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(12) **United States Plant Patent**
Bessho

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- (54) **CALIBRACHOA PLANT NAMED**
'KAKEGAWA S43'
- (50) Latin Name: *Calibrachoa*
Varietal Denomination: **'Kakegawa S43'**
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- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
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- (52) **U.S. Cl.** **Plt./263**
- (58) **Field of Search** **Plt./263**
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(57) **ABSTRACT**
'Kakegawa S43' is a new variety of Calibrachoa. This new variety has carmine colored flowers and dark green foliage.

1 Drawing Sheet

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BACKGROUND OF THE INVENTION

'Kakegawa S43' originated from a hybridization made in spring 1995 in Kakegawa, Japan. The male parent was the commercial variety Liricashower Rose (U.S. Plant Pat. No. 9,884). The female parent was a breeding line obtained from a commercial market in Brazil and was known only as line C-13D (Not patented). Seed from this cross was sown during the summer of 1995 and four F₁ plants were selected. The four selections were intercrossed and the resulting seed bulked together to produce F₂ seed. The F₂ seed was sown in spring 1996 and three plants were selected for having rose flower color. The three selections were intercrossed in spring 1997 and the resulting seed bulked together to produce F₃ seed. In spring 1998 the F₃ seed was sown and one plant, designated as line K9-151, was selected. This line was vegetatively propagated in Salinas, Calif. in summer 1998 and again in spring 1999. In these two vegetative generations the line was evaluated and determined that the traits are firmly fixed and stable. No inherent variation or off-types have been identified.

DESCRIPTION OF THE GENUS
CALIBRACHOA LLAVE & LEX.

The genus *Petunia* was originally established in 1803 by A. L. Jussieu, who described both *P. parviflora* and *P. nyctaginiflora* as type species. Using a non-horticultural system that selected the first mentioned species as the type species (lectotype), N. L. Britton and H. A. Brown declared *P. parviflora* as the type species for *Petunia* in 1913.

During the 1980's and 1990, H. J. Wijsman published a series of articles regarding the ancestry of *P. hybrida*, the Garden *Petunia*, and the inter-relationship of several species classified as *Petunia*. These studies discovered that *P. hybrida* and its ancestral species, *P. nyctaginiflora* (= *P. axillaris*) and *P. violacea* (= *P. integrifolia*), possessed 14 pairs of chromosomes while several other species, including *P. parviflora*, possessed 18 pairs of chromosomes. Since *P. parviflora* was the lectotype species for the *Petunia* genus, Wijsman and J. H. de Jong proposed transferring the 14 chromosome species to the genus *Stimoryne*. Horticulturists opposed reclassifying the Garden *Petunia* and in 1986, Wijsman proposed the alternative of making *P. nyctagini-*

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flora the lectotype species for *Petunia* and transferring the 18 chromosome species to another genus. The I. N. G. Committee adopted this proposal. By 1990 Wijsman had transferred several species, including *P. parviflora* (= *C. parviflora*) to *Calibrachoa*, originally established by Llave and Lexarza in 1825. *Calibrachoa parviflora* (= *C. mexicana* Llave & Lexarza) is now the type species for the genus *Calibrachoa*.

Classification of the current *Petunia* and *Calibrachoa* species is still in progress. New species are also being identified. Consequently a proper description has not been written for the *Calibrachoa* genus. *Calibrachoa* can, however, be distinguished from *Petunia* based on the higher chromosome number, chromosome morphology, plant branching habit and type of flower bud aestivation. Whereas *Petunia* species bear a flower peduncle and one new stem from a node, *Calibrachoa* bear a flower peduncle and three stems. *Petunia* species have a cochlear corolla bud, a single outermost petal covers the other four, radially folded and terminally contorted petals. *Calibrachoa* flower buds are flat with all five petals linearly folded and the two lower petals forming a cover around the three other petals and fused together.

ENVIRONMENTAL CONDITIONS FOR PLANT GROWTH

The terminal 1.0 to 1.5 inches of an actively growing stem was excised. The base of the cuttings were dipped for 1 to 2 seconds in a 1:9 solution of Dip 'N Grow (1 part solution to 9 parts water) root inducing solution immediately prior to sticking into the cell trays. Cuttings were put into plastic cell trays having 98 cells, and containing a peat moss-based growing medium. The cuttings were misted with water from overhead for 10 seconds every 30 minutes until sufficient roots were formed. The vegetative cuttings were propagated in five to six weeks.

