



(12) **United States Plant Patent**
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(54) **NEW GUINEA *IMPATIENS* PLANT NAMED ‘MISATO FG4’**

(50) Latin Name: *Impatiens*×*hybrida*
Varietal Denomination: **Misato FG4**

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See application file for complete search history.

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(57) **ABSTRACT**

A New Guinea *Impatiens* cultivar particularly distinguished by its high blooming temperature and large white with pink blush flowers is disclosed.

1 Drawing Sheet

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Genus and species: *Impatiens*×*hybrida*.
Variety denomination: ‘Misato FG4’.

BACKGROUND OF THE NEW PLANT

The present invention comprises a new and distinct cultivar of New Guinea *impatiens*, botanically known as *Impatiens*×*hybrida*, and hereinafter referred to by the cultivar name ‘Misato FG4’. ‘Misato FG4’ originated from an interspecific hybridization between *Impatiens* ‘02-DC’, an unpatented proprietary light purple-flowered *impatiens* breeding line, and *Impatiens* ‘02-2’, an unpatented proprietary white-flowered *impatiens* breeding line, in Misato, Japan. In 2002, the two *Impatiens* species were crossed and a population of F₁ plants was created.

The F₁ plants were evaluated in Misato, Japan in 2004 in an open field trial. Criteria for selection included mounding growth habit, tolerance to heat and cold, vigorous rooting, white with pink blush flower color and overall plant vigor. At the end of the trial, one single-plant selection was made based on the above criteria and vegetatively propagated. The plant was trialed in Athens, Ga. and Salinas, Calif. The selection subsequently was named ‘Misato FG4’ and found to retain its distinctive characteristics through successive asexual propagations.

Plant Breeder’s Rights for this cultivar were applied for in Canada on Apr. 19, 2005. No sales or offers for sale of this cultivar were made before Apr. 19, 2005.

SUMMARY OF THE INVENTION

The following are the most outstanding and distinguishing characteristics of this new cultivar when grown under normal horticultural practices in Salinas, Calif.

1. White with pink blush flower color
2. Tolerance to heat and cold
3. Vigorous rooting
4. Overall plant vigor

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DESCRIPTION OF PHOTOGRAPHS

This new *impatiens* plant is illustrated by the accompanying photographs which show overall plant habit including blooms, buds, and foliage of the plant; the colors shown are as true as can be reasonably obtained by conventional photographic procedures.

FIG. 1. The photograph shows overall plant habit including blooms, buds and foliage.

FIG. 2. The photograph shows the mature inflorescence.

DETAILED DESCRIPTION OF THE NEW CULTIVAR

The following detailed descriptions set forth the distinctive characteristics of ‘Misato FG4’. The data which define these characteristics were collected from asexual reproductions carried out in Salinas, Calif. The plant history was taken on plants grown for about four months from propagation by terminal cuttings under greenhouse conditions. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S), 4th edition (2001). Anatomic labels are from *The Cambridge Illustrated Glossary of Botanical Terms* by M. Hickey and C. Kink, Cambridge University Press.

DETAILED BOTANICAL DESCRIPTION

Classification:

Family.—Balsaminaceae.

Botanical.—*Impatiens* interspecific cross (*Impatiens*×*hybrida*).

Common name.—*Impatiens*.

Parentage:

Female parent.—‘02-DC’, a proprietary *Impatiens* breeding line (unpatented).

Male parent.—‘02-2’, a proprietary *Impatiens* breeding line (unpatented).

Growth:

Time to produce a rooted cutting.—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

solution: 9 water) root-inducing solution immediately prior to sticking into the cell trays. Cuttings were stuck into plastic cell trays having 98 cells and containing a moistened 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.

Environmental conditions for plant growth.—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 24° C.

Time to bloom from propagation.—6–8 weeks.

Plant description:

Habit.—Upright and branching.

Height.—20.0–24.0 cm as measured from soil line to top of foliage.

Spread.—33.0–45.0 cm.

Time to produce a finished flowering plant.—6–8 weeks.

Outdoor plant performance.—Will flower as long as the temperature is above 5° C.

Temperature tolerance.—Plants have been observed to continuously flower at a temperature range of 5° C.–36° C.

Life cycle.—Tender perennial.

Time to initiate and develop roots.—About 4 weeks.

Branches:

Number.—6–8 per plant.

Length.—12.0–14.4 cm.

Diameter.—0.5–0.8 cm.

Stems:

Length.—3.5–4.0 cm from soil line to first node.

