralinga'	6(1) 30				'Suneclipse'	7(1) 8		
'Mariposa Red'	6(1) 30				'Sunfrills'	7(1) 8		
'Merriman'	6(1) 30				'Sungazer'	7(1) 8		
'Midnight Sun'	6(1) 30				'Sunkiss'	7(1) 8		
'Mixtecan Fireworks					'Sunlace'	7(1) 8		
'Montezuma Sunset		7(1) 16			'Sunlark'	7(2) 7		
'Musicmaker'	6(2) 32				'Sunmarble'	7(1) 8		
'Orion'	6(2) 32				'Sunprom'	7(1) 8		

'Sunseeker'	6(2) 32			Prunus			
'Sunsnow'	6(1) 30			'110GD11'	7(3) 8		
	7(1) 33			'Afterglow'	4(1) 24		4(3) 26
'Sunstormer'	7(1) 8			'April Glo'	7(3) 8		
'Suntruce'	7(1) 8			'Arctic Queen'	7(3) 8		
'Sweet Victory'	6(1) 29	7(1) 16		'Arctic Rose'	5(3) 20	7(4) 9	
'Thai Silk'	6(1) 30			'Arctic Snow'	7(3) 8		
'Velvet Columbine	6(2) 32			'Atlas'	7(4) 6		
'Wedding Bells'	6(1) 30			'Brooks'	6(4) 8	7(4) 25	
'White Sierra'	6(1) 30			'Camil'	6(2) 32		
Phalaris				'Celeste'	7(2) 5		
'Holdfast'		3(1) 13	3(4) 4	'Citation'	6(3) 45		
molulast		5(1)15	5(4) 4	'Damil'	6(2) 32		
Phaseolus				'Empress'	4(2) 22	5(2) 8	6(1) 7
'Barracuda'	7(2) 6			'Flavor Queen'	7(4) 5		
'Bronco'	1(4) 23	2(2) 13	3(1) 5	'Flavor Supreme'	7(4) 5		
'Celtic'	7(2) 6			'Gaudion'	2(3) 22		
'Gresham'		2(2) 15	3(1) 4 5(3) 6	'GM9'	6(2) 32		
'Jade'	5(1) 25	6(4) 14	7(4) 41	'Harmonie'	2(4) 37		3(4) 37
'Matador'	6(1) 31			'Junecrest'	2(3) 21	7(2) 9	
'Phoenix'	6(1) 31	6(4) 48	7(4) 41	'Lapins'	4(1) 23		5(1)7
'Rainbird'	5(4) 34	6(4) 30		'Melodie'	2(4) 37	7(2) 12	
'Rosario'	6(4) 8			'Nectarzee'	7(3) 8		
'Sarande'	6(4) 8			'Pixzee'	7(3) 8		
'Sirius'	5(4) 34	6(4) 29		'Primetime'	7(1) 7		
'Spearfelt'	6(2) 31	6(4) 47		'Red Velvet'	3(3) 25		7(3) 49
'XPB 247'	6(2) 34	6(3) 37	7(4) 40	'Rich Lady'	5(3) 20	7(4)	
	. ,			'Rich May'	7(4) 5		
Photina	_			'Royal Velvet			
'Allyn Sprite'	7(4) 7			'Plumcot'	5(3) 18		7(3) 49
Pimelea				'Showtime'	7(1) 7		
'Pink Bouquet'		4(3) 21	5(3) 5	'Snow Diamond'	4(2) 22		7(3) 49
-				'Summerland'	7(2) 5		
Pinus				'Sweetheart'	7(1) 9		
'Amber Gold'	6(4) 5	6(4) 49	7(4) 40	'Sylvia'	7(2) 5		
Pisum				'Symphonie'	2(4) 37	7(2) 11	
'Bluey'		4(1) 22	5(4) 3	'Tasty Zee'	2(3) 21	7(2) 9	
'Bonzer'		4(3) 20	7(3) 47	'Venus'	7(4) 6		
'Dinkum'		1(4) 19	2(3) 4	'Winter Sun'		3(4) 21	5(1) 7
'Flinders'	4(4) 21		6(3) 46	'Zee Glo'	6(3) 45		
'Frolic'	2(2) 30		3(4) 37	'Zee Lady'		7(2) 10	
'Jupiter'	5(3) 18	6(1) 25	6(4) 53	Pyrus			
'Solara'	2(2) 30		3(2) 34	'Claremont'	4(2) 23		6(3) 46
	- *			'Daisui Li'	2(4) 38		
Plumbago	<b>T</b> ( <b>2</b> ) 10			'Shin Li'	2(4) 38		
'Monott'	5(3) 19	7(2) 14		'Sophia's Pride'		6(2) 26	7(2) 28
Protea							· ·
'Joey'	4(1) 24	6(4) 9	7(4) 40	Radermachera	a	–	
'Pixie'	6(4) 7	-		'Kaprima'	3(4) 37	4(4) 7	5(4) 5
'Possum Magic'	4(1) 24	6(1)7		Rhipsalis			
č	. /			-			

