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(54) **BIDENS PLANT HAVING UNIQUE COLORATION**

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(57) **ABSTRACT**

A plant material and methodology for producing *Bidens* with any primary color or intermediate color, in unique petal coloration patterns are provided herein.

FIG. 1



FIG. 2



FIG. 3



FIG. 4

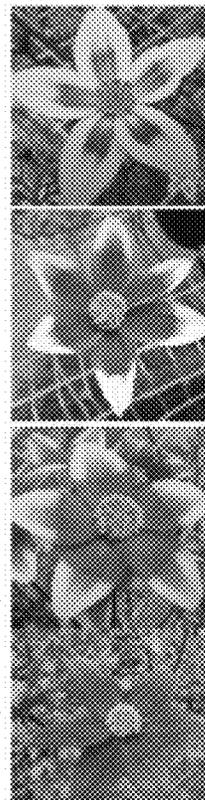
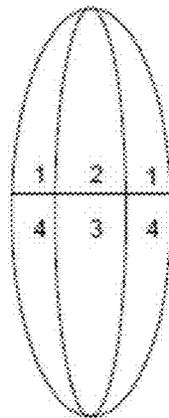


FIG. 5

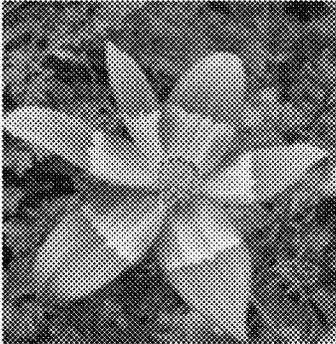
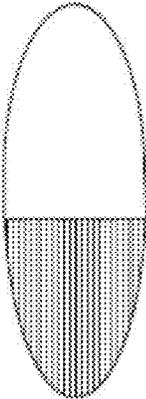


FIG. 6

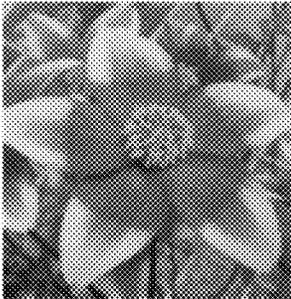
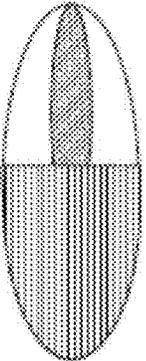


FIG. 7

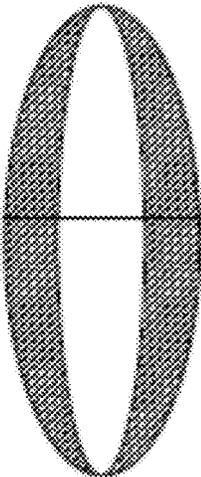


FIG. 8

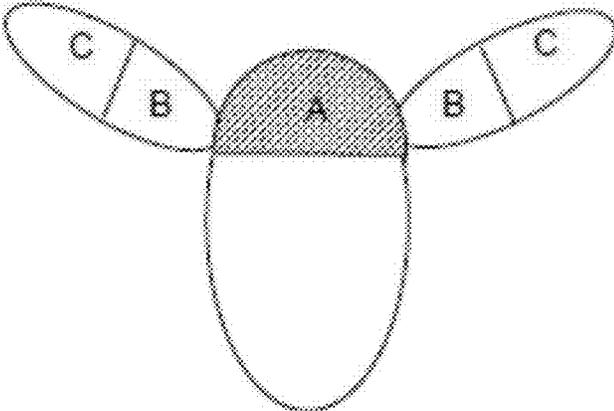
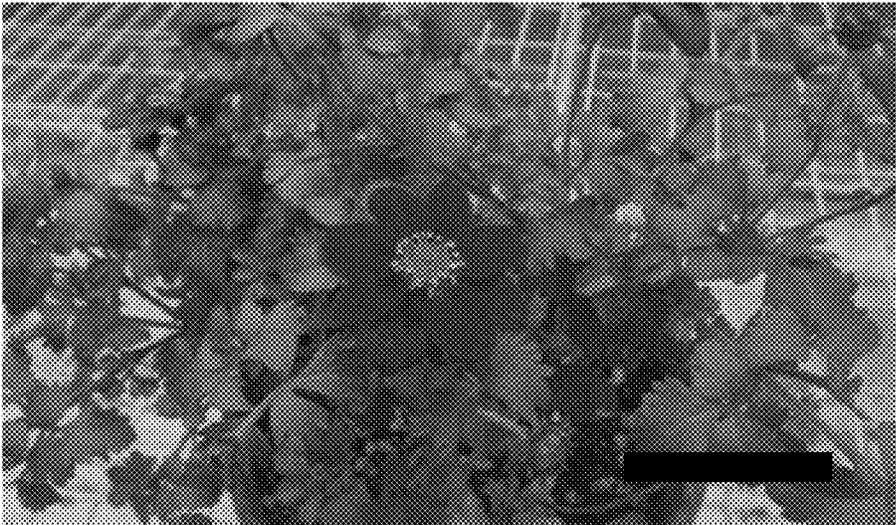


