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(54) ***VERBENA* PLANT NAMED 'AKIV5-4'**
(50) Latin Name: ***Verbena hybrida***
Varietal Denomination: **AKIV5-4**

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(57) **ABSTRACT**

A new and distinct cultivar of *Verbena* plant named 'AKIV5-4', characterized by its upright and outwardly spreading plant habit; vigorous growth habit; freely branching habit; freely flowering habit; dark red-colored flowers that are held above and beyond the foliage; and resistance to Powdery Mildew.

1 Drawing Sheet

Botanical designation: *Verbena hybrida*.
Cultivar denomination: 'AKIV5-4'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Verbena* plant, botanically known as *Verbena hybrida*, and hereinafter referred to by the name 'AKIV5-4'.

The new *Verbena* plant is a product of a planned breeding program conducted by the Inventor in Shiga, Japan and Bonsall, Calif. The objective of the breeding program is to create new semi-upright *Verbena* cultivars with attractive flowers and resistance to Powdery Mildew.

The new *Verbena* plant originated from a cross-pollination made by the Inventor on Apr. 5, 2005 in Shiga, Japan of a proprietary selection of *Verbena hybrida* identified as code number VJ05-13-1, not patented, as the female, or seed, parent with a proprietary selection of *Verbena hybrida* identified as code number 04V73-01, not patented, as the male, or pollen, parent. The new *Verbena* plant was discovered and selected by the Inventor as a single flowering plant within the progeny of the stated cross-pollination in a controlled environment in Bonsall, Calif. on Jun. 30, 2006.

Asexual reproduction of the new *Verbena* plant by terminal cuttings in a controlled environment in Bonsall, Calif. since Jul. 3, 2006 has shown that the unique features of this new *Verbena* plant are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

Plants of the new Verbena have not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment and cultural practices such as temperature and light intensity without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'AKIV5-4'. These characteristics in combination distinguish 'AKIV5-4' as a new and distinct cultivar of *Verbena:*

1. Upright and outwardly spreading plant habit.
2. Vigorous growth habit.
3. Freely branching habit.

4. Freely flowering habit.
5. Dark red-colored flowers that are held above and beyond the foliage.
6. Resistant to Powdery Mildew.

Plants of the new *Verbena* can be compared to plants of the female parent selection. Plants of the new *Verbena* differ primarily from plants of the female parent selection in the following characteristics:

1. Plants of the new *Verbena* are more upright than plants of the female parent selection.
2. Plants of the new *Verbena* have larger flowers than plants of the female parent selection.
3. Plants of the new *Verbena* are more resistant to Powdery Mildew than plants of the female parent selection.

Plants of the new *Verbena* can be compared to plants of the male parent selection. Plants of the new *Verbena* differ primarily from plants of the male parent selection in the following characteristics:

1. Plants of the new *Verbena* are more freely flowering than plants of the male parent selection.
2. Flowers of plants of the new *Verbena* are longer lasting than flowers of plants of the male parent selection.
3. Plants of the new *Verbena* have shorter peduncles than plants of the male parent selection.

Plants of the new *Verbena* can be compared to plants of the *Verbena hybrida* 'KLEI04077', disclosed in U.S. Plant Pat. No. 17,905. In side-by-side comparisons conducted in Bonsall, Calif., plants of the new *Verbena* differed primarily from plants of 'KLEI04077' in the following characteristics:

1. Plants of the new *Verbena* had darker green-colored leaves than plants of 'KLEI04077'.
2. Plants of the new *Verbena* were more freely flowering than plants of 'KLEI04077'.
3. Flowers of plants of the new *Verbena* were longer lasting than flowers of plants of 'KLEI04077'.
4. Plants of the new *Verbena* and 'KLEI04077' differed in flower color.

Plants of the new *Verbena* can also be compared to plants of the *Verbena hybrida* 'USBENAL17', disclosed in U.S. Plant Pat. No. 14,877. In side-by-side comparisons conducted in

Bonsall, Calif., plants of the new *Verbena* differed primarily from plants of 'USBENAL17' in the following characteristics:

1. Plants of the new *Verbena* were not as trailing as plants of 'USBENAL17'.
2. Plants of the new *Verbena* had shorter peduncles than plants of 'USBENAL17'.
3. Plants of the new *Verbena* and 'USBENAL17' differed in flower color.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new *Verbena* plant showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the actual colors of the new Verbena plant.

The photograph at the bottom of the sheet comprises a side perspective view of a typical flowering plant of 'AKIV5-4' grown in a container.

The photograph at the top of the sheet is a close-up view of typical flowers and leaves of 'AKIV5-4'.

DETAILED BOTANICAL DESCRIPTION

Plants used for the aforementioned photographs and following description were grown under conditions which closely approximate commercial production conditions during the autumn in 12.5-cm containers in an outdoor nursery in Bonsall, Calif. During the production of the plants, day temperatures ranged from 18° C. to 38° C., night temperatures ranged from 9° C. to 18° C. and light levels ranged from 7,000 to 10,000 foot-candles. Plants were pinched one time and were six weeks old when the photographs and description were taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2007 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Verbena hybrida* 'AKIV5-4'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Verbena hybrida* identified as code number VJ05-13-1.