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'Matilda'	6(4) 9			'Miniwonder'	6(2) 34		
	0(1) 2			'Delicious'	5(2) 35		
Rhododendron				'Devilk'	6(3) 43		
'Australian Cameo	• /			'Devnovia'	6(3) 43		
'Australian Rainbow				'Devrise'	6(3) 43		
'Australian Sunset'	6(3) 45			'Devtinta'	6(3) 43		
'Coconut Ice'		3(3) 20	4(2) 4	'Dicmoppet'	6(2) 31	7(1) 26	
'Colleen Fahey'	7(2) 6	7(4) 30		'Dicobey'	-(-)	5(2) 15	7(2) 28
'Evonne Goolagong	g' 7(3) 7	7(4) 34		'Dollar'	4(4) 22	6(1) 7	6(4) 53
'Fiesta'		4(4) 16	6(3) 6	'Dorothea Howard'	· · ·		0(1)00
'Maria's Choice'	6(3) 44			'Fairy Fire'	6(2) 32		
'Ostalett'	7(2) 6	7(4) 30		'Frystar'	7(4) 7		
'Ostali'	7(2) 6	7(4) 31		'Frytranquil'	7(4) 7		
'Otto'	7(2) 6	7(4) 36		'Frytrooper'	7(4) 7		
'Princess Barbara'	7(3)7	7(4) 16		'Golden Friendship		4(2) 14	5(4) 3
'Princess Charlotte	, 7(3)7			'Hans Christian		4(2) 14	5(4) 5
'Princess Pat'	7(3) 7	7(4) 36		'Anderson'	4(1) 24	4(3) 17	5(3) 6
'Princess Sharon'	7(3) 7	7(4) 35		'Happy Days'	4(1) 24	4(3) 17	5(3) 5 5(3) 5
'Sydney's Sesqui'	5(1) 24	5(4) 15	6(3) 6	'Harwoey'	7(3) 5	4(3) 11	5(5) 5
'Theo'	7(2) 6	7(4) 31		'Interlien'	T(3) 3	4(1) 20	5(4) 3
n 1 · ·				'Intermotto'		4(1) 20	
Robinia	2.2.25			'Interniki'			5(4) 3 5(4) 3
'Purple Crown'	3(3) 25			'Interonly'	6(3) 44	4(1) 21	5(4) 3 7(2) 22 5(4) 2
Rosa				'Interpeach'		4(2) 18	7(3) 32 5(4) 3
'Adelfi'	4(4) 22		6(1) 31	merpeach	7(2) 9		
'Aotearoa'	5(1) 25	5(3)7	6(2) 5	'Interprince'	7(4) 5	4(1) 20	5(4) 2
'Arobipy'	3(2) 34	3(2) 17	4(1) 4	'Interpur'	7(1) 5	4(1) 20	5(4) 3
'Arotrusim'	3(2) 34	3(2) 18	4(1) 4	'Intersept'	7(1) 5		
'Ausblush'	3(2) 33	6(3) 8	7(2) 29	'Intersiree'	7(1) 5		
'Ausbord'	4(2) 22			'Intertyn'	7(1) 5		
'Ausbreak'	7(1) 9			'Jacable'	7(1) 5		
'Auscot'	3(2) 33	6(3) 6	7(2) 29	'Jacdash'	7(1)6		
'Auscrim'	6(2) 33	7(3) 24		'JACient'		612225	7(2) 47
'Ausfin'	6(2) 33	7(3) 24			6(1) 29 6(1) 20	6(3) 35	7(3) 47
'Ausmit'	5(3) 18	7(3) 12		'JACpif'	6(1) 29	6(3) 33	
'Ausreef'	7(1) 9	(3) 12		'JACyef'	6(1) 29	6(3) 32 2(2) 5	2(2) 5
'Ausvelvet'	7(1)9			'Keijourna' 'Keimoue'	2(1) 14	2(3) 5	3(2) 5
'Auswhite'	4(2) 22	6(3) 9	7(2) 28	'Keimove' 'Keinoumi'	7(3) 8	4(2) 9	5(2) 5
'Auswonder'	7(1) 9	0(3) 5	(2) 20	'Keitaibu'	3(4) 36	4(3) 8	5(3) 5
'Benfig'	6(3) 44	7(3) 35		'Keizoubo'	3(3) 25 5(3) 19	4(3) 8	5(3) 5
'Breathless'	7(1) 6	(0) 50		'Kimba'	5(1) 24	5(4) 21	6(3) 6