FIG. 9



FIG. 10



BIDENS PLANT HAVING UNIQUE COLORATION

TECHNICAL FIELD

[0001] The present disclosure relates generally to the field of ornamental *Bidens* plants (*Bidens triplinervia*) and provides methodology and materials for creating new, distinct, and stable *Bidens* cultivars with unique ray floret coloration and patterns. Such *Bidens* plants have not been observed in any wild species of *Bidens*, but was discovered and developed through Applicant's breeding process.

INTRODUCTION

[0002] *Bidens* is a genus of flowering plants in the family Asteraceae, and there are about 200 *Bidens* species. Common names beggarticks, black jack, burr marigolds, cobbler's pegs, and Spanish needles, all refer to achene burrs on the seeds, most of which are barbed. The generic name "*Bidens*" refers to the same fact; it means "two-tooth," from Latin bis "two" + dens "tooth". The plants are Zoochorous; their seeds will stick to clothing, fur or feathers, which allows direct transport to a new habitat. This has enabled *Bidens* to colonize a wide range, including many oceanic islands. Consequently, some *Bidens* species occur only in a very restricted range and several face extinction, notably in remote islands. Due to the absence of native mammals on these islands, some of the oceanic island taxa have reduced burrs, evolving features that may facilitate wind dispersal. *Bidens* are characterized by white or yellow mono-color petals.

SUMMARY

[0003] Provided herein are plant material and methodology for producing *Bidens* with any primary color or intermediate color, in unique petal coloration patterns.

[0004] In one aspect, provided is a *Bidens* plant comprising: ray florets and disc florets, wherein the *Bidens* plant belongs to *Bidens triplinervia* or any progeny of *Bidens triplinervia*; and the ray florets have a red color.

[0005] In another aspect, provided is said *Bidens* plant, wherein the ray florets are entirely light red-colored, and the disc florets have a yellow color.

[0006] In another aspect, provided is the *Bidens* plant, wherein the *Bidens* plant coloration and color patterns are stably and predictably introgressed into diverse *Bidens* genetic background.

[0007] In another aspect, there is provided methodology for producing the *Bidens* plant, comprising (a) crossing a first *Bidens* plant comprising characteristics of the *Bidens*, with a second *Bidens* plant that comprises or does not comprise the characteristics of the *Bidens*, and (b) selecting progeny having the characteristics of the *Bidens*.

[0008] In another aspect, provided is a method for asexually reproducing the *Bidens* plant, comprising (a) obtaining a tissue cutting from said plant, (b) culturing said tissue cutting under conditions sufficient to produce a plantlet with roots and shoots; and (c) growing said plantlet to produce a plant.

BRIEF DESCRIPTION OF THE FIGURES

[0009] This patent or application file contains at least one drawing executed in color. Copies of this patent or patent

application publication with color drawing(s) will be provided by the Office upon request and payment of necessary fee.

[0010] FIG. 1 shows *Bidens* plant 'Florbikanoyel' with orange and yellow brush coloration.

[0011] FIG. 2 shows *Bidens* plant 'Florbikanre' with light red-colored ray florets.

[0012] FIG. 3 shows *Bidens* plant 'Florbikanyo' with yellow orange and dark orange bi-colored ray florets.

[0013] FIG. 4 shows an illustrative *Bidens* coloration pattern, pattern A. For example, region 2 could be colored red, with regions 1, 3, and 4 maintained as yellow. Likewise, regions 1 and 4 could be colored red, with regions 2 and 3 maintained as yellow.

