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**Valin**

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(54) **ISOTOMA PLANT NAMED ‘TMLU 1401’**

(50) Latin Name: *Isotoma axillaris*  
Varietal Denomination: **TMLU 1401**

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(57) **ABSTRACT**

A new and distinct cultivar of *Isotoma* plant named ‘TMLU 1401’ that is characterized by short, compact self-branching growth habit, mid-green compound leaves and bright single non-fading flowers which are saturated vibrant pink-purple in color. Each flower of ‘TMLU 1401’ bears a central contrasting bright yellow-green eye.

**1 Drawing Sheet**

**1**

Genus and species: *Isotoma axillaris*.  
Variety denomination: ‘TMLU 1401’.

**BACKGROUND OF THE NEW PLANT**

The present invention relates to a new and distinct cultivar of *Isotoma*, which is grown as an ornamental annual bedding plant for use in the garden and landscape and in planted containers. The new cultivar is known botanically as *Isotoma axillaris*, and will be referred to hereinafter by the cultivar name ‘TMLU 1401’. The genus *Isotoma* is occasionally known by the alternate name *Laurentia*.

During the 1990s, the inventor’s employer had commenced in Ipswich, Essex, United Kingdom a seed breeding program in the genus *Isotoma* from which no cultivars were selected or introduced. In 2010, the inventor commenced a breeding program to develop named cultivars of *Isotoma* with the objectives of large flower size and novel flower colors. The inventor was able to utilize seeds and seedlings from the previous seed breeding program.

‘TMLU 1401’ resulted from a controlled pollination of the following seedlings. For the male parent, the inventor used a seedling raised as ‘LU12009-2’ (unreleased and unpatented). For the female parent, the inventor used a seedling raised as ‘LU12009-3’ (unreleased and unpatented). Within the offspring of this pollination, one plant in particular impressed the inventor for its naturally prolific basal and lateral branching and its very large saturated deep pink-purple flowers. This plant was given internal reference ‘LU13002’ and was subsequently named ‘TMLU 1401’.

‘TMLU 1401’ was first asexually propagated by the inventor in 2014 in Ipswich, Essex, United Kingdom. Asexual propagation was accomplished using tip cuttings. Since that time, under careful observation, the distinguishing characteristics of ‘TMLU 1401’ have been determined stable

**2**

and uniform, and to reproduce true to type in successive generations of asexual propagation.

**SUMMARY**

The distinguishing characteristics of ‘TMLU 1401’ are as follows: In combination these traits set ‘TMLU 1401’ apart from all other existing varieties of *Isotoma* known to the inventor. ‘TMLU 1401’ has not been tested under all possible conditions and phenotypic differences may be observed with variations in environmental, climatic, and cultural conditions.

1. Plants of ‘TMLU 1401’ exhibit a short, compact growth habit.
2. Plants of ‘TMLU 1401’ are naturally self-branching and spreading. Pinching or pruning is not required to maintain a tidy plant.
3. The leaves of ‘TMLU 1401’ are deeply cut and are mid-green in color.
4. ‘TMLU 1401’ bears saturated deep pink-purple single flowers which do not fade.
5. Each flower of ‘TMLU 1401’ bears a bright yellow-green eye.
6. ‘TMLU 1401’ flowers continually from early spring until fall. First flowering has been observed as early as March in California.
7. After nine months, plants of ‘TMLU 1401’ are 30 cm in height and 30 cm in width.
8. ‘TMLU 1401’ prefers full sun in rich well-drained soil.
9. ‘TMLU 1401’ is a tender perennial which survives in USDA Zone 10 or warmer.

**DESCRIPTION OF THE PHOTOGRAPHS**

The photograph was taken of a nine month old plant of ‘TMLU 1401’ which had been grown outdoors in a 13 cm container in Santa Barbara, Calif. The photograph illustrates

the overall appearance of 'TMLU 1401' showing the colors of its foliage and flowers as true as it is reasonably possible to obtain in colored reproductions of this type.

#### DESCRIPTION OF THE NEW VARIETY

The following is a detailed botanical description of the new *Isotoma* cultivar named 'TMLU 1401'. Observations, measurements, values and comparisons were collected from a plant grown outdoors in Santa Barbara, Calif. The observed plant was approximately nine months old and was growing in a 13 cm container. The plant had been grown without the use of growth retardant chemicals or any pinching. Color determinations were made in accordance with The 2007 Royal Horticultural Society Colour Chart from London, England, except where general color terms of ordinary dictionary significance are used. The growing requirements of the new variety 'TMLU 1401' are similar to the species.