'Brigadoon'	5(1) 25	5(3) 9	6(2) 5	'Kooiana Daybreak		3(2) 10	4(1) 4
'Bruninitial'	6(2) 31	7(1) 24	$\mathcal{O}(2)$ 5	'Korbacol'	7(2) 8	3(2) 19	4(1) 4
'Catherine McAuley		6(3) 34	7(3) 48	'Korbolak'		2(2) 22	471) 4
'Cecilia'	0(1)2)	4(2) 19	5(3) 5	'Korcilmo'	3(1) 36	3(2) 22	4(1) 4
'Chameleon'	5(4) 34	7(2)19	5(5) 5		7(2) 8		
'Class Act'	5(1) 25	5(3) 8	6(2) 5	'Korcrisett' 'Kordaba'	7(2) 8		
'Cocdestin'	3(1) 23 3(2) 33	4(2) 12	5(4) 3	'Korferse'	7(2) 7	4(2) 20	6(4) 57
'Coral Parade'	5(2) 55	<b>⊣(∠)</b> Ι∠	J(T) J	'Korkunde'	3(1) 24	4(2) 20	6(4) 53
('Poulals')	5(4) 32			'Korlaper'	3(1) 36 7(2) 8	3(2) 23	4(1) 4
(Poulais) 'Crimson	5(4) 52			'Kormador'		3(2) 24	4(1) 4
Crimoon				NOTHIQUOI	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) 53 6(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'			5(3) 5
'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	0(1)10		'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	0(5) 55		'Poulann'	5(4) 32		
'Meigovin'	3(1) 28	3(4) 4		'Poulcar'	5(4) 32		
'Meigronurisar'		6(1) 15	6(4) 53	'Poulci'	5(4) 33		
Mergronulisur	7(1) 33	0(1) 15	0(1) 55	'Poulester'	5(4) 32		
'Meijaudiair'	3(4) 36	4(3) 9	5(3) 5	'Poulina'	5(4) 32		
'Meikister'	6(4) 5	ч(3) У	5(5) 5	'Pouloral'	5(4) 33		
'Meikrusa'	0(4)5	2(3) 10	3(2) 5	'Poulspor'	5(4) 32		
'Meilarac'	7(4)	2(3) 10	5(2) 5	'Poulstar'	5(4) 32		
'Meilipo'	6(1) 29	6(3) 19		'Poulvic'	5(4) 32	4/22 12	5/0> 5
'Meilivar'	$0(1) 2^{j}$	3(4) 32	5(3) 5	'Precious Michelle'	4(1) 24	4(3) 12	5(3) 5
'Meimagul'	7(4) 6	5(4) 52	5(5) 5	'Quaker Star'	5(4) 22	4(2) 13	5(4) 3
'Meineble'	4(2) 23	6(2) 10	7(4) 40	'Queen Parade'	5(4) 32		
'Meinivoz'	7(3) 6	0(2)10	/(+)+0	'Pink Parade'	5(4) 32	4(2) 12	
'Meinochot'	5(1) 25	6(3) 10	7(3) 48	'Remember Me'	4(1) 24	4(2) 12	5(2) (
'Meioffic'	5(1) 23 6(4) 7	0(3)10	7(3) 48	'Rock & Roll'	4(1) 24	4(3) 12	5(3) 6
	5(3) 19	5(4) 28	6(3) 6	'Royal Parade'	5(4) 32		
'Meiperol'	5(5) 19	5(4) 28		'Ruialex'	7(1) 9		
'Meipinjid' 'Meipitac'	5(3) 20	2(2) 24 7(4) 12	3(1) 4	'Ruicharm'	7(1) 8		
'Meiplatin'	4(4) 22	6(1) 14	6(4) 53	'Ruichris'	7(1) 9		
'Meiponal'	T(T) 22	3(1) 29	3(4) 4	'Ruidiggel' 'Ruidriko'	7(1) 8 5(4) 33	7(3) 17	
'Meipopul'	5(4) 33	5(1) 29 7(4) 14	J(T) T	'Ruifire'	5(4) 55 7(1) 8	(3)17	
'Meirolour'	5(+) 55	2(3) 11	3(2) 5	'Ruigal'	7(1) 8		
wicholoui		2(3) 11	5(4) 5	Kuigai	7(1)0		

