

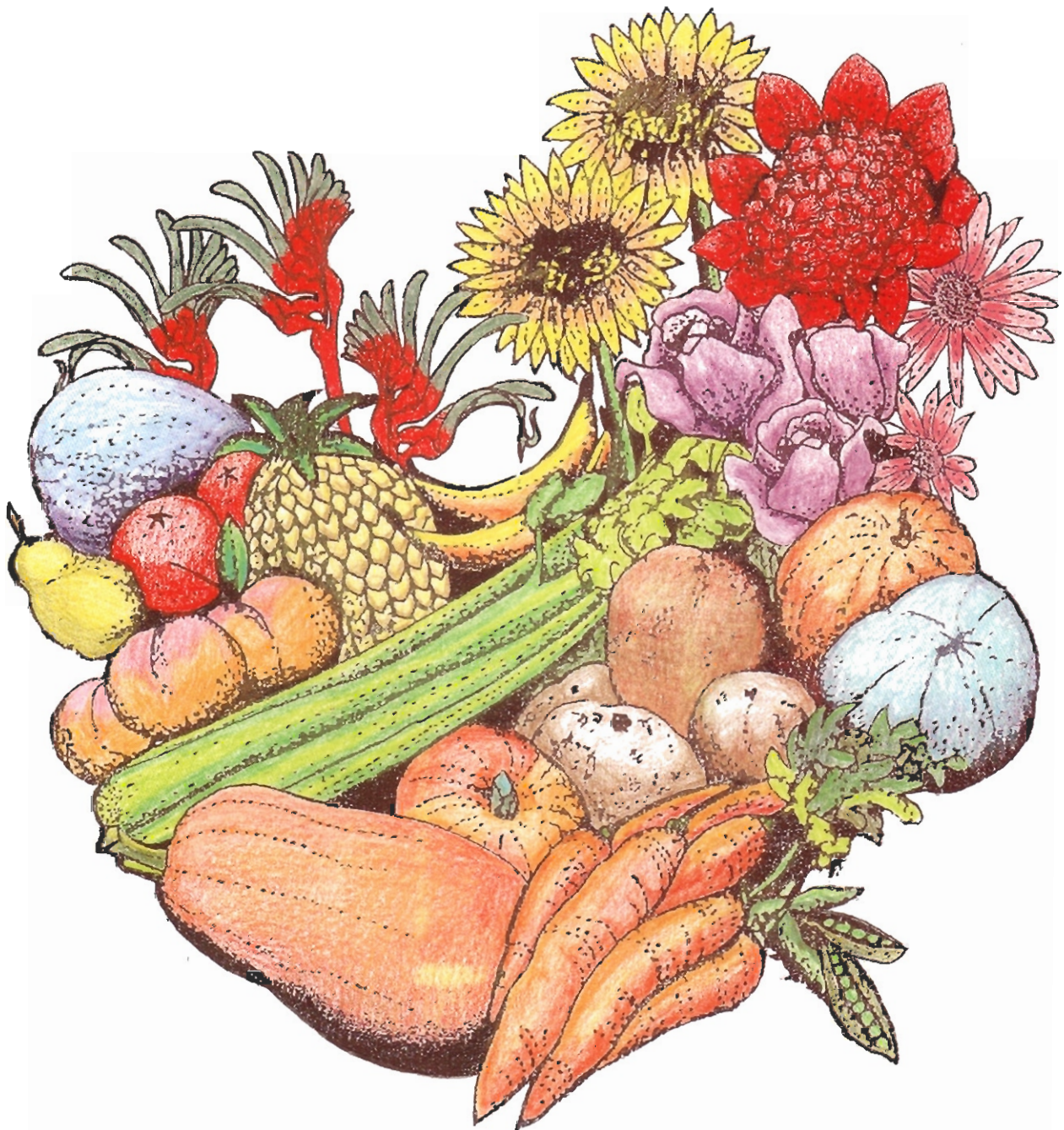


Plant Varieties Journal

June 1992

Volume 5

Number 2



Official Journal of the Australian Plant Variety Rights Office



COOPERATIVE RESEARCH CENTRE FOR PLANT SCIENCE

in association with the

AUSTRALIAN PLANT VARIETY RIGHTS OFFICE, DPIE

presents a Workshop on

***MOLECULAR TECHNIQUES FOR ESTABLISHING
PLANT VARIETY RIGHTS***

to be held on

THURSDAY 30 JULY 1992

10 am to 3 pm

**WHEAT RESEARCH INSTITUTE,
TOOWOOMBA QLD**

The CRC for Plant Science and the PVR office are developing techniques for the molecular description of plants, using in particular, molecular technology.

The Workshop, which is open to all interested parties, at no cost, will include the following sections:

- . the CRC for Plant Science - its mission and role in developing techniques
- . the PVR scheme and the advantages of molecular descriptions
- . a description of currently available technologies for molecular description including RFLP mapping, PCR methods and protein gel electrophoresis
- . the legal issues relating to protection of intellectual property
- . feedback from growers, breeders, corporations - which areas (species or industry sectors) have the greatest need for molecular characterisation?

The CRC for Plant Science has a strategy for developing techniques and procedures for plant characterisation. PVR issues will be included in the Centre's Education program. If there is sufficient industry demand, the Centre will also establish a testing facility which, using approved protocols, will be offered as a service to industry, both in Australia and overseas.

All interested persons are invited to attend and should confirm their attendance with Dr Paul Brennan, Wheat Research Institute (telephone: (076) 346 644).

Contact with the Plant Science Centre can be made with *Chris Buller, Executive Officer,*
Telephone: (06) 249 2330 Fax (06) 247 5896

Editorial

The PVR Office and the Advisory Committee continually strive to provide a more convenient, efficient and effective PVR Scheme in Australia. Several ongoing and new developments, the details of which are given in the following pages of this issue, will contribute to these goals.

The program of amendments to the Act to improve the PVR Scheme is on schedule and we anticipate that they will go into effect by the end of 1992. The change of the name of the Act to "*Breeder's Rights Act*" is among the more notable of the proposed amendments. This change will not make any impact on the operations of the PVR Scheme. The scheme will in time become the "*Breeder's Rights Scheme*". PVR will be "BR" and so on. The question that arises is why change the name. The aim of this change is to emphasise that the Act, like the 1991 UPOV Convention, is focused on the rights of the breeder rather than the variety. In addition, if it is considered in the national interest to do so in the future, the change of name will technically pave the way to extend the scheme to non-plant species, such as fungi and other non-plant species, which is the trend in several other member countries of UPOV. Other proposed amendments are detailed in Part 1 of this issue.

The September 1991 issue of the *Plant Varieties Journal* gave details of policy on the use of chemical characters in DUS test data. An innovative development over the past months has been the establishment of a collaborative project between the PVR Office and the Cooperative Research Centre for Plant Science (based at Australian National University) to place molecular techniques for establishing DUS on a standardised basis. The PVR Office believes that molecular criteria will, over the next decade, increasingly play an important role in the identification of new varieties for breeder's rights.

Centralised testing by independent agencies on behalf of a consortium of breeders has considerable merit and is strongly recommended for consideration by all breeders. The technical, legal and cost advantages of centralised testing are given in this issue and they appear to outweigh any perceived disadvantages. The PVR Office proposes to amend fee regulations in 1992 so as to pass on to applicants the reductions in cost of the field examination of several varieties at centralised test sites.

Collection of royalties on protected varieties can be a costly burden on breeders and may detract from the advantages of PVR. The formation of a private, independent breeder's royalty collection agency similar to the successful scheme in the UK described in the following pages may be a less costly and a more effective way for breeders to collect royalties.

Due to the unstinting efforts of the PVR office staff and the cooperation of all their clients the PVR Scheme is likely to achieve all the projected performance targets for the 1991/92 financial year. The basic targets were: 160 applications, 60% cost recovery and no rise in the cost of the scheme for the taxpayer.

Dr Mick Lloyd

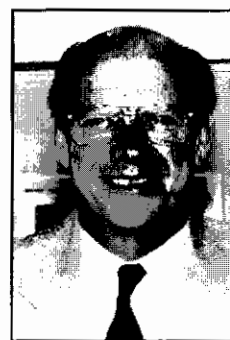
DIRECTOR: PLANT VARIETY RIGHTS OFFICE

**CLOSING DATE FOR SEPTEMBER ISSUE
22 JULY 1992**

| | | |
|-------------------------|-----------------|--|
| Editorial Panel: | Registrar: | Dr Mick Lloyd |
| | Examiners: | David Thearle, Mark Kethro, Libby Pulsford |
| | Administration: | Margaret Winsbury |

Assistance with scientific names from Lyn Craven, Australian National Herbarium, Division of Plant Industry, CSIRO.

The editors welcome comments and short articles from all sectors of the plant breeding industry for publication in the *Plant Varieties Journal*. Authors should follow the guide on the inside back cover.



Dr Mick Lloyd



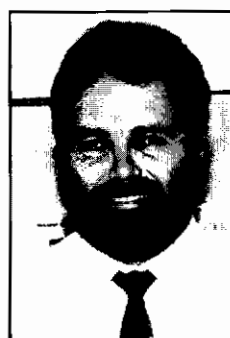
Libby Pulsford



Mark Kethro



Margaret Winsbury



David Thearle

Part 1—General

Molecular Techniques and PVR

A successful application for Plant Variety Rights protection depends on the breeder demonstrating that their variety meets three essential criteria; distinctiveness, uniformity and stability. At present, these criteria are typically assessed by comparisons of the morphology of similar plants grown in a comparative growing trial. However, there is growing interest in establishing biochemical or molecular biology techniques, which analyse the protein or DNA content of plants, to supplement or supersede morphological comparisons as the evidence on which Plant Variety Rights applications are based. The availability of biochemical or molecular biology techniques would also assist breeders in defending their property in cases where the breeder believes their rights have been infringed.

On Thursday July 30, the PVR Office and the Plant Science Centre will conduct a workshop in Toowoomba on the biochemical and molecular biology techniques which can be used to support Plant Variety Rights applications. Workshop presentations will show how the techniques can be used to support PVR applications, discuss the legal implications of the use of the techniques, and will describe the techniques and their application to PVR. The workshop will also provide a forum for industry, researchers, and PVR Office staff to identify present and future industry needs, and the research and support services necessary to service those needs.

The Plant Science Centre was recently established in Canberra as part of the network of Cooperative Research Centres set up by the Federal Government in 1990 to foster collaboration between universities, the CSIRO, Government agencies and industry. The Plant Science Centre brings together researchers from the Australian National University, the CSIRO Division of Plant Industry, Biocem Pacific and a number of industry partners. The Centre aims to exploit and develop techniques for improving plants for Australian agriculture.

The workshop is free however registration will be necessary to secure a place. Further information can be obtained from Chris Buller on telephone (06) 249 2330, fax (06)248 9995.

Amendments to the Act for a more effective Breeder's Rights

Over the past two years this journal has carried details of changes to the UPOV convention and some indications of consequential changes needed in Australia's Act if we are to accede to the new convention. The following proposed amendments summarise for the first time *all* the proposed amendments to the PVR Act and the public is invited to comment.

It is proposed that the name of the Act be changed to **Breeder's Rights Act** to conform to the main focus of the 1991 UPOV Convention. The 1991 Convention is more logically and explicitly directed to the intellectual property rights of the breeder not the plant variety.

The name change will provide for an extension of protection by regulation to non-plant species (e.g., fungi) under Section 44(2)(a) of "the Act" should the Minister with advice from the PVRAC consider it in the national interest.

There will be included provisions regulating the appointment procedures and terms of office of members of the Advisory Committee which were previously omitted from the Act.

Breeder's rights will be better defined to *restore* the effectiveness of protection which has been eroded by the advent of biotechnological methods of plant breeding since the last revision of the UPOV Convention in 1978. Exclusions from the breeders rights will be specified; including the use of protected varieties for *bona vide* non-commercial purposes, scientific research, breeding and farm saved seed.

Of importance to breeders of seed crops will be the proposed provision for a new form of low cost protection ('propriety protection'), during which no sale of the variety is permitted, to specifically cater for the vulnerable, agronomic testing phase of advanced elite lines and inbreds. This will be a simple application procedure, require a seed deposit, and be renewable every five years. Commercially proven, proprietary protected lines can be progressed through provisional protection and be granted PVR using standard application and examination procedures.

The amendments will provide for mandatory labelling of protected propagation material offered for sale as requested by the Grains Council of Australia and the nursery industry.

The duration of breeder's rights will be stated as being not less than 20 years to cater for those species (eg, forest and vine) which have very long breeding and growth cycles.

It is proposed to introduce a penalty for infringement, similar to that in copyright and trade marks; which has been requested by breeders and the nursery industry as deterrent to diminish the likelihood of court action and/or to lower litigation costs as Australia's relatively small markets cannot justify the high court costs needed to protect breeder's rights.

Rother and Kientzler's 50th

Mr Roy Rother of Emerald in Victoria has submitted fifty applications for PVR in Australia. Roy is Australian agent for Kientzler KG, Germany, and the majority of the varieties have been Kientzler *Impatiens hawkeri* hybrids. Those varieties are now a familiar sight in nurseries throughout Australia. A *Brachyscome multifida* x *rigidula*, numerous hydrangeas and chrysanthemums a Sanvitalia and a *Lysimachia congestiflora* named 'Sunbird' will soon be added to the range.

A *Brachyscome multifida* x *rigidula* named 'Toucan Tango' is the subject of Roy's fiftieth application for PVR. 'Toucan Tango' is to be released in spring.



Roy Rother with the new *Brachyscome* 'Toucan Tango'.

Royalty Collection Agency

At a recent seminar on PVR for patent attorneys and relevant industry persons organised by Blake Dawson Waldron at their Sydney offices, the question of a central agency to administer royalty collection was raised. "Blakes" have actively pursued the matter on behalf of plant breeders and has provided the PVR Office with details of a scheme based on that operated by the British Society of Plant Breeders Ltd.

The UK Plant Royalty Bureau Ltd was established in 1986 by plant breeders to administer their rights under the Plant Variety and Seeds Act 1964. In 1987 the Plant Royalty Bureau and the British Association of Plant Breeders Ltd amalgamated with the aim of better coordinating the commercial and technical functions of the two previously independent associations.

All reports suggest that the UK scheme is cost-effective and that the two functions of the amalgamated British Society of Plant Breeders Ltd are complementary and efficiently serve the commercial and technical interests of plant breeders.

It is timely to consider a similar organisation for Australia which can centrally regulate, standardise and administer royalty collection on behalf of breeders whilst simultaneously coordinating their technical and commercial interests.

Centralised testing of varieties

The response to the proposed centralised testing facility for native species was minimal suggesting that such a facility designed to assist with registration of Australian natives overseas would not be viable. Interested breeders of native species should approach the PVR Office as a group if they wish the Office to pursue the matter further.

The establishment of a centralised testing scheme by a consortium of Australian and New Zealand public and private ryegrass breeders is a model for centralised testing of other species. The ryegrass scheme is an extension of the successful New Zealand centralised testing facility. The PVR Office encourages other breeders to establish similar facilities in Australia for other agricultural and horticultural crops.

Centralised testing is carried out in accordance with an approved test protocol by an agency under contract to a consortium of breeders.

Consideration should be given by breeders to the prospects of combining performance testing for cultivar registration with DUS tests for PVR.

Competitive rates charged by testing agencies, combined with economies of scale in centralised testing and greater technical standardisation will reduce costs, increase the technical rigour of tests and possibly even the legal sustainability of rights. In addition, the reduction in field examination costs to the PVR Office will be passed to the applicant in the form of reduced examination fees.

Trade Marks and Varietal Names

Sub-section 40(f) of the *Plant Variety Rights Act 1987* deems that a grantee's PVR is infringed by a person who uses the name of that plant variety, being the name entered in the Register, in relation to any other plant variety or in relation to any plant other than a plant of the first-mentioned variety.

This means that selling another plant variety with a name of a protected variety is infringing the grantee's rights. PVR protects both the variety and its registered name. Applicants must register their varieties under the name by which it is to be marketed to enjoy this protection.

The name of a plant variety cannot be registered as a trade mark since it is the name by which the plant is described and is excluded from registration under sub-section 24 (1)(d) of the *Trade Mark Act 1955*. Therefore a plant variety cannot be protected by trade mark registration. Trade marks which indicate the trade origin of seeds, plants and plant materials may be registered in class 31 subject to a condition that the words forming the trade mark not be used as a varietal name. Failure to observe that condition would render the trade mark registration invalid.

Names registered as trade marks or business names may be disqualified from PVR registration as variety names under sub-sections 17(2)(b) or 17(4) of the *Plant Variety Rights Act 1987*.

Trade marks can, of course, be used in association with PVR variety names to denote the origin or some other connection between groups of varieties. This is important considering the restrictions on eligibility of PVR names. A typical acceptable use of both would be to market a variety under its PVR registered name beside the trade mark registered breeder's or variety series name. For example, the PVR protected lucerne variety 'L69' may be sold as Pioneer 'L69', "Pioneer" being the trade mark.

Descriptions

As mentioned in the March 1992 issue of the Journal, the format for writing a description for publication has changed. There is now one heading, 'Description', which combines the information previously found in the 'Diagnosis' and 'Morphology'. Qualified persons should note this change when preparing descriptions for the journal. In future, descriptions will carry the name of the person who prepared them.

Accreditation for 'Qualified Persons'

This is the last issue in which the current Appendix 2, 'Organisations Offering to Undertake PVR Trials', will be published. In future issues, we will be publishing two lists:

- a list of PVR accredited qualified persons;
- a list of agencies willing to conduct trials for PVR.

From the date of commencement of the new scheme all applications will have to be certified by a 'qualified person'. Thus agencies carrying out trials for applicants must either have a qualified person on their staff or contract an independent qualified person or arrange for the applicant to do so.

The PVR Office would like to remind all persons who wish to act as qualified persons for applicants, that they must apply for accreditation. The form this application should take was outlined in *Plant Varieties Journal* Vol. 5 No.1. Applications should be sent to the Registrar, PVR Office, DPIE, GPO Box 858, Canberra, ACT, 2601.

