Plant Varieties Journal

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REGISTRAR'S REMARKS

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I am writing this segment with mixed feelings as by the time you read it I will no longer be the Registrar of PVR and will be working in a different area altogether.

I have been with the PVR Office for a little over two years and in that time I have seen PVR grow from mere words in the legislation to a flourishing system of protection for new plant varieties which is being used by breeders from all parts of the world. The growth of the system is the result of dedicated hard work, cooperation and enthusiasm from breeders, industry associations, the PVR Advisory Committee and the staff of the PVR Office.

Our Senior Examiner, Ben Loudon and our Admin Officer, Miriam Nauenburg, have been with me almost from the beginning and have worked tirelessly to make PVR a success. More recently David Thearle and Libby Pulsford have joined the team as Examiners and it would be difficult to find a more dedicated group of people.

Without our clients we obviously would not have succeeded, but the applicants in these early years will reap the rewards of the confidence they put in us from the beginning. They have been guinea pigs in many respects and have assisted with the development of application forms and procedures so that the path will be easier for those who follow.

The members of the PVR Advisory Committee have been invaluable as a sounding board for new ideas and providing input from a wide range of backgrounds. Again without their support PVR would not have taken off as well as it has.

One of the most important changes to the system was the amendment extending the protection to include asexual propagation for the commercial production of fruit, cut flowers or other products. This amendment went to Parliament in February 1989 and was finally passed through both Houses just before Christmas. With that major change complete PVR is well set to provide a strong base for the development of new plant varieties in Australia.

Ben Loudon will be Acting Registrar and I know you will give him the strong support that I have received in the past.

Once again I say thank you to everyone who has been involved for your support, cooperation and patience. PVR is an evolving system and it is only with such a cooperative effort that it will continue to flourish. We have achieved a lot in two and half years and there is still a lot more to be done. Don't rest yet; this is only the beginning.

CLOSING DATE FOR JUNE ISSUE: 20 APRIL 1990

PART 1 — ITEMS OF GENERAL INTEREST

Implementation of PVR — Progress

As from 1 March 1990, PVR will be available to all genera and species. This completes, on schedule, the program for implementation begun in 1988. Potential applicants should contact the PVR Office as early as possible in the breeding program to ensure that the required trials can be incorporated into the normal evaluation cycle.

A summary of eligibility requirements and examination procedures are given at Appendix 1.

Propagation

In the March 1989 issue of the Journal we noted that there was strong support for an amendment to the *Plant Variety Rights Act 1987* to give the grantee the exclusive right to asexually propagate, or license others to asexually propagate, the variety for commercial production of fruit, cut flowers or other products.

Many people have been wondering what had happened to the amendment and at long last we are pleased to report that the wheels of progress have turned and it has been incorporated into the Act. At this stage it applies to asexual propagation of all genera but there is provision for exemptions if required.

The amendment will make a big difference to holders of PVR for varieties that are asexually propagated as a licence will be required for any propagation where the resultant crop is for commercial purposes. People will not be able to buy a few plants of the protected variety and from those asexually propagate large numbers of plants for cut flower and fruit production unless they have a licence from the PVR holder.

The amendment is reproduced as Appendix 7.

Provisional Protection — sale of the variety

In PVJ 2:4, December 1989 the possibility was raised of a regulation under s22 of the *Plant Variety Rights Act 1987* to allow the sale of varieties for market evaluation while retaining provisional protection. It is anticipated that the regulation will apply from March 1990. This will be a prescribed purpose under S22(2)(b) (iii).

Ryegrass — Co-operative Examination with New Zealand

The New Zealand Plant Variety Rights Office, in conjunction with their agriculture sector advisory committee, has proposed a joint approach to the examination of ryegrass varieties.

The concept is that all ryegrass varieties from Australia and New Zealand will undergo examination in common PVR trials and that data from those trials will be used with applications both in Australia and New Zealand. This would reduce costs to applicants, particularly those who wanted PVR in both countries.

A centralised trial scheme is being implemented in New Zealand whereby the PVR Office invites tender to carry out the DUS trials each year. A joint committee from the PVRO and breeders chooses the successful tenderer. Presumably Australian companies could also tender with Australian trial sites if a joint scheme is implemented. DUS trials use a standard agreed testing procedure.

The tender is based on cost per cultivar tested and the PVR applicant pays the successful tenderer directly for carrying out the trials.

The Australian PVR Office is calling for comment from interested parties on the proposal that this becomes a joint scheme between Australia and New Zealand. Further details of the proposal and test procedures can be obtained from the Registrar of PVR, GPO Box 858, CANBERRA 2601.

If there is general agreement that Australia should become a party to a joint, centralised trial scheme, it is envisaged that it could begin operation in September 1990.

Comments should be received by the Registrar at the above address by **31 MAY 1990**.

Selection and Characterisation

There has been considerable discussion in recent months about the definition of selective breeding for PVR purposes and whether it includes characterisation which is usually carried out prior to accession of collected germplasm into a gene bank.

The following definitions of selection and characterisation will apply for the purpose of identifying the originator of a new variety obtained from a selective breeding program based on introduction and selection.

Selection

For PVR purposes, selection is the deliberate assessment of a large number of plants to identify those with specific characteristics and eliminate those which do not have the characteristics required. From the original large number of plants deliberate decisions are made to continue with certain plants and to discard others over several (at least four for PVR) generations until a small number (often only one) of fixed lines remain with the desired combination of characteristics.

A program designed to eliminate unsuitable plants and deliberately choose between plants for particular characteristics is a selective breeding program. As noted in *Plant Varieties Journal* 2:2, June 1988, p6 "the basis of selection from introductions is that a large number of variants are introduced and grown in cultivation. They are *selected* through several generations until a variety with the required characteristics is identified" . A minimum of four generations is required by the PVR Office for this selection process.

A selective breeding program can be based on selection between fixed lines or within a heterogeneous ecotype.

Characterisation

Characterisation refers to the observation and recording of characteristics of a large number of plants, usually prior to accession into a gene bank. Although some note may be taken of the differences between plants and they may be grouped according to characteristics, there is no deliberate decision-making program to choose between the plants and eliminate those without the desired characteristics. Some elimination of totally unsuccessful lines may occur but the purpose is to retain as many variable lines as possible for future breeding programs.

The essential difference between characterisation and selection is that in the latter there is a deliberate objective to do more than record characteristics. There is intellectual input into a decision making process; choice is made between plants and those without the desired characteristics are eliminated from the selection program.

Characterisation therefore does not constitute origination by selective breeding.

Selection is also a component of many other breeding activities which originate a variety, eg. selection of a fertilized plant's progeny or of induced mutations etc. In such cases the other activities are eligible for reward by Plant Variety Rights and it would not be considered necessary to establish that *selective breeding* had occurred through four generations.

Staff

The newest member of the PVR Office is Libby Pulsford. Libby is the third Examiner to be appointed, reflecting the growing number of applications for PVR. She has a strong background in the plant sciences, with an Honours degree in Agricultural Science and considerable experience in Australia and overseas. She brings to the PVR Office, useful experience in biochemical assay techniques.

Application Forms

Application forms are frequently revised by PVR Office. This is to remove ambiguity, make them simpler and also more effective for applicants to substantiate their claims. There are consequently several versions of application forms in circulation. Older forms consisted of 3 parts but new forms have been reduced to 2 parts and accompanying EXPLANATORY NOTES. Most forms now have a date on the top right hand corner.

PVR Office still receives applications on old forms but caution that some of the questions may not elicit the complete information required. It is therefore advisable for intending applicants to check first with PVR Office before lodgement.

PVR Trials — Register of Names

The Plant Variety Rights Office is compiling a register of names (Appendix 6) of organisations who undertake PVR trials for other people or who will assist with preparing applications to overseas PVR Offices. This list will be given to anyone who asks and no preference will be given to any organisation. Organisations interested in being on the register should write to the Registrar. The PVR Office does not take any responsibility for the actions of these organisations.

PART 2 — MATTERS FOR PUBLIC NOTICE

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:

1. **'Chandenn'** (Application No 88/025)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 16
   Expiry Date: 31 August 2008

2. **'Charodeyka'** (Application No 88/018)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 17
   Expiry Date: 31 August 2008

3. **'Mechta'** (Application No 88/020)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 18
   Expiry Date: 31 August 2008

4. **'Rubinen'** (Application No 88/022)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 19
   Expiry Date: 31 August 2008

5. **'Zora'** (Application No 88/024)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 20
   Expiry Date: 31 August 2008

6. **'Grozdana'** (Application No 88/014)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 21
   Expiry Date: 31 August 2008

7. **'Odile'** (Application No 88/015)
   Dianthus caryophyllus
   Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
   Certificate No 22
   Expiry Date: 31 August 2008

8. **'A5939'** (Application No 88/011)
   Glycine max
   Grantee: Asgrow Seed Company, of Michigan, USA
   Certificate No 23
   Expiry Date: 26 August 2008

9. **'A5474'** (Application No 88/012)
   Glycine max
   Grantee: Asgrow Seed Company, of Michigan, USA
   Certificate No 24
   Expiry Date: 26 August 2008

10. **'Hobson'** (Application No 88/028)
    Brassica napus var biennis
    Grantee: Valley Seeds Pty. Ltd. of Alexandra, Victoriy
    Certificate No 25
    Expiry Date: 20 October 2008

11. **'Manark'** (Application No 88/037)
    Glycine max
    Grantee: Queensland Department of Primary Industries of Brisbane, Queensland
    Certificate No 26
    Expiry Date: 14 December 2008

12. **'Kyambro'** (Application No 89/014)
    Trifolium resupinatum
    Grantee: Minister for Agriculture South Australia
    Certificate No 27
    Expiry Date: 7 March 2009

13. **'Gresham'** (Application No 89/016)
    Phaseolus vulgaris
    Grantee: Booker Seeds Ltd, of Lincolnshire, UK
    Certificate No 28
    Expiry Date: 28 March 2009

14. **'Franklin'** (Application No 89/018)
    Hordeum vulgare
    Grantee: Department of Primary Industry Tasmania
    Certificate No 29
    Expiry Date: 6 April 2009

15. **'Meipinjid'** (Application No 89/021)
    Rosa hybrida
    Grantee: SNC Meilland et Cie of Antibes, France
    Certificate No 30
    Expiry Date: 28 April 2009

16. **'Gold Lace'** (Application No 89/022)
    Acacia cardiophylla
    Grantee: Kuranga Native Nursery of Ringwood, Victoria
    Certificate No 31
    Expiry Date: 2 May 2009

17. **'A6520'** (Application No 89/025)
    Glycine max
    Grantee: Asgrow Seed Company, of Michigan, USA
    Certificate No 32
    Expiry Date: 11 May 2009

18. **'Bronco'** (Application No 88/030)
Phaseolus vulgaris
Grantee: Asgrow Seed Company, of Michigan, USA
Certificate No 33
Expiry Date: 28 October 2008

19. **'Zlatka'** (Application No 88/021)
Dianthus caryophyllus
Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
Certificate No 34
Expiry Date: 31 August 2008

20. **'Fantastic'** (Application No 88/016)
Dianthus caryophyllus
Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
Certificate No 35
Expiry Date: 31 August 2008

21. **'Prolet'** (Application No 88/026)
Dianthus caryophyllus
Grantee: Bioprogress —SP— Selca, of Plovdiv, Bulgaria
Certificate No 36
Expiry Date: 31 August 2008

Applications Accepted

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

a) Descriptions Finalised

Potted specimen of 'Birthday Candles'. *(Photograph supplied by applicant)*

BANKSIA
(*Banksia spinulosa var spinulosa*)

Variety: **'Birthday Candles'** Application No. 89/128

Applicant: **W M Molyneux,** Austraflora Nurseries of Montrose, Victoria.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf growth form, short upright flower spikes exposed on ends of spreading branches, small leaves and early flowering March through September.

Varieties used for comparison
Dwarfed form of *B. var spinulosa* from southern NSW.

Comparative Growing Trials
Sixty plants each of 'Birthday Candles' and *B. spinulosa* dwarf form were grown in 15cm and 25cm plastic pots filled with a mixture of pinebark, sand and 5% sterile loam. This medium was fortified with gypsum, IBDU, Micromax and Osmocote in spring, and with IBDU and potassium sulphate in late summer. Characteristics are from twenty plants of each variety chosen at random.

Origin
'Birthday Candles' arises out of the selection of seedlings of *B. spinulosa* sown on the applicants property at Montrose. Selection was made at flowering in 1985 on the basis of plant growth form and flowering characteristics. It was subsequently propagated from a single plant in January 1986 and grown through four propagation cycles to 1989.

Morphology — See comparison tables.
'Birthday Candles' is a small shrub with dense spreading foliage. Leaves are small, green above white below, with less serrations than comparative varieties. The red and yellow flowers are short, upright and born at the end of branches in a fully exposed position.

Cultivation
'Birthday Candles' is considered to have a climatic tolerance ranging from subtropical to cool temperate and semi-arid. It is moderately tolerant of frost and highly tolerant of salt laden wind.

Table of comparative varieties of Genus *Banksia*

	'Birthday Candles'	var *spinulosa* (dwarf form)
PLANT HEIGHT (4 years)		
mean	18.3cm	64.16cm
range	12-24	25-78
standard deviation	3.09	6.46
PLANT WIDTH (4 years)		
mean	43.7cm	57.5cm
range	21-51	38-82
standard deviation	4.64	5.24
FLOWER SPIKE LENGTH		
mean	8.36cm	13.8cm
range	5-11	8-20
standard deviation	0.59	2.91
LEAF WIDTH		
mean	1.74cm	2.62cm
range	1-2.6	1.8-3.8
standard deviation	14.02	0.99
LEAF LENGTH (4 years)		
mean	40.3cm	67.6cm
range	17-60	30-110
standard deviation	14.02	25.14

LETTUCE
(*Lactuca sativa*)

Variety: **Wintersalad** Application No. **90/001**

Applicant: **Arthur Yates and Co. Pty Ltd** of Revesby NSW

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a phenotypic conformity to the 'Vanguard' group, late maturity date, large head weight and diameter, a large core diameter and core length; and lack of *Bremia* resistance factors R3 and R11.

Varieties used for comparison
'El Toro' being the closest known variety in Australia.

Comparative growing trials
All characteristics described are from comparative growing trials conducted at Narromine NSW in spring 1989, with plants grown from transplanted seedlings and spaced 36 cm within a row and 50 cm between rows. Measurements are from 50 plants chosen at random of each cultivar.