7(3) 49

'Ruipipi'	7(1) 9			Sanvitalia			
'Ruirodella'	7(1) 8			'Pizzaro's Button'	5(2) 35		7
'Ruirovingi'	7(1) 6			T IZZULO S DULLON	5(2) 55		,
'Ruizesac'	6(3) 44	7(3) 31		Sapium			
Kulzesae	6(4) 54	/(5) 51		'Johan Harder'	4(4) 21		
'San-Ka'	6(2) 31	7(1) 27		Scabiosa			
'Savabear'	7(2) 5	/(1) 27		'Butterfly Blue'	5(3) 18	5(4) 20	6(4) 53
'Savaje'	6(3) 46	5(4) 18	7(2) 28	, ,	6(2) 35		
'Savoy Hotel'	0(5) 10	5(2) 16	7(2) 28	'Pink Mist'	5(3) 18	5(4) 20	6(4) 53
'Schobitet'		3(1) 27	3(4) 4		6(2) 35		
'Selalu'	4(4) 22	6(1) 13	6(4) 54	a l			
'Selargon'	4(4) 22	6(1) 10 6(1) 10	6(4) 54	Scaevola			
'Selcarbonium'	7(1) 6	0(1)10	0(1) 51	'Golden Fanfare'	7(2) 8		7(1) 22
'Selchroom'	7(1) 6			'Petite Cascade'	5(3) 19	6(2) 24	7(1) 32
'Selferr'	4(4) 22	6(1) 10	6(4) 54	(Dans) Farfara'	6(4) 54		
'Selhafnium'	7(1) 6	0(1)10	0(1)51	'Royal Fanfare'	7(3) 6		
'Selnessee'	5(1) 24	6(1) 12	6(4) 54	Schlumbergera			
'Selscandium'	7(1) 6			'Aspen'	7(3)7		
'Selspray'	4(4) 22	6(1) 11	6(4) 54	'Bridgeport'		2(4) 30	3(3) 5
'Seltitaan'	4(4) 22	6(1) 13	6(4) 54	'Cambridge'		2(4) 31	3(3) 5
'Sheer Bliss'	5(1) 25	5(3) 6	6(2) 5	'Christmas Fantasy	,	3(2) 10	4(1)4
'Smooth Melody'	7(1) 6	、 <i>,</i> ,		'Gold Fantasy'		2(4) 34	5(1) 6
'Smooth Perfume'	7(1) 6			'Holiday Splendor'	6(3) 44		
'Smooth Prince'	7(1) 6			'Lavender Fantasy'		3(4) 22	4(3) 6
'Spevu'	7(2) 5			'Madame Butterfly	,	1(3) 7	2(2) 4
'Stebigpu'		3(2) 16	4(1) 4	'Magic Fantasy'		3(4) 22	4(3) 6
'Starlight Parade'	5(4) 32			'Orange Fantasy'		2(4) 35	3(3) 5
'Summer Fragranc	e'	4(2) 13	5(4) 3	'Pasadena'	7(3) 7		
'Suntink'	6(1) 28	7(3) 18		'Sanibel'	5(3) 19	7(2) 14	
'Sunwend'	6(1) 28	7(3) 18		'Santa Cruz'		2(4) 36	3(3) 5
'Sweet Inspiration	7(1) 6			'Sleigh Bells'	6(3) 44		
'Tanakinom'	5(4) 35	7(1) 12		'Windsor'	5(3) 19	7(2) 15	
'Taneitber'	6(2) 35	5(2) 16	7(2) 28	Scholtzia			
'Tanfudermos'			6(2) 4	'White Cascade'	6(4) 7		
'Tanireb'	5(4) 35				0(1) /		
'Tanschaubud'		3(2) 21	4(1) 4	Serruria			
'Tenessee'	4(4) 22	6(1) 7	6(4) 54	'Sugar'n'Spice'		3(4) 30	4(4) 4
'Tineke'	3(4) 36	4(2) 6	5(1) 7	'Superb Blush'	6(4) 7		
'Victory Parade'	5(4) 33			Sesamum			
'Welpeach'	7(1) 5			'Aussie Gold'	6(1) 28	7(1) 14	
'Welpink'	7(1) 5			'Beech's Choice'	6(1) 28	7(1) 13	
'Welred'	7(1) 5	- /	. <b>.</b> .	<b>G</b>			
'White Simplicity'	5(1) 25	5(3) 8	6(2) 5	Setaria		1/2> 10	2(2) (
'Woman's Day'	5(3) 17	1(0) 10	2(2) (	'Splenda'		1(3) 10	2(2) 4
'Young at Heart'		1(2) 13	2(2) 4	Simmondsia			
'Yu Giri'	7(2) 4			'Barindji'		3(1) 14	3(4) 4
Santalum				'Wadi Wadi'		4(4) 19	6(1) 6
'Powell's Number	One'	6(1) 27		'Waradgery'		3(1) 14	3(4) 4
Santolina				Solanum			
'Lemon Fizz'	7(4) 6			'Azur'	7(1)7		
	7(1)0			4 12/41	$(\mathbf{x})$		