Part 2—Public Notices

The following varieties are included in this Journal

| | Variety | page number |
|-----------------|------------------------|-------------|
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| Azalea | 'Harlequin/Fiesta' | 36 |
| Banksia | 'Waite Orange' | 6 |
| Barrel Medic | 'Mogul' | 35 |
| Bean | 'Jade' | 36 |
| Boronia | 'Cameo' | 6 |
| | 'Moonglow' | 6 |
| Brachyscome | 'Pink Haze' | 35 |
| | 'Blue Haze' | 35 |
| | 'Lemon Drops' | 35 |
| | 'Toucan Tango' | 34 |
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| Chickpea | 'Barwon' | 6 |
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| | 'Magnum' | 24 |
| Lily | 'Venezia' | 5 |
| Lillypilly | 'Lillyput' | 36 |
| Lucerne | 'Prime' | 5 |
| | 'L69' | 36 |
| Oat | 'Nobby' | 35 |
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| | 'Flower Carpet' | 9 |
| | 'Aotearoa' | 36 |

| | | |
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| | 'Tequila Sunrise' | 15 |
| | 'Savoy Hotel' | 16 |
| | 'Tantau's Bernstein Rose' | 16 |
| Ryegrass | 'Grasslands Pacific' | 35 |
| | 'Jackaroo' | 23 |
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| Soybean | 'Warrigal' | 14 |
| Stenanthium | 'White Mischief' | 35 |
| Strawberry | 'Chandler' | 6 |
| | 'Fern' | 6 |
| | 'Parker' | 7 |
| | 'Santana' | 7 |
| | 'Selva' | 7 |
| Syngonium | 'Ultra' | 35 |
| Triticale | 'Abacus' | 36 |
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| Waratah | 'Sunburst' | 5 |
| | 'Sunflare' | 5 |
| Waxflower | 'Tickled Pink' | 11 |

PVR Granted

Plant Variety Rights have been granted under Section 26 of the *Plant Variety Rights Act 1987*, and entry has been made in the Plant Varieties Register for the following varieties:

LETTUCE

Lactuca sativa

'Wintersalad' Application No. 90/001
 Grantee: **Arthur Yates & Co. Pty Ltd**
 Certificate No. 154
 Expiry Date: 24 January 2010

LUCERNE

Medicago sativa

'Prime' Application No. 90/133
 Grantee: **Bristar**
 Certificate No. 155
 Expiry Date: 8 January 2011

WARATAH

Telopea speciosissima

'Sunburst' Application No. 90/062
 Grantee: **The University of Sydney**
 Certificate No. 156
 Expiry Date: 15 June 2010

'Sunflare' Application No. 90/063
 Grantee: **The University of Sydney**
 Certificate No. 157
 Expiry Date: 15 June 2010

LILIUM

Lilium hybrid

'Venezia' Application No. 89/065
 Grantee: **Gebr. Vletter en JA den Haan**
 Certificate No. 158
 Expiry Date: 11 August 2009

BORONIA

Boronia heterophylla

'Moonglow' Application No. 90/089

Grantee: **Sunglow Flowers Pty Ltd**

Certificate No. 159

Expiry Date: 29 August 2010

'Cameo' Application No. 90/094

Grantee: **Sunglow Flowers Pty Ltd**

Certificate No. 160

Expiry Date: 10 October 2010

CHICK PEA

Cicer arietinum

'Barwon' Application No. 90/048

Grantee: **The New South Wales Minister for Agriculture and the Queensland Minister for Primary Industries**

Certificate No. 161

Expiry Date: 24 April 2010

GREVILLEA

Grevillea laurifolia x *willisii*

'Sunkissed Waters' Application No. 91/023

Grantee: **VF and NC Jupp**

Certificate No. 162

Expiry Date: 29 April 2011

BANKSIA

Banksia hookeriana x *prionotes*

'Waite Orange' Application No. 91/020

Grantee: **The University of Adelaide**

Certificate No. 163

Expiry Date: 13 March 2011

PUMPKIN

Cucurbita maxima

'Redlands Trailblazer' Application No. 90/093

Grantee: **The Queensland Minister for Primary Industries for and on behalf of the Crown in right of the State of Queensland**

Certificate No. 164

Expiry Date: 25 September 2010

Applications Accepted

The PVR applications listed below have been accepted under S18 of the *Plant Variety Rights Act 1987*.

(a) Descriptions Finalised

STRAWBERRY

Fragaria xananassa

Comparative Growing Trials

All characteristics described are from comparative growing trials conducted at Silvan, Victoria, during November, December 1991. Comparison varieties included were 'Pajaro' and

'Douglas', two recently released Californian varieties, plus 'Tioga' and 'Redgauntlet' two commonly known varieties. The plants used were Victorian Certified Strawberry Mother stock and planted in winter 1991.

The trial was conducted in a commercial fruit area on standard raised beds covered with black polythene mulch film. Six plants per plot in four randomised replications, planted at 400mm spacings in staggered double rows 180mm apart. Row beds at 1.5 metre centres. Plants were irrigated and prophylactic sprays applied for pest and fungal diseases as required.



Variety: '**Chandler**' See fig. 1 in colour section

Application No: 89/066

Application received: 29 August 1989

Applicant: **The Regents of the University of California**, Oakland, California.

Australian Agent: **Peter Maxwell and Associates**, of North Parramatta, New South Wales

Description

'Chandler' is a very versatile and high yielding variety. Fruit is firm and glossy. Runner production in nursery plantings is excellent and better than 'Pajaro' or 'Douglas'.

'Chandler' leaves are about the same colour and intensity as those of 'Tioga', a lighter shade than both 'Pajaro' and 'Douglas'. Stipule anthocyanin colouration is weak. The calyx is small in size, borne on a distinct neck and reflexed. The achenes are below the surface of the fruit, whilst achenes on 'Pajaro' and 'Douglas' are level to above the surface. 'Chandler' petal length to width ratio is broader than long, whilst 'Douglas' is as long as broad.

Comparators

'Pajaro' and 'Douglas', the closest existing short-day varieties.

Origin

'Chandler' arises from a cross between 'Douglas' and 'C55 = 72-361-105'. The selection was made at Wolfskill Experimental Orchards, University of California, Davis, California, in 1977. The seedling was subsequently propagated asexually to form the variety 'Chandler'.



Variety: '**Fern**' See fig. 2 in colour section

Application No: 89/067

Application received: 29 August 1989

Applicant: **The Regents of the University of California**, Oakland, California.

Australian Agent: **Peter Maxwell and Associates**, of North Parramatta, New South Wales.

Description—see comparison tables.

'Fern' is a strong day-neutral type and it can be made to fruit at any time independent of day length approximately 90 days after planting. Runner production in nursery plantings is very good and all the runner plants flower within a relatively short time, whether rooted or not.

'Fern' plants are semi-erect in growth habit, more spreading than 'Selva' and leaf colour is lighter than 'Selva'. Stipule anthocyanin colour is weak whilst 'Redgauntlet' colouration is

strong. Inflorescence position for 'Fern' is above the foliage whilst 'Selva' is level with the foliage. The petal length to width ratio in 'Fern' is as long as broad whilst in 'Selva' the ratio is broader than long. The insertion of the reflexed calyx is in a basin in 'Fern' and level in a clasping calyx in both 'Selva' and 'Redgauntlet'.

Comparators

'Selva' and 'Redgauntlet', the closest existing day-neutral varieties.

Origin

'Fern' is cross between 'Tufts' and a hybrid selection '69-62-103'. The selection was made at Wolfskill Experimental Orchards, Davis, California, in 1974. The seedling was subsequently propagated asexually to form the variety 'Fern'.



Variety: '**Parker**' See fig. 3 in colour section

Application No. 89/072

Application received: 29 August 1989

Applicant: **The Regents of the University of California**, Oakland, California.

Australian Agent: **Peter Maxwell and Associates**, of North Parramatta, New South Wales.

Description—see also comparison tables

'Parker' is a tall upright strawberry variety with long petioles, very large and very firm fruit, and medium stipule anthocyanin colouration.

Leaves of 'Parker' are similar in colour but slightly less intense than those of 'Tioga'. 'Parker' fruit is long conical to long flat wedged, whilst 'Tioga' fruit is kidney shaped and 'Pajaro' fruit is conical. Petal length to width ratio in 'Parker' is as long as broad whilst in 'Tioga' it is broader than long. In 'Parker' the inner calyx relative to the outer is smaller than in either 'Tioga' or 'Pajaro'.

Comparators

'Tioga' and 'Pajaro', the closest existing short day varieties.

Origin

'Parker' arises from a controlled pollination cross between 'Douglas' and 'Cal 71.98-605', a hybrid of 'Tufts'. The selection was made at the South Coast Field Station, Santa Ana, California, in 1977. The seedling has been subsequently propagated asexually to form the variety 'Parker'.



Variety: '**Santana**' See fig. 4 in colour section

Application No: 89/073

Application received: 29 August 1989

Applicant: **The Regents of the University of California**, Oakland, California.

Australian Agent: **Peter Maxwell and Associates**, of North Parramatta, New South Wales.

Description—see comparison tables.

'Santana' is a short-day variety. Plants are erect in growth habit and about the same as 'Tioga' but less erect than 'Douglas'.

'Santana' fruit is medium to short conical, symmetrical, and very early fruiting variety.

'Santana' leaf colour is more intense than 'Tioga' and similar to 'Douglas'. The fruit band without achenes is very narrow to absent, when compared with 'Douglas' and 'Tioga'. The calyx on the fruit is set in a basin whilst the calyx on 'Douglas' is set above the fruit. The terminal leaflet shape at the base is obtuse whilst that of 'Douglas' is acute. Stolon anthocyanin colouration is strong when compared with both 'Douglas' and 'Tioga'.

Comparators

'Douglas' and 'Tioga', the closest existing short-day varieties.

Origin

'Santana' is a reciprocal sister of 'Douglas' and from a hybrid cross of 'Toro' (72-309-501 and 72-359-601). The variety was selected at the South Coast Field Station, Santa Ana, California, in 1977. The seedling was subsequently propagated asexually to form the variety, 'Santana'.



Variety: '**Selva**' See fig. 5 in colour section

Application No: 89/074

Application received: 29 August 1989

Applicant: **The Regents of the University of California**, Oakland, California.

Australian Agent: **Peter Maxwell and Associates**, of North Parramatta, New South Wales.

Description—see comparison tables.

'Selva' is a relatively weak day-neutral type and behaves differently to other remontant types such as 'Fern'. Only the mother and part of the first daughter plants tend to flower. 'Selva' is also very flexible with regard to planting time and system. The fruit of 'Selva' is exceptionally firm. 'Selva', commences fruiting about 3 months after planting, regardless of planting time.

'Selva' plants are semi-erect in growth habit but have a lower height to width ratio than 'Fern' or 'Redgauntlet'. 'Selva' leaves are the same intensity as those of 'Tioga', but darker than 'Fern' or 'Redgauntlet'. 'Selva' fruit is medium to long conical and skin colour is darker than 'Fern' or 'Redgauntlet'. 'Selva' stolon anthocyanin colouration is weak, whilst 'Fern' has medium colouration. The size of the 'Selva' calyx relative to the corolla is the same size whilst in 'Fern' the calyx is smaller relative to the corolla. 'Selva' is a fully remontant selection whilst 'Redgauntlet' is only part remontant.

Comparators

'Fern' and 'Redgauntlet', the closest existing day-neutral varieties.

Origin

'Selva', is a cross between a day-neutral sister of 'Brighton' (70-3-117) and a hybrid (71-90-605) cross between 'Tufts' and one of the parents of 'Pajaro' (63-7-1-1). The selection was made at Wolfskill Experimental Orchards, Davis, California, in 1977. The seedling was subsequently propagated asexually to form the variety 'Selva'.

Descriptions prepared by Graham Barthold, of Institute of Plant Sciences, Knoxfield.

Table of Comparison of Strawberry Varieties

(* = comparators)

| | 'Chandler' | 'Douglas' | 'Fern' | '*Pajaro' | 'Parker' | '**Red-gauntlet' | 'Santana' | 'Selva' | '**Tioga' |
|--|---------------|---------------|-----------------|---------------|---------------|------------------|---------------|-----------------|---------------|
| HEIGHT TO WIDTH RATIO | | | | | | | | | |
| mean | 0.534 | 0.612 | 0.519 | 0.612 | 0.701 | 0.670 | 0.574 | 0.484 | 0.456 |
| range | 037-0.80 | 0.44-0.92 | 0.40-0.82 | 0.43-0.96 | 0.54-1.0 | 0.48-0.79 | 0.35-0.80 | 0.38-0.63 | 0.30-0.63 |
| std. dev | 0.106 | 0.120 | 0.097 | 0.117 | 0.115 | 0.096 | 0.091 | 0.059 | 0.078 |
| TERMINAL LEAF LENGTH | | | | | | | | | |
| mean | 100.5 mm | 104.0 mm | 97.87 mm | 102.2 mm | 105.5 mm | 109.6 mm | 100.2mm | 90.66 mm | 105.9 mm |
| range | 75-125 | 80-135 | 80-115 | 85-115 | 85-130 | 95-125 | 80-120 | 70-105 | 75-135 |
| std. dev | 12.04 | 12.18 | 10.97 | 6.78 | 12.57 | 7.66 | 12.16 | 8.84 | 14.5 |
| TERMINAL LEAF WIDTH | | | | | | | | | |
| mean | 102.7 mm | 94.7 mm | 91.2 mm | 98.1 mm | 97.7 mm | 90.6 mm | 98.6 mm | 86.8 mm | 107.0 mm |
| range | 70-125 | 65-125 | 70-115 | 80-115 | 70-130 | 68-117 | 75-120 | 68-105 | 80-140 |
| std. dev | 12.6 | 13.3 | 11.9 | 7.9 | 14.5 | 9.5 | 13.1 | 10.2 | 14.1 |
| FRUIT LENGTH | | | | | | | | | |
| mean | 41.6 mm | 42.7 mm | 39.3 mm | 40.5 mm | 45.3 mm | 36.1 mm | 36.5 mm | 43.0 mm | 25.7 mm |
| range | 30-53 | 23-58 | 30-49 | 29-48 | 27-70 | 28-46 | 17-50 | 30-59 | 15-42 |
| std. dev | 5.9 | 8.5 | 5.7 | 4.2 | 10.4 | 4.2 | 8.1 | 6.7 | 5.1 |
| FRUIT WIDTH | | | | | | | | | |
| mean | 28.6 mm | 28.8 mm | 26.1 mm | 30.2 mm | 26.3 mm | 33.9 mm | 33.6 mm | 27.3 mm | 26.7 mm |
| range | 22-36 | 17-39 | 19-33 | 17-37 | 12-38 | 26-44 | 20-45 | 14-37 | 18-44 |
| std. dev | 3.0 | 6.2 | 4.1 | 4.2 | 6.2 | 4.5 | 6.7 | 4.5 | 5.1 |
| STIPULE ANTHOCYANIN COLOURATION | | | | | | | | | |
| | weak | absent | weak | strong | medium | strong | weak | weak | weak |
| INSERTION OF CALYX | | | | | | | | | |
| | above fruit | above fruit | in a basin | level | level | level | level | level | in a basin |
| POSE OF CALYX SEGMENTS | | | | | | | | | |
| | reflexed | reflexed | reflexed | clasping | clasping | clasping | reflexed | clasping | clasping |
| BAND WITHOUT ACHENES | | | | | | | | | |
| | medium | medium | medium | narrow | medium | absent | absent | medium | narrow |
| FRUIT PREDOMINANT SHAPE | | | | | | | | | |
| | conical | wedged | wedged | conical | conical | cordate | conical | long conical | kidney |
| TYPE OF BEARING | | | | | | | | | |
| | non-remontant | non-remontant | fully remontant | non-remontant | non-remontant | part remontant | non-remontant | fully remontant | non-remontant |

CHERRY

Prunus avium



Variety: '**Empress**' See fig. 6 in colour section

Application No: 90/083

Application received: 14 August 1990

Applicant: **DR & PP Simpson**, of Young, New South Wales

Description—see comparison tables

'Empress' is an early maturing sweet cherry. It is distinct from other cherries in its combination of maturity time, fruit size, skin colour and flesh colour. The fruit is large for an early season variety, round and has dark skin and a medium pedicel length. The texture is firm and fruit has shown good post harvest qualities.

Origin

'Empress' was a chance seedling from DR & PP Simpson's orchard in Young NSW.

Comparators

'Burgsdorf', the maturity indicator, 'Henderson', an early

maturing variety similar in shape to 'Empress', and 'Moss Early', an early variety widely grown in Victoria.

Comparative growing trials

Characteristics and comparisons come from a NSW Agriculture comparative growing trial on Mr John Richen's property "Torry Hill" in Young. The trial block was established in 1981 and includes 92 cherry varieties and selections. It was established to compare and evaluate early, mid and late season varieties from all cherry-producing regions of the world. The trial block includes three specimens of each variety, the majority on non virus-indexed mahaleb rootstocks. Evaluation of 'Empress' included observation and measurement of the mother tree.

Agronomy

'Empress' is an early maturing variety ripening at approximately the same time as 'Burgsdorf', the main early commercial cultivar in Young.

Description prepared by Peter Kennedy of NSW Agriculture, Young and PVRO.

Table of Comparison of Cherry Varieties

(* = comparator)

| | 'Empress' | **'Burgsdorf' | **'Henderson' | **'Moss Early' |
|----------------|------------------------|---------------|-----------------------|-----------------------|
| MATURITY TIME | similar to 'Burgsdorf' | Reference | + 10 days 'Burgsdorf' | + 15 days 'Burgsdorf' |
| FRUIT SHAPE | Round | Round | Round | Heart |
| FRUIT DIAMETER | | | | |
| mean | 23.0 mm | 20.0 mm | 22.5 mm | 22.0 mm |
| range | 22.0–23.5 | 18.0–21.0 | 21.0–24.0 | 21.0–23.5 |
| std. deviation | 0.40 | 0.25 | 0.50 | 0.65 |
| PEDICEL LENGTH | | | | |
| mean | 2.8 cm | 4.5 cm | 4.5 cm | 3.25 cm |
| range | 2.0–3.6 | 4.0–5.0 | 4.0–5.0 | 2.5–4.0 |
| std. deviation | 0.60 | 0.25 | 0.50 | 0.25 |

ROSE

Rosa



Variety: **'Flower Carpet'** commercial synonym 'Noatraum'.

See also fig. 7 in colour section.

Application No. 90/091

Application Received: 29 August 1991

Applicant: **Pan-Am Northwest Inc.**, of British Columbia, Canada

Australian Agent: **Tesselaar Nominees**, of Silvan, Victoria

Description—see also comparison tables

'Flower Carpet' is a groundcover rose with low spreading habit; medium sized terminal leaflets glossy on the upper side and medium green in colour; thorns on the stems; flowers formed in clusters; flowers flattened convex in both upper and lower profile; medium sized petals corresponding to RHS 67B when newly opened but fading to RHS 67D as they age; fruits small rounded and tinged with orange. 'Bonica' differs from 'Flower Carpet' in being much taller and more upright with smaller thorns flat on the upper side and concave on the lower side, larger flowers with more petals paler in colour corresponding to RHS 65A on the inside and RHS 65D on the outside, a larger basal spot and larger fruits.

Origin

'Flower Carpet' arose from the controlled pollination of 'Immensee' by 'Amanda'. Selection was based on growth habit, flower colour and disease resistance. Subsequent plants have been propagated asexually by cuttings. Rights have been applied for in USA, Germany and Holland. 'Flower Carpet' was first sold in Holland in 1989.

Comparators

Rosa 'Bonica', a well known pink shrub rose.