Origin
'Wintersalad' arises from the controlled pollination of 'Winterlake' by 'Salinas' in 1981. Selection from a large (200) F2 population was made in 1982. Selection was based on conformity to 'Vanguard' type in generations F3 to F6 and for black seed colour and field tolerance to *Xanthomonas campestris pv vitians* at F7 stage.

Morphology — see comparative tables
'Wintersalad' is classed as a 'Vanguard' type of crisphead lettuce with a firm, transverse elliptical, well-covered head approximately 17 (14-20) cm in diameter and weighing 1340 (1000-1500) grams at maturity. It is late-maturing taking 65 (63-67) days to mature. Characteristics observed but not included in the comparative tables are as follows. There is no anthocyanin expression in the foliage, the wrapper leaves are a medium, dull-green (RHS 146C). At the 3-4 true leaf stage the leaves are erect, lobed, medium-green, long-attenuate at the base and narrow-elliptical in outline.

'Wintersalad' is considered distinct from 'Vanguard' type lettuce varieties 'Target' and 'Bullseye' in lacking *Bremia* resistance factors R3 and R11. It is distinct from 'Salinas' in having a different temperature requirement for optimum growth. 'Salinas' would have small head development if sown at the optimal time for 'Wintersalad'.

In trials, 'Wintersalad' had a significantly larger head weight and diameter, core length and diameter and a later maturity date than 'El Toro'.

Agronomy
'Wintersalad' displays a greater level of tolerance/resistance to bacterial spot (*Xanthomonas campestris pv vitians*) than 'El Toro'.

Variety: **'Greenway'** Application No. 90/002

Applicant: **Arthur Yates and Co. Pty Ltd** of Revesby NSW

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characteristics: a phenotypic confromity to the 'Vanguard' group and the resistance factors R1 and R3 (but lacking R5/8) to *Bremia lactucae*.

Varieties used in comparison
'El Toro' being the closest known variety in Australia.

Comparative Growing Trials
All characteristics are from comparative growing trials conducted at Narromine NSW in spring 1989. Plants were grown from transplanted seedlings and spaced 36cm within a row and 50cm between rows. Measurements are from 50 plants chosen at random of each cultivar. Resistance factors to *Bremia lactucae* were determined by assay against reference cultures at the Institute of Horticultural Research at Wellesbourne, United Kingdom in 1987 and 1989.

Origin
Greenway' was developed from controlled pollination of 'El Toro' by 'Solito'. The resultant progeny was backcrossed five times to 'El Toro'. Prior to each backcrossing, the progeny was screened in vitro for resistance to an Australian isolate of downy mildew (*Bremia lactucae*). At F5 ten resistant plants were selfed and the progeny screened for homozygosity for mildew resistance in 1986. Subsequent selection was made over a three year period for phenotypic conformity to Vanguard type.

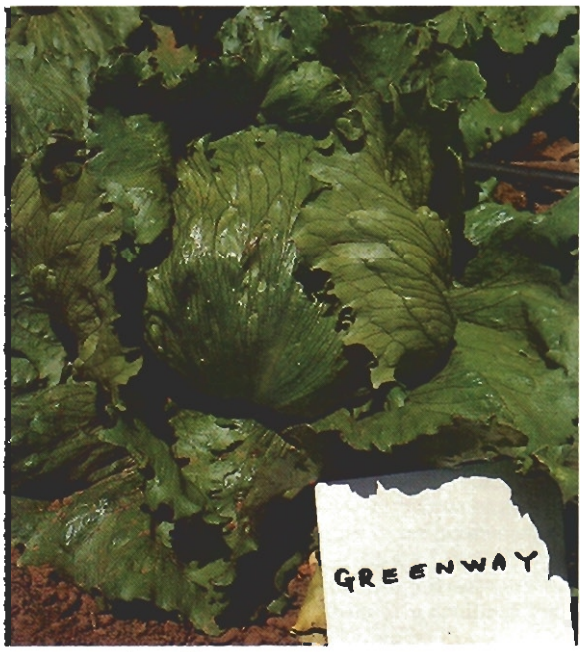
Lettuce varieties 'Wintersalad' (right) and 'El Toro'. *(Photograph supplied by applicant)*

Morphology — see comparative tables
'Greenway' is classed as a 'Vanguard' type of crisphead lettuce with a firm, round, well-covered head 15.4 (10-18) cm in diameter and weighing 886 (750-1150) grams at maturity. It is early maturing taking 56 (53-58) days to mature. There is no anthocyanin expression in the foliage, the wrapper leaves are medium to dark-green (RHS 146B). At the 3-4 true leaf stage the leaves are erect, lobed, medium-green, long attenuate at the base and described as narrow elliptical.

'Greenway' is considered distinct from 'Vanguard' type lettuce varieties 'Target' in lacking *Bremia* resistance factors 5/8 and 11 and from 'Salinas' and 'Bullseye' in lacking factor 5/8.

'Greenway' is slightly but significantly smaller in head weight and matures later than 'El Toro'. The distinction of this variety is in its resistance factors to *Bremia* which in Australia, confer resistance to downy mildew. 'El Toro' is susceptible to downy mildew.

Agronomy
'Greenway' is suitable for growing in coastal and inland areas where 'El Toro' is presently grown.



Lettuce variety 'Greenway'
(Photograph supplied by applicant)

Table of Comparison of Lettuce Varieties

(* = variety used for comparison)

	'Wintersalad'	*'El Toro'	'Greenway'
MATURITY (No. of days from transplant)			
mean	65.1	55.2	56.1
range	63-67	54-58	53-58
std. deviation	1.3	1.1	1.2
significance	P0.01		P0.01
PLANT DIAMETER			
mean	51.1 cm	49.9 cm	50.1 cm
range	46-57	44-57	46-58
std. deviation	2.6	2.9	3.2
HEAD WEIGHT			
mean	1337 g	971 g	886 g
range	1000-1550	750-1150	750-1150
std. deviation	126.5	129.4	163.5
significance	P0.01		P0.01
HEAD DIAMETER			
mean	17.4 cm	15.4 cm	15.4 cm
range	14-20	12-19	10-18
std. deviation	1.5	1.3	1.4
significance	P0.01		
HEAD HEIGHT			
mean	15.9 cm	15.9 cm	15.7 cm
range	13.5-18	14-18	13-18
std. deviation	1.1	1.0	1.2
significance			
LENGTH OF CORE			
mean	52.2 mm	31.1 mm	30.5 mm
range	30-70	25-42	18-45
std. deviation	1.6	5.2	6.3
significance	P0.01		
DIAMETER OF CORE			
mean	42 mm	39.2 mm	37.2 mm
range	35-50	30-45	32-42
std. deviation	4.0	0.6	3.3
significance	P0.01		
Bremia resistance factors	lacks R3 and R11	R10	R1 and R3

Table of Comparison of Subterranean Clover Varieties

(* = variety used for comparison)

	'Nuba'	*'Clare'	*'Rosedale'
LEAF MARKINGS	white A2[1]	red + white C3 A2-3	white B1
SEED COLOUR	black	purple + black	cream
SEED WEIGHT(g/1000)	119	125	83
STIPULE PIGMENTATION	S2[1]	S2	S1
LEAF SIZE	large	medium-large	medium-large
STEM PUBESCENCE	glabrous	glabrous	glabrous
LEAF PUBESCENCE	glabrous	abs-slight	abs-slight

([1] — see *Plant Varieties Journal* Vol 2 No 2, 1989 'Key to Sub-clover Markings' as reproduced from WA Dept of Ag. Bull. 4083)

CLOVER
(*Trifolium subterraneum spp brachycalycinum*)

Variety: **'Nuba'** Application No. 90/004

Applicant: **South Australian Seedgrowers Co-op Ltd**, Adelaide.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: Leaflets with white band markings extending from the crescent to the margins; small pale elongate stipules with some red veining; calyx as long as the corolla which is white with some pink veining; red/green pubescent peduncle which is shorter than petioles and black seeds.

Varieties used for comparison
'Clare' and 'Rosedale' which are the other known varieties of the sub-species *brachycalycinum*.

Comparative Growing Trials
All characteristics described herein are from observations made during comparative trials conducted at McClarenvale, SA in 1988.

Origin
This variety was bred by Dr S Morgner, at Bad Hersfeld, Hessen, Federal Republic of Germany. The cultivar 'Clare' was crossed with a Spanish ecotype and 'Nuba' was a selection from the F_4 generation for fresh and dry matter yield, seed yield, seedling vigour and tolerance to cold and drought (in European conditions).

Morphology
Plants are densely branched with well developed secondary and tertiary branches; internodes long green/red and pubescent. Leaflets are larger than those of 'Clare', with a narrow pale white band extending from the crescent to the leaflet margin. Stipules are narrow with red veins. Corolla is white with some pink colour. Calyx is pale green. Peduncle is pubescent and shorter than the petioles. Pods are of medium size with a keel adhering to and completely covering the seed. Seeds are black to violet, smaller than 'Clare' and symmetrical.

In addition to morphological data from growing trials, the applicant has submitted, as a distinguishing characteristic, prints of gel electrophoresis of seed protein extractions for 'Nuba' and 'Clare'. The technique is as described by S E Gardiner and M B Forde in *Seed Science and Technology*, 1987, Volume 15, pages 663-674, using sodium dodecylsulphate and polyacrylamide gel. Distinct banding patterns are evident at the points indicated by arrows (see photograph). The band at point B in 'Clare' is not present in 'Nuba'. Bands in the regions of A and C are dissimilar.

Agronomy
'Nuba' is an annual pasture legume suitable for clay to sandy-loam soils of pH 6.5 to 8.0 in rainfall of 350mm or better over a six month growing period. It is reported to exhibit moderate field resistance to root rot (*Phytophthora clandestina*), clover scorch (*Kabatiella caulivora*) and cucumber mosaic virus.

Leaf markings of 'Nuba'. *(Photograph supplied by applicant.)*

Floret of 'Nuba'. *(Photograph supplied by applicant)*

Stipule of 'Nuba'. *(Photograph supplied by applicant)*

Table of Comparison of Phalaris Varieties

(* = variety used for comparison)

	'Holdfast'	*'Australian'	*'Seedmaster'	*'Uneta'	*'Sirosa'	*'Sirolan'	*'Sirocco'	*'Grasslands Maru'
SEEDLING DRY WT								
mean	92.6 mg	60.1 mg	65.9 mg	48.7 mg	112.5 mg	122.8 mg	113.2 mg	81.8 mg
range	30-231	25-136	21-152	21-98	34-215	24-322	36-306	23-170
std deviation	46.3	23.4	26.8	18.2	48.2	73.0	63.8	34.8
significance		P0.05		P0.01		P0.05		
FLOWERING DATE (days from 1 December 1989)								
mean	6.50	4.85	9.88	11.38	2.88	4.08	5.08	2.73
range	-6-17	1-14	4-16	8-16	-6-11	-5-16	-6-14	-6-14
std deviation	4.52	2.90	3.82	2.53	3.57	5.65	5.66	3.79
significance			P0.01	P0.01	P0.01	P0.05		P0.01
PLANT HEIGHT (on Dec 15 1989)								
mean	1.26 m	1.07 m	1.10 m	1.11 m	1.24 m	1.17 m	1.16 m	1.11 m
range	1.0-1.6	1.0-1.2	1.0-1.3	1.0-1.3	1.1-1.4	1.0-1.4	1.0-1.4	1.0-1.4
std deviation	0.134	0.075	0.088	0.086	0.113	0.120	0.156	0.114
significance		P0.01	P0.01	P0.01		P0.05	P0.05	P0.01
GROWTH HABIT (1 = prostrate, 2 = spreading, 3 = erect)								
mean	2.6	1.5	2.0	2.5	2.4	2.9	3.0	2.2
range	2-3	1-3	1-3	2-3	2-3	2-3	3	1-3
std deviation	0.48	0.82	0.65	0.51	0.50	0.31	0.00	0.56
significance		P0.01	P0.05					P0.05
THIRD LEAF WIDTH								
mean	15.6 mm	12.7 mm	15.2 mm	14.3 mm	15.9 mm	16.6 mm	16.9 mm	14.5 mm
range	12.0-20.0	9.7-15.7	12.3-18.7	12.3-17.1	13.3-19.7	13.3-19.7	13.0-22.0	10.7-16.7
std deviation	1.7	2.0	1.7	1.5	1.7	1.7	2.2	1.5
significance		P0.01						
THIRD LEAF LENGTH								
mean	309 mm	263 mm	280 mm	288 mm	283 mm	270 mm	256 mm	270 mm
range	213-423	173-343	190-373	223-403	217-347	230-353	190-300	220-317
std deviation	43.8	56.8	42.7	45.0	31.7	35.3	31.2	27.4
significance		P0.05					P0.05	
STEM WIDTH AT THIRD LEAF LIGULE								
mean	5.3 mm	4.4 mm	4.7 mm	4.9 mm	4.7 mm	4.5 mm	4.5 mm	4.4 mm
range	3.0-7.0	3.0-5.3	4.0-5.3	4.0-5.3	3.7-5.7	3.0-6.0	3.0-5.7	3.3-5.3
std deviation	0.92	0.66	0.38	0.45	0.57	0.73	0.79	0.51
significance		P0.01	P0.05		P0.05	P0.01	P0.01	P0.01
TILLER NUMBER PER PLANT								
mean	50.1	60.5	50.7	53.8	58.0	35.5	39.8	48.4
range	20-99	30-136	31-76	28-76	24-112	19-55	19-70	30-78
std deviation	15.3	25.7	13.7	12.5	21.1	11.0	14.9	12.2
HEAD LENGTH								
mean	85.5 mm	91.8 mm	75.5 mm	92.4 mm	84.4 mm	66.6 mm	64.6 mm	90.4 mm
range	52-119	65-120	52-98	66-113	58-127	51-88	47-85	65-117
std deviation	14.3	16.0	12.6	13.3	17.9	10.2	10.8	15.8
significance						P0.01	P0.01	

PHALARIS
(*Phalaris aquatica L.*)

Variety: **'Holdfast'** Application No. 90/005

Applicant: **CSIRO Division of Plant Industry** of Canberra, ACT

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a thickened rachilla which remains intact at maturity of seed, about half of plants with hairy outer glumes and tall, early flowering plants.