Diameter.—1.0–1.2 cm.

Internode length.—4.9–5.9 cm.

Color.—RHS 143C (green).

Stem description.—Strong; circular cross-section.

Pubescence.—Slight.

Stem pubescence color.—RHS N155A (white).

Anthocyanin color.—N77A (purple).

Pedicels texture.—Dull; slightly pubescent.

Peduncles.—Length: 5.2–6.6 cm. Color: RHS 144B (yellow-green). Texture: Dull; slightly pubescent.

Leaves:

Arrangement.—Opposite if two leaves are at one node and whorled if more than two leaves are at one node.

Length.—10.0–12.5 cm.

Width.—4.3–4.9 cm.

Shape.—Elliptic to lanceolate.

Margin.—Serrate.

Apex.—Acuminate.

Base.—Shortly attenuate.

Color.—Upper surface: Closest to RHS 136A (green). Lower surface: RHS 191B (grayed-green).

Texture.—Dull and sticky.

Variation.—Absent.

Fragrance.—Absent.

Pubescence.—Slight.

Pubescence color.—RHS N155A (white).

Venation.—Pinnate.

Venation color.—Upper surface: RHS 143D (green).

Lower surface: RHS 143D (green).

Petioles.—Length: 0.6–0.7 cm. Color: RHS 143D (green). Texture: Dull; slightly pubescent.

Flower buds:

Shape.—Deltoid (longitudinal cross-section).

Length.—1.3–1.4 cm.

Diameter.—0.8–1.0 cm.

Color.—RHS 144B (yellow-green).

Texture.—Glabrous.

Inflorescence:

Blooming habit.—Will flower as long as the temperature is above 5° C.

Inflorescence type.—Single flower with spur.

Number of flowers per node.—3–5 in bloom at any one time.

Number of flowers per plant.—10–25 flowers and buds depending on amount of pinching during growth.

Flower form.—Roughly circular with 5 radial petals.

Lastingness of individual blooms on the plant.—Greater than 14 days (no upper limit yet observed).

Fragrance.—Absent.

Flowers:

Immature flower.—Color: Same as mature color (does not darken or fade over time).

Mature flower.—Color: Upper surface: RHS N155A (white). Lower surface: RHS N155A (white) with RHS 58B (red-purple) markings around mid-vein. Eye zone: RHS N155A (white). Diameter: 6.0 cm. Depth: 1.1–1.5 cm.

Petals:

Shape.—Obovate.

Length.—2.1–3.4 cm.

Width.—2.3–4.0 cm.

Apex.—Emarginate (cleaved).

Base.—Attenuate.

Margin.—Entire.

Petal texture.—Glabrous.

Color.—Upper surface: RHS N155A (white). Lower surface: RHS N155A (white) with RHS 58B (red-purple) markings around mid-vein. Eye zone: RHS N155A (white).

Spur:

Shape.—Tubular and curved downward.

Color.—RHS N155A (white) at base fading to RHS 145A (yellow-green) at tip.

Length.—4.7–5.6 cm.

Diameter.—0.2–0.3 cm.

Sepals:

Shape.—Lanceolate.

Apex.—Caudate.

Base.—Subcordate.

Margin.—Entire.

Texture.—Dull; slightly pubescent.

Reproductive organs:

Stamens.—Form: Fused; split into 4 lobes. Number: Many. Filament color: RHS N155A (white). Anther color: RHS 71B (red-purple). Pollen amount: Heavy. Pollen color: RHS 2C (yellow). Pollen description: Powdery.

Pistil.—Number: 5. Stigma color: RHS 144A (yellow-green). Style color: RHS 144A (yellow-green).

Ovary arrangement.—Parietal.
Fruit/seed set.—Little to none observed.
Disease and insect resistance: None observed.

COMPARISON WITH KNOWN CULTIVARS

‘Misato FG4’ differs from the female parent, ‘02-DC’, a proprietary *Impatiens* breeding line (unpatented), in that ‘Misato FG4’ has white with pink blush flowers while ‘02-DC’ has light purple flowers.

‘Misato FG4’ differs from the male parent, ‘02-2’, a proprietary *Impatiens* breeding line (unpatented), in that ‘Misato FG4’ has white with pink blush flowers while ‘02-2’ has white flowers.