Comparative Growing Trials

All characteristics and comparisons are from comparative growing trials conducted at Silvan, Victoria. Five plants each of 'Flower Carpet' and 'Bonica' were propagated by cuttings and planted side by side in February 1991 in red krasnozem soil in open ground on the property of Tesselaar Nominees in Silvan, Victoria. All leaf and stem measurements and flower

colour assessment were made in March 1992 but flower measurements were made as blooms developed from December 1991.

Description prepared by David Nichols.

Table of Comparison of Rose Varieties

(* = comparator)

| | 'Flower Carpet' | **'Bonica' |
|------------------------------|-----------------|------------|
| FLOWER COLOUR GROUP | pink | pink |
| PETAL COLOUR MIDZONE—RHS No. | | |
| inside | 67B | 65A |
| outside | 67B | 65D |
| PETAL COLOUR MARGIN—RHS No. | | |
| inside | 67B | 65A |
| outside | 67B | 65D |
| PETAL SPOT COLOUR | 155C | 155C |
| FLOWER DIAMETER | | |
| mean | 52.96 mm | 57.43 mm |
| range | 46–60 | 52–65 |
| std. deviation | 4.4 | 3.98 |
| PETAL NUMBER | | |
| mean | 18.78 | 31.82 |
| range | 16–23 | 27–36 |
| std. deviation | 1.91 | 2.81 |
| PETAL LENGTH | | |
| mean | 26.47 mm | 30.89 mm |
| range | 24–30 | 28–35 |
| std. deviation | 2.04 | 1.79 |
| PETAL WIDTH | | |
| mean | 24.95 mm | 27.95 mm |
| range | 22–28 | 25–31 |
| std. deviation | 2.09 | 1.68 |
| TERMINAL LEAFLET LENGTH | | |
| mean | 36.15 mm | 41.7 mm |
| range | 30–42 | 37–47 |
| std. deviation | 2.8 | 3.08 |

TABLE OF COMPARISON OF ROSE VARIETIES—Continued

| | 'Flower Carpet' | '*Bonica' |
|------------------------|-----------------|-----------|
| TERMINAL LEAFLET WIDTH | | |
| mean | 25.5 mm | 24 mm |
| range | 19–30 | 19–27 |
| std. deviation | 2.74 | 2.43 |
| PETIOLULE LENGTH | | |
| mean | 14.5 mm | 11.75 mm |
| range | 9–18 | 7–15 |
| std. deviation | 2.95 | 2.1 |
| THORN LENGTH | | |
| mean | 7.8 mm | 5.65 mm |
| range | 4–10 | 4–7 |
| std. deviation | 1.2 | 0.93 |
| SEPAL LENGTH | | |
| mean | 16.95 mm | 16.9 mm |
| range | 14–22 | 14–21 |
| std. deviation | 1.96 | 1.59 |

ALSTROEMERIA

Alstroemeria



Variety: 'Sangria' See fig. 8 in colour section.

Application No. 91/063

Application Received: 1 July 1991

Applicant: **Konst Alstroemeria BV**, of Nieuwveen, Holland
 Australian Agent: **Maxiflora Pty. Ltd.**, of Monbulk, Victoria

Description—see also comparison tables

'Sangria' is a tall *Alstroemeria* with thick stems with no anthocyanin colouration. The leaves are recurved, mid green in colour, long, broad and glabrous on both sides. The main flower colour is orange-red. The inflorescences have a medium number of medium length umbel branches and medium length pedicels.

The outer tepals are orange-red at the margins and red-purple at the apex, obovate in shape and bear no stripes. The inner tepals are yellow at the base and orange-red at the apex and are elliptic in shape with many stripes. The median inner tepal is similar to the lateral inner tepals. The ovaries lack anthocyanin, the filaments and style are pink in colour and the anthers purplish.

'Carmen' differs from 'Sangria' in having narrower stems, red colouration in the tepals, narrower stripes on the inner tepals, very few stripes, no yellow colouring on the inner median tepal and anthocyanin present in the ovaries. 'Tiara' differs from 'Sangria' in having narrower stems, longer umbel branches, red colouration in the tepals, thicker stripes on the inner tepals, only occasional touches of yellow on the inner median tepal, anthocyanin in the ovaries and orange-red filaments and style.

Origin

This variety arose from the controlled pollination of 'Aurantiaca' by 'Butterfly'. It was bred by Konst Alstroemeria BV of Nieuwveen, Holland. 'Sangria' was selected for development on the basis of flower colours and the length of the flowering season and propagated asexually through numerous generations. 'Sangria' has been protected by Plant Variety Rights in Holland since 1986. 'Sangria' has been sold in Holland since 1988.

Comparators

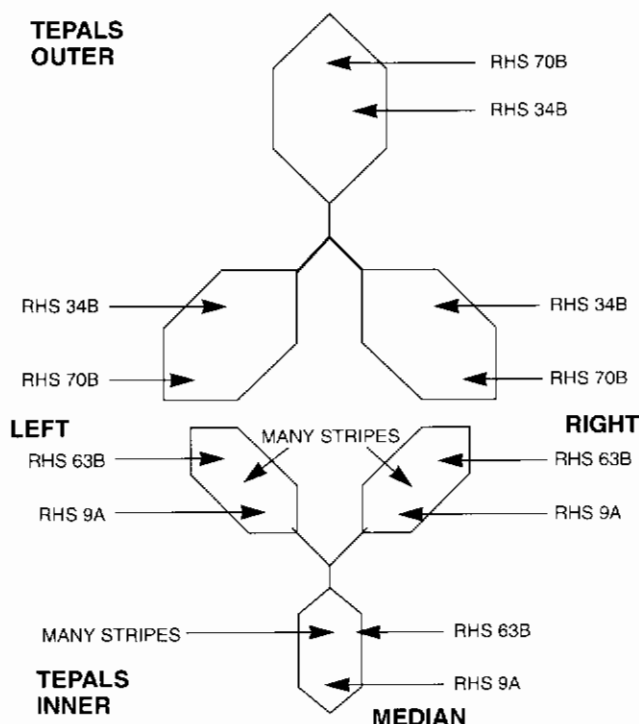
'Carmen' and 'Tiara' being the closest known varieties and having similar flower colours.

Comparative Growing Trials

All characteristics described below are from comparative growing trials conducted at Monbulk, Victoria in 1991. The plants were grown from rhizomes planted in red kraznozem soil in multispan polythene greenhouses. All characteristics described are from stems cut in bud, placed in a solution of 5% sugar and 1 ml/litre chlorine bleach and transported to Devon Meadows, Victoria, in October 1991, where the flowers were allowed to open. Measurements are from 20 specimens.

Tepal characteristics are set out in diagram form.

Alstroemeria 'Sangria'



Note: Five days after picking in bud

Green tips on outer tepals

Apical tip of inner tepals fade to RHS 34B at margins.

Description prepared by David Nichols.

CUPRESSOCYPARIS

XCupressocyparis



Variety: 'Peter Nitschke' See fig. 9 in colour section

Application No. 91/094

Application Received: 16 September 1991

Applicants: **Jeff Koelewyn**, of The Patch, Victoria and the
Estate of Peter Nitschke, of Mylor, South Australia.

Description—see also comparison tables

'Peter Nitschke' is a coniferous tree, ovoid in shape and having in the first year of growth the following characteristics: medium growth rate; erect, soft and dense first order branchlets with short internodal spaces, sometimes planar arrangement of

spray, concave towards the stem with branchlets occasionally opposite though commonly alternate; penultimate branchlets are short; the margins of the branchlets are coloured yellow in spring corresponding at the extreme tips to RHS 9A or 13A and yellow green in autumn corresponding to RHS 150B; the mid-zones of the branchlets are green corresponding to 137B in spring and autumn.

'Castlewellan Gold' differs from 'Peter Nitschke' in having a conical growth habit, faster growth rate, longer and wider branches, longer branchlets, longer internode lengths, a generally planar growth habit in the first year, invariably alternate branchlets, bronze colouring along the first third of the branchlet stems, branchlet margins coloured yellow green corresponding to RHS 154A at the very tips in autumn, and branchlet midzones corresponding to RHS 137C.

Origin

'Peter Nitschke' was selected by the late Peter Nitschke and Jeff Koelewyn from a population of 'Castlewellan Gold' seedlings. Selection was based on the shape, colour and form of foliage. Scions from the original selection were veneer grafted onto 'Castlewellan Gold' rootstock. The clone was then propagated asexually.

Comparators

'Castlewellan Gold', the presumed mother plant.

Comparative growing trial

All characteristics and comparisons are from comparative growing trials conducted under ambient outdoor growing conditions at The Patch, Victoria. The plants of 'Peter Nitschke' and 'Castlewellan Gold' were originally propagated by cuttings and grown in 50 mm tubes in a polythene covered house. In September 1991 ten plants of each variety were transplanted into 200 mm pots in a standard bark-based potting mixture. The plants were arranged in paired replicates and grown outdoors. In February 1992 they were transplanted again into 325 mm pots in a standard potting mixture. Growth measurements were made in April 1992. Leaf colours on 'Peter Nitschke' were assessed in September, 1991 and April 1992 and on 'Castlewellan Gold' in April 1992.

Description prepared by David Nichols.

Table of Comparison of *Cupressocyparis* Varieties

(* = comparator)

| | 'Peter Nitschke' | **'Castlewellan Gold' |
|--|------------------|-----------------------|
| PLANT HEIGHT | | |
| mean | 55.2 cm | 70.6 cm |
| range | 50 to 59 | 65 to 76 |
| std.deviation | 3.39 | 3.41 |
| PLANT WIDTH | | |
| mean | 32.8 cm | 47.2 cm |
| range | 30-37 | 38-59 |
| std. deviation | 2.39 | 5.75 |
| PLANT BRANCH DENSITY (1-9, 1= least) | 7 | 5 |
| INTERNODE LENGTH | | |
| mean | 1.92 cm | 2.84 cm |
| range | 1.55-2.52 | 2.28-3.09 |
| std.deviation | 0.26 | 0.25 |
| PLANT BRANCH STIFFNESS (1-9, 1= least) | 3 | 5 |

TABLE OF COMPARISON OF *CUPRESSOCYPARIS* VARIETIES—
Continued

| | 'Peter Nitschke' | **'Castlewellan Gold' |
|---------------------------------------|------------------|-----------------------|
| NUMBER OF FIRST ORDER BRANCHLETS | | |
| mean | 29.2 | 25.0 |
| range | 23-32 | 23-29 |
| std.deviation | 3.9 | 2.05 |
| ARRANGEMENT OF SPRAY | semi-planar | planar |
| LENGTH OF PENULTIMATE ORDER BRANCHLET | | |
| mean | 14.15 cm | 22.35 cm |
| range | 12-17 | 15-28 |
| std.deviation | 1.57 | 5.91 |
| BUTT DIAMETER | | |
| mean | 9.3 mm | 11.9 mm |
| range | 8-10 | 11-13 |
| std.deviation | 0.82 | 0.74 |
| BRANCHLET MARGINAL COLOUR (spring) | | |
| RHS | 9A or 13A | No data |
| BRANCHLET MARGINAL COLOUR (autumn) | | |
| RHS | 150B | 154A |
| BRANCHLET MIDZONE COLOUR (spring) | | |
| RHS | 137B | No data |
| BRANCHLET MIDZONE COLOUR (autumn) | | |
| RHS | 137B | 137C |

WAXFLOWER

Chamaelaucium sp. nov. ("floriferum") x *uncinatum*



Variety: 'Tickled Pink'. See fig. 10 in colour section.

Application No. 91/105

Application Received: 22 October 1991

Applicant: **George Lullfitz**, of Wanneroo, Western Australia

Description—see also comparison tables

'Tickled Pink' is a small flowered, late maturing small branch angled waxflower. Flowers are two-coloured with striped, pale pink-red petals; flowering August to late October. 'Tickled Pink' has a staminodial collar which is purple when mature. The floral tube of 'Tickled Pink' is green medially and reddened distally. The leaves of 'Tickled Pink' are thicker and longer than those of 'Lady Stephanie'.

Comparators

'Lady Stephanie', being the closest in flower colour, flower size and flowering habit.

Comparative Growing Trials

All characteristics described below are from comparative growing trials conducted at Wanneroo, W.A. in 1991. Ten plants of each variety were grown from cuttings in sawdust/sand composite potting mix in 175 ml pots spaced 10 cm apart outdoors under overhead irrigation. The growing medium was a mix of four parts jarrah sawdust, one part medium grade pine bark, two parts washed white sand and one part red loam. This medium was enriched with a fertiliser mix made up of Macrocofe grey 8-9 month slow release fertiliser, Meister 10 slow release Nitrogen, Micromax trace elements and dolomite lime.

Origin

This variety arose as a sport of *Chamelaucium* sp. nov. ("floriferum") x *uncinatum*. It was selected by George Lullfitz. 'Tickled Pink' was selected for development on the basis of flower colours and propagated from cuttings through two generations.

Description prepared by Ian Renshaw and PVRO.

Table of Comparison of Waxflower Varieties

(* = comparator)

| | 'Tickled Pink' | **Lady Stephanie' |
|-----------------------|-----------------------------|-------------------|
| PETAL COLOURS | two | one |
| PETAL COLOUR PATTERN | stripes | solid |
| PETAL COLOUR—MATURE | | |
| RHS No. | pink and red 75B and 57C | pink 80D |
| NECTARY COLOUR—MATURE | | |
| RHS No. | crimson 59B | crimson 59C |
| FLOWER DIAMETER | | |
| mean | 14.1 mm | 13.5 mm |
| range | 13–15 | 12–15 |
| standard deviation | 0.47 | 0.89 |

COTTON

Gossypium hirsutum

Comparative Growing Trials

The morphological characteristics described here are from comparative growing trials at Narrabri Agricultural Research Station, Myall Vale, in the 1991/92 growing season. Performance data presented in the accompanying table are from trials conducted at Myall Vale, Moree, Boggabilla, Biloela, Emerald, Warren, Bourke, Theodore, St George, Cecil Plains, Merah North, Collarenebri and Breeza in 1990/91. Trials were all incomplete block row and column designs with four or five replications. Three row plots 13 to 15 m long by 3 m wide were used in all trials and measurements were only made on the middle row. Plant density varied around 12 plants/metre.

Comparators

'Siokra 1-4' and 'Deltapine-Acala 90' (DP90) being commonly grown standard commercial varieties.



Variety: 'CS 50' See fig. 11 in colour section

Application No. 91/113

Application Received: 27 November 1991

Applicant: **CSIRO Division of Plant Industry, Cotton Research Unit, Narrabri, NSW.**

Description—see also comparison tables

Compared with 'DP90', 'CS 50' is resistant to bacterial blight (*Xanthomonas campestris* pv *malvacearum*), has finer and more mature fibre, lower seed oil content, higher lint percentage and has shorter pedicels, bracts and fruiting branches. Compared with 'Siokra 1-4', 'CS 50' has normal leaf shape.

Origin

The breeder is Dr NJ Thomson of the CSIRO Cotton Research Unit, Narrabri. 'CS 50' was developed from two cycles of single plant selection and subsequent progeny testing on a single and multiple-site basis starting with a 'Siokra 1-1' x 'DP90' F2 breeding population. Throughout both cycles selection was directed to seedling vigour, normal leaf, Delta-type smoothness of leaf and stem, erect vigorous plant growth, medium to strong and well-fluffed boll opening and resistance to disease, especially bacterial blight (plants being artificially inoculated with race 18 of the bacterial blight inoculum once or more each season). Major emphasis was directed towards performance including high lint percentage, yield and long, strong and fine fibre using the multi-site measurements made in comparative trials spanning the cotton belt of eastern Australia.

Agronomy

CS 50 is adapted to all irrigated cotton growing areas of New South Wales and Queensland except those where *Verticillium* wilt is prevalent.



Variety: 'CS 7S' See fig. 11 in colour section

Application No. 91/114

Application Received: 27 November 1991

Applicant: **CSIRO Division of Plant Industry, Cotton Research Unit, Narrabri, NSW.**

Description—see also comparison tables

Compared with 'DP90', 'CS 7S' is resistant to bacterial blight, has shorter fibre, a greater fibre length uniformity, a high maturity ratio and micronaire, is shorter statured, having a lower node of first fruit, shorter fruiting branches, smaller bract teeth length to bract width ratio besides shorter pedicels. Compared with 'Siokra 1-4', 'CS 7S' has normal leaf shape.

Origin

The breeder is Mr PE Reid of the CSIRO Cotton Research Unit, Narrabri. 'CS 7S' was developed from an F2 breeding population of '75007-3' (a breeding line developed from a 'Riverina Poplar' x 'Tancot SP23' population) x 'DP90' using two cycles of single plant selection and subsequent progeny testing on a single and multiple-site basis. Throughout both cycles, selection was directed to seedling vigour, Delta-type smoothness of leaf and stem, medium to strong and well-fluffed boll opening, early maturity and resistance to disease, especially bacterial blight. Strong emphasis was also placed on tolerance to verticillium wilt (*Verticillium dahliae*) and on performance including high lint percentage, yield in short growing season areas, and strong and high micronaire fibre using the multi-site measurements made in comparative trials spanning the cotton belt of eastern Australia.

Agronomy

'CS 7S' with its early maturity and tolerance to *Verticillium* wilt is adapted to irrigated cotton farming in all the cooler cotton growing areas of New South Wales and Queensland.



Variety: **'Sicala 34'** See figs 11, 12 in colour section
 Application No. 91/115
 Application Received: 27 November 1991
 Applicant: **CSIRO Division of Plant Industry, Cotton Research Unit, Narrabri, NSW.**

Description—see also comparison tables

Compared with 'DP90', 'Sicala 34' is resistant to bacterial blight, has longer, stronger, finer and more mature fibre and has shorter and narrower bracts, with a greater bract teeth length to bract width ratio. Compared with 'Siokra 1-4', 'Sicala 34' has normal leaf shape.

Origin

The breeder is Dr NJ Thomson of the CSIRO Cotton Research Unit, Narrabri. 'Sicala 34' was developed from 'Siokra 1-1' x 'DP90' F2 breeding population. Selection was directed to seedling vigour, Delta-type smoothness of leaf and stem, medium to strong and well-fluffed boll opening and resistance to disease, especially bacterial blight. Strong emphasis was also placed on performance including high lint percentage, yield, and long, strong and fine fibre using the multi-site measurements made in comparative trials spanning the cotton belt of eastern Australia.

Agronomy

'Sicala 34' is adapted to all irrigated cotton growing areas of New South Wales and Queensland except those where *Verticillium* wilt is prevalent.



Variety: **'Siokra L23'** See figs 11, 12 in colour section
 Application No. 91/116

Application Received: 27 November 1991
 Applicant: **CSIRO Division of Plant Industry, Cotton Research Unit, Narrabri, NSW.**

Description—see also comparison tables

Compared with 'Siokra 1-4', 'Siokra L23' has coarser and stronger fibre, is taller and has wider bracts as well as a smaller bract teeth length to bract width ratio. Compared with 'DP90', 'Siokra L23' has okra leaf shape and is resistant to bacterial blight.