Varieties used for comparison
'Australian', 'Seedmaster', 'Uneta', 'Sirocco', 'Sirosa', 'Sirolan' and the New Zealand variety 'Grasslands Maru'.

Comparative Growing Trials
The dry weights of seedling tops were measured in a glasshouse in Canberra, 22 days after transplanting sprouted seeds into a sand- loam-peat mixture on Dec.13, 1989. A plot consisted of a row of six seedlings of one cultivar 5 cm apart. Each cultivar was represented by one plot in each seedling box, the rows being 5 cm apart. There were eight replicate boxes in the randomised block experiment.

The other characteristics were determined in a field experiment at Ginninderra Experiment Station, ACT. Six seedlings of each variety were transplanted in a single row 1 m apart on Aug.11, 1989, in each of four replicates, together with one open- pollinated seedling from each of the 45 elite plants from which breeders' seed of 'Holdfast' is obtained. There were 5 rows per replicate, 1 m apart, and four replicates. Measurements were made on 5 plants per plot for the other varieties and on 20 plants per replicate for 'Holdfast'.

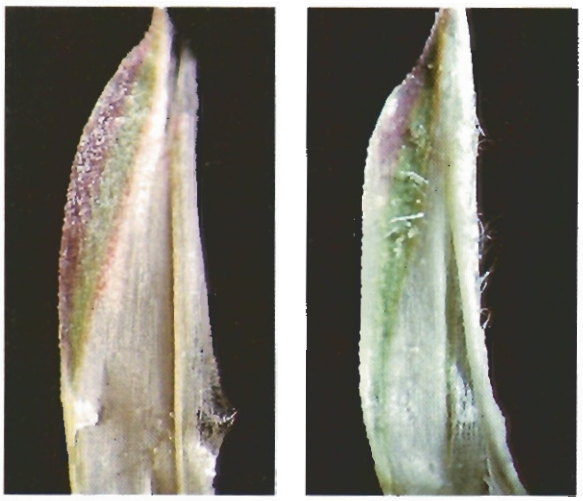
Origin
'Holdfast' was derived by crossing the original intact rachilla plant, found in a certified seed lot of 'Australian' by HE Schroeder in 1971, with progenitors of 'Sirolan', and backcrossing selected F_2 plants with the intact rachilla parent. Intact rachilla offspring then were crossed with progenitors of 'Sirosa' and 'Sirolan', and F_1s were backcrossed to the crossbred intact rachilla plants. A third round of outcrossing and backcrossing involved geographic races from Portugal, Morocco, Algeria, Tunisia, Libya, Italy, Greece, Turkey and Israel as the non-recurrent parent. Then followed two generations of testing 50 half-sib families in swards at Temora, NSW and Canberra for 3 years. Selection was based on herbage yield and persistence in the sward trials, and on seed production traits, which were assessed on spaced plants at Ginninderra Experiment Station.

Financial support for the phalaris breeding program by the Wool Research and Development Corporation in recent years is gratefully acknowledged.

Morphology — see comparison tables
'Holdfast' is an early-flowering, tall phalaris with vigorous seedlings. All plants of 'Holdfast' have thickened rachillae and displaced calluses on the lower sterile florets of the spikelet, which usually fail to pinch off the rachillae as the seed nears maturity. This thickened rachillae characteristic also occurs in 'Uneta', but in no other comparative variety. 'Holdfast' flowers earlier, has taller plants and has a higher proportion of plants (48%) with hairy outer glumes than 'Uneta'.

Agronomy
'Holdfast' is intended for the main and drier phalaris-growing districts, being similar agronomically to 'Sirosa' and 'Sirolan', but with much higher retention rate of more fully mature seeds.

Phalaris spikelets and outer glumes showing the rachilla pinched off from the peduncle in 'Australian', but not in 'Holdfast'.



Phalaris outer glumes showing hairs on outer glumes of 'Holdfast' (right) but not of 'Australian' (left). *(Photograph supplied by applicant)*

JOJOBA
(*Simmondsia chinensis*)

Comparative growing trials
All characteristics and comparisons below are from comparative growing trials conducted at the Agricultural Research Station at Condobolin between 1980 and 1990. Cuttings of each variety were grown in the field at spacings of 4mx2m under rainfed conditions. The trials were maintained in a weed free condition by cultivation and herbicide application and fertiliser was applied annually. Morphological characteristics were measured on a random sample of fifteen in 1989.

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Variety: **'Waradgery'** Application No.90/006

Applicant: **R.Dunstone** of Curtin, ACT and **NSW Agriculture and Fisheries**.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: thin, moderately interlocking branches, small dark yellow-green leaves, short internodes, high bud to node ratio, very small flower buds and bracts, very late flower bud dormancy break; seeds that are short, sub-spherical, grey-orange with only shallow furrowing.

Varieties used for comparison
The varieties 'C1' and 'C6' were used for comparison.

Origin
'Waradgery' arises from the selection of open-pollinated lines commencing in 1980, followed by selection of progeny within one of those lines. By 1988, a selected plant was propagated asexually by tissue culture, its clones forming the variety 'Barindji'. Selection was primarily on the basis of seed yield and seasonal consistency, as outlined by P L Milthorpe and R L Dunstone in *Australian Journal of Experimental Agriculture*, 1989, **29**, pp 383-7.

Morphology — See comparison tables
The plant is a small perennial bush, female with thin, moderately interlocking branches. The leaves are small dark yellow-green in colour. The internode length is very short and the bud to node ratio very high. The dormant flower buds and the bracts are very small. The seeds are almost spherical in shape and are grey-orange rather than brown in colour. The variety breaks flower bud dormancy later in the season than any known variety.

Agronomy
'Waradgery' is intended for temperate climates and a water supply of 350-750mm per annum. Jojoba is a dioecious species and male plants are required in close proximity to females for seed production.

☐

Variety: **'Barindji'** Application No.90/007

Applicant: **R.Dunstone of Curtin, ACT and NSW Agriculture and Fisheries.**

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: thin, highly interlocking branches, small grey-green leaves, long internodes, average bud to node ratio, long thin bud bracts.

Varieties used for comparison
The varieties 'C1' and 'C6' were used for comparison.

Origin
'Barindji' arises from the selection of open-pollinated lines commencing in 1980, followed by selection of progeny within one of those lines. By 1988, a selected plant was propagated asexually by tissue culture, its clones forming the variety 'Barindji'. Selection was primarily on the basis of seed yield and seasonal consistency, as outlined by P L Milthorpe and R L Dunstone in *Australian Journal of Experimental Agriculture*, 1989, **29**, pp 383-7.

Morphology — See comparison tables
The plant is a very bushy, perennial female plant with thin, densely interlocking branches. The leaves are small and grey-green in colour. The internode length is long and the bud to node ratio low. The flower buds have long, thin bracts. The seeds are spheroid and brown in colour with a moderate amount of shallow furrowing. Flower bud dormancy break is moderately late. The fruit has three locules.

Agronomy
'Barindji' is intended for temperate climates and a water supply of 350-750mm per annum. Jojoba is a dioecious species and male plants are required in close proximity to females for seed production.

Leaves and fruits of 'Waradgery'. *(Photograph supplied by applicant)*

Leaves and fruits of 'C1'. *(Photograph supplied by applicant)*

Leaves and fruit of 'C6'. *(Photograph supplied by applicant)*

Leaves and fruit of 'Barindji'. *(Photograph supplied by applicant)*

Table of Comparison of Jojoba Cultivars

(* = variety used for comparison)

	*'C1'	*'C6'	'Barindji'	'Waradgery'
PLANT HEIGHT/DIAMETER Ratio	0.92	0.82	0.80	0.87
BRANCH THICKNESS	med	med	thin	thin
BUSHINESS	dense	dense	dense	med
BRANCH INTERLOCKING	mod	v.high	v.high	mod
INTERNODE LENGTH: numbers 3 to 8 from the tip.				
Mean	22.4 mm	28.4 mm	34.0 mm	17.5 mm
Range	17-32	19-47	20-46	9-24
Std deviation	4.9	6.7	8.7	3.9
LEAF SHAPE	ovate	lanceolate	lanceolate	lanceolate
LEAF LENGTH (nodes 3 to 8 from tip)				
Mean	32.0 mm	41.4 mm	29.4 mm	26.2 mm
Range	28-37	36-47	26-33	20-31
Std deviation	3.26	3.50	2.88	3.21
LEAF WIDTH				
Mean	14.6 mm	18.2 mm	16.0 mm	13.2 mm
Range	12-17	15-22	13-22	12-15
Std deviation	1.51	2.57	2.58	1.23
PETIOLE LENGTH	short	short	long	medium
LEAF COLOUR (Field mature)	147C	148B	191A	146C
FLOWERING Bud/node %	58	45	44	74
PEDICEL LENGTH (Rating 1-7)	5	5	5	1
BUD BRACTS	long,thin	long,thin	long,thin	v.small
DORMANCY BREAK				
date (1987)	30/7	19/6	25/8	10/9
Rating (1-7)	2	1	3	5
No. LODICULES	3	3	3	3-4
SEED LENGTH				
Mean	17.2 mm	16.6 mm	15.0 mm	13.4 mm
Range	15.2-19.2	16.1-18.0	14.3-17.3	13.2-14.8
Std deviation	0.98	1.25	0.63	0.49
SEED DISTAL END SHAPE	obtuse	truncated	obtuse	obtuse
BASAL INDUMENTUM	dense	moderate	moderate	dense
COLOUR(RHS)	200B	200C	200B(177A)	165A
FURROWING OF SEED	shallow	deep	shallow	shallow
No. OF FURROWS	moderate	moderate	moderate	sparse
OIL CONTENT % (1987)	55.2	50.7	52.9	54.8

GERALDTON WAX FLOWER
(*Chamelaucium uncinatum*)

Comparative Growing Trials
All characteristics and comparisons below are from comparative growing trials carried out at Muchea near Perth in Western Australia. Plants were propagated from cuttings in November to December 1987 and planted at 1 metre intervals in rows 1 metre apart in sandy soil. Trickle irrigation was used as required, 1 — 2 times weekly in summer and supplying fertilizer in winter. Bushes are stripped of flowering stems annually after flowering. Measurements are from 20 random samples taken during flowering in October.

Variety: **'White Spring'** Application No. 90/008

Applicant: **Australian Wax Farm,** of Muchea, Western Australia

Diagnosis
This variety is distinct from any other known variety in having the following combination of characters: a late flowering season (October-November); small flowers with white petals; and short leaves.

Varieties used for comparison
Chamelaucium uncinatum 'Alba' form.

Origin
The breeder is George Lullfitz. 'White Spring' arose from a seedling of 'Mullering Brook'. After propagation, selection was made over 4 generations on the basis of straightness and length of stem, flowering time and whiteness of petals. All breeding work was carried out at the applicants property in Muchea, Western Australia. Propagation is asexually by cuttings.

Morphology — See comparison tables.
This many branched shrub grows to approximately 3 metres with slender stems to 2 metres long; flowers form in the upper axils 13-15 mm across; petals 4-4.6 mm long; leaves 19-25 mm long. 'White Spring' is distinct from 'Alba' in having a later flowering period, smaller flowers and shorter leaves. The calyx of 'White Spring' flower is much shorter, barely one tenth as long, than that of 'Alba'.

Sprigs of 'White Spring' and 'Alba'. 'White Spring' has the longer, wider angled leaves. *(Photograph supplied by applicant)*

Flowers of 'White Spring' and 'Alba'. 'White Spring' has the larger flowers. *(Photograph supplied by applicant)*

Variety: **'Eric John'** Application No. 90/009

Applicant: **Australian Wax Farm,** of Muchea, Western Australia

Diagnosis
This variety is distinct from any other known variety in having the following combination of characters: upright growth habit; flowers with up to 20 stamens, plumose calyx lobes 1.2-1.3 mm long, pink petals and a noticeable perfume; and long and broad leaves.

Varieties used for comparison
The 'Stirling Range' variant of *C. ciliatum* is the closest known variety.

Origin
The breeder is Eric Johns. This variety appeared as a seedling in cultivation at the breeder's property at Mandurah, Western Australia. The possible parents, considering the *Chamelaucium* plants in proximity, are *C. uncinatum* and *C. ciliatum*. This seedling was selected on the basis of growth habit and flowering characteristics and then propagated asexually by cuttings to form the variety 'Eric John'.

Morphology — See comparison tables.
This many branched shrub grows to approximately 1.5 metres with flowers aggregated into the upper axils forming dense, cylindrical clusters (similar to *Verticordia plumosa*); calyx lobes are white and plumose and petals are pink (RHS 69B); stamens are up to 20 mostly fully formed or partly so; flowers have a noticeable honey-like perfume. The pink flowers of 'Eric John' distinguish it from the white-flowered 'Stirling Range' variant of *C. ciliatum*.

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Variety: **'Variegated Blush'** Application No. 90/010

Applicant: **Australian Wax Farm,** of Muchea, Western Australia

Diagnosis
This variety is distinct from any other known variety in having the following combination of characters: a small flower diameter proportional to tube length; calyx short and crescent shaped and flower colour white at anthesis blushing with age to a variegated mauve — pink corresponding to RHS 68A.

Varieties used for comparison
'Purple Pride' and 'Mullering Brook' are the closest known varieties in flowering characteristics.

Origin
The breeder is George Lullfitz. The breeding work was carried out at the applicants property in Muchea, Western Australia. 'Variegated Blush' arises from a seedling of the variety 'Wanneroo Wax' which is an F_1 hybrid between *C. uncinatum* and *C. floriferum*. This F_2 seedling was selected on the basis of flowering characteristics and propagated asexually by cuttings to form the variety 'Variegated Blush'.

Morphology — See comparison tables.
This many branched shrub grows to approximately 2 metres with flowers axillary; the flower colour varies from white at anthesis to a pink variegation at maturity; flower diameter is smaller in proportion to corolla tube length than recorded in 'Purple Pride' or 'Mullering Brook'. The mauve-pink colour in 'Variegated Blush' is darker and develops earlier in flowers than the colour of 'Wanneroo Wax'.

Flowers of 'Variegated Blush'. *(Photograph supplied by applicant)*

Flowers of 'Eric John'. *(Photograph supplied by applicant)*

Flowers of 'John Eric' and 'Stirling'. *(Photograph supplied by applicant)*

Flower spike of 'Variegated Blush' in plan. *(Photograph supplied by applicant)*

WALPOLE WAX FLOWER
(*Chamelaucium sp.*)

Variety: **'Lady Jennifer'** Application No. 90/011

Applicant: **Australian Wax Farm,** of Muchea, Western Australia

Diagnosis
This variety is distinct from any other known variety in having the following combination of characters: a small flower with pink petals and floral tube narrowly conical; and small leaves.