[0014] FIG. 5 shows an illustrative *Bidens* coloration pattern, pattern B. For example, the petal can be bi-color.

[0015] FIG. 6 shows an illustrative *Bidens* coloration pattern, pattern C. Here, the pattern provides a sectional mix of pattern B disclosed in FIG. 5.

[0016] FIG. 7 shows an illustrative *Bidens* coloration pattern, pattern D. Here, the pattern provides a variation of pattern B disclosed in FIG. 5.

[0017] FIG. 8 shows a *Bidens* double flower pattern. In double flower *Bidens*, the internal petal set may have one color, and the external set may have a different color. For example, and non-limiting, the internal petal set may have a mono-color, whereas the external petal set may have multi-colors.

[0018] FIG. 9 shows *Bidens* plant with red ray florets and red extra petaloids, which connect to the ray florets, according to Example 5.

[0019] FIG. 10 shows *Bidens* plants with dark-red colored ray florets according to Example 6. And the figures depict one or more implementations in accordance with the present teaching, by way of example only, not by way of limitations.

DETAILED DESCRIPTION

[0020] All *Bidens ferulifolia* or any *Bidens* hybrid in the market has white or yellow mono-color petals. The present inventor discovered and developed the first *Bidens* varieties with unique coloration, including, for example, red, orange and/or multi-color petals. From these introductions and using breeding methodology that can control flower petal color on a section-by-section approach, the present inventor can introduce any primary color (red, black, yellow, green, white) or any intermediate color (orange, lemon, etc.) to create many petal colors and petal designs. Thus, and as described below, the instant application provides methodology and materials for creating new, distinct, and stable *Bidens* cultivars with unique ray floret coloration and patterns.

[0021] As used herein, multi-color refers to the introduction of one or more colors on *Bidens* petal. Unlike conventional *Bidens* that are have only white or yellow mono-color petals, Applicant has developed breeding material and methodology for introducing one or more colors into ray florets. In no way limiting, Applicant has developed new colors aside from traditional white and yellow including exemplary primary colors red, green, and black, as well as exemplary intermediate colors produced by mixing at least two primary colors. Illustrative intermediate colors include orange and lemon, for example. Additionally, and as used herein, a *Bidens* plant may have petals with bi-color coloration, such

as instant *Bidens* plant 'Florbikanyo' with yellow orange and dark orange bi-colored ray florets.

[0022] "Plant" includes plant cells, plant protoplasts, plant cells of tissue culture from which *Bidens* plants can be regenerated from plant calli, plant clumps and plant cells that are intact in plants or parts of plants such as pollen, flowers, pistils, anthers, seeds, leaves, stems, and the like.

A. Identification of *Bidens* plant 'Florbikanre'

[0023] The present disclosure embraces a new and distinct cultivar of *Bidens* plant, botanically known as *Bidens triplinervia*, and hereinafter named 'Florbikanre.'

[0024] 'Florbikanre' originated from a self-pollination made by the Inventor in Okayamaken, Japan in January, 2010 of *Bidens triplinervia* 'KR-SAIKA001', not patented. The new *Bidens* plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated self-pollination in a controlled greenhouse environment in Okayama-ken, Japan in May, 2010.

[0025] Asexual reproduction of 'Florbikanre' by vegetative cuttings in a controlled environment in Okayama-ken, Japan since June, 2010 has shown that the unique features of 'Florbikanre' are stable and reproduced true to type in successive generations.

[0026] 'Florbikanre' have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions 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 'Florbikanre'. These characteristics in combination distinguish 'Florbikanre' as a new and distinct *Bidens* plant:

1. Large, upright, outwardly spreading to somewhat trailing and mounding plant habit.
2. Vigorous growth habit.
3. Freely branching habit.
4. Freely flowering habit.
5. Long flowering period.
6. Inflorescences with light red-colored ray florets and yellow-colored disc florets.
7. Strong peduncles that hold the inflorescences above and beyond the foliar plane.

[0027] Plants of 'Florbikanre' differ primarily from plants of the parent, 'KR-SAIKA001' in ray floret color, as inflorescences of the new 'Florbikanre' *Bidens* have light red-colored ray florets whereas inflorescences of 'KRSAIKA001' have subdued red-colored ray florets.