‘Misato FG4’ is similar to the commercial *Impatiens* variety ‘Balfaforg’ (U.S. Plant Pat. No. 14,690) (known commercially as ‘Fanfare Orange’) however, there are differences as listed in the table below:

TABLE 1

Comparison of Characteristics between ‘Misato FG4’ and ‘Balfaforg’		
Characteristic	‘Misato FG4’	‘Balfaforg’
Growth habit	Upright, branching	Trailing
Flowering temperature	Can flower above 30° C.	Cannot flower above 30° C.
Flower diameter	About 6.0 cm	About 5 cm
Flower color	White with pink blush	Orange

I claim:

1. A new and distinct cultivar of New Guinea *Impatiens* plant as shown and described herein.

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Fig. 1

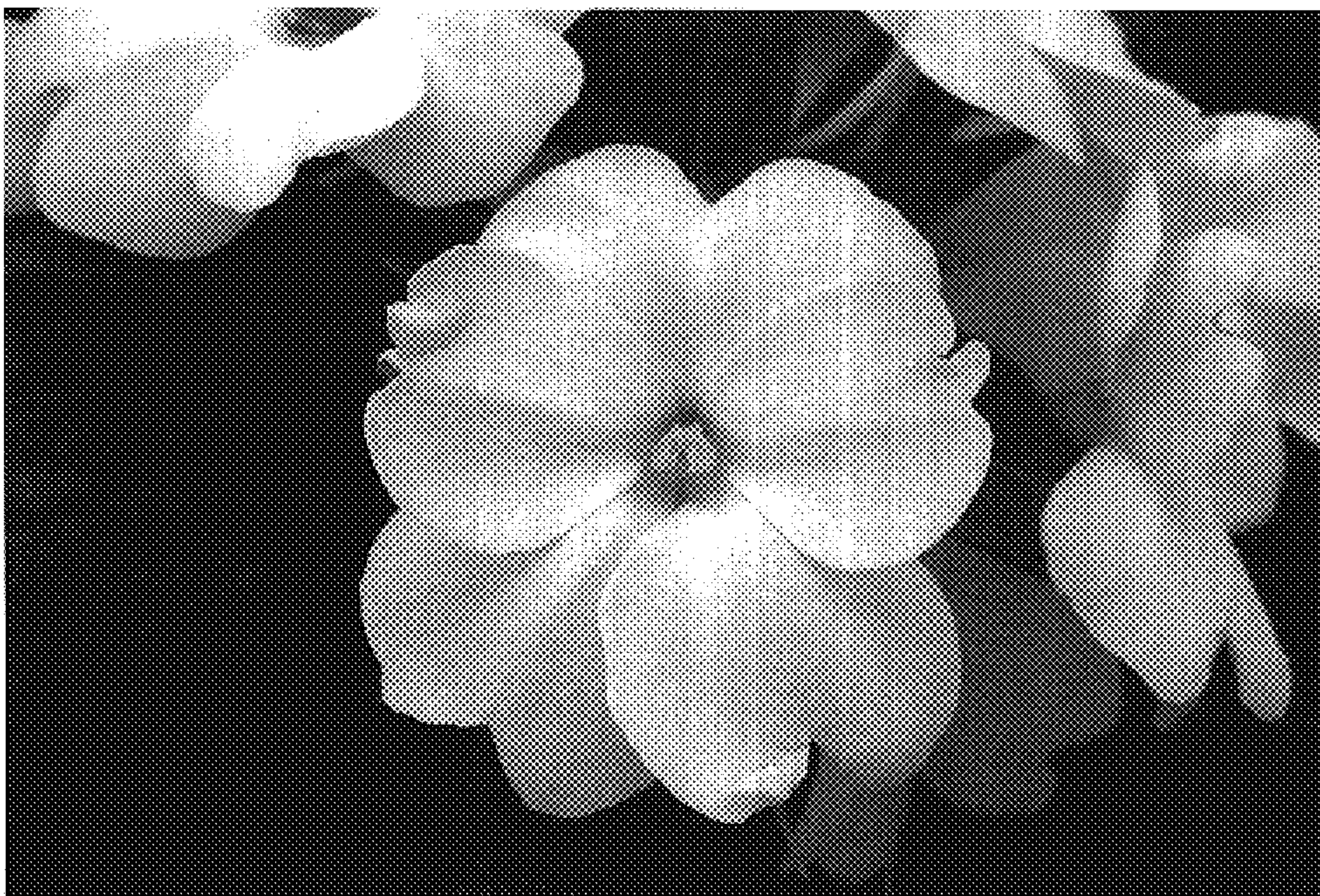


Fig. 2