Varieties used for comparison
'Walpole Wax' common form with white flowers.

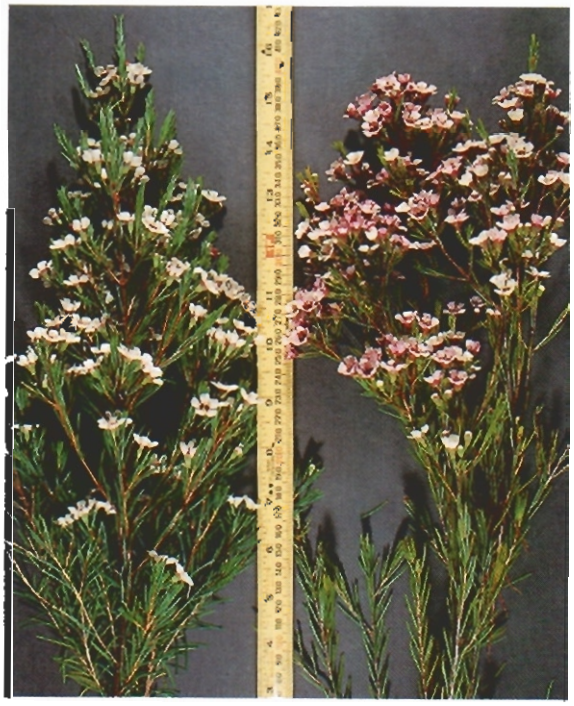
Comparative Growing Trials
All characteristics and comparisons below are from comparative growing trials carried out at Muchea near Perth in Western Australia. Plants were propagated from cuttings in November to December 1987 and planted at 1 metre intervals in rows 1 metre apart in sandy soil. Trickle irrigation was used as required, 1 — 2 times weekly in summer and supplying fertilizer in winter. Bushes are stripped of flowering stems annually after flowering. Measurements are from 20 random samples taken during flowering in October.

Origin
The breeder is George Lullfitz. All breeding work was carried out at the applicants property in Muchea, Western Australia. 'Lady Jennifer' arises from selection of variants from specimens of the normally white flowered 'Walpole Wax'. Selection was mainly on the basis of petal colour and flowering duration. Variants were assessed for 6 generations and the selected one was propagated asexually by cuttings to form the variety 'Lady Jennifer'.

Morphology — See comparison tables.
The Walpole Wax is known as *C. floriferum* and is expected to be described under this name. *C. floriferum* is, however, not a formally named species at present.

This shrub grows to approximately 1.5 metres high with a pine like form; stems thick and long with short branches; flowers clustered in the upper axil, 6.5 — 8 mm diameter; petals are pink deepening to red with age and 2.3 — 2.6 mm long. 'Lady Jennifer' is distinct from the common Walpole Wax in its flower colour.

Flowers of 'Lady Jennifer' (pink) and 'Walpole Wax'. *(Photograph supplied by applicant)*



Sprigs of 'Lady Jennifer' (pink) and 'Walpole Wax'. *(Photograph supplied by applicant)*

Table of Comparison of Wax Flower Varieties

(* = variety used for comparison)

	'White Spring'	'Alba'*	'Eric John'	Stirling Range variant*	'Variegated Blush'	'Purple' Pride'*	'Mullering Brook'*	'Lady Jennifer'	'Walpole Wax'*
PLANT HEIGHT	>150 cm	>150 cm	60-150 cm	<60 cm	>150 cm	>150 cm	>150 cm	60-150 cm	60-150 cm
PLANT GROWTH HABIT	bushy	bushy	upright	upright to bushy	bushy	bushy	bushy	bushy	bushy
FLOWERING SEASON	Oct/Nov	Sept/Oct	Sept/Oct	Sept/Oct	Sept/Oct	Sept/Oct	Sept/Oct	Sept/Oct	Sept/Oct
STEM SURFACE MARKING —LEAF SCARS									
(ranked 1 — 9)	B	7	8	7	8	7	7	8	7
FOLIAGE COVER									
(ranked 1 — 9)	7	7	7	8	6	6	6	8	8
FLORAL TUBE PROFILE	conical	broadly conical	conical	narrowly conical	broadly conical	broadly conical	broadly conical	narrowly conical	narrowly conical
FLOWER COLOUR	white	white	pink	white	pink	pink	pink	pink	white
predominant RHS No.	155C	155C	69B		68A	67C	68D	66D	155D
FLOWER DIAMETER									
mean	14.5 mm	20.4 mm	8.19 mm	6.48 mm	12.56 mm	16.5 mm	13.4 mm	7.7 mm	7.6 mm
range	13-15	19-22	7.3-8.8	6.1-6.8	11-13.5	15-18	13-15	6.5-8	6.8-7.9
std deviation	0.05	1.2	0.64	0.5	1.1	0.8	0.6	0.5	0.5
PETAL LENGTH									
mean	4.24 mm	6.03 mm	3.34 mm	2.27 mm	4.04 mm	5.35 mm	3.95 mm	2.45 mm	2.5 mm
range	4-4.6	5.8-6.5	3.2-3.5	2.1-2.4	3.9-4.5	4.8-5.8	3.7-4.0	2.3-2.6	2.3-2.7
std deviation	0.2	0.8	<0.01	<0.5	0.1	0.3	0.2	1.0	1.0
FLORAL TUBE LENGTH									
mean	5.64 mm	7.6 mm	4.26 mm	3.46 mm	6.28 mm	6.0 mm	5.04 mm	3.85 mm	3.9 mm
range	5.4-6.0	7-8	3.8-4.5	3.2-3.6	6-6.5	5.5-6.5	4.8-5.4	3.5-4.5	3.4-3.6
std deviation	0.5	0.5	0.2	0.1	0.9	1.0	1.1	1.0	1.1
CALYX LENGTH									
mean	0.069 mm	0.87 mm	1.26 mm	0.1 mm	—	—	—	0.35 mm	0.36 mm
range	0.06-0.08	0.8-1.0	1.2-1.3	0.9-0.11	—	—	—	0.3-0.4	0.29-0.4
std deviation	0.01	0.1	<0.01	<0.01	—	—	—	<0.1	<0.1
LEAF LENGTH									
mean	21.7 mm	38.6 mm	12.7 mm	6.51 mm	22.2 mm	28.7 mm	22.7 mm	11.9 mm	11.9 mm
range	19-25	35-42	12-14	5.9-7.3	18-24	22-34	21-25	11-13	11-14
std deviation	0.5	2.1	1.06	1.1	1.7	2.9	1.8	0.5	0.5
LEAF WIDTH									
mean	1.03 mm	1.21 mm	0.77 mm	0.5 mm	1.2 mm	1.35 mm	1.18 mm	0.09 mm	0.09 mm
range	1-1.1	1.1-1.3	0.6-0.9	0.45-0.55	1.1-1.3	1.2-1.3	1.1-1.2	0.08-0.1	0.08-0.1
std deviation	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
LEAF SHAPE	linear-terete to very narrowly obovate	linear-terete	linear-terete falcate	linear-terete falcate	linear-terete to narrow linear obovate very shortly petiolate	linear-terete very shortly petiolate	linear-terete very shortly petiolate	linear-terete very narrowly obovate	linear-terete very narrowly obovate

LEYLAND CYPRESS
(*X Cupressocyparis leylandii*)

Variety: **'Gold Rider'** Application No: 90/012

Applicant: **Leo Koelewyn of Coolwyn Conifers,** Monbulk, Victoria

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a conical growth habit in the first year; branchlets dense and semi-erect in attitude, non-planar, pliable and flat to convex on the upper side; branchlets yellow with green tips in winter changing to deeper yellow with dark yellow narrow margins in summer.

Varieties used for Comparison
'Castlewellan Gold' and 'Leighton Green', the mother plant.

Comparative Growing Trials
All characteristics described are from comparative growing trials conducted in the open at Monbulk, in the Dandenong Ranges of Victoria from August 1989 to January 1990. All plants had been propagated from cuttings taken in winter 1988. Plants were grown in 200mm diameter plastic containers in a pinebark/sand growing medium under identical cultural practices. Measurements are from 20 plants each of 'Gold Rider' and 'Castlewellan Gold' and 10 plants of 'Leighton Green'. Branchlet colours were assessed in August 1989 and January 1990. All other measurements were made in January 1990.

Origin
'Gold Rider' arose as a branch sport of *X Cupressocyparis 'Leighton Green'* in the Netherlands. The plant was subsequently propagated asexually and has been sold in the Netherlands since February 1986 under the name 'Gold Rider'.

Morphology — see comparison tables
'Gold Rider' is a golden yellow cypress with colours changing from winter to summer. Branchlets are yellow (RHS 11A) at the base in winter becoming green (RHS 153C-153A) at the tips. In summer the branchlets are yellow in the centre corresponding to RHS 8C, with a narrow golden margin corresponding to RHS 5A.

Plants of 'Gold Rider' are shorter than the comparative varieties of the same age. Branchlets are spaced more closely together along the stem, particularly in comparison to 'Leighton Green'. During the first year of growth the branchlets are more dense, more pliable, less erect and less planar in arrangement than either 'Castlewellan Gold' or 'Leighton Green'.

Comparison of branchlets of 'Gold Rider'(centre), 'Castlewellan Gold'(top) and 'Leighton Green'. *(Photograph supplied by PVR Office)*

'Gold Rider' (X Cupressocyparis leylandii). *(Photograph supplied by applicant)*

Table of comparison of Cypress varieties

(* = varieties used for comparison)

	'Gold Rider'	*'Castlewellan Gold'	*'Leighton Green'
PLANT HEIGHT			
mean	578.8 mm	702 mm	738.5 mm
range	515-655	540-805	625-805
standard deviation	43.7	64.9	53
NUMBER OF BRANCHLETS PER PLANT			
mean	35.4	33.3	33.5
range	31-47	32-41	24-37
standard deviation	4.24	2.61	4.54
LENGTH BETWEEN BRANCHLETS			
mean	16.2 mm	19.7 mm	23.1 mm
range	15-19.7	16.7-25.2	19.2-28.1
standard deviation	2.0	2.4	2.9
BRANCHLET COLOUR WINTER			
colour group	yellow	yellow-green	—
base of branchlet	RHS 11A	RHS 152C	—
top of branchlet	RHS 153A	RHS 152C	—
BRANCHLET COLOUR SUMMER			
colour group	yellow	yellow-green	yellow-green
base of branchlet	RHS 8C	RHS 154A	RHS 144A
top of branchlet	RHS 8C	RHS 154A	RHS 144A
FIRST ORDER BRANCHLETS ARRANGEMENT OF SPRAY	non-planar	planar	planar
FIRST ORDER BRANCHLETS ATTITUDE OF SPRAY	semi-erect	erect	erect
BRANCHLET ANGLE TOWARDS STEM (upper side)	flat to convex	concave	flat to convex

ROSE
(*Rosa hybrida*)

Comparative Growing Trials

All characteristics below are from comparative growing trials conducted at Carrum Downs on the Mornington Peninsula of Victoria from August 1989 to January 1990. The plants were propogated in November 1988 and grown in pots in a pinebark/sand mix in an unheated polythene greenhouse. Measurements are from 20 specimens.

Variety: **'MEIBARKE'** (commercial synonym 'Debut Meillandina')
Application No. 90/013

Applicant: **SNC Meilland et Cie** of Antibes, France.

Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

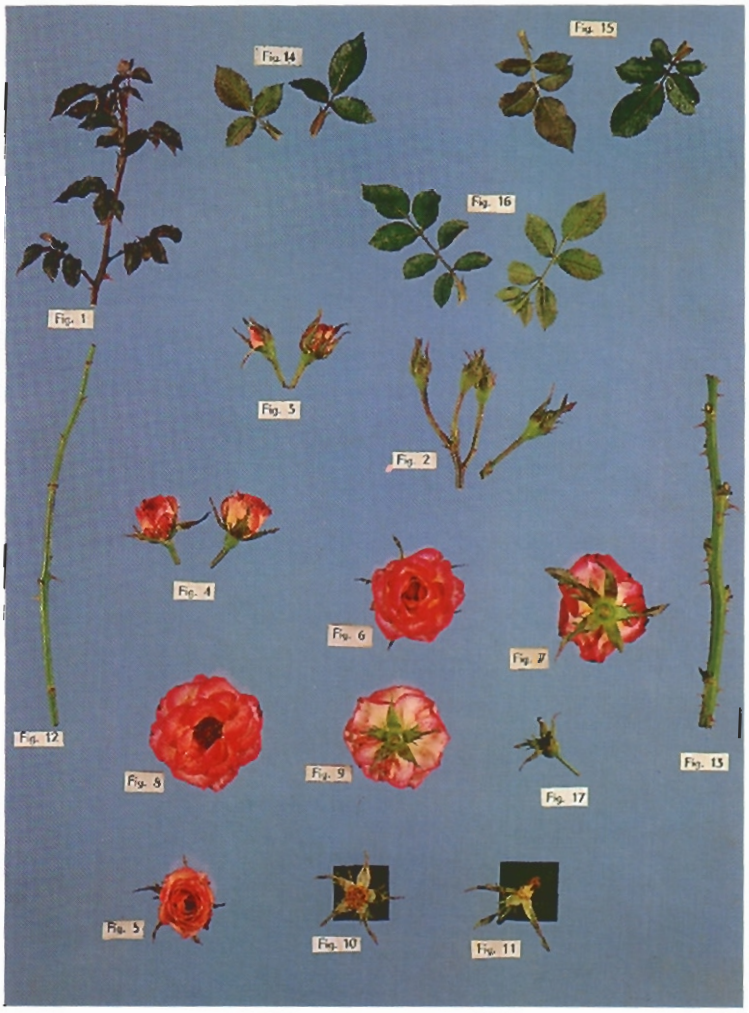
Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf upright to bushy growth habit; thorns convex on the upper side and deep concave on the lower side; terminal leaflets rounded at the base; bi-coloured petals, red on the margins corresponding to RHS 57A and white on the midzone corresponding to 155C; yellow filaments and red styles with stigmas below the level of anthers.

Varieties used for comparison
'Toy Clown' being a miniature rose close in flower colour to 'Meibarke', and 'Magic Carrousel', the pollen parent of 'Meibarke'.