[0028] A complete botanical description of 'Florbikanre' can be found in U.S. Plant patent application Ser. No. 13/507,791R. Representative 'Florbikanre' seeds are deposited with the American Type Culture Collection under deposit designation XXX.

B. Identification of *Bidens* Plant 'Florbikanoyel'

[0029] The present disclosure embraces a new and distinct cultivar of *Bidens* plant, botanically known as *Bidens triplinervia*, and hereinafter named 'Florbikanoyel' 'Florbikanoyel' originated from a self-pollination made by the Inventor in Okayamaken, Japan in January, 2010 of *Bidens triplinervia* 'KR-SAIKA001', not patented. Florbikanoyel was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated self-pollination in a controlled greenhouse environment in Okayama-ken, Japan in May, 2010.

[0030] Asexual reproduction of 'Florbikanoyel' by vegetative cuttings in a controlled environment in Okayamaken, Japan since June, 2010 has shown that the unique features of 'Florbikanoyel' are stable and reproduced true to type in successive generations.

[0031] 'Florbikanoyel' have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions 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 'Florbikanoyel'. These characteristics in combination distinguish 'Florbikanoyel' as a new and distinct *Bidens* plant:

1. Large, upright, outwardly spreading to somewhat trailing and mounding plant habit.
2. Vigorous growth habit.
3. Freely branching habit.
4. Freely flowering habit.
5. Long flowering period.
6. Inflorescences with orange-colored ray florets with a "brush" of yellow towards the base and yellow-colored disc florets.
7. Strong peduncles that hold the inflorescences above and beyond the foliar plane.

[0032] Plants of 'Florbikanoyel' differ primarily from plants of the parent, 'KR-SAIKA001' in ray floret color, as inflorescences of the new 'Florbikanoyel' *Bidens* have orange-colored ray florets with a "brush" of yellow towards the base of the floret, whereas inflorescences of 'KRSAIKA001' have yellow and subdued orange bi-colored ray florets.

[0033] A complete botanical description of 'Florbikanoyel' can be found in U.S. Plant patent application Ser. No. 13/507,783R. Representative 'Florbikanoyel' seeds are deposited with the American Type Culture Collection under deposit designation XXX.

C. Identification of *Bidens* Plant 'Florbikano'

[0034] The present disclosure embraces a new and distinct cultivar of *Bidens* plant, botanically known as *Bidens triplinervia*, and hereinafter named 'Florbikano'

[0035] 'Florbikano' originated from a self-pollination made by the Inventor in Okayama-ken, Japan in January, 2010 of *Bidens triplinervia* 'KR-SAIKA001', not patented. Florbikano was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated self-pollination in a controlled greenhouse environment in Okayama-ken, Japan in May, 2010.

[0036] Asexual reproduction of 'Florbikano' by vegetative cuttings in a controlled environment in Okayama-ken, Japan since June, 2010 has shown that the unique features of 'Florbikano' are stable and reproduced true to type in successive generations.

[0037] 'Florbikano' have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions 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 'Florbikano'. These characteristics in combination distinguish 'Florbikano' as a new and distinct *Bidens* plant:

1. Large, upright, outwardly spreading to somewhat trailing and mounding plant habit.
2. Vigorous growth habit.
3. Freely branching habit.
4. Freely flowering habit.
5. Long flowering period.
6. Inflorescences with yellow orange and dark bi-colored ray florets and bright yellow-colored disc florets.
7. Strong peduncles that hold the inflorescences above and beyond the foliar plane.

[0038] Plants of 'Florvikano' differ primarily from plants of the parent, 'KR-SAIKA001' in ray floret color, as inflorescences of the new 'Florvikano' *Bidens* have orange and dark bi-colored ray florets, whereas inflorescences of 'KRSAIKA001' have yellow and subdued orange bi-colored ray florets.

[0039] A complete botanical description of 'Florvikano' can be found in US. Plant patent application Ser. No. 13/507,488R. Representative 'Florvikano' seeds are deposited with the American Type Culture Collection under deposit designation.

D. Stable and Predictable Introgression of *Bidens* Color

[0040] The instant *Bidens* coloration and pattern can be stably and predictably introgressed into diverse *Bidens* genetic backgrounds. The instant *Bidens* can be used as a male or female parent in crosses for introducing the trait into new *Bidens* plants, thereby creating diverse *Bidens* genetic backgrounds.