Origin

The breeder is Dr NJ Thomson of the CSIRO Cotton Research Unit, Narrabri. 'Siokra L23' was developed from two cycles of single plant selection and subsequent progeny testing on a single and multiple-site basis starting with a 'Siokra 1-1' x 'DP90' F2 breeding population. Throughout both cycles selection was directed to seedling vigour, the okra-leaf trait, Delta-type smoothness of leaf and stem, erect vigorous plant growth, medium to strong and well-fluffed boll opening and resistance to disease, especially bacterial blight. Strong emphasis was also placed on performance including high lint percentage, yield, uniform length and strong fibre using the multi-site measurements made in comparative trials spanning the cotton belt of eastern Australia.

Agronomy

'Siokra L23' is adapted to both dryland and irrigated cotton farming in all the warmer cotton growing areas of New South Wales and Queensland. The okra leaf provides some resistance to *Heliothis* and spider mites (Thomson, NJ 1987. Host plant resistance in cotton. *J.Aust.Inst.Agric. Sci.* **53**: 262-270. Wilson, LJ and Fitt, GP 1987. Varietal resistance to spider mites. *Aust.Cotton Grower* **8**(3): 8-10.)

Descriptions prepared by GA Constable, PE Reid and NJ Thomson of the CSIRO Cotton Research Unit, Narrabri.

Table of Comparison of Cotton Varieties

(* = comparators)

Morphological data is from measurements on 20 plants per variety in the 1991/92 season, seed and fibre quality data is from 1990/91 Australian Cotton Cultivar Trials at 13 sites. Values in bold highlight those measures where the new variety is significantly ($P < 0.05$) different to the comparison variety (Siokra 1-4 for Siokra L23; DP90 for Sicala 34, CS 50 and CS 7S). Abbreviations: sd=standard error of difference between means; ***= significant at $P < 0.001$; **= significant at $P < 0.01$.

Morphology of cotton is affected by location on the plant, plant density and pest attack. The bract and pedicel measurements were taken from full-size bolls on the first position on the third fruiting branch of undamaged plants grown at a density of 8 plants/m².

| | 'Siokra L23' | 'CS 7S' | 'Sicala 34' | 'CS 50' | 'DP 90' | 'Siokra 1-4' | Sd. |
|----------------------------|----------------|----------------|-------------|-----------|---------|--------------|---------|
| PLANT HEIGHT | 89.6 cm | 75.8 cm | 79.2 cm | 81.2 cm | 84.5 cm | 78.5 cm | 3.1*** |
| NODE OF FIRST FRUIT BRANCH | 7.4 | 6.3 | 7.2 | 7.0 | 7.3 | 7.9 | 0.26*** |
| FRUIT BRANCH NODE 1 (mm) | 107 | 89 | 90 | 96 | 108 | 117 | 9.5*** |
| FRUIT BRANCH NODE 2 (mm) | 85 | 58 | 82 | 77 | 101 | 78 | 10.3** |
| PEDICEL LENGTH (mm) | 29 | 21 | 28 | 24 | 31 | 25 | 2.2*** |
| BRACT LENGTH (mm) | 52 | 46 | 42 | 41 | 46 | 49 | 2.1*** |

TABLE OF COMPARISON OF COTTON VARIETIES—Continued

| | 'Siokra L23' | 'CS 7S' | 'Sicala 34' | 'CS 50' | 'DP 90' | 'Siokra 1-4' | Sd. |
|-------------------------------|--------------|---------|-------------|---------|---------|--------------|----------|
| BRACT WIDTH (mm) | 32 | 31 | 24 | 26 | 28 | 27 | 1.7*** |
| BRACT TEETH LENGTH (mm) | 29 | 21 | 23 | 21 | 23 | 28 | 1.5*** |
| TEETH LENGTH/BRACT WIDTH | 0.91 | 0.69 | 0.96 | 0.80 | 0.84 | 1.07 | 0.056*** |
| SEED OIL (%) | 27.4 | 27.5 | 26.0 | 24.8 | 26.2 | 27.1 | 0.11*** |
| LINT (%) | 40.8 | 38.6 | 39.3 | 41.7 | 38.5 | 40.5 | 0.23*** |
| FIBRE QUALITY CHARACTERISTICS | | | | | | | |
| LENGTH (inch) | 1.19 | 1.11 | 1.21 | 1.18 | 1.16 | 1.20 | 0.005*** |
| UNIFORMITY RATIO | 46.9 | 49.7 | 46.9 | 46.8 | 47.5 | 46.3 | 0.25*** |
| STRENGTH (g/tex) | 28.0 | 27.3 | 29.4 | 27.3 | 27.5 | 26.3 | 0.22*** |
| FINENESS (millitex) | 176 | 179 | 162 | 165 | 179 | 161 | 1.5*** |
| MATURITY RATIO | 0.86 | 0.94 | 0.96 | 0.92 | 0.85 | 0.88 | 0.004*** |
| MICRONAIRE VALUE | 4.1 | 4.4 | 4.1 | 4.1 | 4.1 | 3.9 | 0.05*** |

SOYBEAN

Glycine max



Variety: 'Warrigal' See fig. 13 in colour section

Application No. 92/025

Application Received: 27 March 1992

Applicant: Queensland Department of Primary Industries

Description—see also comparison tables

This variety has white flowers, grey pubescence, determinate growth habit, green hypocotyl and tan pods. It is distinct from known varieties, having spherical seed with a yellow coat, dull lustre and colourless hilum. It has immunity to races 1 and 15 and field resistance to race 4 of *Phytophthora* root and stem rot.

'Warrigal' differs from 'Manark' in having a dull lustred seed coat, colourless hila and immunity race to 15 of *Phytophthora* root rot. 'Manark' has a shiny seed coat, buff hila and is susceptible to race 15. 'Warrigal' differs from 'Davis' in having seeds with a colourless hila and immunity to race 15 of *Phytophthora* root rot. 'Davis' has buff hila and is highly susceptible to race 15.

Origin

The breeder is JL Rose of Department of Primary Industries, Queensland. 'Warrigal' was derived from the cross 'Davis' x 'Nessen' made in 1982. It is the progeny of a single F5 plant developed using a modified pedigree selection method. Field testing for yield, maturity, lodging, disease resistance and seed

quality commenced in 1986. Laboratory testing for *Phytophthora* root rot and bacterial pustule was carried out by MJ Ryley, Department of Primary Industries, Toowoomba, Queensland.

Comparators

'Manark' and 'Davis' are other varieties with similar maturity, plant colours and disease resistance.

Comparative Growing Trials

All characteristics and comparisons are from a comparative growing trial planted at Hermitage Research Station near Warwick, Queensland on 17 December 1990. Plots consisted of 5 metre rows 70cm apart, planted at a density of 20 seeds per metre with 2 replicates per variety. Measurements in the table are of 20 plants chosen at random.

Resistance to *Phytophthora* root rot was determined by inoculating hypocotyls to determine immunity and roots to determine field resistance, and using reference fungal isolates held at Department of Primary Industries Pathology Laboratory, Toowoomba, Queensland. Procedures are as outlined by Irwin and Langdon in Aust.J.Agric.Res., 1982, 33 pp 33–39.

Agronomy

'Warrigal' is immune to races 1 and 15 and field resistant to race 4 of *Phytophthora* root rot. It is also immune to bacterial pustule and is adapted to the sub-tropical soybean growing districts of Australia.

Description prepared by Dr J Rose, Hermitage Research Station, QDPI.

Table of Comparison of Soybean Varieties

(* = comparator)

| | 'Warrigal' | **Manark' | **Davis' |
|------------------------------|-----------------|-----------------|--------------------|
| DAYS TO FLOWERING | | | |
| mean | 56.2 | 52.6 | 58.0 |
| range | 51-60 | 49-56 | 55-61 |
| std. deviation | 2.7 | 2.2 | 1.9 |
| MATURE PLANT HEIGHT | | | |
| mean | 81 cm | 89 cm | 92 cm |
| range | 70-90 | 82-98 | 77-108 |
| std. deviation | 4.8 | 4.9 | 6.8 |
| HYPOCOTYL COLOUR | | | |
| green | green | green | green |
| FLOWER COLOUR | | | |
| white | white | white | white |
| PUBESCENCE COLOUR | | | |
| grey | grey | grey | grey |
| POD COLOUR | | | |
| tan | tan | tan | tan |
| SEED COAT LUSTRE | | | |
| dull | shiny | dull | dull |
| HILUM COLOUR | | | |
| colourless | buff | buff | buff |
| PHYTOPHTHORA ROOT ROT | | | |
| race 1 | immune | field resistant | field resistant |
| race 4 | field resistant | field resistant | field resistant |
| race 15 | immune | susceptible | highly susceptible |
| 100 SEED WEIGHT | | | |
| | 16.8g | 18.9g | 17.9g |
| OIL CONTENT | | | |
| | 19.8% | 19.5% | 20.6% |
| PROTEIN CONTENT | | | |
| | 39.9% | 39.5% | 38.9% |

ROSE

Rosa

Comparative Growing Trials

All characteristics described below are from comparative growing trial conducted at Narre Warren North, Victoria. Seven plants of each variety were planted in sandy loam rows 3 metres apart and spaced at 50 cm within the rows. All plants had identical management and chemical treatments.



Variety: 'Tequila Sunrise' commercial synonym 'Dicobey'.
See fig. 14 in colour section.

Application No. 92/026

Application Received: 30 March 1992

Applicant: Colin Dickson of Dickson Nurseries.

Newtownards, County Down, Northern Ireland.

Australian Agent: S Brundrett and Sons Roses Pty Ltd, of Narre Warren North, Victoria

Description—see also comparison tables

This variety is a medium sized bush rose suitable for bedding. It has medium size leaves which are a glossy green; anthocyanin in the young shoots and an obtuse leaf base. The stems are thorny as are the flower pedicels which are slightly prickly.

The flowers are produced from rounded buds and are a yellow blend colour matching the RHS 6C (outside) to RHS 9A (inside) in midzone of the petal. Petal basal spots are indistinct on both surfaces of the petal.

The petal margins have a distinct red flushing matching RHS 46A on the outside margin and RHS 41A on the inside margin of the petal. The medium sized flat flowers are produced in a cluster habit and develop mid to late in the season. The slightly fragrant flowers are composed of more than 50 medium sized non reflexed, undulating petals, and a yellow stamen above a yellow/green style. The seed vessel is of a funnel shape with medium sepal extensions.

Origin

This variety arose from controlled pollination of 'Bonfire' by 'Freedom'. It was bred by Colin Dickson, of Dickson Nurseries, Newtownards, Northern Ireland. 'Tequila Sunrise' has been protected by Plant Variety Rights in United Kingdom since 1988. 'Tequila Sunrise' has been sold in United Kingdom since 1989.

Comparators

'Model of Perfection' and 'Mister Chips', roses of the same flower colour group as 'Tequila Sunrise'.

Description prepared by D. McDonald, Agrisearch Services Pty Ltd

Table of Comparison of Rose Varieties

(* = comparator)

| | 'Tequila Sunrise' | **Model of Perfection' | **Mister Chips' |
|---|-------------------|------------------------|-----------------|
| PETAL COLOUR | | | |
| midzone outside | RHS 6C | RHS 13B | RHS 7D |
| midzone inside | RHS 9A | RHS 13A | RHS 6D-C |
| margin outside | RHS 46A | RHS 45D | RHS 55C |
| margin inside | RHS 41A | RHS 34A | RHS 55D |
| FLOWER SIZE (fully open - stamens visible) | | | |
| mean | 70.1 mm | 62.3 mm | 76.4 mm |
| range | 60-74 | 56-73 | 74-85 |
| std. deviation | 2.73 | 3.7 | 2.7 |
| FLOWERING TIME | | | |
| | medium-late | late | early |
| FLOWER PROFILE | | | |
| upper | flat convex | flat convex | flat convex |
| lower | flat convex | convex | convex |
| PETAL REFLEXING | | | |
| | mild | strong | strong |
| PETAL UNDULATION | | | |
| | present | absent | absent |
| STIGMA IN RELATION TO ANTHERS | | | |
| | above | above | below |

TABLE OF COMPARISON OF ROSE VARIETIES—Continued

| | 'Tequila Sunrise' | **Model of Perfection' | **Mister Chips' |
|-------------------------|-------------------|------------------------|-----------------|
| TERMINAL LEAFLET LENGTH | | | |
| mean | 42.2 mm | 44.4 mm | 51.6 mm |
| range | 37-48 | 42-47 | 47-57 |
| std. deviation | 3.5 | 1.8 | 3.0 |
| TERMINAL LEAFLET WIDTH | | | |
| mean | 30.0 mm | 27.0 mm | 33.55 mm |
| range | 24-33 | 25-29 | 30-40 |
| std. deviation | 2.2 | 1.1 | 2.8 |
| LEAF BASE SHAPE | | | |
| | obtuse | obtuse | round |



Variety: 'Savoy Hotel' commercial synonym 'Harvintage'

See fig. 15 in colour section.

Application No. 92/027

Application Received: 30 March 1992

Applicant: **Harkness New Roses Ltd**, Rose Gardens, of Hitchin Herts, United Kingdom

Australian Agent: **S Brundrett and Sons Roses Pty Ltd**, of Narre Warren North, Victoria

Description—see also comparison tables

This variety is a medium sized long stemmed bush rose suitable for bedding. It has large leaves which are a dull light green; anthocyanin in the young shoots and a round leaf base. The stems are thorny as are the flower pedicels which are slightly prickly.

The flowers are produced from ovate buds and are of a pink blend colour matching the RHS 62D (inside the petal) to RHS 56A (outside the petal). The large double flowers are produced in a single habit and develop late in the season. The flowers are composed of more than 50 medium sized very reflexed petals, a yellow stamen and a red/purple style. The seed vessel is of a funnel shape with medium sepal extensions.

Origin

This variety arose from controlled pollination of 'Silver Jubilee' by 'Amber Queen'. It was bred by JL Harkness, of Harkness Rose Gardens, Hitchin Herts, United Kingdom. 'Savoy Queen' has been protected by Plant Variety Rights in United Kingdom since 1988. 'Savoy Queen' has been sold in United Kingdom since October 1989.

Comparators

'Royal Highness' and 'Memorium', both pink blend roses as is 'Savoy Hotel'.

Description prepared by D.McDonald, Agrisearch Services Pty Ltd

Table of Comparison of Rose Varieties

(* = comparator)

| | 'Savoy Hotel' | **Royal Highness' | **Memorium' |
|------------------------|---------------|-------------------|-------------|
| PETAL COLOUR - RHS No. | | | |
| midzone outside | 56A | 69B | 56D |
| midzone inside | 62D | 69D | 69D-C |
| margin outside | 56A | 75C | 55B |
| margin outside | 62D | 69D | 55C |

TABLE OF COMPARISON OF ROSE VARIETIES—Continued

| | 'Savoy Hotel' | **Royal Highness' | **Memorium' |
|--|---------------|-------------------|-------------|
| FLOWER SIZE (fully open - stamens visible) | | | |
| mean | 64.1 mm | 73.3 mm | 71.4 mm |
| range | 54-73 | 62-81 | 60-81 |
| std. deviation | 6.09 | 6.9 | 7.9 |
| FLOWERING TIME | | | |
| | late | early | early |
| FLOWER PEDICEL | | | |
| | prickly | smooth | prickly |
| STAMEN COLOUR | | | |
| | yellow | red | yellow |
| STYLE COLOUR | | | |
| | red-purple | red-purple | yellow |
| TERMINAL LEAFLET LENGTH | | | |
| mean | 53.7 mm | 47.7 mm | 39.2 mm |
| range | 33-70 | 44-53 | 37-41 |
| std. deviation | 11.1 | 2.7 | 1.6 |
| LEAF GLOSS | | | |
| | dull | glossy | dull |
| SEED VESSEL SHAPE | | | |
| | funnel | funnel | pitcher |
| SEPAL EXTENSIONS | | | |
| | medium | weak | weak |



Variety: 'Tantau's Bernstein Rose' commercial synonym

'Taneitber'. See fig. 16 in colour section.

Application No. 92/028

Application Received: 30 March 1992

Applicant: **Rosen Tantau Tornescher**, of Uetersen, Germany
 Australian Agent: **S Brundrett and Sons Roses Pty Ltd**, of Narre Warren North, Victoria

Description—see also comparison tables

This variety is a medium sized floribunda bush rose suitable for bedding. It has large leaves which are a glossy dark green; anthocyanin in the young shoots and a round leaf base. The stems are thorny as are the flower pedicels which are very prickly.

The flowers are produced from rounded buds and are of a yellow blend colour matching the RHS 11A-B outside the petal to RHS 23B-C inside the petal. The petals have a large basal spot on the inside surface. The medium sized flowers are produced in a cluster habit and develop late in the season. The flowers are fragrant and are composed of more than 50 medium sized non reflexed petals, a yellow stamen and a yellow style. The seed vessel is of a pitcher shape with weak sepal extensions.

Origin

This variety arose from controlled pollination of two unnamed seedlings. It was bred by Hans-Jurgen Evers of Uetersen, Germany. Plant variety rights have been applied for in Germany and Switzerland for 'Tantau's Bernstein Rose'. 'Tantau's Bernstein Rose' was first sold in Germany in October 1987.