Origin
The breeder was the late Mrs Marie-Louise Meilland of France. 'Meibarke' was selected from the progeny of a controlled pollination of 'Meigurumi' by pollen of 'Magic Carrousel'.

Plant Variety Rights were first granted in West Germany in 1988 and subsequently in Holland, Switzerland and USA. Rights have been applied for in Belgium, Japan, South Africa, France, Italy and Denmark.

Morphology — See comparison tables.
'Meibarke' is a miniature bi-coloured rose having much larger flower heads than 'Toy Clown' and 'Magic Carrousel'. Flower petals are less compact in 'Meibarke' than 'Magic Carrousel'.
Characteristics observed but not included in the comparative tables: There is no anthocyanin in the new shoot in 'Meibarke' while new shoots of 'Toy Clown' display strong purple anthocyanin. Leaf upper surfaces are glossy and terminal leaflets are flat in cross section.



'Meibarke' (syn 'Debut Meillandina') figs 1-16 showing various characteristics. *(Photograph supplied by applicant)*

Table of Comparison of Rose Varieties

(* = variety used for comparison)

	'Meibarke'	'Meitifran'	* 'Magic Carrousel'	*'Toy Clown'
PLANT GROWTH HABIT	upright to bushy	upright to bushy	upright to bushy	bushy
FLOWER DIAMETER				
mean	51.1 mm	41.45 mm	39.9 mm	36.7 mm
range	46-59	36-48	36-44	30-41
std deviation	3.81	3.24	2.08	3.15
PETAL COLOURS	bi-coloured	bi-coloured	bi-coloured	bi-coloured
midzone outside	RHS 155C	RHS 155B	RHS 155C	RHS 155A
midzone inside	RHS 155C	RHS 155A	RHS 155C	RHS 155A
margin outside	RHS 57B	RHS 57B	RHS 57A	RHS 57A
margin inside	RHS 57A	RHS 57A	RHS 57A	RHS 57A
PETAL LENGTH				
mean	26.7 mm	21.05 mm	24.9 mm	20.45 mm
range	20-33	17-26	20-32	16-24
std deviation	3.18	1.89	2.95	4.41
PETAL WIDTH				
mean	27.85 mm	21.15 mm	25.1 mm	19.55 mm
range	24-34	17-24	18-30	15-23
std deviation	3.12	1.86	3.21	2.21
PETAL NUMBERS	13-25	>50	26-50	13-25
PETAL REFLEXING	strong	mild	medium	medium
SEPAL LENGTH				
mean	26.15 mm	22.25 mm	25.85 mm	25.65 mm
range	21-31	19-30	22-35	19-31
std deviation	3.12	2.1	2.33	3.28
SEPAL EXTENSIONS	medium	weak	weak	weak
STAMEN — COLOUR OF FILAMENT	yellow	yellow-green	yellow-green	yellow
STYLE COLOUR	red	yellow-green	pink	pink
STIGMA IN RELATION TO ANTHERS	below anthers	above anthers	same level	same level
LEAFLET LENGTH				
mean	36.75 mm	35.1 mm	32.3 mm	28.05 mm
range	30-46	32-39	28-35	18-33
std deviation	5.29	3.51	2.06	4.87
LEAFLET WIDTH				
mean	22.45 mm	17.7 mm	16.75 mm	15.95 mm
range	17-29	14-22	14-21	13-19
std deviation	4.02	2.37	3.48	1.75
PETIOLE LENGTH				
mean	9.25 mm	8.2 mm	8.35 mm	7.8 mm
range	4-12	3-14	6-12	4-11
std deviation	1.95	2.56	1.5	1.94
TERMINAL LEAFLET — SHAPE OF BASE	rounded	rounded	rounded	obtuse
THORN PROFILE (above)	convex	flat	flat	convex
THORN PROFILE (below)	deep concave	deep concave	deep concave	deep concave
PEDICEL — THORNS/PRICKLES	few	numerous	absent	numerous

Variety: **'MEITIFRAN'** (commercial synonym 'Baron Meillandina')
Application No. 90/018

Applicant: **SNC Meilland et Cie** of Antibes, France.

Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

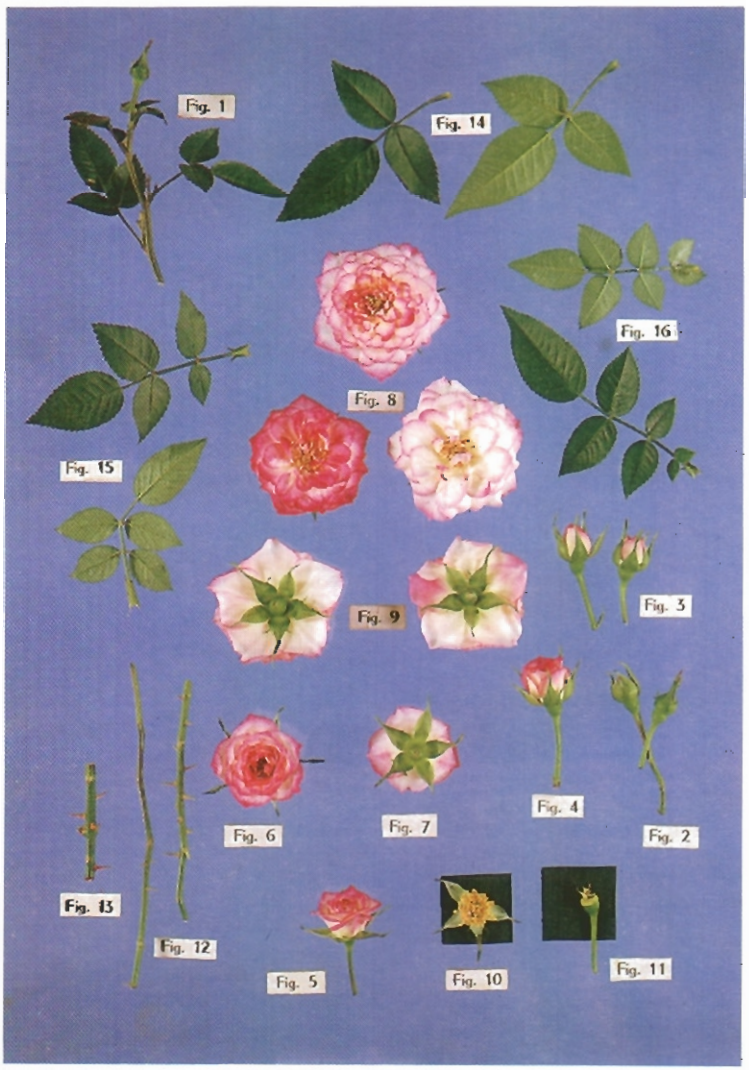
Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf upright to bushy growth habit; numerous thorns flat on the upper side and deep concave on the lower side; terminal leaflets rounded at the base; numerous pedicel prickles; numerous bi-coloured petals, red at the margins corresponding to RHS 57A and white on the midzone corresponding to RHS 155A; yellow-green filaments and yellow green styles with stigmas above the level of the anthers.

Varieties used for comparison
'Toy Clown' a miniature rose which is close in colour to 'Meitifran' and the miniature rose 'Magic Carrousel', the seed parent of 'Meitifran'.

Origin
The breeder was the late Mrs Marie-Louise Meilland of France. 'Meitifran' was selected from the progeny of a controlled pollination of 'Magic Carrousel' by pollen of a second generation hybrid of a controlled pollination of 'Alain' X *Rosa mutabilis* by the pollen of 'Medar' X 'Caprice'.

Plant Variety Rights were first granted in West Germany in 1987, and subsequently in Great Britain, Switzerland, Sweden, South Africa, France, Belgium, Holland and USA. Rights have been applied for in Israel, Italy and Japan.

Morphology — See comparison tables.
'Meitifran' is a miniature bi-coloured rose having petals more compact in the flower head than 'Toy Clown' and 'Magic Carrousel'. Characters observed but not included in the comparison tables: Initial anthocyanin in the developing vegetative bud in 'Meitifran' disappears rapidly, while 'Toy Clown' retains purple anthocyanin in the new shoots. Leaf upper surfaces are glossy and the terminal leaflet is concave in cross section.



'Meitifran' (syn 'Baron Meillandina') figs 1-16 showing various characteristics. *(Photograph supplied by applicant)*

Table of Comparison of Rose Varieties

(* = variety used for comparison)

	'Schobitet'	*'Gold Coin'	*'Meitrisical'	'Meigovin'	*'Jet Trail'
PLANT GROWTH HABIT	bushy	bushy	upright to bushy	spreading	spreading
FLOWER DIAMETER					
mean	45.8 mm	34.2 mm	43.5 mm	50.95 mm	38.1 mm
range	39-58	25-39	39-48	44-56	32-44
std deviation	4.66	3.09	2.56	2.8	2.61
FLOWER COLOUR GROUP	yellow	yellow	yellow	white	white
PETAL COLOUR CHARTING					
midzone outside	RHS 12C	RHS 10C	RHS 8B	RHS 155D	RHS 157D
midzone inside	RHS 12B	RHS 10B	RHS 7B	RHS 155D	RHS 157D
margin outside	RHS 13C	RHS 10C	RHS 8B	RHS 155D	RHS 157D
margin inside	RHS 13B	RHS 10B	RHS 30B	RHS 155D	RHS 157D
PETAL LENGTH					
mean	26.5 mm	21 mm	23.35 mm	25.15 mm	19.25 mm
range	21-33	17-24	18-26	22-29	17-22
std deviation	3.78	2.38	2.1	1.95	1.55
PETAL WIDTH					
mean	22.95 mm	15.75 mm	21.05 mm	23.1 mm	17 mm
range	16-28	13-20	18-24	19-25	15-20
std deviation	3.49	1.83	1.93	2	1.41
PETAL NUMBERS	>50	>50	13-25	>50	>50
PETAL REFLEXING	strong	mild	medium	mild	mild
SEPAL LENGTH					
mean	23.6 mm	17.8 mm	23.5 mm	20.7 mm	22.15 mm
range	19-28	13-23	18-36	18-26	18-26
std deviation	2.82	2.89	3.8	2.47	2.18
SEPAL EXTENSIONS	weak	weak	medium	medium	weak
STAMEN — COLOUR OF FILAMENT	yellow	yellow	yellow	yellow-green	yellow-green
STYLE COLOUR	yellow-green	yellow-green	yellow-green	pink	pink
STIGMA IN RELATION TO ANTHERS	above anthers	same level	same level	above anthers	above anthers
LEAFLET LENGTH					
mean	26.5 mm	20.7 mm	28.6 mm	31.35 mm	31.8 mm
range	21-31	18-24	19-32	26-35	25-38
std deviation	2.6	1.71	2.27	2.72	3.85
LEAFLET WIDTH					
mean	16.95 mm	12.55 mm	16.9 mm	19.1 mm	16.75 mm
range	14-20	11-15	10-20	15-22	14-19
std deviation	2.18	1.03	1.79	2.31	1.55
PETIOLE LENGTH					
mean	8 mm	6.55 mm	6.75 mm	8.95 mm	8.05 mm
range	5-11	4-9	3-10	6-13	5-12
std deviation	1.65	1.36	2.15	1.88	1.9
TERMINAL LEAFLET — SHAPE OF BASE	rounded	obtuse	rounded	rounded	obtuse
THORN PROFILE (above)	flat	flat	flat	flat	flat
THORN PROFILE (below)	concave	concave	deep concave	deep concave	deep concave
PEDICEL — THORNS/PRICKLES	numerous	absent	few	absent	absent

Variety: **'SCHOBITET'** Application No. 90/015

Applicant: **Universal Plants SA** of Le Cannet-des-Maures, France.

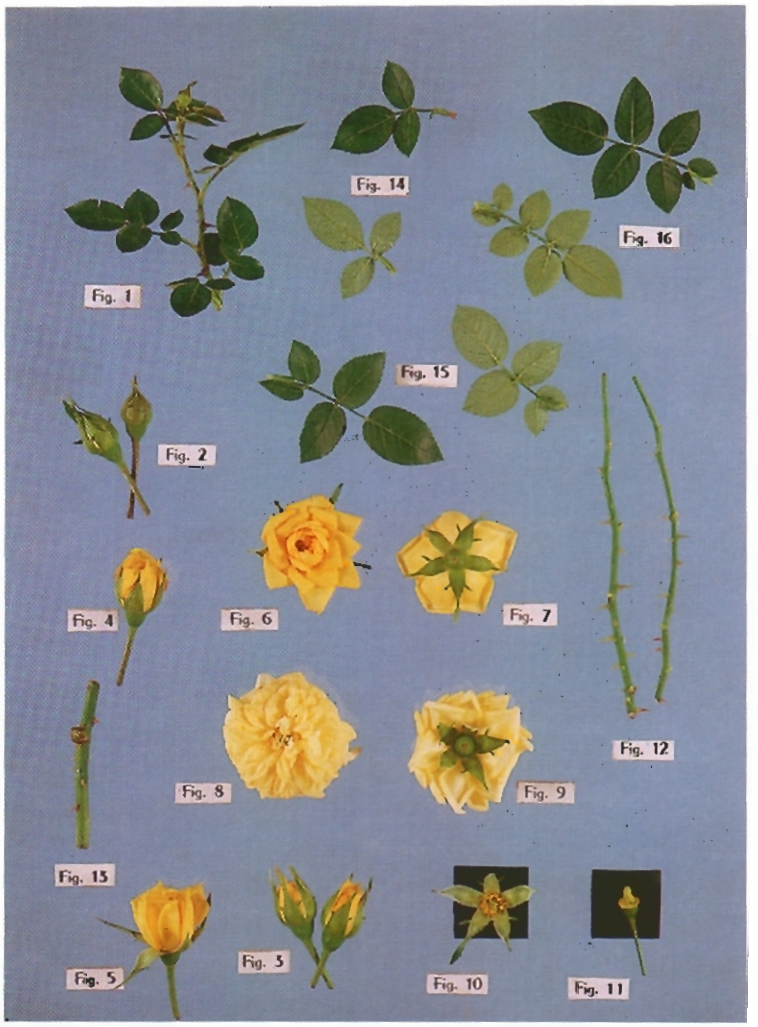
Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf bushy growth habit; numerous thorns, flat on the upper side and concave on the lower side; terminal leaflets concave in cross section and rounded at the base; yellow petals corresponding to RHS 12B; petals strongly reflexed; yellow filaments and yellow-green styles with stigmas above the level of the anthers.