[0041] Additionally, and as known in the art, *Bidens* plants can be reproduced asexually by vegetative propagation or other clonal method known in the art. For example, and in no way limiting, a *Bidens* plant having at least one inflorescence with red ray florets, can be reproduced by (a) obtaining a tissue cutting from said plant, (b) culturing said tissue cutting under conditions sufficient to produce a plantlet with roots and shoots; and (c) growing said plantlet to produce a plant.

E. Developing New Coloration in *Bidens* Plants

[0042] Using the instant *Bidens* plant material and breeding methodology that can control flower petal color on a section-by-section approach, the present inventor can introduce any primary color (red, black, green, white, yellow) or any intermediate color (orange, lemon, etc.) to create many petal colors and petal designs. Exemplary coloration and patterns are illustrated in FIGS. 1-8.

[0043] The examples presented below disclose details concerning exemplary *Bidens* plants with novel petal colors, as well as methodology for producing *Bidens* plants with unique petal color patterns. The examples are illustrative and nonlimiting.

[0044] Further, following points shall be taken into consideration. *Bidens pilosa* L. (for example, the variety denomination is Pirate's Princess), *Bidens laevis* (for example, the variety denomination is Winter Cosmos), and *Bidens aurea* belong to *Bidens*, but these *Bidens* are different from a group of *Bidens triplinervia* and *Bidens ferulifolia* according to plant classification. It is a well known fact that *Bidens* plant is usually divided into two types, that is, the group of *Bidens ferulifolia* and the group of *Bidens laevis*. Botanically, the group of *Bidens laevis* is separated from the group of *Bidens ferulifolia* or *Bidens triplinervia*, because

the group of *Bidens ferulifolia* has different characteristics from the group of *Bidens laevis*.

[0045] More specifically, (1) *Bidens pilosa* L., *Bidens laevis*, and *Bidens aurea* cannot cross with *Bidens triplinervia* and *Bidens ferulifolia*, and cannot cross with *Bidens triplinervia* or *Bidens ferulifolia* to create any hybrid *Bidens*. (2) The group of *Bidens laevis* comprises ray florets, which are flat or obtuse to slightly dentate at its apex, while the group of *Bidens triplinervia* and *Bidens ferulifolia* does not have such shape of ray florets at its apex. (3) The height of *Bidens laevis* sometimes reaches over 1 m, while the height of *Bidens triplinervia* group reaches about 40 cm and trail along the ground. In other words, *Bidens triplinervia* group is low-growing, while *Bidens laevis* group is not low-growing. (4) *Bidens pilosa* L., *Bidens laevis*, and *Bidens aurea* are weak to cold, while *Bidens triplinervia* and *Bidens ferulifolia* are strong to cold. (5) A plant life of *Bidens pilosa* L., *Bidens laevis*, and *Bidens aurea* is short, while a plant life of *Bidens triplinervia* and *Bidens ferulifolia* is comparatively long.

[0046] Moreover, although *Bidens pilosa* L., *Bidens laevis*, and *Bidens aurea* belong to *Bidens* plant, they are very similar to cosmos. Therefore, it is a well-known fact that *Bidens laevis* with red-purple colored ray florets has already existed.

Example 1

Botanical Description of 'Florvikano'

[0047] Plants of the new *Bidens* have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions 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 'Florvikano'. These characteristics in combination distinguish 'Florvikano' as a new and distinct *Bidens* plant:

1. Upright, outwardly spreading to trailing and mounding plant habit.
2. Vigorous growth habit.
3. Freely branching habit.
4. Freely 5 flowering habit.
5. Long flowering period.
6. Inflorescences with yellow orange and dark orange bicolored ray florets and bright yellow-colored disc florets.
7. Strong peduncles that hold the inflorescences above and 10 beyond the foliar plane.

[0048] Plants of the new *Bidens* differ primarily from plants of the parent, 'K-SAIKA001' in ray floret color as inflorescences of the new *Bidens* have yellow orange and dark orange bi-colored ray florets whereas inflorescences of 'K-SAIKA001' have yellow and subdued orange bi-colored ray florets.