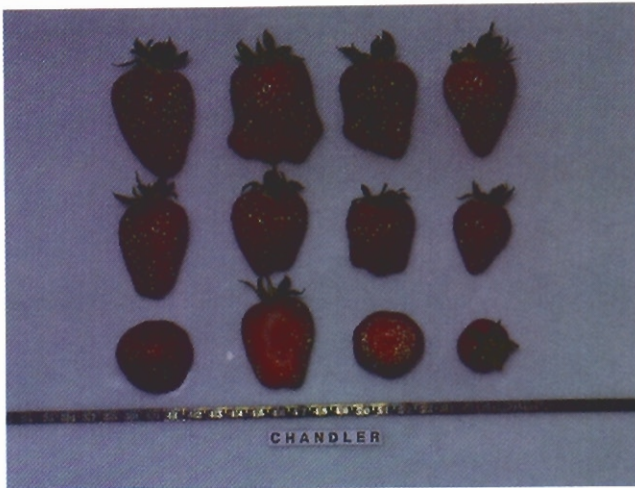


Fig. 1. Fruit of 'Chandler'. (Photograph supplied by applicant)



Fig. 4. Fruit of 'Santana'. (Photograph supplied by applicant)

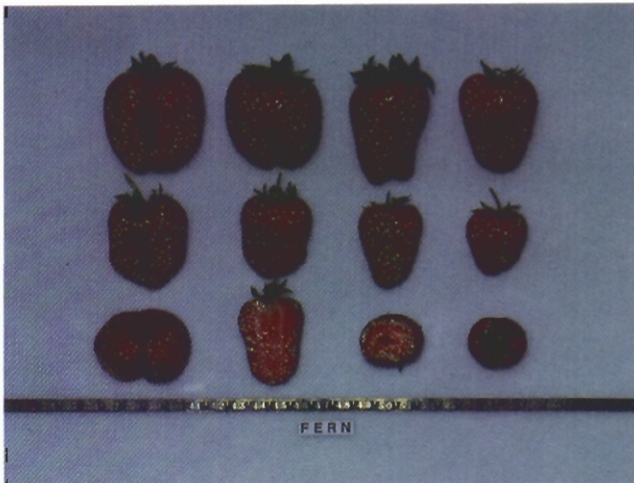


Fig. 2. Fruit of 'Fern'. (Photograph supplied by applicant)

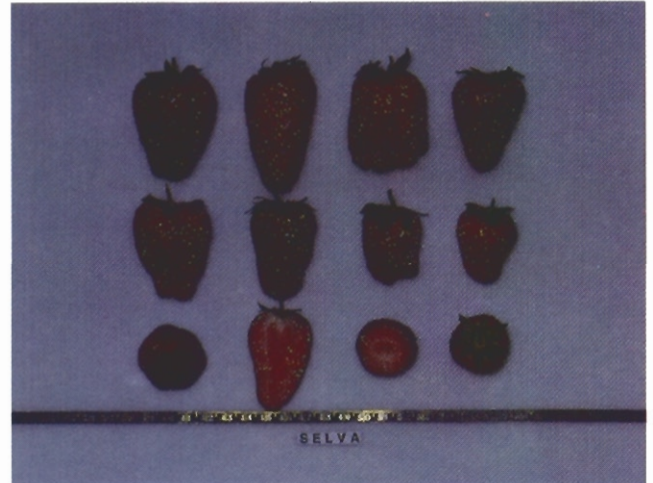


Fig. 5. Fruit of 'Selva'. (Photograph supplied by applicant)

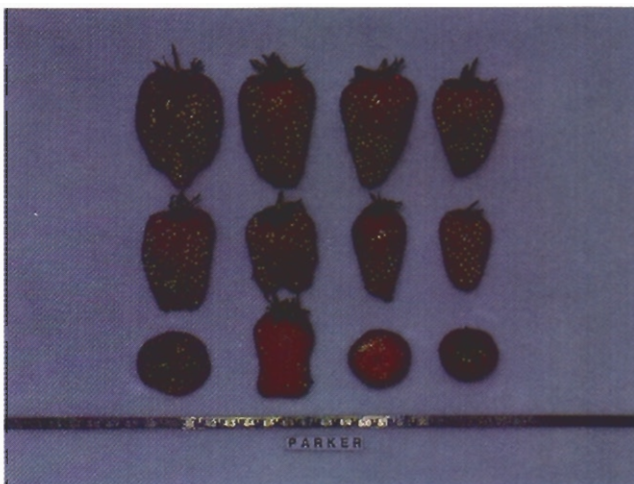


Fig. 3. Fruit of 'Parker'. (Photograph supplied by applicant)

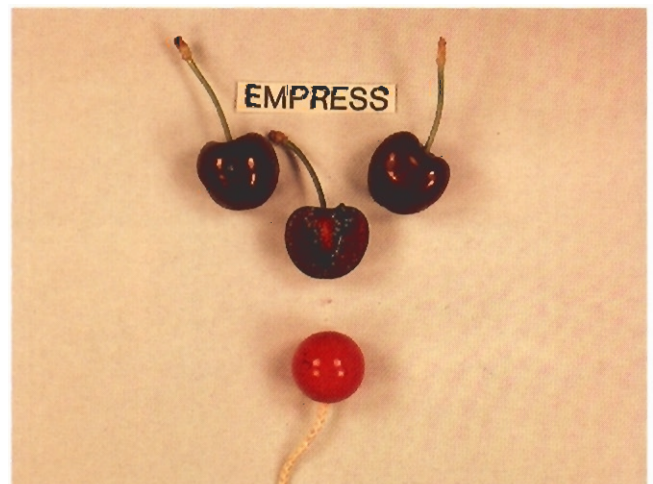


Fig. 6. Fruit of 'Empress' with the minimum maturity standard (the No. 3 colour comparator) for the Australian market. (Photograph supplied by applicant)



Fig. 7. 'Flower Carpet'. (Photograph supplied by applicant).

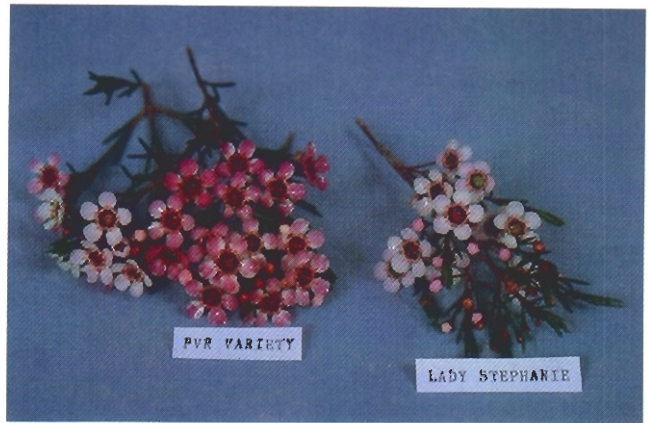


Fig. 10. Flowers of 'Tickled Pink'. (left, labelled 'PVR variety') and 'Lady Stephanie'. (Photograph supplied by applicant)

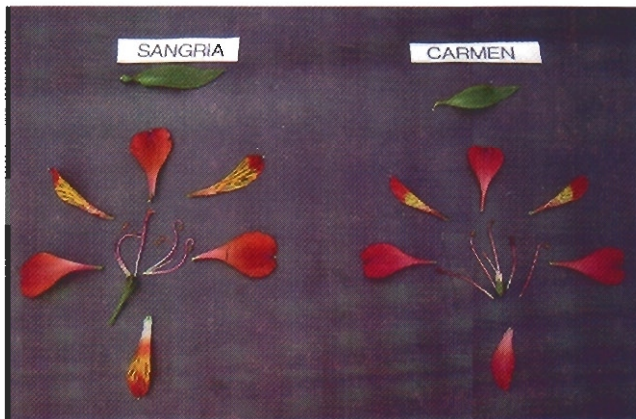


Fig. 8. 'Sangria' with the comparative variety 'Carmen'. (Photograph supplied by applicant).



Fig. 9. 'Peter Nitschke'. (right) with the comparative variety 'Castlewellan Gold' (left). (Photograph supplied by applicant)

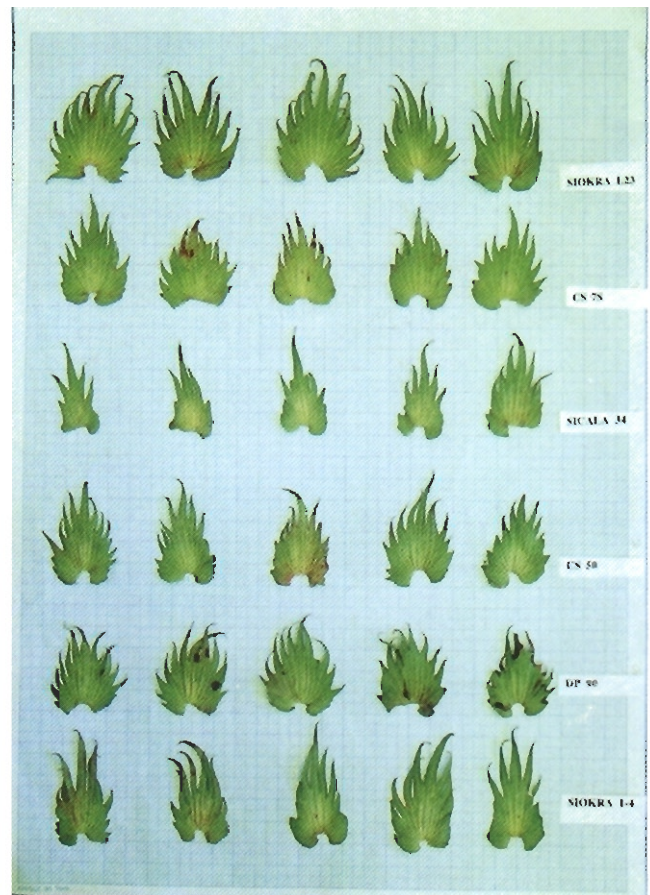


Fig. 11. Typical bracts of the new varieties 'Siokra L23', 'CS 7S', 'Sicala 34' and 'CS 50' compared with the standard 'DP 90' and 'Siokra 1-4'. (Photograph supplied by applicant).

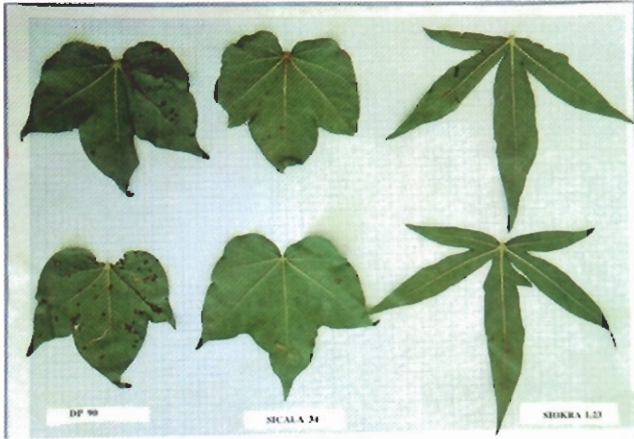


Fig. 12. Typical leaves of 'DP 90', 'Sicala 34' and 'Siokra L23'. Angular leaf spot caused by bacterial blight (*Xanthomonas campestris* pv *malvacearum*) is evident on 'DP 90'. (Photograph supplied by applicant).



Fig. 15. 'Savoy Hotel'. (Photograph supplied by applicant).



Fig. 13. Seed of soybeans 'Manark' and 'Warrigal'. (Photograph supplied by applicant)



Fig. 16. 'Tantau's Bernstein Rose'. (Photograph supplied by applicant).



Fig. 14. 'Tequila Sunrise'. (Photograph supplied by applicant).



Fig. 17. 'Magnum'. (Photograph supplied by applicant)



Fig. 18. 'Sphinx'. (Photograph supplied by applicant)



Fig. 21. 'Melissa'. (Photograph supplied by applicant)



Fig. 19. 'Isis'. (Photograph supplied by applicant)



Fig. 22. 'Tobago'. (Photograph supplied by applicant)

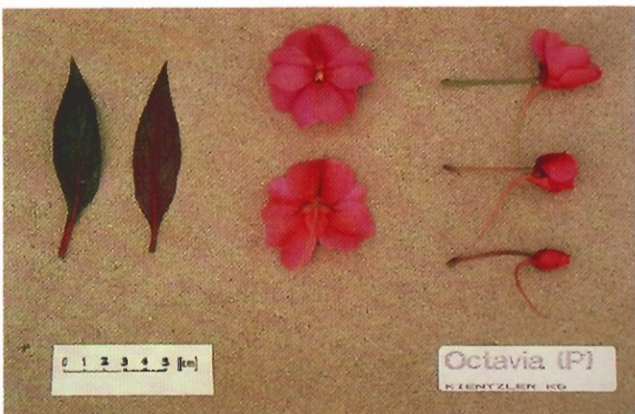


Fig. 20. 'Octavia'. (Photograph supplied by applicant)



Fig. 23. 'Tonga'. (Photograph supplied by applicant)



Fig. 24. 'Papete'. (Photograph supplied by applicant)



Fig. 27. 'Maui'. (Photograph supplied by applicant)



Fig. 25. 'Samoa'. (Photograph supplied by applicant)



Fig. 28. 'Lanai'. (Photograph supplied by applicant)



Fig. 26. 'Trinidad'. (Photograph supplied by applicant)



Fig. 29. 'Barbados'. (Photograph supplied by applicant)



Fig. 30. 'Marpesia'. (Photograph supplied by applicant)



Fig. 33. 'Tahiti'. (Photograph supplied by applicant)



Fig. 31. 'Bora Bora'. (Photograph supplied by applicant)



Fig. 34. 'Aruba'. (Photograph supplied by applicant)



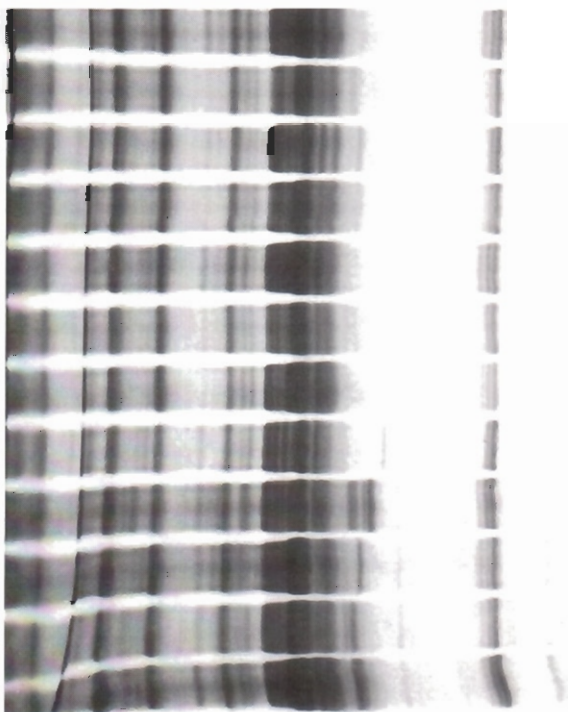
Fig. 32. 'Fiji'. (Photograph supplied by applicant)



Fig. 35. 'Antigua'. (Photograph supplied by applicant)



Fig. 36. 'Toucan Tango'. (Photograph supplied by applicant)



Jackaroo
Tasdale
Martlet
Tasmanian No 1
Jackaroo
Ellet
Grasslands Nui
Yatsyn 1
Grassland Greenstone
Roper
Brumby
Droughtmaster

Fig. 37. SDS polyacrylamide gel electrophoresis of seed protein of ryegrass varieties. (Photograph supplied by DSIR Fruit and Trees). A description of 'Jackaroo' was published in Vol. 5, No. 1, March 1992.

Comparators

'Sun King' and 'McGredy's Sunset', both yellow blend roses as is 'Tantau's Bernstein Rose'.

Description prepared by D. McDonald, Agrisearch Services Pty Ltd

Table of Comparison of Rose Varieties

(* = comparator)

| | 'Tantau's Bernstein Rose' | 'Sun King' | 'McGredy's Sunset' |
|--|---------------------------------|------------|-----------------------|
| PETAL COLOUR - RHS No. | | | |
| midzone outside | 11A-B | 20A | 13C |
| midzone inside | 23B | 14A-B | 12A |
| margin outside | 11A-B | 15C | 13C |
| margin inside | 23C | 13B | 13C |
| FLOWER SIZE | | | |
| mean | 76.1 mm | 94.1 mm | 93.5 mm |
| range | 66-85 | 92-105 | 80-110 |
| std. deviation | 5.7 | 6.4 | 5.2 |
| FLOWERING TIME | | | |
| | late | medium | early |
| FLOWER PEDICEL | | | |
| | very prickly | smooth | slightly prickly |
| PETAL BASAL SPOT | | | |
| inside | present | absent | present |
| outside | absent | present | absent |
| size (1-10, 1 = smallest) | 6 | 1 | 8 |
| STIGMA IN RELATION TO THE ANTHERS | | | |
| | same level | same level | below |
| STAMEN COLOUR | | | |
| | yellow | red | yellow |
| STYLE COLOUR | | | |
| | yellow | red | yellow/green |
| TERMINAL LEAFLET LENGTH | | | |
| mean | 45.5 mm | 60.4 mm | 52.0 mm |
| range | 40-52 | 46-76 | 45-65 |
| std. deviation | 3.4 | 12.1 | 3.3 |
| LEAF COLOUR | | | |
| | dark green | dark green | light green |
| LEAF GLOSS | | | |
| | glossy | dull | dull |

LETTUCE

Lactuca sativa



Variety: 'Magnum' See fig. 17 in colour section

Application No. 92/031

Application Received: 19 March 1992

Applicant: Arthur Yates & Co Pty Ltd of Milperra, NSW, Australia

Description—see also comparison tables

'Magnum' is a Salinas-Vanguard type of crisphead lettuce with a firm, round well covered head and is medium in its maturity. There is no anthocyanin in the foliage and the wrapper leaves are slightly bubbly and medium-green (RHS 137B). At the 3-4 true-leaf stage the leaves are erect, lobed, medium-green, short-attenuate and the cotyledons described as narrow elliptical.

'Magnum' is most similar to 'Target' but differs significantly in days to maturity from transplanting, head weight and head diameter. Random amplification of polymorphic DNA (RAPD) analysis indicates that 'Magnum' is dissimilar to 'Target' by demonstrating a genetic difference for every 3.6 RAPD tests/primers used.

Origin

'Magnum' was developed by controlled pollination of 'Salinas' x 'Capitan'. Field nurseries in Australia and finally California over two seasons have identified that the selected line is uniform for phenotypic characters.

Comparators

'Target', the closest known variety to 'Magnum'.

Comparative Growing Trials

All characteristics described result from comparative growing trials conducted at Narromine, New South Wales in spring, 1991 with spaced plants grown from transplanted seedlings. Measurements are from 50 mature plants taken at random from each variety. Identification of Dm genes to *Bremia lactucae* were determined by assay against reference isolates of the fungus by the Horticultural Research International, Wellesbourne, England in 1986, 1989 and 1991.

Agronomy

'Magnum' is suitable for culture in coastal areas of Australia and California and inland areas of NSW wherever 'Target' is grown. 'Target' can be grown during autumn and spring. 'Magnum' is suited to mature slightly after 'Target' in autumn and before 'Target' in spring.

Description prepared by Dan Trimhole, Arthur Yates and Co. Pty Ltd

Table of Comparison of Lettuce Varieties

(* = comparator)

| | 'Magnum' | 'Target' |
|---|----------|----------|
| MATURITY (No. of days from transplant) | | |
| mean | 51.6 | 49.5 |
| range | 47-54 | 47-53 |
| s.e. | | 0.1807 |
| t-value | | 9.9612** |
| PLANT DIAMETER | | |
| mean | 49.5 cm | 48.7 cm |
| range | 42-58 | 44-54 |
| s.e. | | 1.1653 |
| t-value | | 0.652 |
| HEAD WEIGHT | | |
| mean | 1112.5 g | 1031.5 g |
| range | 800-1300 | 825-1275 |
| s.e. | | 19.7246 |
| t-value | | 4.1065** |

TABLE OF COMPARISON OF LETTUCE VARIETIES—Continued

| | | |
|--------------------|-----------|-----------|
| HEAD DIAMETER | | |
| mean | 15.0 cm | 14.6 cm |
| range | 13.5-16.5 | 13.0-16.0 |
| s.e. | | 1.4160 |
| t-value | | 3.1179** |
| HEAD HEIGHT | | |
| mean | 13.7 cm | 13.6 cm |
| range | 12.0-14.5 | 11.5-15.0 |
| s.e. | | 3.0190 |
| t-value | | 0.4306 |
| CORE LENGTH | | |
| mean | 50.1 mm | 47.4 mm |
| range | 30-70 | 35-65 |
| s.e. | | 1.6485 |
| t-value | | 1.6378 |
| CORE DIAMETER | | |
| mean | 41.8 mm | 40.8 mm |
| range | 35-50 | 35-48 |
| s.e. | | 0.9772 |
| t-value | | 0.9414 |
| Dm genes to Bremia | 5/8, 11 | 5/8, 11 |

** significant at 0.01 level

IMPATIENS

Impatiens hawkeri

Comparative Growing Trials

All characteristics and comparisons below are from comparative growing trials conducted at Emerald in Victoria. Growing conditions were the same used as for commercial production. Five plants of each variety were grown in a pinebark-based medium enriched with time release fertiliser. These were situated in a heated, whitewashed poly-tunnel maintained at between 16–35 degrees Celsius. Measurements represent 20 randomly chosen specimens from these plants taken six months after potting on.