Botanical classification:

*Genus and species.*—*Isotoma axillaris*.

*Family.*—Campanulaceae.

Parentage: 'TMLU 1401' was selected as a seedling from the progeny of the following parents:

*Male parent.*—*Isotoma* seedling designated 'LU12009-2'.

*Female parent.*—*Isotoma* seedling designated 'LU12009-3'.

Plant:

*Habit and shape.*—Compact and upright.

*Commercial category.*—Annual.

*Use.*—As a bedding plant or container plant or for mixed combination plantings.

*Suggested commercial container size.*—9 cm container and larger.

*Propagation method.*—Vegetative cuttings (tip cuttings).

*Rooting system.*—Fine.

*Vigor.*—Moderately vigorous once established.

*Crop time (average).*—3 months are required to produce a flowering plant in a 9 cm container from an unrooted cutting.

*Dimensions.*—30 cm in height and spread.

*Cultural requirements.*—Performs best in full sun, with moderate water, and most soil types.

*Pest and disease susceptibility.*—None known to the inventor.

*Hardiness.*—Frost sensitive: Survives over-winter in USDA Zone 10 and warmer.

*Special growing recommendations.*—None, plants are self-branching and naturally low-growing and spreading.

Stems:

*Branching habit.*—Both basal and lateral branching.

*Basal stem quantity.*—Approximately 10 basal stems produced in one season.

*Lateral stem quantity.*—Approximately 5 lateral stems per basal stem.

*Stem shape.*—Cylindrical.

*Surface.*—Glabrous.

*Stem color.*—138A.

*Stem length.*—15 cm to 20 cm.

*Stem diameter.*—4 mm at base.

*Stem strength.*—Moderately strong, wiry.

*Internode (average).*—1.5 cm.

Foliage:

*Leaf type.*—Pinnately compound.

*Leaf arrangement.*—Alternate.

*Leaf division.*—Simple.

*Leaf margin.*—Smooth, entire.

*Leaf surface (both surfaces).*—Glabrous.

*Leaf shape (outline).*—Narrowly elliptic.

*Leaf lobes.*—Typically three long lobes and 5 or 6 short lobes on each side.

*Leaf dimensions.*—7 cm to 9 cm in length, 3.0 cm to 4.5 cm in width.

*Lobe dimensions.*—Large lobes are 2 cm in length and up to 7 mm in width. Small lobes are 5 mm to 10 mm in length and up to 3 mm in width.

*Leaf color (adaxial surface).*—N137C.

*Leaf color (abaxial surface).*—138A.

*Leaf and lobe apex.*—Acute.

*Leaf base.*—Cuneate.

*Venation pattern.*—Pinnate.

*Vein color (both surfaces).*—As adjacent leaf tissue.

*Attachment.*—Petiolate.

*Petiole surface.*—Glabrous.

*Petiole color.*—138B.

*Petiole shape, dimensions.*—Caniculate, 1 cm length and 2.5 mm in width.

Inflorescence:

*Type.*—Solitary flower.

*Arrangement.*—Axillary.

*Blooming months.*—March to October.

*Flower quantity.*—Typically 2 open flowers and 4 to 6 buds on each lateral flowering branch.

*Flower aspect.*—Upright and outward facing.

*Flower type.*—Single, 5 petals fused at base to 5-lobed corolla tube.

*Flower dimensions.*—3.5 cm in diameter and 2.5 cm in depth including corolla tube.

*Persistent or self cleaning.*—Self-cleaning.

*Peduncle shape.*—Cylindrical.

*Peduncle surface.*—Glabrous.

*Peduncle color.*—138A except 144C at base.

*Peduncle dimensions (average).*—9 cm in length and 2 mm in diameter.

*Axillary peduncle angle.*—30° away from the vertical.

*Bud shape.*—Obovate.

*Bud apex.*—Acute.

*Bud color.*—145B, 64C.

*Rate of opening.*—Rapid, from 1 to 2 days from visible bud to fully open flower.

*Bud surface.*—Glabrous.

*Bud dimensions.*—8 mm in length, 4.5 mm in diameter.

*Corolla (tube) shape.*—Campanulate, 5-lobed.

