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(54) ***LACHENALIA JACQ. F. EX MURRAY* PLANT
NAMED ‘RIANA’**

(50) Latin Name: ***Lachenalia Jacq. f. ex Murray***
Varietal Denomination: **Riana**

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(56) **References Cited**

PUBLICATIONS

UPOV hit on *Lachenalia* plant named ‘Riana’, ZAPBR ZA20104397,
published 2010.*

ARC*LNR *Lachenalia* and other Flower bulb cultivars at the ARC,
R. Kleynhans and S. Venter, Jul. 2012, pp. 1-23.*

UPOV Guidelines for the Conduct of Tests for Distinctness, Homo-
geneity and Stability for *Lachenalia*, TG/126/4, published Oct. 12,
1990 and uploaded at www.upov.int/edocs/tgdocs/en/tg126.pdf on
Jan. 22, 2018. (Year: 1990).*

CPVO Variety Data Sheet for Application No. 20141911, Applicant:
Agricultural Research Council, Application/Filing Date Jul. 29,
2014, published Oct. 15, 2014, 1 page, Community Plant Variety
Office, France.

Certificate of Grant of Plant Breeder’s Right, Registration No.
ZA20104393, Applicant: ARC (Agricultural Research Council),
dated Apr. 20, 2010, 1 page, Department of Agriculture Forestry and
Fisheries, Republic of South Africa.

CPVO Variety Data Sheet for Application No. 20141910, Applicant:
Agricultural Research Council, Application/Filing Date Jul. 29,
2014, published Dec. 15, 2014, 1 page, Community Plant Variety
Office, France.

Certificate of Grant of Plant Breeder’s Right, Registration No.
ZA20104392, Applicant: ARC (Agricultural Research Council),
dated Apr. 20, 2010, 1 page, Department of Agriculture Forestry and
Fisheries, Republic of South Africa.

CPVO Variety Data Sheet for Application No. 20141912, Applicant:
Agricultural Research Council, Application/Filing Date Jul. 29,
2014, published Oct. 15, 2014, 1 page, Community Plant Variety
Office, France.

Certificate of Grant of Plant Breeder’s Right, Registration No.
ZA20104394, Applicant: ARC (Agricultural Research Council),
dated Apr. 20, 2010, 1 page, Department of Agriculture Forestry and
Fisheries, Republic of South Africa.

CPVO Variety Data Sheet for Application No. 20141915, Applicant:
Agricultural Research Council, Application/Filing Date Jul. 29,
2014, published Dec. 15, 2014, 1 page, Community Plant Variety
Office, France.

Certificate of Grant of Plant Breeder’s Right, Registration No.
ZA20104396, Applicant: ARC (Agricultural Research Council),
dated Apr. 20, 2010, 1 page, Department of Agriculture Forestry and
Fisheries, Republic of South Africa.

CPVO Variety Data Sheet for Application No. 20141914, Applicant:
Agricultural Research Council, Application/Filing Date Jul. 29,
2014, published Dec. 15, 2014, 1 page, Community Plant Variety
Office, France.

Certificate of Grant of Plant Breeder’s Right, Registration No.
ZA20104397, Applicant: ARC (Agricultural Research Council),
dated Apr. 20, 2010, 1 page, Department of Agriculture Forestry and
Fisheries, Republic of South Africa.

CPVO Variety Data Sheet for Application No. 20141913, Applicant:
Agricultural Research Council, Application/Filing Date Jul. 29,
2014, published Dec. 15, 2014, 1 page, Community Plant Variety
Office, France.

Certificate of Grant of Plant Breeder’s Right, Registration No.
ZA20104395, Applicant: ARC (Agricultural Research Council),
dated Apr. 20, 2010, 1 page, Department of Agriculture Forestry and
Fisheries, Republic of South Africa.

Co-Pending U.S. Appl. No. 14/756,801, inventor Kleynhans, R.,
filed Oct. 15, 2015 (Not Published).