Descriptions prepared by Roy Rother and PVRO



Variety: 'Sphinx' See fig. 18 in colour section

Application No. 92/032

Application Received: 7 April 1992

Applicant: L Kientzler, of Kientzler KG, Gensingen Germany

Australian Agent: RW Rother of Outeniqua Nursery, Emerald, Victoria

Description—see also comparison tables

'Sphinx' is a small to medium sized plant with dark green, lanceolate leaves and a simple white flower with reddish pigmentation in the upper petal. 'Sphinx' has a compact growth habit and dark green stems.

Origin

'Sphinx' was selected from the seedling progeny of 'Jasius' and 'C3201' in 1988. Plant variety rights have been applied for in Germany.

Comparators

'Jasius' is the closest known variety to 'Sphinx' in flower colour and size and it is commonly available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Sphinx' | **Jasius' |
|-----------------|------------|-----------|
| PLANT HEIGHT | | |
| mean | 247 mm | 252 mm |
| range | 220-320 | 240-290 |
| std. deviation | 21.6 | 15.8 |
| PLANT DIAMETER | | |
| mean | 338 mm | 436 mm |
| range | 260-400 | 410-460 |
| std. deviation | 18.4 | 20.9 |
| LEAF LENGTH | | |
| mean | 109 mm | 142 mm |
| range | 98-130 | 120-165 |
| std. deviation | 10.45 | 16 |
| LEAF WIDTH | | |
| mean | 32 mm | 29 mm |
| range | 24-40 | 26-31 |
| std. deviation | 5.66 | 1.5 |
| LEAF SHAPE | | |
| | lanceolate | elliptic |
| LEAF COLOUR | | |
| upper surface | RHS 139 | RHS 137A |
| lower surface | RHS 137A/B | — |
| LEAF MARKINGS | | |
| | absent | absent |
| FLOWER DIAMETER | | |
| mean | 52 mm | 48 mm |
| range | 46-58 | 42-54 |
| std. deviation | 7.25 | 2.5 |
| FLOWER COLOUR | | |
| primary | white | white |
| secondary | RHS 65D | — |
| EYE ZONE | | |
| | absent | absent |



Variety: 'Isis' See fig. 19 in colour section

Application No. 92/033

Application Received: 7 April 1992

Applicant: L Kientzler, of Kientzler KG, Gensingen Germany

Australian Agent: RW Rother of Outeniqua Nursery, Emerald, Victoria

Description—see also comparison tables

'Isis' is a hybrid *impatiens* of medium height and less compact than the comparative variety 'Eurema'. The leaves are oblanceolate, dark green on the upper surface and light green underneath. Yellow leaf blade markings are present. 'Eurema' in comparison, shows a distinct reddish pigment on the undersides of leaves as well as more pronounced red pigmentation of the midrib. The flowers of 'Eurema' are a darker red and show purple/red on the outer perimeter of the petals with the ageing of the flowers.

Origin

'Isis' was selected from the seedling progeny of 'C155' and '660' in 1988. Plant variety rights have been applied for in Germany.

Comparators

'Eurema' a Kientzler hybrid, is the closest known to 'Isis' in flower colour and size.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Isis' | *'Eurema' |
|----------------------------|------------|-----------|
| PLANT HEIGHT | | |
| mean | 310 mm | 258 mm |
| range | 250-380 | 250-270 |
| std. deviation | 17.6 | 16 |
| PLANT DIAMETER | | |
| mean | 436 mm | 384 mm |
| range | 370-500 | 360-400 |
| std. deviation | 20.9 | 20 |
| LEAF LENGTH | | |
| mean | 98 mm | 110 mm |
| range | 84-126 | 92-144 |
| std. deviation | 9.9 | 12 |
| LEAF WIDTH | | |
| mean | 32 mm | 42 mm |
| range | 24-40 | 34-51 |
| std. deviation | 5.6 | 3 |
| LEAF SHAPE | | |
| | lanceolate | elliptic |
| LEAF COLOUR—RHS No. | | |
| upper | 139A | 139A |
| lower | 148B | 59A |
| LEAF MARKINGS | | |
| | RHS 11C | RHS 151A |
| FLOWER COLOUR | | |
| | RHS 40B | RHS 41B |
| FLOWER DIAMETER | | |
| mean | 52 mm | 55 mm |
| range | 38-61 | 48-57 |
| std. deviation | 7.2 | 3.0 |
| EYE ZONE | | |
| | absent | absent |



Variety: '**Octavia**' See fig. 20 in colour section

Application No. 92/034

Application Received: 7 April 1992

Applicant: L Kientzler, of Kientzler KG, Gensingen, Germany

Australian Agent: **RW Rother** of Outeniqua Nursery, Emerald, Victoria.

Description—see also comparison tables

'Octavia' is a small to medium sized hybrid *impatiens*, compact in growth habit with green stems and dark green, oblance-

olate leaves without blade markings. Flowers are simple and predominantly purple/violet with zones of red-purple on the upper surface of a single petal and on the undersides of petals. A distinct reddish/purple eye zone is apparent. 'Octavia' differs from 'Celerio' in being more compact and in the reverse side of the flower, which shows purple/violet and reddish/purple colouration.

Origin

'Octavia' was selected from the seedling progeny of 'Celerio' and 'C280' in 1988. Plant variety rights have been applied for in Germany.

Comparators

'Celerio', a Kientzler hybrid, is the closest in flower colour and size and is commonly available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Octavia' | *'Celerio' |
|-------------------------------------|--------------|--------------|
| PLANT HEIGHT | | |
| mean | 268 mm | 252 mm |
| range | 220-300 | 240-250 |
| std. deviation | 16.4 | 15.9 |
| PLANT DIAMETER | | |
| mean | 400 mm | 506 mm |
| range | 290-490 | 470-560 |
| std. deviation | 20 | 22.5 |
| LEAF LENGTH | | |
| mean | 114 mm | 102 mm |
| range | 95-140 | 93-113 |
| std. deviation | 10.7 | 6 |
| LEAF WIDTH | | |
| mean | 38 mm | 37 mm |
| range | 32-44 | 32-46 |
| std. deviation | 6.1 | 2.5 |
| LEAF SHAPE | | |
| | oblanceolate | oblanceolate |
| LEAF COLOUR—RHS No. | | |
| upper | 139A | 139A |
| lower | 183B | — |
| LEAF MARKINGS | | |
| | absent | 153C |
| FLOWER DIAMETER | | |
| mean | 54 mm | 62 mm |
| range | 48-62 | 56-64 |
| std. deviation | 7.3 | 2.0 |
| FLOWER COLOUR—RHS No. | | |
| primary | 81D | 66A |
| secondary | 57A | 80C |
| reverse side | 60A & 80C | — |
| EYE ZONE COLOUR | | |
| | 66A | — |
| DIAMETER OF EYE ZONE | | |
| mean | 16 mm | — |
| range | 13-20 | — |
| std. deviation | 4.0 | — |
| TIME TO START FLOWERING—days | | |
| mean | 24 | 30 |
| range | 24-31 | 29-31 |
| std. deviation | 5.2 | 0.1 |



Variety: **'Melissa'** See fig. 21 in colour section
 Application No. 92/035
 Application Received: 7 April 1992
 Applicant: **L Kientzler, of Kientzler KG, Gensingen**
 Germany
 Australian Agent: **RW Rother** of Outeniqua Nursery,
 Emerald, Victoria

Description—see also comparison tables

'Melissa' is a medium sized plant with a medium to upright growth habit and large, dark green, lanceolate leaves without blade markings. Flowers are simple and red with a distinct purple/magenta eye zone. 'Melissa' flowers more profusely than the comparative variety 'Sesia' and flowers have a distinct eye zone which is absent in 'Sesia'. 'Melissa' has lanceolate leaves while 'Sesia's' are ovate.

Origin

'Melissa' was selected from the seedling progeny of 'B36770' and 'B3900' in 1988. Plant variety rights have been applied for in Germany.

Comparators

'Sesia' a Kientzler hybrid is the closest known variety to 'Melissa' in size and colour of the flower.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Melissa' | **'Sesia' |
|----------------------------|------------------------------------|-----------|
| PLANT HEIGHT | | |
| mean | 310 mm | 230 mm |
| range | 280-360 | 200-250 |
| std. deviation | 17.6 | 15.2 |
| PLANT DIAMETER | | |
| mean | 511 mm | 390 mm |
| range | 350-670 | 380-420 |
| std. deviation | 22.6 | 19.7 |
| LEAF LENGTH | | |
| mean | 98 mm | 83 mm |
| range | 85-120 | 70-96 |
| std. deviation | 9.9 | 9.0 |
| LEAF WIDTH | | |
| mean | 32 mm | 33 mm |
| range | 26-38 | 26-38 |
| std. deviation | 5.6 | 5.7 |
| LEAF SHAPE | lanceolate | ovate |
| LEAF COLOUR—RHS No. | | |
| upper surface | 147A | 139A |
| lower surface | 184B | 138B |
| LEAF MARKINGS | absent | absent |
| FLOWER DIAMETER | | |
| mean | 54 mm | 46 mm |
| range | 50-60 | 42-50 |
| std. deviation | 7.4 | 6.8 |
| FLOWER COLOUR | | |
| primary | RHS 50B | RHS 52C |
| secondary | RHS 52A | RHS 43C |
| EYE ZONE COLOUR | RHS 85D (outer) RHS 74A (inner) | absent |



Variety: **'Tobago'** See fig. 22 in colour section
 Application No. 92/036
 Application Received: 7 April 1992
 Applicant: **L Kientzler, InnovaPlant GMBH & Co.,**
 Gensingen, Germany
 Australian Agent: **RW Rother** of Outeniqua Nursery,
 Emerald Victoria

Description—see also comparison tables

'Tobago' is a compact plant with dark foliage without leaf markings. Flowers are larger and more intensely coloured than those of the comparative variety 'Sesia'. Flowers have a distinct red/purple eye zone.

Origin

'Tobago' was selected from the seedling progeny of 'E153' and 'D528'. It is protected in Germany, Italy, USA and Japan under the synonym 'Kibago'.

Comparators

'Sesia', a Kientzler KG variety is the closest known hybrid cultivar commonly available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Tobago' | **'Sesia' |
|------------------------|----------|--|
| PLANT HEIGHT | | |
| mean | 190 mm | 233 mm |
| range | 170-220 | 200-250 |
| std. deviation | 18.7 | 15.2 |
| PLANT DIAMETER | | |
| mean | 356 mm | 390 mm |
| range | 320-400 | 380-420 |
| std. deviation | 32.86 | 19.7 |
| LEAF LENGTH | | |
| mean | 78.1 mm | 83 mm |
| range | 70-90 | 70-96 |
| std. deviation | 6.47 | 9.0 |
| LEAF COLOUR | RHS 139A | RHS 139A |
| FLOWER DIAMETER | | |
| mean | 58.1 mm | 46 mm |
| range | 53-68 | 42-50 |
| std. deviation | 3.55 | 6.8 |
| FLOWER COLOUR | RHS 52C | RHS 52C (primary) RHS 43C (secondary) |
| EYE ZONE COLOUR | RHS 61B | absent |



Variety: **'Tonga'** See fig. 23 in colour section
 Application No. 92/037
 Application Received: 7 April 1992
 Applicant: **L Kientzler, InnovaPlant GMBH & Co.,**
 Gensingen, Germany
 Australian Agent: **RW Rother** of Outeniqua Nursery,
 Emerald, Victoria

Description—see also comparison tables

'Tonga' is a hybrid *impatiens* variety more compact than the comparative variety 'Saturnia'. It has large flowers, flowers more profusely than 'Saturnia', and flowers have a distinct white eye zone.

Origin

'Tonga' was selected from the seedling progeny of 'D657' and 'E278'. It is protected in Germany, Italy, USA and Japan under the synonym 'Kingia'.

Comparators

'Saturnia', a Kientzler cultivar, is the closest known hybrid *impatiens* for comparison.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Tonga' | * 'Saturnia' |
|------------------------|-----------|--------------|
| PLANT HEIGHT | | |
| mean | 220 mm | 170 mm |
| range | 160–280 | 150–180 |
| std. deviation | 44.72 | 8 |
| PLANT DIAMETER | | |
| mean | 330 mm | 370 mm |
| range | 280–360 | 350–400 |
| std. deviation | 30.82 | 12 |
| LEAF LENGTH | | |
| mean | 98 mm | 106 mm |
| range | 80–115 | 96–114 |
| std. deviation | 10.46 | 12 |
| LEAF WIDTH | | |
| mean | 36.6 mm | 38.0 mm |
| range | 32–40 | 34–44 |
| std. deviation | 3.1 | 4.0 |
| LEAF COLOUR | | |
| | RHS 147A | RHS 147A |
| FLOWER DIAMETER | | |
| mean | 65 mm | 60 mm |
| range | 58–70 | 58–64 |
| std. deviation | 2.9 | 1.0 |
| FLOWER COLOUR | | |
| primary | RHS 75A | RHS 77C–75A |
| secondary | RHS 74B/C | |
| EYE ZONE COLOUR | | |
| | white | white |



Variety: '**Papete**' See fig. 24 in colour section
Application No. 92/038
Application Received: 7 April 1992
Applicant: **L Kientzler, InnovaPlant GMBH & Co.**,
Gensingen, Germany
Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables

'Papete' is a compact plant which branches more profusely than 'Dunya', the closest existing variety. It has flowers larger

than those of 'Dunya' with a red/purple eye zone.

Origin

'Papete' was selected from the seedling progeny of 'D603' and 'D15'. It is protected in Germany, Italy, USA and Japan under the synonym 'Kipete'.

Comparators

'Dunya', a Kientzler cultivar, is the closest known variety commonly known in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Samoa' | ** 'Jasius' |
|------------------------|----------|-------------|
| PLANT HEIGHT | | |
| mean | 192 mm | 279 mm |
| range | 180–200 | 240–300 |
| std. deviation | 11.0 | 16.0 |
| PLANT DIAMETER | | |
| mean | 318 mm | 414 mm |
| range | 300–340 | 360–450 |
| std. deviation | 17.9 | 20.0 |
| LEAF LENGTH | | |
| mean | 97.9 mm | 69.0 mm |
| range | 80–110 | 54–86 |
| std. deviation | 9.7 | 8.4 |
| LEAF WIDTH | | |
| mean | 38.4 mm | 33.0 mm |
| range | 32–44 | 26–39 |
| std. deviation | 2.6 | 5.7 |
| LEAF COLOUR | | |
| upper surface | RHS 137A | RHS 147A |
| lower surface | — | RHS 138B |
| FLOWER DIAMETER | | |
| mean | 61.7 mm | 52.0 mm |
| range | 56–64 | 45–60 |
| std. deviation | 2.9 | 7.2 |
| FLOWER COLOUR | | |
| | RHS 74A | RHS 66A |
| EYE ZONE | | |
| | present | absent |



Variety: '**Trinidad**' See fig. 26 in colour section
Application No. 92/039
Application Received: 7 April 1992
Applicant: **L Kientzler, InnovaPlant GMBH & Co.**,
Gensingen, Germany
Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables

'Trinidad' is a new hybrid *impatiens* cultivar which has smaller, darker leaves than 'Mimas', the closest existing variety. 'Trinidad' has a larger, flatter flower with a surface sheen.

Origin

'Trinidad' was selected from the seedling progeny of 'E127' and 'D392'. It is protected by PVR in Germany, Italy, USA and Japan under the synonym 'Kinida'.

Comparators

'Mimas', a Kientzler cultivar, is the closest known and freely available hybrid *impatiens* was used as a comparative variety.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Trinidad' | **'Mimas' |
|------------------------|------------|-----------|
| PLANT HEIGHT | | |
| mean | 242 mm | 190 mm |
| range | 200–300 | 170–200 |
| std. deviation | 37.7 | 6.0 |
| PLANT DIAMETER | | |
| mean | 356 mm | 400 mm |
| range | 330–400 | 375–410 |
| std. deviation | 32.1 | 7.0 |
| LEAF LENGTH | | |
| mean | 96.7 mm | 118 mm |
| range | 75–112 | 110–140 |
| std. deviation | 9.9 | 12.0 |
| LEAF WIDTH | | |
| mean | 38.8 mm | 40.0 mm |
| range | 32–49 | 36–38 |
| std. deviation | 5.1 | 3.0 |
| LEAF COLOUR | | |
| | RHS 139A | RHS 137A |
| LEAF MARKINGS | | |
| | absent | present |
| FLOWER DIAMETER | | |
| mean | 63.6 mm | 60.0 mm |
| range | 59–72 | 56–66 |
| std. deviation | 3.5 | 4.0 |
| FLOWER COLOUR | | |
| | RHS 66B | RHS 66B |



Variety: '**Maui**' See fig. 27 in colour section
Application No. 92/040
Application Received: 7 April 1992
Applicant: **L Kientzler, InnovaPlant GMBH & Co.**,
Gensingen, Germany
Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables

'Maui' is a new *impatiens* cultivar more compact than 'Melissa', the closest existing variety, and with a larger, more intensely coloured flower with visible red eye zone.

Origin

'Maui' was selected from the seedling progeny of 'E239' and 'Melissa'. It is protected by PVR in Germany, Italy, USA and Japan under the synonym 'Kima'.