Varieties used for comparison
'Meitrisical' and 'Gold Coin', both being miniature roses close in flower colour to 'Schobitet'.

Origin
The breeder is Mr E Schwartz of USA. 'Schobitet' was selected from the progeny of a controlled pollination of an unnamed seedling by the pollen of another unnamed seedling. Plant Variety Rights have been granted in South Africa in 1987 and subsequently in France and the USA. Rights have been applied for in Great Britain, Italy, Japan, Switzerland and Spain.

Morphology — See comparison tables.
'Schobitet' is a miniature rose with yellow flowers which are much larger than those of 'Gold Coin' and have many more petals than 'Meitrisical'. Petals of 'Schobitet' are more strongly reflexed than 'Metrisical' and 'Gold Coin'. Characteristics observed but not included in the comparative tables: No anthocyanin colouration was observed in 'Schobitet'. Leaves are a medium green, glossy on the upperside and the terminal leaflet is concave in cross section.



'Schobitet' figs 1-16 showing various characteristics. *(Photograph supplied by applicant)*

Variety: **'MEIGOVIN'** (commercial synonym 'Snow Meillandina') Application No. 90/014

Applicant: **SNC Meilland et Cie** of Antibes, France.

Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf spreading growth habit; stems with numerous small thorns; pure white petals corresponding in colour to RHS 155D with occasional small yellow basal spots; yellow-green filaments and pink styles with stigmas above the level of the anthers.

Varieties used for comparison
'Jet Trail', which is the closest known miniature rose to 'Meigovin' in flower colour.

Origin
The breeder is Alain Meilland of France. The variety is a white mutation of 'Meilarco'. Plant Variety Rights have been applied for in France, Denmark, Great Britain, Sweden, Switzerland, West Germany, Israel, South Africa and the USA.

Morphology — See comparison tables. 'Meigovin' is a miniature rose with much larger flowers than 'Jet Trail'. 'Meigovin' mature blooms have a flattened convex shape in profile while those of 'Jet Trail' are flat. Characteristics observed but not included in the comparative tables: A small yellow basal spot occasionally occurs on petals of 'Meigovin' while no basal spot is present on petals of 'Jet Trail'. There is no anthocyanin present in young shoots. Leaves are medium green, glossy on the upperside and the terminal leaflet is flat in cross section.

'Meigovin' (syn 'Snow Meillandina') figs 1-16 showing various characteristics. *(Photograph supplied by applicant)*

Variety: **'MEIPONAL'** (commercial synonym 'Sunny Meillandina') Application No. 90/016

Applicant: **SNC Meilland et Cie** of Antibes, France.

Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

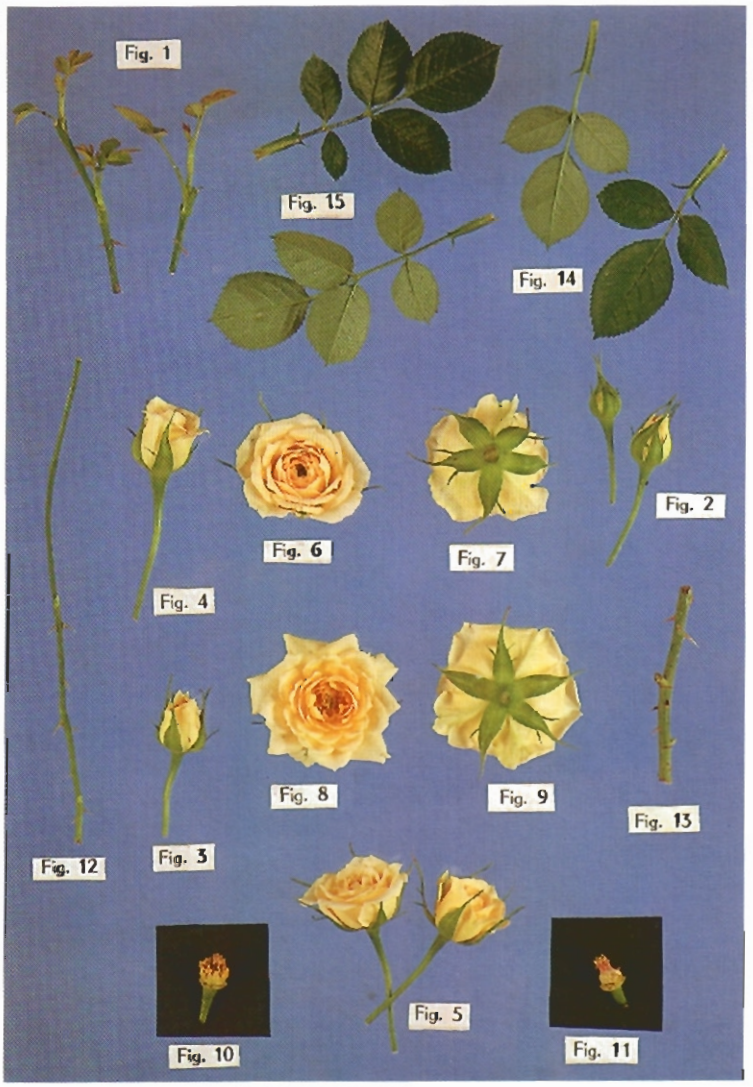
Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf bushy growth habit; many thorns, convex on the upper side and concave on the lower side; terminal leaflets concave in cross section and rounded at the base; apricot petals corresponding to RHS 18C; yellow filaments and pink styles with stigmas above the level of the anthers.

Varieties used for comparison
'Sunny Morning' which is the closest known miniature rose variety to 'Meiponal' in flower colour.

Origin
The breeder was the late Mrs Marie-Louise Meilland of France. 'Meiponal' was selected from the controlled pollination of a hybrid of 'Meihand' X 'Fla 513' by pollen from another hybrid 'Meialfi' X 'Meikim'.

Plant Variety Rights have been granted in West Germany, South Africa, Denmark, Great Britain, Sweden, Switzerland, France and the USA. Rights have been applied for in Italy, Belgium, Israel and Japan.

Morphology — See comparison tables. 'Meiponal' is a miniature rose with apricot coloured flowers much larger and with a greater number of petals than 'Sunny Morning'. Characteristics observed but not included in the comparative tables: The flowers of 'Meiponal' display no basal spot on petals while on 'Sunny Morning' petals a basal spot is evident. New shoots in 'Meiponal' lack anthocyanin while in 'Sunny Morning' new shoots have purple anthocyanin colour. Leaves are medium green, leaf upper surfaces are glossy and the terminal leaflet is concave in cross section.



'Meiponal' (syn 'Sunny Meillandina') figs 1-15 showing various characteristics. *(Photograph supplied by applicant)*

Table of Comparison of Rose Varieties

(* = variety used for comparison)

	'Meirutral'	*'Meicubesi'	*'Meidanego'	'Meiponal'	*'Sunny Morning'
PLANT GROWTH HABIT	bushy	upright to bushy	bushy	dwarf spreading	dwarf bushy
FLOWER DIAMETER					
mean	42.45 mm	48.25 mm	39 mm	45.65 mm	38.25 mm
range	33-50	43-53	31-42	42-52	32-44
std deviation	4.82	2.95	2.73	2.78	3.18
FLOWER COLOUR GROUP	dark red	dark red	medium red	yellow-orange	yellow-white
PETAL COLOUR CHARTING					
midzone outside	RHS 53B	RHS 53B	RHS 58B	RHS 18C	RHS 158D
midzone inside	RHS 53A	RHS 53A	RHS 45B	RHS 18C	RHS 158D
margin outside	RHS 53B	RHS 53B	RHS 58A	RHS 18C	pink in summer
margin inside	RHS 53A	RHS 53A	RHS 45B	RHS 18C	RHS 158D
PETAL LENGTH					
mean	22 mm	21.7 mm	19.1 mm	27.2 mm	23.95 mm
range	19-26	17-27	17-23	24-32	21-26
std deviation	2.07	2.66	1.52	2.46	1.64
PETAL WIDTH					
mean	22.85 mm	22.1 mm	17.8 mm	23.6 mm	18.6 mm
range	19-27	19-28	15-22	18-31	15-21
std deviation	2.68	2.61	1.61	3.28	1.57
PETAL NUMBERS	26-50	26-50	26-50	>50	26-50
PETAL REFLEXING	mild	mild	mild	medium	mild
SEPAL LENGTH					
mean	20.25 mm	19.8 mm	21.4 mm	26.8 mm	20.8 mm
range	18-25	15-24	19-25	20-35	14-27
std deviation	1.86	2.5	1.64	3.96	3.5
SEPAL EXTENSIONS	weak	weak	weak	weak	weak
STAMEN — COLOUR OF FILAMENT	yellow-green	yellow-green	yellow	yellow	yellow
STYLE COLOUR	red	yellow-green	yellow-green	pink	pink
STIGMA IN RELATION TO ANTHERS	same level	below anthers	below anthers	above anthers	below anthers
LEAFLET LENGTH					
mean	31.15 mm	34.25 mm	26.0 mm	29.45 mm	28.05 mm
range	24-38	27-42	22-32	23-36	23-34
std deviation	3.31	4.01	2.27	4.36	3.91
LEAFLET WIDTH					
mean	19.25 mm	20.07 mm	16.65 mm	19.95 mm	16.0 mm
range	17-22	16-25	14-20	16-26	12-19
std deviation	1.62	2.79	1.79	3.15	2.43
PETIOLE LENGTH					
mean	9.05 mm	8.4 mm	8.3 mm	7.45 mm	7.35 mm
range	7-15	5-11	5-14	5-10	5-11
std deviation	2.01	1.7	2.15	1.64	1.39
TERMINAL LEAFLET — SHAPE OF BASE	rounded	rounded	rounded	rounded	obtuse
THORN PROFILE (above)	flat	concave	flat	convex	convex
THORN PROFILE (below)	deep concave	deep concave	concave	concave	deep concave
PEDICEL — THORNS/PRICKLES	absent	absent	absent	few	absent

Variety: **'MEIRUTRAL'** (commercial synonym 'Prince Meillandina') Application No. 90/017

Applicant: **SNC Meilland et Cie** of Antibes, France.

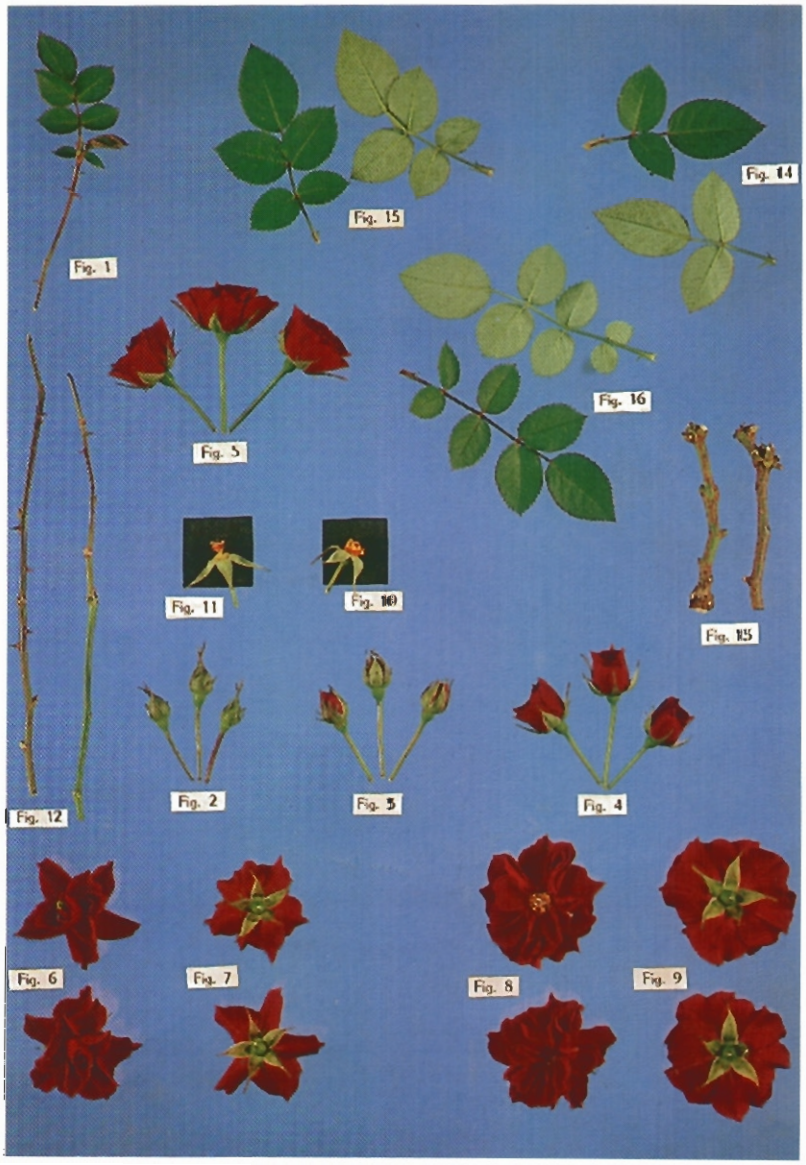
Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf bushy growth habit; few thorns on the stems; terminal leaflets concave in cross section and rounded at the base; dark red flowers corresponding to RHS 53A; petals with a white basal spot; yellow-green filaments and red styles with stigmas at the same level as the anthers.

Varieties used for comparison
'Meicubasi' (also known as 'Red Meillandina') and 'Meidanego' (also known as 'Scarlet Meillandina'), both being miniature roses close in flower colour to 'Meirutral'.

Origin
The breeder is Alain Antoine Meilland of France. 'Meirutral' was selected from the progeny of a controlled pollination of 'Meichanso' by pollen of the variety 'Mogral'. Plant Variety Rights were first granted in South Africa in 1988 and subsequently in Holland and the USA. Rights have been applied for in France, Denmark, Great Britain, West Germany, Italy, Sweden, Switzerland, Belgium, Israel and Japan.

Morphology — See comparison tables. 'Meirutral' is a dark red miniature rose with flower heads similar in size to 'Meidanego' but smaller than 'Meicubasi'. Styles in 'Meirutral' are red. Characteristics observed but not included in the comparative tables: Petals of 'Meirutral' and 'Meicubasi' have a white basal spot, closest in colour to RHS 155D, while petals of 'Meidanego' have a yellow basal spot corresponding to RHS 9B. Young growth shows red anthocyanin which disappears rapidly. Leaves are medium green, glossy on the upperside and the terminal leaflet is concave in cross section.