[0049] Plants of the new *Bidens* can be compared to plants of *Bidens triplinervia* 'Yellow Charm', not patented. In side-by-side comparisons conducted in Okayama-ken, Japan, plants of the new *Bidens* differed primarily from plants of 'Yellow Charm' in the following characteristics:

1. Plants of the new *Bidens* were larger than plants of Yellow Charm'.
2. Plants of the new *Bidens* were more outwardly spreading and trailing than and not as upright as plants of 'Yellow Charm'.

3. Plants of the new *Bidens* had narrower and darker green colored leaves than plants of 'Yellow Charm'.
4. Plants of the new *Bidens* and 'Yellow Charm' differed in ray floret color as plants of 'Yellow Charm' had solid yellow colored ray florets.
5. Plants of the new *Bidens* were more high temperature tolerant than plants of 'Yellow Charm'.

Detailed Botanical Description

[0050] The following observations and measurements describe plants grown in 30-cm containers during the late spring in a polyethylene-covered greenhouse in Okayama ken, Japan and under cultural practices which approximate those generally used in commercial *Bidens* production. During the production of the plants, day temperatures ranged from 20° C. to 30° C. and night temperatures ranged from 5° C. to 10° C. Plants were one year 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:

[0051] *Bidens triplinervia* 'Floribikano'.

Parentage:

[0052] Self-pollination of *Bidens triplinervia* 'K-SAIKA-OOI', not patented.

Propagation:

- [0053] Type: By vegetative cuttings.
- [0054] Time to initiate roots, summer: About two weeks at about 20° C. to 30° C.
- [0055] Time to initiate roots, winter: About three weeks at about 10° C. to 15° C.
- [0056] Time to produce a rooted young plant, summer: About three weeks at about 20° C. to 30° C.
- [0057] Time to produce a rooted young plant, winter: About four weeks at about 10° C. to 15° C.
- [0058] Root description: Fine, fibrous; 5 white in color.
- [0059] Rooting habit: Freely branching; dense.

Plant Description:

- [0060] Plant and growth habit: Upright, outwardly spreading to trailing and mounding plant habit; vigorous growth habit.
- [0061] Branching habit: Freely branching habit with lateral branches potentially forming at every node.
- [0062] Plant height: About 30 cm.
- [0063] Plant diameter or spread: About 100 cm.
- [0064] Lateral Branches:
- [0065] 15 Length: About 10 cm.
- [0066] Diameter: About 1 mm.
- [0067] Internode length: About 10 cm.
- [0068] Strength: Strong, flexible.
- [0069] Texture: Slightly pubescent.
- [0070] Color: Close to 144A.
- [0071] Foliage Description:
- [0072] Arrangement: 5 Opposite, simple.
- [0073] Length: About 3.5 cm.
- [0074] Width: About 2.5 cm.
- [0075] Shape: Roughly deltoid; pinnatisect.

- [0076] Apex: Acute.
- [0077] Base: Acute.
- [0078] Margin: Deeply incised; lacinate.
- [0079] Texture, upper and lower surfaces: Smooth, glabrous.
- [0080] Venation pattern: Pinnate.
- [0081] Color:
- [0082] Developing leaves, upper surface: Close to 137A.
- [0083] Developing leaves, lower surface: Close to 138A.
- [0084] Fully expanded leaves, upper surface: Close to NI37A;
- [0085] venation, close to 137A.
- [0086] Fully expanded leaves, lower surface: Close to 137C,
- [0087] venation, close to NI37C.
- [0088] Petioles:
- [0089] Length: About 9 mm.
- [0090] Diameter: About 4 mm.
- [0091] Texture, upper surface: Sparsely pubescent.
- [0092] Texture, lower surface: Smooth, glabrous.
- [0093] 10 Color, upper and lower surfaces: Close to 146C.
- [0094] Inflorescence Description:
- [0095] Appearance: Single (daisy) inflorescence form with ray and disc florets; inflorescences positioned above and beyond the foliar plane on strong peduncles; inflorescences face upright to outwardly.
- [0096] Flowering habit: Freely flowering habit with numerous inflorescences developing per plant. Fragrance: None detected.
- [0097] Natural flowering season: Long flowering period, plants flower continuously from spring until the autumn in Japan.
- [0098] Inflorescence longevity: Inflorescences last about one Week on the plant; inflorescences persistent.
- [0099] Inflorescence Buds:
- [0100] Height: About 3 mm.
- [0101] Diameter: About 3 mm.
- [0102] Shape: Ovoid.
- [0103] 10 Color: Close to 151A.
- [0104] Inflorescence Size:
- [0105] Diameter: About 3.5 cm.
- [0106] Depth (height): About 1 cm.
- [0107] Disc diameter: About 4 mm.
- [0108] Receptacle diameter: About 1.2 cm.
- [0109] Receptacle height: About 4 mm.
- [0110] Receptacle color: Close to 144B.
- [0111] Ray Florets:
- [0112] Length: About 1.7 cm.
- [0113] Width: About 1.1 cm.
- [0114] Shape: Ovate.
- [0115] Apex: Emarginate.
- [0116] Base: Obtuse.
- [0117] Margin: Entire.
- [0118] Texture, upper and lower surfaces: Smooth, glabrous.
- [0119] Number of ray florets per inflorescence: About five arranged in a single whorl.
- [0120] Color:
- [0121] When opening, upper surface: Towards the apex, close to N25C; towards the base, close to N34A.
- [0122] When opening, lower surface: Close to 163A.
- [0123] Fully opened, upper surface: Towards the apex, close to 23A; towards the base, close to 34A; with devel-