Comparators

'Melissa', a Kientzler cultivar is the closest known variety to 'Maui'.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Maui' | **'Melissa' |
|------------------------|-----------|-------------|
| PLANT HEIGHT | | |
| mean | 176 mm | 310 mm |
| range | 160–190 | 280–360 |
| std. deviation | 11.4 | 17.6 |
| PLANT DIAMETER | | |
| mean | 390 mm | 511 mm |
| range | 370–420 | 550–670 |
| std. deviation | 20 | 22.6 |
| LEAF LENGTH | | |
| mean | 98. mm | 98 mm |
| range | 85–120 | 85–120 |
| std. deviation | 10.8 | 9.9 |
| LEAF WIDTH | | |
| mean | 39 mm | 32 mm |
| range | 30–47 | 26–38 |
| std. deviation | 4.9 | 5.6 |
| LEAF COLOUR | | |
| upper surface | RHS 139A | RHS 147A |
| lower surface | RHS 59A | RHS 184B |
| FLOWER DIAMETER | | |
| mean | 60.5 mm | 54.0 mm |
| range | 55–65 | 50–60 |
| std. deviation | 3.44 | 7.35 |
| FLOWER COLOUR | | |
| primary | RHS 43A/B | RHS 43B |
| secondary | — | RHS 43C |
| EYE ZONE COLOUR | | |
| outer | RHS 50A/B | RHS 85D |
| inner | — | RHS 94A |



Variety: '**Samoa**' See fig. 25 in colour section
Application No. 92/041
Application Received: 7 April 1992
Applicant: **L Kientzler, InnovaPlant GMBH & Co.**,
Gensingen, Germany
Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables

'Samoa' is a new *impatiens* cultivar slightly wider in growth habit than the comparative variety 'Jasius'. It has darker foliage and large pure white orchid shaped flowers with red/purple eye zone.

Origin

'Samoa' was selected from the seedling progeny of 'E133' and 'D3405'. It is protected in Germany, Italy, USA and Japan under the synonym 'Kimoa'.

Comparators

'Jasius', a Kientzler cultivar is the closest known variety and was used as a comparison plant.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Samoa' | **Jasius' |
|------------------------|--------------------------------|-----------|
| PLANT HEIGHT | | |
| mean | 208 mm | 252 mm |
| range | 180–230 | 240–290 |
| std. deviation | 19.2 | 15.8 |
| PLANT DIAMETER | | |
| mean | 400 mm | 436 mm |
| range | 340–480 | 410–460 |
| std. deviation | 56.1 | 20.9 |
| LEAF LENGTH | | |
| mean | 88. mm | 142 mm |
| range | 73–112 | 120–165 |
| std. deviation | 12. | 16 |
| LEAF WIDTH | | |
| mean | 36 mm | 29 mm |
| range | 23–42 | 26–31 |
| std. deviation | 5.8 | 1.5 |
| LEAF COLOUR | | |
| | RHS 147A | RHS 137A |
| FLOWER DIAMETER | | |
| mean | 60 mm | 48 mm |
| range | 56–66 | 42–54 |
| std. deviation | 2.8 | 2.5 |
| FLOWER COLOUR | | |
| | Clear white & RHS 56D blush | white |
| EYE ZONE COLOUR | | |
| | RHS 57C | absent |



Variety: '**Lanai**' See fig. 28 in colour section

Application No. 92/042

Application Received: 7 April 1992

Applicant: **L Kientzler, InnovaPlant GMBH & Co.**,
Gensingen, Germany

Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables.

'Lanai' is a new *impatiens* hybrid producing red flowers with a distinct red purple eye zone. 'Lanai' has a more compact growth habit and flowers earlier and more profusely than the comparative variety 'Selenia'.

Origin

'Lanai' was selected from the seedling progeny of 'Selenia' and 'D456'. It is protected in Germany, Italy, USA and Japan under the synonym 'Kinai'.

Comparators

'Selenia', a Kientzler selection is the closest known cultivar available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Lanai' | 'Selenia'* |
|------------------------|-----------|------------|
| PLANT HEIGHT | | |
| mean | 216 mm | 148 mm |
| range | 180–230 | 110–170 |
| std. deviation | 21.4 | 25 |
| PLANT DIAMETER | | |
| mean | 414 mm | 358 mm |
| range | 370–450 | 330–370 |
| std. deviation | 30.49 | 14 |
| LEAF LENGTH | | |
| mean | 105.8 mm | 116 mm |
| range | 86–135 | 92–128 |
| std. deviation | 13.98 | 5 |
| LEAF WIDTH | | |
| mean | 40.3 mm | 34 mm |
| range | 32–50 | 31–42 |
| std. deviation | 4.59 | 0.6 |
| LEAF COLOUR | | |
| | RHS 147A | RHS 139A |
| FLOWER DIAMETER | | |
| mean | 55.9 mm | 61 mm |
| range | 51–60 | 50–64 |
| std. deviation | 2.97 | 0.5 |
| FLOWER COLOUR | | |
| | RHS 44A/D | RHS 33A |
| EYE ZONE COLOUR | | |
| | RHS 66A | absent |



Variety: '**Barbados**' See fig. 29 in colour section

Application No. 92/043

Application Received: 7 April 1992

Applicant: **L Kientzler, Innova Plant GmbH & Co. KG**,
Germany

Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables

'Barbados' is a compact plant which has green foliage without variegation and which is light green on the underside. Flowers are red and the flower colour is more intense than in 'Isis', the comparative variety.

Origin

'Barbados' was selected from the seedling progeny of 'D224' and 'D17'. It is protected by PVR in Germany, Italy, USA and Japan under the synonym 'Kibados'.

Comparators

'Isis', a Kientzler cultivar, and the closest known variety to 'Barbados'.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Barbados' | * 'Isis' |
|---------------------|------------|----------|
| PLANT HEIGHT | | |
| mean | 214 mm | 310 mm |
| range | 180–250 | 250–380 |
| std. deviation | 28.8 | 17.6 |

TABLE OF COMPARISON OF *IMPATIENS* VARIETIES—Continued

| | 'Barbados' | * 'Isis' |
|------------------------|----------------------|--------------------|
| PLANT DIAMETER | | |
| mean | 426 mm | 436 mm |
| range | 380–460 | 370–500 |
| std. deviation | 28.8 | 20.9 |
| LEAF LENGTH | | |
| mean | 100.75 mm | 98 mm |
| range | 80–120 | 84–126 |
| std. deviation | 10.43 | 9.9 |
| LEAF WIDTH | | |
| mean | 35.6 mm | 32 mm |
| range | 28–46 | 24–40 |
| std. deviation | 4.5 | 5.6 |
| LEAF COLOUR | | |
| upper | 139 | 139A |
| lower | 137C oblanceolate | 148B lanceolate |
| LEAF MARKINGS | | |
| | absent | present |
| LEAF SHAPE | | |
| | oblanceolate | lanceolate |
| FLOWER DIAMETER | | |
| mean | 54 mm | 52 mm |
| range | 50–60 | 38–61 |
| std. deviation | 2.7 | 7.2 |
| FLOWER COLOUR | | |
| | RHS 40A/B | RHS 40B |
| EYE ZONE COLOUR | | |
| | RHS 57A/B | — |



Variety: '**Marpesia**' See fig. 30 in colour section
 Application No. 92/044
 Application Received: 7 April 1992
 Applicant: **L Kientzler, Innova Plant GMBH**, Germany
 Australian Agent: **RW Rother** of Outeniqua Nursery,
 Emerald, Victoria

Description—see also comparison tables

'Marpesia' is a medium compact growing plant with dark green, wide, oblanceolate leaves pigmented red on underside. Flowers are large and bright red with a purple-red and white eye zone.

Origin

'Marpesia' was selected from the seedling progeny of 'D230' and 'E176'. It is protected by PVR in Germany, Italy, USA and Japan.

Comparators

'Anaea', a Kientzler KG variety is the closest known hybrid commonly available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Marpesia' | **'Anaea' |
|------------------------|---|-------------|
| PLANT HEIGHT | | |
| mean | 260 mm | 278 mm |
| range | 230–300 | 230–290 |
| std. deviation | 29.2 | 22.1 |
| PLANT DIAMETER | | |
| mean | 440 mm | 419 mm |
| range | 400–470 | 310–460 |
| std. deviation | 29.2 | 19.5 |
| LEAF LENGTH | | |
| mean | 107 mm | 105 mm |
| range | 95–117 | 85–132 |
| std. deviation | 6.0 | 10.5 |
| LEAF WIDTH | | |
| mean | 340 mm | 34 mm |
| range | 35–45 | 27–40 |
| std. deviation | 3.3 | 5.8 |
| LEAF COLOUR | | |
| | RHS 136A red pigmented on underside | RHS 139A |
| FLOWER DIAMETER | | |
| mean | 58 mm | 61 mm |
| range | 52–65 | 46–67 |
| std. deviation | 3.9 | 7.8 |
| FLOWER COLOUR | | |
| | RHS 44A | RHS 45B–46B |
| EYE ZONE COLOUR | | |
| | purple red/white | absent |



Variety: '**Bora Bora**' See also fig. 31 in colour section
 Application No. 92/045
 Application Received: 7 April 1992
 Applicant: **L Kientzler, InnovaPlant GmbH & Co. KG**,
 Germany
 Australian Agent: **RW Rother** of Outeniqua Nursery,
 Emerald, Victoria.

Description—see also comparison tables

'Bora Bora' is a hybrid *impatiens* with a medium compact growth habit and dark green oblanceolate leaves which are light green on the underside. Flowers are very large, simple, and purple violet with a distinct white shaded eye zone.

Origin

'Bora Bora' was selected from the seedling progeny of D17 and D426. It is protected by PVR in Germany, Italy, USA and Japan under the synonym 'Kibora'.

Comparators

'Corona', a royalty administration CV variety is the closest known variety commonly known in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Bora Bora' | * 'Corona' |
|------------------------|-------------|---|
| LEAF LENGTH | | |
| mean | 96 mm | 128 mm |
| range | 85-107 | 112-144 |
| std. deviation | 8.36 | 14.0 |
| LEAF WIDTH | | |
| mean | 38 mm | 47 mm |
| range | 33-45 | 42-55 |
| std. deviation | 3.21 | 3.0 |
| LEAF COLOUR | | |
| | RHS 139A | RHS 139B (blade markings RHS 12A) |
| LEAF SHAPE | | |
| | oblongate | elliptic |
| FLOWER DIAMETER | | |
| mean | 50.75 mm | 61 mm |
| range | 46-55 | 53-63 |
| std. deviation | 2.71 | 1.0 |
| FLOWER COLOUR | | |
| | RHS 80B | RHS 73A |
| EYE ZONE COLOUR | | |
| | RHS 155A | RHS 66A |



Variety: 'Fiji' See also fig. 32 in colour section

Application No. 92/046

Application Received: 7 April 1992

Applicant: **L. Kientzler, Innova Plant GMBH**, GermanyAustralian Agent: **RW Rother** of Outeniqua Nursery,

Emerald Vic.

Description—see also comparison tables

'Fiji' is a compact growing plant with dark green lanceolate leaves and a slightly smaller flower than the comparative variety, 'Delias'. Flowering is more profuse and slightly earlier than 'Delias'.

Origin

'Fiji' was selected from the seedling progeny of 'E710' and 'Delias'. It is protected in Germany, Italy, USA and Japan under the synonym 'Kiji'.

Comparators

'Delias', a Kientzler cultivar commonly available in Australia, is the comparative variety for 'Fiji'.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Fiji' | * 'Delias' |
|---------------------|---------|------------|
| PLANT HEIGHT | | |
| mean | 192 mm | 74 mm |
| range | 170-210 | 30-90 |
| std. deviation | 14.83 | 18 |

TABLE OF COMPARISON OF *IMPATIENS* VARIETIES—Continued

| | 'Fiji' | * 'Delias' |
|------------------------|-----------|------------|
| PLANT DIAMETER | | |
| mean | 402 mm | 296 mm |
| range | 340-460 | 220-320 |
| std. deviation | 54.03 | 12 |
| LEAF LENGTH | | |
| mean | 102.35 mm | 112 mm |
| range | 81-135 | 98-128 |
| std. deviation | 12.17 | 3 |
| LEAF WIDTH | | |
| mean | 37.15 mm | 35 mm |
| range | 32-44 | 32-41 |
| std. deviation | 3.56 | 1.5 |
| LEAF COLOUR | | |
| upper surface | 139A | 147A |
| lower surface | 137A/B | |
| FLOWER DIAMETER | | |
| mean | 55.4 mm | 58 mm |
| range | 52-60 | 52-60 |
| std. deviation | 2.43 | 3.0 |
| FLOWER COLOUR | | |
| | RHS 65A-C | RHS 66C |
| EYE ZONE COLOUR | | |
| | RHS 66A/B | RHS 66B |



Variety: 'Tahiti' See fig. 33 in colour section

Application No. 92/047

Application Received: 7 April 1992

Applicant: **L. Kientzler, Innova Plant GMBH**, GermanyAustralian Agent: **RW Rother** of Outeniqua Nursery,

Emerald Vic.

Description—see also comparison tables

'Tahiti' is a compact growing hybrid *impatiens* with superior branching habit, dark green leaves and large flowers with large purple-red eye zone.

Origin

'Tahiti' was selected from the seedling progeny of 'E510' and 'E390'. It is protected in Germany, Italy, USA and Japan under the syn 'Kiti'.

Comparators

'Celsia', a Kientzler cultivar, has been used for comparison and is the closest cultivar to 'Tahiti'.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Tahiti' | * 'Celsia' |
|--------------------|----------|------------|
| LEAF LENGTH | | |
| mean | 95 mm | 73 mm |
| range | 72-115 | 62-90 |
| std. deviation | 11.7 | 8.5 |

TABLE OF COMPARISON OF *IMPATIENS* VARIETIES—Continued

| | 'Tahiti' | **'Celsia' |
|-----------------|--|------------|
| LEAF WIDTH | | |
| mean | 37 mm | 25 mm |
| range | 26-54 | 20-35 |
| std. deviation | 6.0 | 5.0 |
| LEAF COLOUR | | |
| upper surface | RHS 147A | RHS 139A |
| lower surface | RHS 137B/C | RHS 197A/B |
| FLOWER DIAMETER | | |
| mean | 58 mm | 49 mm |
| range | 50-69 | 43-56 |
| std. deviation | 4.8 | 7.0 |
| FLOWER COLOUR | 65A-65C heavily pigmented to 66C | 68B/D |
| EYE ZONE COLOUR | 67A | 66A/D |



Variety: 'Aruba' See also fig. 34 in colour section
Application No. 92/048
Application Received: 7 April 1992
Applicant: **L. Kientzler, Innova Plant GMBH**, Germany
Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald Vic.

Description—see also comparison tables

'Aruba' is a compact growing plant with purple flowers and an improved branching habit and earlier, more profuse flowering than the comparative variety, 'Apollon'. Leaves are light red on the lower surfaces.

Origin

'Aruba' was selected from the seedling progeny of A46 and E1022. It is protected in Germany, Italy, USA and Japan under the synonym 'Kiruba'.

Comparators

'Apollon', a Kientzler cultivar is the closest known variety commonly available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Aruba' | **'Apollon' |
|----------------|---------|-------------|
| PLANT HEIGHT | | |
| mean | 230 mm | 175 mm |
| range | 180-250 | 160-180 |
| std. deviation | 28.3 | 12.0 |
| PLANT DIAMETER | | |
| mean | 422 mm | 370 mm |
| range | 360-540 | 360-380 |
| std. deviation | 73.6 | 11.0 |

TABLE OF COMPARISON OF *IMPATIENS* VARIETIES—Continued

| | 'Aruba' | **'Apollon' |
|------------------|---------------------|---------------|
| LEAF LENGTH | | |
| mean | 105 mm | 116 mm |
| range | 94-122 | 98-137 |
| std. deviation | 7.5 | 14.0 |
| LEAF WIDTH | | |
| mean | 41 mm | 52 mm |
| range | 38-50 | 37-55 |
| std. deviation | 4 | 5 |
| LEAF COLOUR | | |
| primary venation | RHS 139A RHS 59A | RHS 137A — |
| FLOWER DIAMETER | | |
| mean | 54 mm | 60 mm |
| range | 42-60 | 54-63 |
| std. deviation | 4 | 5 |
| FLOWER COLOUR | RHS 72B/C | RHS 66B |



Variety: 'Antigua' See also fig. 35 in colour section
Application No. 92/049
Application Received: 7 April 1992
Applicant: **L. Kientzler, InnovaPlant GmbH & Co. KG**,
Germany
Australian Agent: **RW Rother** of Outeniqua Nursery,
Emerald, Victoria

Description—see also comparison tables

'Antigua' is a hybrid *impatiens* cultivar and a small to medium compact growing plant with dark green oblanceolate leaves and markedly larger flowers than the comparative variety, 'Selenia'. 'Antigua' flowers earlier than 'Selenia' and has a larger flower with a distinct eye zone.

Origin

'Antigua' was selected from the seedling progeny of '85-17-04' and 'D367'. It is protected by PVR in Germany, Italy, USA and Japan under the synonym 'Kitigua'.

Comparators

'Selenia', a Kientzler hybrid is the closest known variety commonly available in Australia.

Table of Comparison of *Impatiens* Varieties

(* = comparator)

| | 'Antigua' | * 'Selenia' |
|----------------|-----------|-------------|
| PLANT HEIGHT | | |
| mean | 240 mm | 148 mm |
| range | 220-260 | 110-170 |
| std. deviation | 15.8 | 25.0 |
| PLANT DIAMETER | | |
| mean | 424 mm | 358 mm |
| range | 380-470 | 330-370 |
| std. deviation | 38.5 | 14.0 |

TABLE OF COMPARISON OF *IMPATIENS* VARIETIES—Continued

| | 'Antigua' | * 'Selenia' |
|------------------------|-----------|-------------|
| LEAF LENGTH | | |
| mean | 116 mm | 116 mm |
| range | 92–146 | 92–128 |
| std. deviation | 18.8 | 5.0 |
| LEAF WIDTH | | |
| mean | 39.3 mm | 34.0 mm |
| range | 32–50 | 31–42 |
| std. deviation | 4.6 | 0.6 |
| LEAF COLOUR | | |
| | RHS 139A | RHS 139A |
| FLOWER DIAMETER | | |
| mean | 65.5 mm | 61.0 mm |
| range | 62–75 | 50–64 |
| std. deviation | 4.5 | 0.5 |
| FLOWER COLOUR | | |
| | RHS 40A | RHS 33A |
| EYE ZONE COLOUR | | |
| | RHS 74A/B | absent |

BRACHYSCOME

Brachyscome multifida x *rigidula*



Variety: 'Toucan Tango' (Commercial synonym: 'Ultra')

See fig. 36 in colour section

Application No. 92/050

Application Received: 7 April 1992

Applicant: **Innova Plant GmbH & Co. KG**, of Germany

Australian Agent: **RW Rother** of Emerald, Victoria

Description—see also comparison tables

'Toucan Tango' is a compact *Brachyscome* producing large, light purple inflorescences on short peduncles. Internodes are short and the plant branches profusely. Inflorescences are deeper in colour and borne on shorter peduncles than are those of the existing form of *Brachyscome multifida*. 'Toucan Tango' flowers earlier, longer and more profusely than the existing form. Petals are obtuse at the apex and oblanceolate whereas *B. multifida* has acute/lanceolate petals. Petals of the inflorescence recurve and overlap more frequently giving the flower a fuller appearance. The involucre bracts have an obtuse to retuse apex and are oblanceolate.

Origin

'Toucan Tango' originated at Gensingen in Germany as a selection of seedling progeny as a result of breeding trials by Innova Plant, between *Brachyscome rigidula* and *B. multifida* seedling 5/88. The resultant variety was propagated for more than 5 generations to ensure stability.