Co-Pending U.S. Appl. No. 14/756,803, inventor Kleynhans, R.,
filed Oct. 15, 2015 (Not Published).

Co-Pending U.S. Appl. No. 14/756,802, inventor Kleynhans, R.,
filed Oct. 15, 2015 (Not Published).

Co-Pending U.S. Appl. No. 14/756,821, inventor Kleynhans, R.,
filed Oct. 19, 2015 (Not Published).

Co-Pending U.S. Appl. No. 14/756,820, inventor Kleynhans, R.,
filed Oct. 19, 2015 (Not Published).

Niederwieser, J.G., and Vcelar, B., “Regeneration of *Lachenalia*
Species from Leaf Explants,” *HortScience* 25 (6):684-687, Ameri-
can Society for Horticultural Science, United States (1990).

Slabbert, M.M., and Niederwieser, J.G., “In vitro bulblet production
of *Lachenalia*,” *Plant cell Reports* 18:620-624, Springer-Verlag,
Germany (1999).

* cited by examiner

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Goldstein & Fox P.L.L.C.

(57) **ABSTRACT**

A new and distinct form of *Lachenalia* plant characterized
by a bulb plant type having a spreading growth habit of a
height of 15-30 centimetres (cm) and width of 10-15 cm
having a hyacinth-like soft pink flower with spreading tips;
green leaves with maroon spots, further characterized in that
the spots are fairly pronounced in that it has a good contrast.

1 Drawing Sheet

**LACHENALIA JACQ. F. EX MURRAY PLANT
NAMED 'RIANA'**

Genus and species: *Lachenalia* Jacq. f. ex Murray.
Variety denomination: 'Riana'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Lachenalia*, botanically known as *Lachenalia* Jacq. f. ex Murray having the common name of Viooltjies/Cape cow-slip and hereinafter referred to by its variety denomination 'Riana'.

The variety was first cultivated in 2008 and originated by means of conventional breeding by the inventor during 2009 to 2010 at the premises of Agricultural Research Council Vegetable and Ornamental Plant Institute, Roodeplaat, Pretoria, Republic of South Africa.

Asexual reproduction of the 'Riana' plant at the same location has shown that the unique features thereof are stable and reproduced true to type in successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

The present invention constitutes a new and distinct variety of *Lachenalia* which originated from the controlled pollination between a *Lachenalia* hybrid as seed bearing parent and a *Lachenalia viridiflora* as pollen parent as detailed hereinbelow.

The following traits have been repeatedly observed and are determined to be the unique characteristics, under the local evaluation conditions, of the 'Riana' plant. These characteristics in combination distinguish 'Riana' as a new and distinct *Lachenalia* cultivar:

1. Bulb plant type having a spreading growth habit of a height of 15-30 centimeters (cm) and width of 10-15 cm.
2. Flower color: soft pink (RHS #55B).
3. Leaf color: green (RHS #141C) with maroon (RHS #60A) spots.
4. Flower form: Hyacinth like with spreading tips.

Color references are made to The R.H.S. Color Chart, 1st edition, 1966, except where general color terms of ordinary significance are used or indicated otherwise.

Plants of the new *Lachenalia* variety 'Riana' can be compared to similar denominations such as 'Winsome' and 'Leipoldt'.

'Winsome' has darker and brighter pink flowers compared to the soft pink (RHS #55B) color of 'Riana'. The tips of the flowers of 'Winsome' are purple-pink compared to the cream-yellow (RHS #4C) tips of 'Riana'. 'Winsome' has tubular flowers whilst the flowers of 'Riana' have spreading tips. This results in a denser appearance of the inflorescence. 'Riana' in general also has shorter inflorescences compared to that of 'Winsome'.

'Leipoldt' has pink flowers but with a more orange tone and with dark purple tips compared to the soft pink (RHS #55B) flowers of 'Riana' with cream-yellow (RHS #4C) tips. Flowers of 'Leipoldt' have spreading tips like 'Riana' but the density of 'Riana' is better than that of 'Leipoldt'.