Male, or pollen, parent.—Proprietary selection of *Verbena hybrida* identified as code number 04V73-01.

Propagation:

Type cutting.—Vegetative tip cuttings.

Time to initiate roots, summer.—About three days at temperatures ranging from 17° C. to 29° C.

Time to initiate roots, winter.—About four days at temperatures ranging from 17° C. to 21° C.

Time to produce a rooted plant, summer.—About 15 days at temperatures ranging from 17° C. to 29° C.

Time to produce a rooted plant, winter.—About 20 days at temperatures ranging from 17° C. to 21° C.

Root description.—Medium in thickness, fibrous; off-white in color.

Rooting habit.—Moderately freely branching; medium in density.

Plant description:

Plant habit.—Upright and outwardly spreading plant habit; freely branching habit with about eleven primary lateral branches developing per plant each with numerous secondary branches; pinching enhances lateral branch development; dense and bushy plant habit; vigorous growth habit.

Plant height.—About 13.5 cm.

Plant diameter (*spread*).—About 40 cm.

Lateral branch description:

Length.—About 25 cm.

Diameter.—About 2.5 mm.

Internode length.—About 3.5 cm.

Strength.—Strong.

Texture.—Pubescent.

Color.—Close to 146A.

Foliage description:

Arrangement.—Opposite, simple.

Length.—About 5 cm.

Width.—About 2.7 cm.

Shape.—Oblong to elliptical.

Apex.—Broadly acute.

Base.—Attenuate.

Margin.—Irregularly crenate.

Texture, upper and lower surfaces.—Pubescent; coarse, rough.

Venation pattern.—Pinnate; reticulate.

Color.—Developing leaves, upper surface: Close to 137B. Developing leaves, lower surface: Close to 147B. Fully expanded leaves, upper surface: Close to 147A; venation, close to 147B. Fully expanded leaves, lower surface: Close to 147B; venation, close to 147C.

Petiole.—Length: About 9 mm Diameter: About 2 mm. Texture, upper and lower surfaces: Pubescent. Color, upper surface: Close to 146C. Color, lower surface: Close to 147D.

Flower description:

Flower arrangement and habit.—Salverform sessile flowers arranged in compact hemispherical terminal racemes; flowers face upward or outward; freely flowering habit with about 48 flowers per inflorescence.

Natural flowering season.—Plants flower continuously from spring through the autumn in Southern California; plants begin flowering about six weeks after planting.

Flower longevity.—Flowers last about five to seven days on the plant; flowers not persistent.

Fragrance.—None detected.

Inflorescence height.—About 4 cm.

Inflorescence diameter.—About 5.2 cm.

Flower diameter.—About 1.2 cm.

Flower depth (*height*).—About 2.3 cm.

Flower buds.—Length: About 2 cm. Diameter: About 3 mm. Shape: Elongates oblong. Color: Close to 58A.

Corolla.—Arrangement: Single whorl of five fused petals fused towards the base into a narrow tube. Petal lobe length: About 6 mm. Petal lobe width: About 4 mm. Petal lobe shape: Roughly cordate. Petal lobe apex: Emarginate to cordate. Petal margin: Entire. Petal texture, upper and lower surfaces: Smooth, glabrous; velvety. Color: Petal, when opening, upper surface: Close to 53A. Petal, when opening, lower surface: Close to 53B. Petal, fully opened, upper surface: Brighter than 46A; color towards the apices becoming closer to 46B with development. Petal, fully opened, lower surface: Close to 53B; color becoming closer to 53D with development. Tube: Close to 157A.

Calyx.—Arrangement: Single whorl of five fused sepals fused towards the base into a narrow tube. Sepal length: About 1.3 cm. Sepal width: About 1 mm. Sepal shape: Narrowly lanceolate. Sepal apex: Acute. Sepal margin: Entire. Sepal texture, upper surface: Smooth, glabrous. Sepal texture, lower surface: Pubescent. Sepal color, upper surface: Close to 146B. Sepal color, lower surface: Close to 146A.

Peduncles.—Length: About 4 cm. Diameter: About 2 mm. Strength: Strong. Texture: Pubescent. Color: Close to 146A.

Reproductive organs.—Stamens: Quantity/arrangement: Four per flower, filaments are adnate to corolla tube. Filament length: About 1 mm. Filament color: Close to 145D. Anther shape: Oval, bi-lobed. Anther length: About 1 mm. Anther color: Close to 145A. Pollen amount: Scarce. Pollen color: Close to 145A. Pistils: Quantity: One per flower. Pistil length: About 1.7 cm. Stigma shape: Rounded, slightly bi-parted. Stigma color: Close to 146A. Style length: About 1.3 cm. Style color: Close to 145C. Ovary color: Close to 146C. Fruits/seed: Fruit and seed development have not been observed.

Temperature tolerance: Plants of the new *Verbena* have been observed to tolerate temperatures from about 1° C. to about 40° C.

Pathogen/pest resistance: Plants of the new *Verbena* have been observed to be tolerant to Powdery Mildew. Plants of the new *Verbena* have not been observed to be resistant to pests and other pathogens common to *Verbenas.*

It is claimed:

1. A new and distinct *Verbena* plant named 'AKIV5-4' as illustrated and described.

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