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Layt

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(54) **DIANELLA TASMANICA PLANT NAMED**
'DT23'

(50) Latin Name: *Dianella tasmanica*
Varietal Denomination: **DT23**

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patent is extended or adjusted under 35
U.S.C. 154(b) by 200 days.

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Related U.S. Application Data

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2005.

(51) **Int. Cl.**
A01H 5/00 (2006.01)

(52) **U.S. Cl.** **Plt./424**

(58) **Field of Classification Search** Plt./424,
Plt./384, 263

See application file for complete search history.

(56) **References Cited**

PUBLICATIONS

Layt: "Dianella tasmanica flax lily 'DT23,'" *Plant Varieties*
Journal 17 (1): 28, 134,146, 594-596 (Apr. 28, 2004).

Primary Examiner—Annette H Para

(57) **ABSTRACT**

'DT23' is a distinctive variety of *Dianella tasmanica*, which
is characterized by its combination of compact form, green
leaf color, broad leaf width, strong leaf arching, green sum-
mer basal sheath color with red-brown margin, and large
bluish-purple berries.

2 Drawing Sheets

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Latin name of the genus and species: The Latin name of
the novel variety disclosed herein is *Dianella tasmanica*
'DT23'.

Variety denomination:

The inventive variety of *Dianella tasmanica* disclosed
herein has been given the variety denomination 'DT23'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct variety
of evergreen perennial *Dianella tasmanica*, which has been
named 'DT23'. It is anticipated that the plant of this inven-
tion will be marketed under the tradename Emerald Arch.
Dianella are a genus of ornamental grass-like plants in the
Phormiaceae family. In general, *Dianella tasmanica* has
flax-like leaves. Pale blue flowers on stems up to 40 cm high
typically develop in spring and early summer and are fol-
lowed by green berries that become bluish-purple.

Lineage: The cultivar 'DT23' was discovered in 1996 in
Clarendon, New South Wales, Australia, during a seedling
selection of cultivated *Dianella tasmanica*. The new variety
originated from open pollinated parent plants and subse-
quent selection of a distinctive seedling from the resulting
progeny as part of a breeding program. The breeding pro-
gram used assisted open pollination with occasional shaking
of inflorescences to promote pollen transfer. The parent (*D.*
tasmanica, ecotype from southern tablelands of new South
Wales, Australia) is characterized by green leaf color,
medium leaf width, medium leaf arching, absent to very
weak leaf glaucosity, and a red-brown basal leaf sheath
color. The selection criterion for 'DT23' was broad leaf
width.

Asexual reproduction: The new variety, *Dianella tas-*
manica 'DT23', was first asexually propagated by vegetative
division in the state of New South Wales, Australia in Sep-
tember 1997 and has been asexually propagated since that
time by division and micropropagation. The distinctive char-

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acteristics of cultivar 'DT23' have remained stable and true
to type through successive cycles of asexual propagation.

SUMMARY OF THE INVENTION

'DT23' is a distinctive variety of *Dianella tasmanica*,
which is characterized by its combination of compact form,
green leaf color, broad leaf blade width, strong leaf arching,
green summer basal leaf sheath color with red-brown margin
and large bluish-purple berries.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows an exemplary *Dianella tasmanica* 'DT23'
plant at approximately two years of age.

FIG. 2 shows an exemplary *Dianella tasmanica* 'DT23'
plant at approximately fifteen months of age.

DETAILED BOTANICAL DESCRIPTION OF THE
VARIETY

The following is a detailed botanical description of a new
and distinct variety of *Dianella tasmanica* known as 'DT23'
based upon observations of 15-month-old plants grown in
nursery pots in full sun in open beds in Clarendon, New
South Wales, Australia. Color notations are based on The
Royal Horticultural Society Colour Chart, The Royal Horti-
cultural Society, London, 1995 Edition.

Those skilled in the art will appreciate that certain charac-
teristics will vary with older or, conversely, with younger
plants. 'DT23' has not been observed under all possible
environmental conditions. Where dimensions, sizes, colors
and other characteristics are given, it is to be understood that
such characteristics are approximations or averages set forth
as accurately as practicable. The phenotype of the variety
may differ from the descriptions set forth herein with varia-
tions in environmental, climatic and cultural conditions.

‘DT23’ is an evergreen perennial *Dianella tasmanica*. ‘DT23’ is a broad-bladed, compact plant, with strong leaf arching, green leaf color, green summer basal leaf sheath color with red-brown margin and large bluish-purple berries.

A botanical description of ‘DT23’ and comparisons with other varieties of *Dianella tasmanica* are provided below.

Technical Description of the Variety

Plant characteristics: Growth habit erect to semi-erect, height medium, shoot density medium.

Leaves: Attitude erect to semi-erect, width broad (mean 29 mm), upper side color yellow-green (RHS 147A), lower side color yellow-green (RHS 147B), glaucosity weak, shape ligulate, apex acute, cross-section concave, margin with spines present with medium prominence, midrib lower side with spines present with strong prominence.