BRIEF DESCRIPTION OF THE DRAWING

The drawing illustrates the overall appearance of the 'Riana', showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. The

drawing comprises a front perspective view of a typical 'Riana' grown in an indoor nursery.

DETAILED DESCRIPTION

The aforementioned drawing, following observations and measurements describe 'Riana' grown by the inventor on behalf of Agricultural Research Council Vegetable and Ornamental Plant Institute, Roodeplaat, Pretoria, Republic of South Africa. Thereafter 'Riana' was made subject of a South African Plant Breeders' Right application in March 2009. This application was granted in 2010 under number ZA20104397.

The plant has an intermediate flower time and may be used for landscaping and should be planted during the month of March; indoors and in pots only. The plant should be kept at temperatures of 20-25 degrees Celsius during the day and 10-15 degrees Celsius at night. Plenty of light should be provided.

'Riana' is a hybrid-hybrid cross containing the following *Lachenalia* species: *Lachenalia orchioides* subsp. *glaucina*, *Lachenalia bulbifera*, *Lachenalia quadricolor*, *Lachenalia aloides* and *Lachenalia rubida*.

The female cultivar of 'Riana' is known as 'Rupert' whereas the male cultivar is 'Rolina'.

'Riana' can be compared to 'Rupert' and 'Rolina' but differs in that the flower color is a soft pink (RHS #55B) compared to the purple and apricot colors of 'Rupert' and 'Rolina' respectively. The flower form of 'Riana' is hyacinth-like with spreading tips compared to the tubular form of 'Rolina'. The maroon (RHS #60A) spots on the leaves of the 'Riana' plant are furthermore more pronounced in that they have a good contrast compared to the low contrast found in 'Rupert'.

The 'Rupert' flower tips are furthermore purple, whereas 'Riana' flowers have cream-yellow (RHS #4C) tips.

'Rolina' has much taller inflorescence than 'Riana' and leaf spots in 'Riana' are more pronounced.

Riana was originally produced sexually from a cross between the two cultivars 'Rupert' and 'Rolina' as mentioned above. A specific seedling with number 2000/113/74 was selected from this cross and thereafter asexually propagated. The asexual progeny of this seedling is the cultivar 'Riana' and was multiplied via tissue culture at the premises of Agricultural Research Council Vegetable and Ornamental Plant Institute, Roodeplaat, Pretoria, Republic of South Africa.

The following characteristics of 'Riana' are described with reference to description of said characteristic which are comparable with the mentioned variety/ies having said similar characteristic.

Leaf: Monocolored.

Spots on upper side.—Present, small and with good contrast.

Characteristic:	Description of 'Riana':	Variety having similar characteristics:
Attitude:	Semi-erect	'Romaud'
Length:	Medium to long - 25 cm	
Width:	Medium to wide - 5.7 cm	
Ratio: length/width	Large (elongated): 4.4:1	'Rodelein'

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Characteristic:	Description of 'Riana':	Variety having similar characteristics:
Shape:	Oblong	'Romargo'
Color:	Green (RHS #141C)	'Roinge'
Leaf color designation for lower sides of the leaf	Green (RHS #141C)	
Shape in cross section:	Angular	'Robyn', 'Romelia'
Recurving of margin:	Absent	'Eliza', 'Rodelein'
Undulation of margin:	Absent	'Romelia'
Blistering and pubescence of upper side:	Absent	'Rodelein', 'Rosabeth'
Spots on upper side:	Present (Maroon color) (RHS #60A)	'Bontrok', 'Roinge', 'Rosabeth'
Number of spots per leaf	Amount differs from plant to plant, no exact number of spots per leaf	
Size of spots on upper side:	Large (Between 0.3-1.5 cm)	'Eliza', 'Roklara'
Density of spots on upper side:	Medium	'Roinge', 'Rosabeth'
Intensity of spots on upper side:	Light to medium	
Markings on outer side of leaf base:	Present	'Roinge', 'Rozanne'

Peduncle:

Characteristic:	Description of 'Riana':	Variety having similar characteristics:
Length:	Medium - 17 cm	'Rosabeth'
Peduncle color designation	Purplish (RHS #53B)	
Spots or markings:	Present	'Bontrok', 'Rosabeth'
Coloration of peduncle spots	Purplish (RHS #53B)	
Size of spots or markings:	Large (some cover the entire stem)	'Roinge', 'Roline'
Density of spots or markings:	Dense, covers the peduncle: spots may be as close as 0.2 mm, but may differ	'Roinge'

Bud:

Characteristic:	Description of 'Riana':
Color	Light pink (RHS #55C) with green (RHS #150B) tips

Inflorescence:

Characteristic:	Description of 'Riana':	Variety having similar characteristics:
Length:	Medium to long - 22 cm	
Rudimentary apex:	Conspicuous	'Ronette'
Number of flowers:	Many (40+ flowers)	'Romaud', 'Sonni'

Flower:

Characteristic:	Description of 'Riana':	Variety having similar characteristics:
Description of floral organs	Inflorescence containing individual tubular flowers with spreading tips attached with pedicels to the peduncle	
Attitude:	Horizontal	'Robyn', 'Romargo'
Pedicel:	Present	'Romelia'
Length of pedicel:	Short to medium (2-3 millimeter (mm))	
Length of flower:	Medium - 2.7 cm	'Lizette', 'Rolene', 'Sonni'
Diameter excluding apex:	Medium - 0.8 cm	'Romargo', 'Romelia', 'Rosabeth'
Diameter at apex:	Large - 1.9 cm	'Romelia', 'Sonni'
Attitude of distal part of inner perianth segments	Spreading	'Rozanne'
Glossiness:	Absent	
Predominant color:	Soft pink (RHS #55B)	'Rozanne', 'Winsome'
Intensity of predominant color:	Medium to strong	
Outer perianth segment: color of basal part just before opening of flower	Red-purple (plum) (RHS #70B of RHS color chart, 2 nd edition, 1986)	
Outer perianth segment: color of basal part of fully opened flower	Red-purple (RHS #70C of RHS color chart, 2 nd edition, 1986)	
Outer perianth segment: color of apex relative to other part	Clearly different	'Ronette'
Outer perianth segment: color of apex if clearly different from other part	Cream-yellow (RHS #4C)	
Inner perianth segment: distinct spot in middle of apex	Present	'Ronette'
Inner perianth segment: color of margin of apex relative to other part	Similar	'Biedou', 'Rupert'
Inner perianth segment: color of differently colored margin of apex	Other (light pink) (RHS #55C)	'Leipoldt', 'Louis'
Inner perianth segment: predominant color of exposed part (excluding differently colored margin of apex)	Cream-yellow (RHS #4C)	
Length of inner perianth segment compared to outer segments:	Longer	'Roinge', 'Rosabeth'
Extrusion of stamens:	Absent	'Roinge', 'Rosabeth'
Fragrance:	Absent	'Romelia'
Bulb: predominant shape:	Oblate	'Romaud'
Time of flowering:	Medium - flowering time vary from June to July (Southern Hemisphere)	'Louis', 'Rozanne'
Duration of flowering:	Long (up to 2 and a half months)	'Romelia', 'Rosabeth'

Others:

Characteristic:	Description of 'Riana':
Description of the bulb including size and color of the bulb at maturity	Cream/white (color designation - RHS #158B) Size: between 1.5 to 2 cm in diameter

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Characteristic:	Description of 'Riana':	
Time of leaf growth/bud burst	Starts within the first week of watering (normally March/April in Southern Hemisphere)	5
A description of any fruit and seed set	No seed or fruit	
Timing of leaf senescence	After flowering has completed and starts to die down, the leaves start to die off (wheat color) and plant dry out (September - October in Southern Hemisphere)	10

The variety is not genetically modified and has been tested to be free of Ornithogalum Mosaic Virus. 15

The invention claimed is:

1. A new and distinct variety of *Lachenalia* plant named 'Riana' as illustrated and described herein.

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