Rooted cuttings were transplanted and grown in 20 cm diameter plastic pots in a glass greenhouse located in Salinas, Calif. Pots contained a peat moss-based growing medium. Soluble fertilizer containing 20% nitrogen, 10% phosphorus and 20% potassium was applied once a day or every other day by overhead irrigation. Pots were top-dressed with a dry, slow release fertilizer containing 20%

nitrogen, 10% phosphorus and 18% potassium. The typical average air temperature was 24C.

DETAILED DESCRIPTION OF THE NEW PLANT

The following traits and characteristics describe the new variety. The observed plants were 3 months old from a rooted cutting.

Classification:

Family.—Solanaceae.

Species.—Calibrachoa spp.

Common names.—Petunia.

Parentage: 'Kakegawa S43' is a third generation selection from mass selection and intercrossing of progeny from the hybridization of 'Liricashower Rose' (U.S. Plant Pat. No. 9,884) and breeding line 'C-13D'.

Growth:

Habit.—Decumbent, mounding in center.

Height.—23.0 cm.

Spread.—115.0 cm when grown in a 41 cm hanging basket or pot, and using five 20 cm potted plants in one hanging basket.

Life cycle.—Annual.

Time to produce a rooted cutting.—3 weeks.

Time to bloom from propagation.—10 weeks.

Flowering season.—Spring and summer.

Flowering requirements.—Air temperatures of 13–15C during the night and 13–20C during the day; day lengths greater than 12 hours required.

Resistance/susceptibility.—Excellent resistance to rain, heat and drought; will not tolerate temperatures below 10C.

Form.—Branching, dense.

Stems:

Stem color.—R.H.S. 144B (yellow-green).

Pubescence.—Heavy.

Pubescence color.—155D (white).

Pubescence shape.—Pointed.

Stem description.—Round, ancipital.

Stem diameter.—20 mm.

Internode length.—1.5 to 2.5 cm.

Leaves:

Leaf tip.—Mucronate.

Leaf arrangement.—Alternate.

Leaf base.—Decurrent.

Leaf color.—Upper surface: R.H.S. 137A (green); lower surface: R.H.S. 138B (green).

Leaf fragrance.—Absent.

Leaf margin.—Entire.

Leaf surface.—Rough.

Leaf surface pubescence.—Slight.

Petiole color.—R.H.S. 138B (green).

Petiole length.—3.0 mm.

Leaf length.—2.7 cm.

Leaf shape.—Spatulate.

Leaf width.—8.0 mm at full expansion.

Flowers:

Calyx.—5 sepals; 5.0 × 2.0 mm (l×w); free.

Corolla.—5 petals, fused.

Flower diameter.—2.8 cm.

Bud color.—R.H.S. 144D (yellow-green).

Bud shape.—Ovate.

Bud surface.—Pubescent.

Ovary.—Superior.

Duration of flower life.—5 days.

Flowering habit.—Indeterminate.

Placenta arrangement.—Central.

Peduncle size.—1.0 mm diameter; 1.8 cm length, slightly smooth, short pubescence.

Inflorescence type.—Solitary.

Stamens.—5 stamens, three short and two long, free.

Stamen color.—R.H.S. 144D (yellow-green).

Stigma color.—R.H.S. 134A (green).

Style color.—R.H.S. 144D (yellow-purple).

Petal size.—3.0×1.5 cm (l×w).

Petal color.—Upper surface; R.H.S. 57A (red-purple); lower surface: R.H.S. N74D (red-purple); corolla throat: R.H.S. N77A (purple); corolla tube: inner surface R.H.S. 1A (green-yellow) with R.H.S. N77A (purple) veins; outer surface R.H.S. 1A (green-yellow) with R.H.S. N77A (purple) veins.

Petal pubescence.—Glabrous.

Pollen color.—R.H.S. 1A (green-yellow).

Produces seed.—No.

'Kakegawa S43' is most similar to the variety 'Colorburst Cherry' (pending U.S. patent application Ser. No. 09/400, 366). The two varieties are similar in foliage, plant habit, flower size and primary petal color. The two plants are different because 'Colorburst Cherry' has a light yellow corolla tube while 'Kakegawa S43' has a yellow-green corolla tube and a prominent, dark purple corolla throat. Shown below in Table one are comparisons with the parental cultivars.