*Corolla dimensions.*—Long tube, 2 cm in length and 3.5 mm in diameter.

*Corolla surface (both surfaces).*—Glabrous.

*Corolla color (external surface).*—145B and 145C with light purple longitudinal streaks closest to 70B.

*Lobes (petals).*—5 in number.

*Lobe arrangement.*—Rotate, two upper lobes slightly narrower than three lower lobes. All lobes same length.

*Palate or eye.*—Present on lower lobes only.

*Lobe shape.*—Obovate.

*Lobe dimensions (upper lobes).*—17 mm in length, 8 mm in width.

*Lobe dimensions (lower lobes).*—17 mm in height, 10 mm in width.

*Lobe (petal) arrangement.*—Apopetalous, two upper lobes slightly overlapping, three lower lobes free. Lobes fused at base to fused corolla tube.

*Lobe color (two upper lobes, adaxial surface).*—64C.

*Lobe color (three lower lobes, adaxial surface).*—64C, which color stops abruptly laterally approximately 3 mm from lobe base, after which lobe base color becomes cream and green-yellow. NN155A and 1A are both present at the base of the lower lobes. Taken together, the lobe bases present the effect of a contrasting bright yellow-green eye in the pink-purple flower.

*Lobe color (abaxial surface).*—Very pale pink-purple, between 62C and 62D, except for midrib 64C.

*Lobe margin.*—Entire, same color as adaxial surface but appears an edge, color 64C, on abaxial surface.

*Lobe surface (both surfaces).*—Glabrous.

*Lobe apex.*—Acuminate.

*Lobe base.*—Truncate (fused to corolla tube).

*Calyx shape.*—Campanulate.

*Calyx dimensions.*—5 mm in depth, 2 cm in diameter.

*Sepals.*—5 in number.

*Sepal shape.*—Very narrow lanceolate.

*Sepal dimensions.*—12 mm in length and 1 mm in width at sepal base.

*Sepals fused or unfused.*—Unfused.

*Sepal color (both surfaces).*—138A.

*Sepal margin.*—Entire.

*Sepal apex.*—Acute.

*Sepal base.*—Cuneate.

*Sepal surface (both surfaces).*—Glabrous.

Reproductive organs:

*Stamens.*—5 in number, attached approximately half-way along corolla tube.

*Stamen dimensions, color.*—12 mm in length, less than 1 mm in diameter, color between white and 144D.

*Anthers.*—Dorsifixed, oblong, 3 mm in length, 1 mm in width, color: N187C.

*Pollen amount.*—Moderate, color: 160B.

*Pistil.*—1 in number, length 2 cm, width 1.5 mm, color ranges between 145B and 145C.

*Stigma.*—Capitate, bi-lobed, 2 mm in diameter, color N186A.

*Ovary (undeveloped).*—Inferior, globose, 1 mm in diameter, color 151D.

Seeds: None observed.

#### COMPARISON TO COMMERCIAL PARENTAL LINES AND COMMERCIAL VARIETY

‘TMLU 1401’ may be compared with its parents as follows: Whereas ‘TMLU 1401’ exhibits very large deep pink-purple flowers, both the male parent ‘LU12009-2’ and the female parent ‘LU12009-3’ exhibit very large purple flowers. Neither of the parents exhibit the naturally vigorous branching that characterizes ‘TMLU 1401’. In addition, the flowers of the female parent ‘LU12009-3’ fade in direct sun, whereas the flowers of ‘TMLU 1401’ maintain their saturated color until onset of flower senescence.

The closest comparison plants to ‘TMLU 1401’ which are known to the inventor are *Isotoma axillaris* ‘Beth’s Blue’ (unpatented) and the inventor’s variety *Isotoma* plant named ‘TMLU 1301’ (U.S. Plant Pat. No. 28,511).

In comparison with ‘Beth’s Blue’, ‘TMLU 1401’ bears much larger flowers which are deep pink-purple in color, whereas the flowers of ‘Beth’s Blue’ are mid-blue in color. In addition, plants of ‘Beth’s Blue’ exhibit a more open growth habit.

The inventor’s variety ‘TMLU 1301’ differs from ‘TMLU 1401’ in that ‘TMLU 1301’ has vibrant purple flowers whereas ‘TMLU 1401’ has deep pink-purple flowers.

I claim:

1. A new and distinct cultivar of *Isotoma* plant named ‘TMLU 1401’ as described and illustrated herein.

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