Comparators

Brachyscome multifida, there being no named varieties of this species.

Comparative Growing Trials

All characteristics described are from comparative growing trials conducted at Outeniqua nursery in Emerald, Victoria between October 1991 and March 1992. Five plants of each variety were arranged at random and grown in full sun without any protection whatsoever. Tip cuttings were used to produce plantlets which were potted in typical commercial pinebark and sand potting medium enriched with time release fertiliser. No pruning, shaping or dwarfing of any type was undertaken. Measurements were taken in late March 1992.

Description prepared by Roy Rother and PVRO

Table of Comparison of *Brachyscome* Varieties

(* = comparator)

| | 'Toucan Tango' | * <i>Brachyscome multifida</i> |
|--------------------------------------|--|--|
| PLANT HEIGHT | | |
| mean | 109 mm | 144 mm |
| range | 100–120 | 150–200 |
| std. deviation | 7.4 | 13.9 |
| PLANT DIAMETER | | |
| mean | 224 | 166 |
| range | 210–230 | 150–200 |
| std. deviation | 8.9 | 28.9 |
| HABIT | | |
| | Compact. Tight spreading from base. | Upright. Floppy habit without pruning. |
| BRANCHING | | |
| | More numerous short internodes | Less numerous longer internodes |
| INFLORESCENCE DIAMETER | | |
| mean | 29.7 mm | 26.8 mm |
| range | 26–32 | 22–31 |
| std. deviation | 1.7 | 3.01 |
| INFLORESCENCE CHARACTERISTICS | | |
| | Overlapping recurving petals on mature inflorescence | Petals curved up less overlapping |
| INFLORESCENCE PEDUNCLE LENGTH | | |
| mean | 75 mm | 118 mm |
| range | 66–88 | 95 |
| std. deviation | 8.5 | 9.4 |
| INFLORESCENCE COLOUR | | |
| | RHS 86B/C fading to 90D | RHS 76A fading to 76B |
| PETAL SHAPE | | |
| | oblanceolate with obtuse/retuse apex | lanceolate with acute/retuse apex |
| CALYX DIAMETER | | |
| mean | 8.1 mm | 6.8 mm |
| range | 7–9 | 6–8 |
| std. deviation | 0.68 | 0.63 |

(b) Descriptions to be finalised

Descriptions for the Journal are being finalised for the following applications. The six month period for comment or formal objection will not begin until the full descriptions are finalised and published in the Journal. These varieties have provisional protection under Section 22 of the Plant Variety Rights Act 1987.

SYNGONIUM

Syngonium podophyllum

Applicant: **Mr CR Mines**, of Pallara, Queensland
'Ultra'

Application No. 92/008

Accepted: 10 February 1992

CANOLA

Brassica napus

Applicant: **New South Wales Agriculture**, of Orange, New South Wales

Agent in Australia: **Ag-Seed Research Pty Ltd**, of Horsham, Victoria

'Oscar'

Application No. 92/009

Accepted: 4 March 1992

Applicant: **Department of Agriculture Western Australia**, of South Perth, Western Australia

Agent in Australia: **Ag-Seed Research Pty Ltd**, of Horsham, Victoria

'Narendra'

Application No. 92/010

Accepted: 4 March 1992

RYEGRASS

Lolium perenne

Applicant: **DSIR Grasslands**, of Palmerston North, New Zealand

Agent in Australia: **Mr A Stratton**, of Rutherglen Research Institute, Rutherglen, Victoria

'Grasslands Pacific'

Application No. 92/011

Accepted: 23 March 1992

ROSE

Rosa

Applicant: **Eric Welsch Roses**, of Erina, New South Wales

'Delicious'

Application No. 92/017

Accepted: 5 March 1992

BARREL MEDIC

Medicago truncatula

Applicant: **The Minister for Agriculture**, of Adelaide, South Australia

'Mogul'

Application No. 92/019

Accepted: 23 March 1992

WATTLE

Acacia cognata

Applicant: **Tree Planters Nursery**, of Springvale South, Victoria

'Green Mist'

Application No. 92/020

Accepted: 18 March 1992

BRACHYSCOME

Brachyscome multifida hybrid

Applicant: **Plant Growers Australia Pty Ltd**, of Wonga Park, Victoria

'Pink Haze'

Application No. 92/021

Accepted: 23 March 1992

Applicant: **Plant Growers Australia Pty Ltd**, of Wonga Park, Victoria

'Blue Haze'

Application No. 92/022

Accepted: 23 March 1992

Applicant: **Plant Growers Australia Pty Ltd**, of Wonga Park, Victoria

'Lemon Drops'

Application No. 92/023

Accepted: 23 March 1992

OAT

Avena sativa

Applicant: **Queensland Department of Primary Industries** of Brisbane, Queensland

'Nobby'

Application No. 92/024

Accepted: 19 March 1992

STENANTHIUM

Stenanthium scortechenii

Applicant: **Francis David Hocking**, of Maleny, Queensland

'White Mischief'

Application No. 92/029

Accepted: 24 April 1992

LANTANA

Lantana sellowiana

Applicant: **Monrovia Nursery Company**, of Azusa, California USA

Agent in Australia: **Colourwise Nursery**, of Glenorie, New South Wales

'Monswee'

Application No. 92/030

Accepted: 24 April 1992

SANVITALIA

Sanvitalia procumbens

Applicant: **Mr RW Rother**, of Outeniqua Nursery, Emerald, Victoria

'Pizzaro's Button' commercial synonym 'Stargazer'

Application No. 92/051
Accepted: 1 May 1992

HYDRANGEA

Hydrangea macrophylla

Applicant: **InnovaPlant GmbH & Co. KG**, of Gensingen, Germany

Agent in Australia: **Roy Rother**, of Outeniqua Nursery, Emerald, Victoria

'Kirsten' commercial synonym 'HOR 4'

Application No. 92/052

Accepted: 4 May 1992

LUCERNE

Medicago sativa

Applicant: **Pioneer Hi-Bred International Inc.** of Des Moines, Iowa

Agent in Australia: **Pioneer Hi-Bred Australia Pty Ltd**, of Toowoomba, Queensland

'L69' commercial synonym '5715'

Application No. 92/060

Accepted: 1 May 1992

Objections

Formal objections (Section 20 of the PVR Act) to any of the above applications can be lodged by a person who:

- (a) considers their commercial interests would be affected by a grant of PVR to the applicant; and
- (b) considers that the provisions of Section 26 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 PVR 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 PVR. 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.

All formal objections and comments relating to the above applications must be lodged with the Registrar by close of business on **30 DECEMBER 1992**.

Applications Varied

The following submission has been made to vary an application under subsection 19(1) of the Plant Variety Rights Act 1987.

AZALEA

Rhododendron hybrid

Application No. 91/095 (Published in PVJ Vol. 4 No. 4)

Applicant: **RJ Cherry** of Paradise Plants, Kulnura, NSW

The variety name has been changed from '**Harlequin**' to '**Fiesta**'.

Corrigenda

PEA

Pisum sativum

'Flinders'

In Vol 4 No 4, December 1991 p21. The applicant's address was not given. The details are:

Applicant: **Rogers-NK Seed Co** of Boise, Idaho, USA.

LILLY PILLY

Syzygium paniculatum

'Lillyput'

In Vol 5 No 1, March 1992 p25

The botanical name of 'Lillyput' was incorrectly recorded.

The correct botanical name is *Syzygium paniculatum*.

BEAN

Phaseolus vulgaris

'Jade'

In Vol 5 No 1, March 1992 p25

The applicant's address was incorrectly given. The details are:

Applicant: **Rogers-NK Seed Company** of Boise, Idaho, USA. Editor's error.

ROSE

Rosa

'Aotearoa' commercial synonym 'Macgenev'

In Vol 5 No 1, March 1992 p25

The commercial synonym of 'Aotearoa' was incorrectly recorded. The correct synonym is 'Macgenev'.

PERENNIAL RYEGRASS

Lolium perenne

'Jackaroo'

In Vol 5 No 1, March 1992 p10

The photograph of the electrophoretic gel is mislabelled. A correctly labelled gel is included in the colour section of this journal. See figure 37.

TRITICALE

XTriticosecale

'Abacus'

In Vol. 5 No.2, March 1992, p 17

In the Origin section, replace the 5th sentence with "The resulting primary triticale was topcrossed with T2898(BGL's)/3/ARS/Mexipak Mut//BGL's", entry 192 in 10th ITSN) and 'Currency'."

APPENDIX 1

Fees

| Basic PVR Fees | \$ |
|--|-------------|
| Application | 400 |
| Examination of application | 1400 |
| Certificate of PVR | 250 |
| Total Basic Fee | 2050 |
| Annual Renewal Fee | 250 |
| Other Fees | |
| Variation to application | 70 |
| Copy of application | 70 |
| Lodging an objection | 200 |
| Copy of objection | 70 |
| Compulsory license | 140 |
| Transfer of rights | 140 |
| Issue of publications (first 10 pages, then 50c/page) | 8 |
| Back issues of PVJ | 8 |
| Other work relevant to PVR(per hour) | 70 |

Payment of Fees

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

Plant Variety Rights Office
DPIE
GPO Box 858
Canberra, ACT 2601

The **application fee** (\$400) must accompany the application at the time of lodgement.

The **full examination fee** (\$1400) must be paid before the expiry of the 12th month from the date of acceptance of the application. The PVR Office will routinely invoice the applicant or their agent for the examination fee with the letter of acceptance. This will notify the applicant of their legal liability for the examination fee from the date of acceptance. 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.

Consequences of not paying fees when due

Application fee

Should an application not be accompanied by the prescribed application fee the application will be deemed to be 'non-valid' and neither assigned an application number nor examined for acceptance pending the payment of the fee.

Examination fee

Non-payment of the examination fee 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.

Certificate fee

Following the successful completion of the examination, including the public notice period, the applicant will be required and invoiced to pay the certification fee. Payment of the certification fee is a prerequisite to granting PVR and issuing the official certificate by the PVR Office. Failure to pay the fee may result in a refusal to grant PVR.

Renewal fee

Should an annual renewal fee not be paid within 30 days after the due date the grant of PVR will be revoked under para. 35 (1) (b) of the Act. To assist grantees the PVR Office will invoice grantees or their Australian agents for renewal fees.

Inactive applications

An application will be deemed inactive if, after 24 months of provisional protection (or 12 months in the case of non-payment of the examination fee) the PVR 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 *PVR Act 1987*, they will be refused. As a result provisional protection will lapse, priority claims on that variety will be lost and should the variety have been sold, it will be ineligible for plant variety rights on reapplication. *Continued use of labels or any other means to falsely imply that a variety is protected after the application has been refused is an offence under Section 52 (2) (b) of the Act.*

APPENDIX 2

Organisations Offering to Undertake PVR Trials

The following organisations are interested in carrying out PVR trials on behalf of applicants—the PVR Office does not accept any responsibility and is publishing the list for the convenience of applicants.

Ian Aberdeen, Valley Seeds Pty Ltd, RMB 1480, Alexandra Vic 3714; 057 976203

Agrisearch, PO Box 972 Orange NSW 2800; 063 624539; M J Hood (also at Shepparton, Moree, Ridgehaven, Mackay, Armidale and Innisfail).

Agritech, PO Box 549 Toowoomba QLD 4350; 076 384322; Mary Ann Law

ANU Plant Culture Facility, Australian National University, GPO Box 4, Canberra ACT 2601; 06 249 4158; Mr A S Carter

Paul Armitage, 2/84 Shady Grove, Forest Hill VIC 3136; (bh) 03 756 7233; (ah) 03 877 6539

Keith Bodman, Redlands Horticultural Research Station, PO Box 327, Cleveland QLD 4163; 07 286 1488

Geoff Butler, Australian Cultivar Registration Authority, National Botanic Gardens, GPO Box 1777, Canberra ACT 2601; 06 267 1802

Chivers Computing & Agriculture, 3/258 Koorang Rd Carnegie VIC 3163; 03 5697538; Ian Chivers.

Colourwise Nursery, PO Box 162, Glenorie, NSW, 2157; ph 045 666 177, fax 045 666 219; Ian Collins

Colourwise Nursery Queensland, PO Box 14, Redlands Bay, QLD 4165; 07 206 8818; Stephen Collins

Jan Dekker, Tesselaar's Padua Bulb Nurseries, Monbulk Road, Silvan VIC 3795; 03 737 9305

Dr. John Doran, CSIRO, Division of Forestry & Forest Products, PO Box 4008, Queen Victoria Terrace, Canberra ACT 2600

John Fennel, Department of Primary Industry Tasmania, PO Box 303, Devonport, TAS 7310; 004 240 233

Flemings Nurseries Pty Ltd, Flemings Lane, Monbulk VIC 3793; 03 7566105; Liz Darmody

Dr Roger Kirkham, Department of Agriculture and Rural Affairs, Potato Research Station Private Bag, Healesville VIC 3630; 059 629218

Graeme McGregor, Department of Agriculture and Rural Affairs, Potato Research Station, Private Bag, Healesville VIC 3630; 059 629218

Dr Geraldine McGuire, PO Box 3230, Loganholme, QLD 4127; 07 801 2929

Dr Neville Mendham, Department of Agricultural Science, University of Tasmania, GPO Box 252C, Hobart TAS 7001; 002 202 598

Murdoch University, School of Horticulture, Murdoch WA 6150; 09 3322810; Prof John Considine.

Navy Bean Marketing Board, PO Box 252, Kingaroy QLD 4610; 071 621408/621666; Mr Kerry Heit.

Paradise Plants, RMB 2117, Kulnura, NSW, 2250; 043 76 1330; Ian Paananen

Plant World Explorations, PO Box 1210, Bowral NSW 2576; 048 61 1934; Dr Maciej Hempel

Phytotech Australia Pty Ltd, 12 Konandon Terrace, Edwardstown, SA 5039; Mr NM Cuthbertson.

Radcliffe and Till, 42 Moss St West Ryde NSW 2114; 02 8046973; Sharon Till.

Dr Malcolm Ryley, QLD Department of Primary Industries, Tor Street, Toowoomba QLD 4350; 076 314200

Robert Boden & Associates, 36 Carstensch Street, Griffith ACT 2603; 06 295 7720; Robert Boden.

Scholefield Robinson Horticultural Services Pty Ltd, PO Box 145, Kingswood, SA 5062; 08 373 2488, or 364 2071; Dr P Scholefield/Dr B Robinson

Australian Turf Grass Research Institute, PO Box 190 Concord West NSW 2138; 02 7361233; Ian McIver/Alexandra Shakesby.

Turfgrass Technology, PO Box 416 Seaford VIC 3198; 03 786 3300; Terry Woodcock, Michael Rubinson, J Neylan.

University of Western Sydney, Hawkesbury, Bourke St, Richmond NSW 2753; 045 701333; Robert Spooner-Hart.

Rob Van Der Staay, PO Box 41, Moonah TAS 7009; 002 284 622

Jim Webb, 86 Johnson Street, Wagga Wagga NSW 2650.

State Departments of Agriculture and CSIRO may do trials on a fee for service basis for some varieties.

Overseas

Genesis, Corporate Marketing Consultancy, 6 New Rd, North Runcton, Kings Lynn, Norfolk, United Kingdom, ph: 00553 84 1977, fax: 0553 84 0996; PM Dealtrey.

GPI International, Lavsenvaenget 18 (Postbox 29) DK Odense V Denmark; J H Selchau

M. Rene Royon, Conceil en Licences, 128 Les Bois de Font Merle, 06250, Mougins, France.

Photographic Services

Avon Colour Studio, Clegg Rd, Mt Evelyn, Victoria 3796; 03 736 2715; Ron Moodycliff

Hugh Elgar & Margie Bond, Uki Photography, 7 Sunrise Place, Uki via Murwillumbah NSW 2484

Electrophoretic Identification/Authentication

Institute of Plant Sciences, The Manager, Seed Services, Dept of Agriculture, Burnley Gardens, Swan St, Burnley Vic 3121; Mr Alan Williams 03 810 1570

APPENDIX 3

PLANT VARIETY RIGHTS ADVISORY COMMITTEE (PVRAC)

(Members of the PVRAC were appointed in accordance with S45 of the Plant Variety Rights Act 1987).

Dr Mick Lloyd (Chair)
Registrar Plant Variety Rights
GPO Box 858
CANBERRA ACT 2601

Dr Robert Boden
Consultant in Conservation & Natural Research Management
36 Carstensch St
GRIFFITH ACT 2603
Representative with appropriate qualifications and experience.

Dr Kevin Boyce
Principal Officer, Seed Services
Plant Services Division
South Australian Department of Agriculture
GPO Box 1671
ADELAIDE SA 5001
Representative of breeders.

Mr Rodney Field
WMR Box 758
ESPERANCE WA 6450
Representative with appropriate qualifications and experience.

Dr David Godden
Department of Agricultural Economics
University of Sydney
NSW 2006
Representative of consumers.

Dr Brian Hare
Director of Research
Pacific Seeds
PO Box 337
TOOWOOMBA QLD 4350
Representative of breeders.

Mr Edgar (Ben) Swane
Director Swane Bros P/L
Galston Road
DURAL NSW 2158
Representative of producers.

APPENDIX 4

LETTERS TO THE EDITOR

The editor of the Plant Varieties Journal will accept for publication, 'letters to the editor'.

Letter to the editor should aim to inform readers about plant varieties. The subject matter can be about breeding, genetics, new propagation methods, results of cultivar trials, trends in the market place, legal issues or injustices caused by PVR.

Readers are encouraged to continue to write letters to the Registrar on any matter concerning PVR. Letters to the Registrar in the normal course of office business would, of course, not be considered for publication in the Journal. Letters to the editor should be, therefore, clearly addressed to 'The Editor'.

Provision of information about plant varieties in general will be complementary to the Journal's main functions of:

- informing the public about plant variety rights and new plant varieties in the PVR scheme
- providing an opportunity for both objections and comments about varieties for which rights have been applied.

Style and length of letters to the editor

Letters should be typewritten, double-spaced, concise, informative and not more than 1000 words in length. References should use the Oxford (number) system of citations to literature. Figures, tables and captions to figures and tables should all be provided on separate sheets. The list of references to publications cited in the text should be numbered in the order they appear in the text. Only the name of the author, initials, date and abbreviated journal title, volume no., issue and first page of article referred to should be given in the reference list. For example:

1. Smith, JT (1986). *Pl Var. J.* 3(2): 23

For convenience, letters for publication may be submitted on disc. The preferred format is Microsoft Word for Windows.



PLANT RIGHTS VARIETY

COMMONWEALTH DEPARTMENT OF
PRIMARY INDUSTRIES AND ENERGY



- Plant Breeders
- Seed Companies
- Nurseries
- Importers

Do you want exclusive rights to
market your new plant variety?

Contact: The Registrar
PVR Office, DPIE
GPO Box 858 Canberra ACT 2601
Telephone: (06) 272 4228
Facsimile: (06) 272 3650