'Meirutral' (syn 'Prince Meillandina') figs 1-16 showing various characteristics. *(Photograph supplied by applicant)*

Variety: **'MEIXERUL'** (commercial synonym 'Peach Meillandina') Application No. 90/019

Applicant: **SNC Meilland et Cie** of Antibes, France.

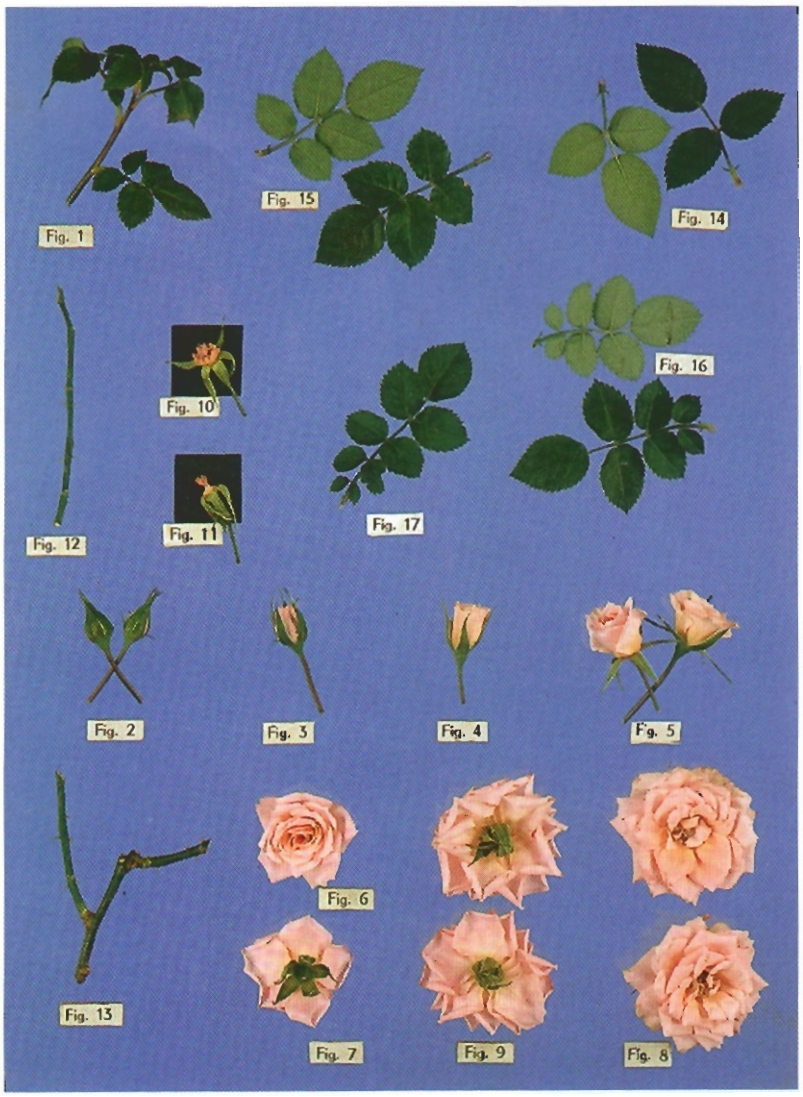
Australian Agent: **John Oakes of HA Oakes & Sons** of Carrum Downs, Victoria.

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf bushy growth habit; numerous thorns, flat to concave on the upper side and concave on the lower side; terminal leaflets concave in cross section and rounded at the base; salmon pink petals corresponding in colour to RHS 36D; petals strongly reflexed; outer petals with a yellow basal spot; yellow filaments and pink styles with stigmas above the level of the anthers.

Varieties used for comparison
'Jean Kenneally' (also known as 'Tinneally') and 'Meijidiro',(also known as 'Salmon Meillandina'), both being miniature roses similar in flower colour to 'Meixerul'.

Origin
The breeder is Alain Antoine Meilland of France. 'Meixerul' was selected from the progeny of a controlled pollination of 'Meijidiro' by pollen from a hybrid of 'Meihigor' X 'Morberg'. Plant Variety Rights have been applied for in France, Denmark, West Germany, Sweden, Switzerland, South Africa and the USA.

Morphology — See comparison tables.
'Meixerul' is a salmon pink miniature rose, similar in colour to 'Jean Kenneally', differing in shade to 'Meijidiro' and with a greater number of petals than 'Jean Kenneally' and 'Meijidiro'. Characteristics not included in the comparative tables: All three varieties have basal petal spots, yellow in 'Meixerul' (RHS 12D) and 'Jean Kenneally' (RHS 2D) but greenish white (RHS 157A) in 'Meijidiro'. Foliage of 'Meixerul' is medium green, leaf upper surfaces are glossy and terminal leaflet is flat in cross section.



'Meixerul' (syn 'Peach Meillandina') figs 1-17 showing various characteristics. *(Photograph supplied by applicant)*

Table of Comparison of Rose Varieties

(* = variety used for comparison)

	'Meixerul'	*'Meijidiro'	*'Jean Kenneally'
PLANT GROWTH HABIT	bushy	bushy	upright to bushy
FLOWER DIAMETER			
mean	47.2 mm	42.95 mm	51.1 mm
range	38-52	39-47	46-58
std deviation	2.75	1.91	3.24
FLOWER COLOUR GROUP	salmon pink	salmon pink	salmon pink
PETAL COLOUR CHARTING			
midzone outside	RHS 36D	RHS 48D	RHS 36D
midzone inside	RHS 36D	RHS 50C	RHS 36D
margin outside	RHS 36D	RHS 49B	RHS 36D
margin inside	RHS 36D	RHS 50C	RHS 36D
PETAL LENGTH			
mean	26.65 mm	22.75 mm	28.5 mm
range	22-30	20-25	22-32
std deviation	2.42	1.48	2.89
PETAL WIDTH			
mean	27.05 mm	23.15 mm	26.85 mm
range	20-34	20-26	20-30
std deviation	3.9	1.66	2.91
PETAL NUMBERS	>50	26-50	26-50
PETAL REFLEXING	strong	strong	strong
SEPAL LENGTH			
mean	25.95 mm	21.9 mm	29.45 mm
range	20-30	19-26	23-38
std deviation	3	1.67	4.01
SEPAL EXTENSIONS	weak	weak	medium
STAMEN — COLOUR OF FILAMENT	yellow	—	yellow
STYLE COLOUR	pink	yellow-green	yellow-green
STIGMA IN RELATION TO ANTHERS	above anthers	above anthers	below anthers
LEAFLET LENGTH			
mean	25.05 mm	30.55 mm	31.25 mm
range	24-31	27-35	29-35
std deviation	6.45	2.62	1.7
LEAFLET WIDTH			
mean	17.6 mm	19.35 mm	16.6 mm
range	15-22	15-25	14-19
std deviation	2.05	2.13	1.4
PETIOLE LENGTH			
mean	7.8 mm	8.2 mm	6.85 mm
range	6-13	5-11	3-11
std deviation	1.67	1.67	2.13
TERMINAL LEAFLET — SHAPE OF BASE	rounded	rounded	obtuse
THORN PROFILE (above)	flat	flat	flat
THORN PROFILE (below)	concave	concave	concave
PEDICEL — THORNS/PRICKLES	numerous	numerous	few

Table of Comparison of Coreopsis Varieties

(* = variety used for comparison)

	'Summer Gold'	*'Sunray'
STEM SURFACE (ranked 1 — 9)		
Pubescence	1 glabrous	7 pubescent
Waxiness	5 waxy	4 waxy
FOLIAGE COVER (ranked 1 — 9)		
	3 sparse	5 medium
NO. FLOWERING STEMS PER PLANT		
mean	8.5	14.2
range	5-12	10-22
std deviation	2.07	3.55
NO. OF FLOWERS PER PLANT		
mean	36.2	84.3
range	20-50	70-111
std deviation	10.17	12.89
FLOWER COLOUR	golden-yellow	golden-yellow
Predominant colour	RHS 17A	RHS 17A
FLOWER DIAMETER		
mean	39.45 mm	38.55 mm
range	32-45	32-48
std deviation	2.85	3.75
PETAL LENGTH		
mean	18.45 mm	18.2 mm
range	15-21	14-21
std deviation	1.72	1.96
PETAL WIDTH		
mean	13.05 mm	12.4 mm
range	11-15	10-15
std deviation	1.2	1.46
PEDUNCLE LENGTH		
mean	152.4 mm	139.4 mm
range	53-262	62-260
std deviation	57.98	53.31
PETAL NUMBER		
mean	28.75	27.8
range	22-40	20-36
std deviation	4.17	4.85
LEAF COLOUR		
at margins of leaf	greyed yellow RHS 160A	green RHS 146B
at centre of leaf	green RHS 146B	green RHS 146B
LEAF LENGTH		
mean	68.10 mm	73.10 mm
range	55-85	57-109
std deviation	8.71	15.59
LEAF WIDTH		
mean	11.60 mm	10.40 mm
range	7-15	7-16
std deviation	1.67	2.54

COREOPSIS
(*Coreopsis grandiflora*)

Variety: **'SUMMER GOLD'** Application No. 90/020

Applicant: **Alana Nominees** trading as **Little Acre Nursery** of Langwarrin, Victoria

Diagnosis
This variety is distinct from all other known varieties in having the following combination of characters: a dwarf bushy growth habit; glabrous stems, hexagonal in cross section; glabrous lanceolate variegated leaves yellow on the upper side margins and green along the centre; and pedunculate golden yellow radiate flowers.

Varieties used for comparison
'Sunray' was considered the closest known variety.

Comparative Growing Trials
All characteristics below are from comparative growing trials conducted at Langwarrin on the Mornington Peninsula of Victoria from June 1989 to January 1990. Struck cuttings of each variety were transplanted to 75mm pots in June 1989 and repotted into 140mm pots in August 1989. At all times the plants were maintained in an unheated plastic greenhouse. Measurements are from 10 plants.

Origin
The variety arises from a mutated branchlet of *Coreopsis grandiflora* cv 'Sunray' ocurring at the applicants premises in 1988. The original plant was subsequently propagated asexually to form the variety 'Summer Gold'.

Morphology — See comparison tables.
The plant is a bushy perennial herb flowering in summer and autumn. The leaves are variegated corresponding on the upper side margins to RHS 160A, and RHS 146B along the centre, lanceolate and sometimes lobed, entire, glabrous, petiolate at the base of the plant and non-petiolate above. The stems are green, glabrous and hexagonal in cross section. Flowering heads are golden yellow (RHS 17A), radiate and pedunculate with bracts in two series, the outer being narrower and more herbaceous and the inner triangular and yellowish green. The petals are irregular triangles with four lobes at the apex.

'Summer Gold' is distinct from 'Sunray' in having variegated leaves. 'Summer Gold' is also glabrous whereas 'Sunray' has pubescent stems and leaves. 'Sunray' is more vigorous producing larger numbers of flowering stems and flowers.

'Summer Gold' (right) with the comparative variety 'Sunray'. *(Photograph supplied by applicant)*

Objections

Formal objections (S20 of the PVR Act) against any of the above applications can be lodged by a person who:

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

b) considers that the provisions of S26 (Appendix 3 of this Journal) cannot be met.

A fee of $180 is payable at the time of lodging a formal objection and $50/hour will be charged if the examination of the objection by the PVR Office takes more than 2 hours.

Comment: 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 and the latter will be asked to show why the objection should not be upheld.

All formal objections and comments relating to the above applications must be lodged with the Registrar by close of business on **30/09/90**.

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.

ASTER
(*Aster pringlei x novi belgii*)

Applicant: **K Zahin, Zahin BV**, of Netherlands
Australian Agent: **MJ Shreuders Pty Ltd** of Pearcedale, Victoria

'Blue Butterfly' Application No. 89/124

Applicant: **K Zahin, Zahin BV**, of Netherlands
Australian Agent: **MJ Shreuders Pty Ltd** of Pearcedale, Victoria

'Pink Butterfly' Application No. 89/125

Applicant: **K Zahin, Zahin BV**, of Netherlands
Australian Agent: **MJ Shreuders Pty Ltd** of Pearcedale, Victoria

'Rose Butterfly' Application No. 89/126

Applicant: **K Zahin, Zahin BV**, of Netherlands
Australian Agent: **MJ Shreuders Pty Ltd** of Pearcedale, Victoria

'White Butterfly' Application No. 89/127

ROSE
(*Rosa hybrida*)

Applicant: **W Kordes & Sons**, of West Germany
Australian Agent: **Roy H Rumsey** of Dural, New South Wales

'Korbolak' Application No. 89/129

Applicant: **W Kordes & Sons**, of West Germany
Australian Agent: **Roy H Rumsay** of Dural, New South Wales

'Korkunde' Application No. 89/130

Applicant: **W Kordes & Sons**, of West Germany
Australian Agent: **Roy H Rumsey** of Dural, New South Wales

'Kormador' Application No. 89/131

Applicant: **W Kordes & Sons**, of West Germany
Australian Agent: **Roy H Rumsey** of Dural, New South Wales

'Korokis' Application No. 89/132

Applicant: **W Kordes & Sons**, of West Germany
Australian Agent: **Roy H Rumsey** of Dural, New South Wales

'Korveril' Application No. 89/133

Applicant: **S McGredy**, of Auckland, New Zealand

Australian Agent: **Swanes Nursery Pty Ltd**, of Dural, New South Wales

'Macerupt' Application No. 89/134

RAPE
(*Brassica napus*)

Applicant: **NSW Agriculture & Fisheries**, Sydney, New South Wales
Australian Agent: **Ag-Seed Pty Ltd**, of Horsham, Victoria

'Yickadee' Application No. 90/025

Applicant: **NSW Agriculture & Fisheries**, Sydney, New South Wales
Australian Agent: **Ag-Seed Pty Ltd**, of Horsham, Victoria

'Barossa' Application No. 90/026

Applications Withdrawn

The following applications have been withdrawn at the request of the applicant.