'Forta'	7(1)7			'Goulburn'		4(4) 19	6(3) 6
'Gladiator'	7(2) 6			Grasslands Colens			3(3) 22 5(4) 3
'HiLite Russet'	6(1) 28	6(3) 16	7(2) 28	'Grasslands Deman		6(1) 29	6(3) 41 7(3) 48
'Karlena'	6(2) 32			'Grasslands Kopu'		4(3) 6	
'Liseta'	4(4) 21	5(4) 6	6(3) 6	'Grasslands Prestig		6(1) 29	6(3) 21 7(3) 48
'Maradonna'	4(4) 21	5(4) 6	6(3) 6	'Grasslands Tahora	,	2(2) 28	3(2) 5
'Mondial'	4(4) 21	5(4)6	6(3) 6	'Kyambro'		2(2) 17	3(1) 4
'Morene'	1(3) 13	3(2) 6	5(1) 6	'Leura'		4(2) 7	6(1)5
'Nadine'	5(3) 18	7(4) 8		'Nuba'		3(1) 11	4(1) 4
'Panda'	5(1) 25			'Prop'	6(4) 6	6(4) 50	7(4) 40
'Pepo'	7(1)7			'Rosedale'		2(2) 19	3(3) 6
'Snow Gem'	6(3) 43			'York'	6(4) 9	7(3) 41	
'Wilwash'		4(2) 17	5(4) 5	X Triticosecale			
'Winlock'		3(2)7	4(1) 4	'Abacus'		5(1) 17	6(1) 5
a				'Maiden'	6(2) 31	5(1)17	0(1)5
Spathiphyllum	7/2) (			Mulden	0(2) 51		
'Bond A'	7(3) 6	7(1) 0		Triticum			
'Caroline'	5(1) 26	7(1) 9		'Amery'	6(4) 8	7(4) 26	
'Gorgusis 1'	4(4) 22			'Lawson'	4(2) 23	4(4) 10	5(3) 6
'Leprechaun'	6(4) 9			'Pelsart'	6(4) 6	7(4) 23	
'Sandra'	6(2) 33	7(1) 23		'Rowan'	6(4) 6	7(4) 230	
'Tamborine Gold'	6(2) 32			'Stretton'	6(4) 8	7(4) 25	
Stenanthemum				'Sunstate'	6(2) 34		
'White Mischief'	5(2) 35	6(1) 24	7(1) 32	'Stiletto'	7(1) 5		
	0(1)00	0(1) = 1	. (-) =	'Tasman'	6(4) 6	7(4) 24	
Stylosanthes				'Wollaroi'	6(2) 33		
'Amiga'		3(3) 23	5(1)7	Vicia			
'Feira'		3(4) 33	4(4) 5		7(1) 5	7(4) 7	
'Jecuipe'		3(4) 33	4(4) 5	'Icarus'	7(1) 5	/(4)/	
'Recife'		3(4) 33	4(4) 5	Vigna			
Syngonium				'Big Buff'	6(1) 28	6(3) 17	7(3) 48
'Ultra'	5(2) 35	6(1) 22	6(4) 53		6(2) 35		
Ollia	5(2) 55	0(1) 22	0(1) 55	'Black Pearl'	7(2) 7	7(3) 43	
Syzygium				'Emerald'	6(1) 27	6(3) 15	7(3) 48
'Blaze'	6(3) 45	7(3) 38		'Holstein'	6(1) 28	6(3) 17	7(3) 48
'Hedgemaster'	7(1)7			Viola			
'Lillyput'	5(1) 25	6(1) 22	6(4) 53	'White Angel'	6(1) 27		
'Undercover'	6(4) 5			white Angel	0(1) -7		
Telopea				Vitis			
'Cardinal'	7(3) 7			'King Husainy'	4(4) 22		
'Fire and Brimston				'Moss'	1(4) 23	3(4) 5	6(1) 6
'Olympic Flame'	0 1(2)0	3(3) 16	5(2) 5	'Ralli Seedless'	5(4) 34		
'Sunburst'	3(3) 16	5(5)10		'Sugraone'	4(3) 25		
'Sunflare'	5(5)10	3(3) 16	5(2) 5		7(1) 32		
Summe		5(5)10	5(2) 5	'Sugrafive'	4(3) 25		
Trifolium				Xanthostemon			
'Astred'	4(1) 23	5(4) 7	6(1) 7	'Tropic Splendor'		5(1) 24	6(1) 5
'Clever Club'	7(4) 7					- 、 <i>) =</i> ·	
'Denmark'		4(4) 18	6(3) 6	Zoysia			
'Gosse'	5(4) 34	7(1) 13		'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 0.5m between rows and 0.5m 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