Table 1

Parents	Liricashower Rose & C-13D
Plant Habit	Female decumbent, S43 decumbent and mounding in center
Flower Color	Female purplish rose, S43 dark red
Flower Size (diameter)	Female and S43 are 2.5–3.0 cm
Stem Pubescence	Female slight, S43 heavy
Stem Thickness	Female 1.0–1.5 mm (laterals, S43 2.0 mm)
Leaf Color (upper)	Female grayish green (RHS 137B), S43 darker green (RHS 137A)
Leaf Pubescence	Female and S43 is slight
Leaf Shape	Female slightly oblanceolate; S43 is spatulate

PLANT DISEASE AND PEST RESISTANCE

Excellent resistance to rain, heat and drought. Will not tolerate temperatures below 10 C. Plants are susceptible to Botrytis, powdery mildew, various stem and root rots, and certain viruses, like Tobacco Mosaic Virus and Impatiens Necrotic Spotted Virus. Plants can be infested with aphids, leafminer, whitefly and various Lepidoptera.

What is claimed is:

1. A new and distinct Calibrachoa plant as shown and described herein.

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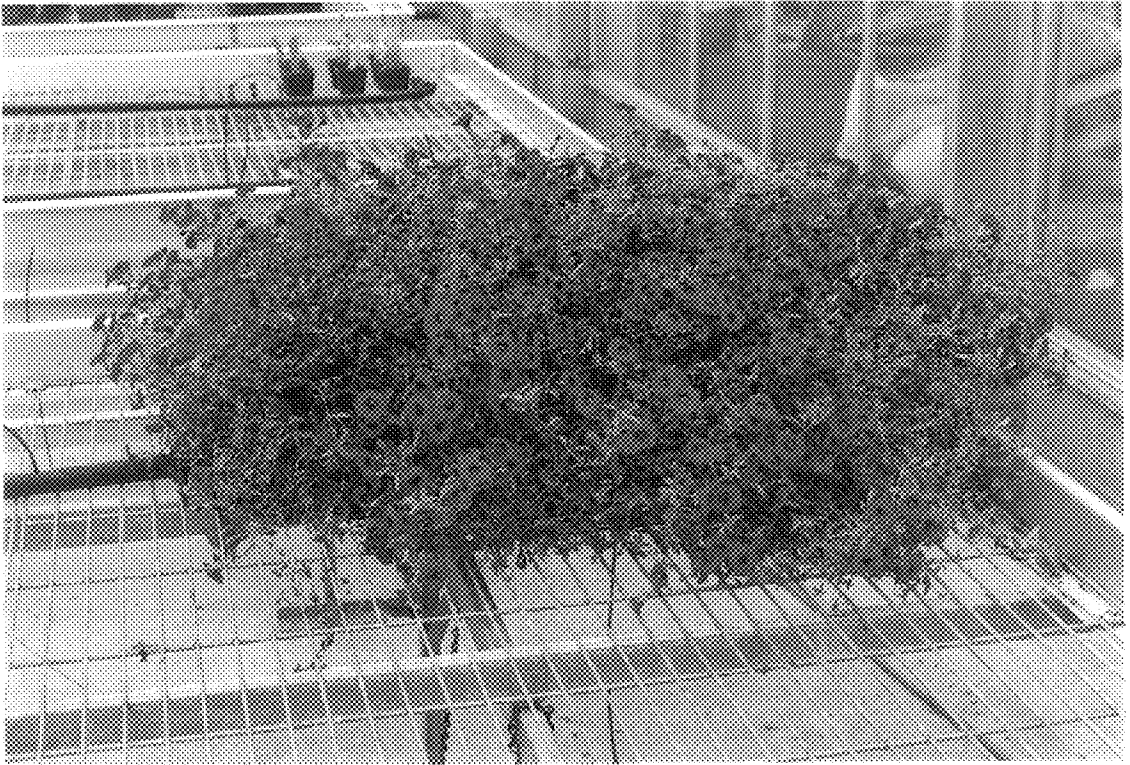


FIG. 1



FIG. 2