Basal sheath: Anthocyanin coloration (summer) red-brown on margin only.

Basal shoots: Attitude erect to semi-erect, arrangement cluster.

Flowers: The flower buds are 8–10 mm long and 3–4 mm wide. Bud color changes from yellow green (RHS 147B) to violet blue (approximately RHS 89A) prior to opening. Mature flowers have 6 petals with ovate shape. Petal color is violet-blue (approximately RHS 94B) in the centre and violet-blue (approximately RHS 97B) at the margin. Anther filament color is yellow (approximately RHS 12A). Flower diameter range is 10–13 mm. Petal attitude is strongly reflexed. Petal length is 8–9 mm and petal width is 3–4 mm. Petal margin is entire and texture is smooth. Petal attachment is sessile with an obtuse to truncate base.

Fruit: A succulent berry, diameter 8–9 mm, length to 20 mm, shape is oblong, color of unripe berry is yellow green (RHS 146A) and color of ripe berry is approximately violet blue (RHS 89A), surface texture is smooth and glossy. Seed color is black.

Cultural conditions: ‘DT23’ can tolerate low nutrient conditions; it does not like continually wet soil conditions, but can tolerate well-draining sandy soils to very heavy clay soils. ‘DT23’ is fairly adaptable to a wide range of soil pH.

Cold and heat tolerance: ‘DT23’ has been observed to be cold tolerant to –12° C. in Clarendon, New South Wales, Australia. Foliage color did not change under these conditions, except for a slight burning at the very tips of the leaves. The plant has also been grown for two years in Charleston, S.C., USA and has remained evergreen down to –6° C.

‘DT23’ is also very heat tolerant. It adapted well to the high heat conditions during summer in Clarendon, New South Wales, Australia and high heat and humidity conditions during summer in Charleston, S.C., USA without any noticeable disease or insect damage.

Drought tolerance: ‘DT23’ has very good drought tolerance.

‘DT23’ survived three months without rainfall under hot conditions in non-irrigated garden beds in summer in Clarendon, Australia. ‘DT23’ has also been grown in non-irrigated beds in Charleston, S.C., USA for two years, and has been observed to go as long as 30 days without rainfall.

Pest resistance: No known pests.

These and other features and characteristics of ‘DT23’ are apparent from FIGS. 1 and 2.

Comparisons and other *Dianella*.

‘DT23’ is a more attractive ornamental glass-like plant as compared with the parent. ‘DT23’ is characterized by a yellow-green leaf color, broader leaf blade, stronger leaf arching, and the presence of anthocyanin on the basal sheath margin in summer as compared with the parent ‘*D. tasmanica*’ (ecotype from southern tablelands of New South Wales, Australia) (see Table 1).

Dianella ‘TR20’ (U.S. patent application Ser. No. 11/238, 477, filed Sep. 29, 2005) is the most similar comparator variety to ‘DT23’. In comparison with ‘TR20’, cultivar ‘DT23’ has a green leaf color whereas ‘TR20’ is more yellow-green. ‘DT23’ has a wider leaf, has stronger leaf arching, and more prominent spines on the lower side midrib than ‘TR20’. ‘DT23’ has a green basal sheath color with a red-brown margin in summer whereas ‘TR20’ has an overall red-brown basal sheath color (see Table 1).

A comparative trial of *Dianella* cultivar ‘DT23’ with ‘TR20’ and the parent *D. tasmanica* was carried out in summer 2003 to autumn 2004 in Clarendon, New South Wales, Australia. Plant observations and descriptions were taken in autumn 2003. The data are presented in Table 1 below. The plants for this trial were propagated from divisions, planted into 130 mm pots filled with soilless potting mix, and moved into 140 mm pots in full sun for nine months before the trial started. Nutrition was maintained with slow release fertilizers; pest and disease treatments were applied as needed. The trial was designed such that twenty plants of each variety were arranged in a completely randomized manner. Measurements were taken from ten plants at random with one sample per plant.

TABLE 1

Characteristic	Dianella Variety		
	‘DT23’	‘TR20’	<i>D. tasmanica</i> (parent)
Plant Height (cm)			
Mean	34.2	28.0	31.5
Std Deviation	4.5	1.9	5.7
LSD/Sig.	4.33	P ≤ 0.01	ns*
Leaf Width (mm)			
Mean	29.1	20.0	21.3
Std Deviation	1.6	1.7	2.0
LSD/Sig.	1.81	P ≤ 0.01	P ≤ 0.01
Leaf Glaucosity	Weak	Absent-very weak	Absent-very weak
Leaf lower side midrib: prominence of spines	Strong	Medium	Medium
Leaf Color			
Upper Side	147A	146A	147A
Lower Side	147B	146B	147B
Basal Sheath Color	Green with red-brown margin	Reddish - brown	Reddish-brown
Basal Sheath: intensity of anthocyanin color	Weak	Medium-strong	Medium

*ns—not significant

That which is claimed is:

1. A new and distinct variety of *Dianella tasmanica* plant named ‘DT23’, substantially as described and illustrated herein.

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Figure 1



Figure 2