'Geneve'	Application No. 89/057
'Grand Cru'	Application No. 89/058
'Lucca'	Application No. 89/059
'Menton'	Application No. 89/060
'Monte Rosa'	Application No. 89/062
'Sancerre'	Application No. 89/063
'Toscane'	Application No. 89/064

2.2 Provisional Protection

a) Granted

The following varieties have provisional protection under S22 of the *Plant Variety Rights Act 1987* since the last issue of the Journal:

'Blue Butterfly'	Application No. 89/124
'Pink Butterfly'	Application No. 89/125
'Rose Butterfly'	Application No. 89/126
'White Butterfly'	Application No. 89/127
'Birthday Candles'	Application No. 89/128
'Korbolak'	Application No. 89/129
'Korkunde'	Application No. 89/130
'Kormador'	Application No. 89/131
'Korokis'	Application No. 89/132
'Korveril'	Application No. 89/133
'Macerupt'	Application No. 89/134
'Wintersalad'	Application No. 90/001
'Greenway'	Application No. 90/002
'Nuba'	Application No. 90/004
'Holdfast'	Application No. 90/005
'Waradgery'	Application No. 90/006
'Barindji'	Application No. 90/007
'White Spring'	Application No. 90/008
'Eric John'	Application No. 90/009
'Variegated Blush'	Application No. 90/010
'Lady Jennifer'	Application No. 90/011
'Gold Rider'	Application No. 90/012
'Meibarke'	Application No. 90/013
'Meigovin'	Application No. 90/014
'Shobitet'	Application No. 90/015
'Meiponal'	Application No. 90/016
'Meirutral'	Application No. 90/017
'Meitifran'	Application No. 90/018
'Meizerul'	Application No. 90/019
'Summer Gold'	Application No. 90/020
'Yickadee'	Application No. 90/025
'Barossa'	Application No. 90/026

b) Withdrawn

Provisional protection has been withdrawn under S22(b) of the *Plant Variety Rights Act 1987* for the following variety(ies) which have been sold other than for the purposes of S22 (b) after the application for PVR was accepted:

'Amarillo' (Application No. 89/086)
Arachis sp.

Applicant: Queensland Department of Primary Industries, CSIRO Division of Tropical Crops and Pastures and NSW Agriculture and Fisheries as joint applicants, with effect from 6/03/90 until the examination of the application is completed and PVR is granted or rejected.

Variations to Applications

The following submission has been made for variation to an application under subsection 19(1) of the *Plant Variety Rights Act 1987:*

Application No. 89/022
(Described in PVJ Vol 2 No 2)

Applicant: Kuranga Native Nursery

Variety: 'Kuranga Gold Lace'(Acacia cardiophylla)

Variation: Change name to **'Gold Lace'**

APPENDIX 1

Eligibility and Examination of Applications

The following is a brief summary of the requirements for application and examination of new varieties for PVR.

Eligibility

1. Only the original breeder (or employer), an agent of the original breeder or a person who has been assigned the right to the variety, in writing, by the breeder are eligible to apply. Therefore, if someone else tries to register your variety in Australia or overseas they will not be legally entitled to do so.

2. The variety must be new. It cannot have been sold, with the breeder's consent, in Australia at all or overseas for more than six years.

3. The variety must be distinct, uniform and stable (DUS) for the characteristics listed in the Objective Description form (available from the PVR Office). It must be distinct from all **other** known varieties in at least one important characteristic. Important in this context refers to botanical distinguishing features rather than to performance characteristics.

The applicant determines DUS from comparative growing trials using the new variety and the closest existing varieties in the same plots. The data is used to complete the Objective Description form. Only one reference site is required for the trials but the results must be repeatable at that site.

4. Some human intervention must have taken place, resulting in the new variety. Such intervention includes selective breeding (introduction and selection; controlled crossing and selection), establishment of a new cultivar, humanly induced mutation and identification of a natural mutation.

Applications are submitted to the PVR Office on the forms provided. Contact should be made with the Office as early as possible (preferably before beginning the trials) to ensure that the correct procedures are being followed.

Examination

The Examination of the application includes:

1. An assessment of the written information provided, including the data from the comparative growing trials.

2. A field examination of the trials by the PVR Examiner. This is to check the methodology used and to ensure that the data provided is reliable.

3. The publication of the results of the trials and a full description of the variety in the *Plant Varieties Journal* with a six month period for people to raise objections to the grant of rights — such objections must be based on concrete evidence to demonstrate why the variety is not eligible;

4. Other enquiries made by the PVR Office to establish the eligibility of the variety.

The objective is to demonstrate that the variety is distinct, uniform and stable and can be clearly identified by some form of repeatable assay at a reference site (the site where the original trials were carried out). It is to the applicant's advantage to define the variety as clearly as possible to minimise dispute and ascertain ownership with a high degree of certainty.

Although some field testing will always be needed for visual identification and marketing purposes, these could be minimised with the development of reliable standard methods for variety identification in the laboratory. Such assays would be more objective and repeatable than the field trials and ideally would be independent of environmental and management influences.

Progress is being made in this area but further work is required to identify the most appropriate method for each plant group or species. The inclusion of data from such assays is recommended as part of a PVR application.

There has been some concern that differences are based on botanical rather than merit or performance characteristics. The answer is that the former are more objective and can be measured more accurately. A variety may be different but may not have any greater merit under existing management or environmental conditions. Under different circumstances its performance may be enhanced considerably. The grant of PVR based on such subjective and variable assessments of merit would be of limited assistance to the breeder in defining the variety in sufficient detail to uphold a challenge to ownership.

PVR, based on objective differences, gives the breeder the basic tool to promote and sell his variety. It is then up to him to convince the market of its advantages. Poor performers may sell in the first year but repeat business is unlikely, as in any form of product market.

Examination Options

At the time of application, applicants can nominate whether they want the examination to proceed immediately or at a later time determined in conjunction with the PVR Office. In this context, **examination** includes the four steps listed above. If the "proceed immediately" option is nominated, the assessment and preparation of the description will begin and the description will be published as soon as all the information is supplied. The examination fee will be payable within three months of acceptance of the application.

If the option "not to proceed immediately" is nominated, a mutually agreeable date will be determined. 25% of the Examination fee will be payable within three months of acceptance of the application and the remainder within three months of the nominated date. With this option the PVR Office will not do any further work, after accepting and inserting brief notification in the Journal, until the nominated date. The full description will not be prepared or published, delaying the commencement of the six month period for public comment. However, provisional protection will apply in the normal way.

APPENDIX 2

Sections 16 and 17 of the PVR Act

Form of application

16. An application for plant variety rights in respect of a plant variety shall be in writing in a form approved by the Secretary, shall be lodged with the Secretary in the prescribed manner and shall contain—

(a) the name of the person making the application;
(b) where the applicant is the breeder of the variety, a statement that the applicant is the breeder of the variety;
(c) where the applicant is not the breeder of the variety, the name and address of the breeder from whom the applicant derived the right to make an application and particulars of all relevant assignments and transmissions of the right to make the relevant applications;
(d) a description, or a description and photograph, of a plant of the variety sufficient to identify plants of that variety;
(e) particulars of the characteristics that distinguish the variety from other varieties;
(f) particulars of the manner in which the variety was originated;
(g) the name of the variety;
(h) particulars of any application for, or approval of a grant of, rights of any kind in respect of the variety in any other country;
(j) particulars of any tests carried out to establish that the variety is homogeneous and stable (including particulars of any cycle of reproduction or multiplication for the purposes of paragraph 3(2)(b));
(k) in the case of a plant variety originated outside Australia, particulars of any test growing of that variety carried out for the

purpose of determining whether the variety will, if grown in Australia, have a particular characteristic;

(m) an address in Australia for the service of documents on the applicant for the purposes of this Act; and

(n) such other particulars (if any) as are prescribed.

Names of new plant varieties

17.(1) The name of a new plant variety shall consist of a word or words (which may be an invented word or words) with or without the addition of—

(a) a letter or letters not constituting a word;

(b) a figure or figures; or

(c) both a letter or letters not constituting a word and a figure or figures.

2. A new plant variety shall not have—

(a) a name the use of which would be likely to deceive or cause confusion, including a name that is the same as, or is likely to be mistaken for, the name of another plant variety;

(b) a name the use of which would be contrary to law;

(c) a name that comprises or contains scandalous or offensive matter; or

(d) a name, or name of a kind, that is, at the time when the application is made, prohibited by the regulations.

(3) The name of a new plant variety in respect of which an application is made shall comply with any recommendations of the International Code of Nomenclature for Cultivated Plants, as in force when the application is made, formulated and adopted by the International Commission for Nomenclature of Cultivated Plants of the International Union of Biological Sciences that are accepted by Australia.

(4) The name of a new plant variety in respect of which an application is made shall not consist of, or include—

(a) the name of a natural person living at the time of the application, other than a person who has given written consent to the name of the plant variety;

(b) the name of a natural person who died within the period of 10 years immediately preceding the application, other than a person who has given, or whose legal personal representative has given, written consent to the name of the plant variety; or

(c) the name of a corporation, organisation or institution, other than a corporation, organisation or institution that has given its written consent to the name of the plant variety.

APPENDIX 3

Section 26 of the PVR Act

Grant of plant variety rights

26.(1) Subject to this section, where an application for plant variety rights in respect of a plant variety is accepted —

(a) if the Secretary is satisfied that—

(i) there is such a plant variety;

(ii) the plant variety is a new plant variety;

(iii) the applicant is entitled to make the application;

(iv) the grant of those rights to the applicant is not prohibited by this Act;

(v) those rights have not been granted to another person;

(vi) there has been no earlier application for those rights that has not been withdrawn or otherwise disposed of;

(vii) the name of the variety would comply with section 17; and

(viii) all fees payable under this Act in relation to the application and the grant have been paid,

the Secretary shall grant those rights to the applicant; or

(b) if the Secretary is not so satisfied — the Secretary shall refuse to grant those rights to the applicants.

(2) The Secretary shall not grant, or refuse to grant, plant variety rights in respect of a plant variety unless a period of at least 6 months has elapsed since the giving of public notice of the application, or, if the application has been varied in pursuance of a request under sub-section 19(1) in a manner that the Secretary considers to be significant, a period of 6 months has elapsed since the giving of public notice of particulars of the variation, or of the last such variation, as the case requires.

(3) The Secretary shall not refuse to grant plant variety rights unless the Secretary has given the applicant for the rights a reasonable opportunity to make a written submission to the Secretary in relation to the application.

(4) Where an objection to the grant of plant variety rights has been lodged under section 20, the Secretary shall not grant the rights unless the Secretary has given the person who lodged the objection a reasonable opportunity to make a written submission to the Secretary in relation to the objection.

(5) Plant variety rights shall be granted to a person by the issue to that person by the Secretary of a certificate, signed by the Secretary or by the Registrar, in a form approved by the Secretary and containing such particulars of the plant variety to which the rights relate as the Secretary considers appropriate.

(6) Where plant variety rights are granted to persons who made a joint application for those rights, those rights shall be granted to those persons jointly.

(7) Where the Secretary refuses to grant plant variety rights in respect of a plant variety, the Secretary shall, within 30 days after refusing, give written notice of the refusal to the applicant for the rights setting out the grounds for the refusal.

APPENDIX 4

Fees

As from 1 July 1989 the following fee schedule will apply.

Function	$
Application	350
Examination of application	1200
Copy of application	60
Variation to application	65
Lodging an objection	180
Copy of objection	60
Certificate of PVR	235
Annual renewal fee	235
Request for re-examination (if required)	700
Compulsory licence	120
Transfer of rights	120
Issue of publications	8 (first 10 pages, then 50c/page)
(other than the PV Journal)	
Other work relevant to PVR	$60 (per hour)

APPENDIX 5

Plant Variety Rights Advisory Committee (PVRAC)

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

Mrs Kathryn Adams (Chair)
Registrar Plant Variety Rights
GPO Box 858
CANBERRA ACT 2601

Professor Donald Marshall
Waite Professor of Agronomy
Waite Agricultural Research Institute
University of Adelaide
GLEN OSMOND SA 5064.
Representative of breeders.

Mr Peter Wilson
Manager of Wheat Research
Cargill Seeds
PO Box W252
WEST TAMWORTH NSW 2340
Representative of breeders.

Mr Rodney Field
WMR Box 758
ESPERANCE WA 6450
Representative of producers.

Mr Richard Arthur
GPO Box 388
CANBERRA ACT 2601
Representative of consumers.

Mr Edgar (Ben) Swane
Director Swane Bros P/L
Galston Road
DURAL NSW 2158
Representative with appropriate qualifications and experience.

Dr John Leslie
Director Division of Plant Industry
Queensland Dept Primary Industries
GPO Box 46
BRISBANE QLD 4001
Representative with appropriate qualifications and experience.

APPENDIX 6

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.

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

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

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

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.

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

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

Turf Research and Advisory Institute, PO Box 381 Frankston Vic 3199; 03 7863311; Terry Woodcock.

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

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

OVERSEAS

M. Rene Royon, Conseil en Licences, 128 Les Bois De Font Merle, 06250, Mougins. France.

APPENDIX 7

Amendment to S12 and 38

Section 12 of the *Plant Variety Rights Act 1987* was amended in January 1990 by adding paragraph 12(1)(e):

(1)(e) if the plants of that variety are plants of a prescribed genus or prescribed species:
- (i) the exclusive right to produce asexually, including the right to licence other persons to produce asexually, plants of that variety for the commercial production of fruit, flowers or any other product of those plants; and
- (ii) the exclusive right to produce asexually, including the right to licence other persons to produce asexually, reproductive material of that variety for the commercial production of fruit, flowers or any other product of those plants.

Subsection 12(3) has also been added:

(3) Plant Variety Rights referred to in subparagraph (1)(e)(i) or (ii) are subject to the condition that the grantee of those rights in respect of a plant variety shall license a person:
- (a) to produce asexually plants of that variety; or
- (b) to produce asexually reproductive material of plants of that variety;

(as the case may be) unless the person refuses or fails to comply with any condition to which the licence may reasonably be, and is, subject.

Section 38(1) is amended by inserting (1A):
In paragraph (1)(a), 'commercial purposes', in relation to plants of a plant variety in respect of which plant variety rights referred to in subparagraph 12(1)(e)(i) or (ii) subsist, includes the commercial production of the fruit, flowers or other product of those plants.

Sections 38(2) and 38(3) are amended:
- by inserting "otherwise than by asexual means" after "produce" in paras 38(2)(a)(i) and (b)(i) and paras 38(3)(a)(i) and (b)(i);
- by inserting "otherwise than by asexual means" after "derived" in paras 38(2)(a)(ii) and (b)(ii) and 38(3)(a)(ii) and (b)(ii).

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