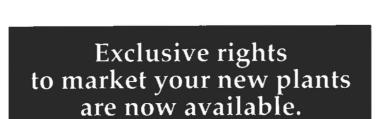
The combination of later flowering (compared to 'Japanese') and high tiller number make 'Indus' suitable for use as a pioneer nurse crop especially in reclamation of disturbed areas such as roadsides and real estate developments.

Description prepared by Mr BC Pengelly, CSIRO Division of Tropical Crops and Pastures, St Lucia, Queensland.

### Table 21 Millet Varieties

(\*=comparator)

	'Indus 87'	'Indus 93'	*'Japanese'	*'Siberian'
TIME TO FLOV	VERING (days	s after 1 Nover	mber)	
mean	38.9	41.9	33	80.2
std. deviation	6.9	6.2	N/A <sup>1</sup>	5.7
significance		P<0.01	N/A	P<0.001
HEIGHT TO FL	.AG LEAF (cm	1)		
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 NUMBI	ER			
mean	48.5	40.0	15.2	49.9
std. deviation	10.6	7.3	4.0	11.0
significance		P<0.001	P<0.001	NS
STEM ANGLE	TO SOIL SUF	RFACE (degree	es)	
mean	59.0	59.5	62.7	52.4
std. deviation	9.2	8.0	5.1	6.5
significance		NS	P<0.001	P<0.001
INFLORESCEN	NCE LENGTH	(cm)		
mean	152.0	150.2	81.4	162.0
std. deviation	18.7	15.6	15.8	19.6
significance		NS	P<0.001	P<0.001
ANGLE OF LO	WEST RACE	ME TO STEM	(degrees)	
mean	67.4	67.7	24.0	79.8
std. deviation	12.7	10.6	12.2	8.4
significance		NS	P<0.001	P<0.001



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

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If you would like more information please contact PVR Office, DPIE. GPO Box 858 Canberra ACT 2601. Telephone 06 272 4228. Facsimile 06 272 3650.

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