opment, color towards the apex becomes closer to 17C and towards the base, close to 168A.

[0124] Fully opened, lower surface: Close to 163A; with development, color becomes closer to 162A.

[0125] Disc Florets:

[0126] Shape: Tubular; apex dentate.

[0127] Length: About 5 mm.

[0128] Diameter: About 1 mm.

[0129] Number of disc florets per inflorescence: About 42.

[0130] Color, when Opening:

[0131] Apex: Close to 12B.

[0132] Mid-section: Close to 161A.

[0133] Base: Close to 145C.

[0134] Color, Fully Opened:

[0135] Apex: Close to 14A.

[0136] Mid-section: Close to 151A.

[0137] Base: Close to 145B.

[0138] Phyllaries:

[0139] Quantity per inflorescence: About six in a single whorl.

[0140] Length: About 3 mm.

[0141] Width: About 0.6 mm.

[0142] Shape: Lanceolate.

[0143] Apex: Acute.

[0144] Base: Truncate.

[0145] Margin: Entire.

[0146] Color, upper and lower surfaces: Close to 137B.

[0147] Texture, upper and lower surfaces: Smooth, glabrous.

[0148] Peduncles:

[0149] Length, terminal peduncle: About 7 cm.

[0150] Length, fourth peduncle: About 10.2 cm.

[0151] Diameter: About 1 mm.

[0152] Strength: Strong; flexible.

[0153] Aspect: Upright to outwardly holding inflorescences above and beyond the foliar plane.

[0154] Texture: Smooth, glabrous.

[0155] Color: Close to 146A.

[0156] Reproductive Organs:

[0157] Androecium: Present on disc florets only.

[0158] Quantity per 5 disc floret: One.

[0159] Filament length: About 1.5 mm.

[0160] Filament color: Close to 145D.

[0161] Anther shape: Lanceolate.

[0162] Anther length: About 1.2 mm.

[0163] Anther color: Close to 200A.

[0164] Pollen amount: Scarce.

[0165] Pollen color: Close to 21A.

[0166] Gynoecium: Present on ray and disc florets.

[0167] Pistil length: About 7 mm.

[0168] Style length: About 5 mm.

[0169] Style color: Close to 145D.

[0170] Stigma shape: Bi-parted.

[0171] Stigma color: Close to 15A.

[0172] Ovary color: Close to 145D.

[0173] Seeds and fruits: Seed and fruit development have not been observed on plants of the new *Bidens*.

Disease & Pest Resistance:

[0174] Plants of the new *Bidens* have not been shown to be resistant to pathogens and pests common to *Bidens* plants.

Garden Performance:

[0175] Plants of the new *Bidens* have exhibited good tolerance to rain and wind and have been observed to tolerate temperatures from about 10 C. to about 47° C.

Example 2

Botanical Description of 'Florbikanoyel'

[0176] Plants of the new *Bidens* have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions such as temperature and light intensity, without, however, any variance in genotype.

[0177] The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Florbikanoyel'. These characteristics in combination distinguish 'Florbikanoyel' as a new and distinct *Bidens* plant:

1. Large, upright, outwardly spreading and mounding plant habit.

2. Vigorous growth habit.

3. Freely branching habit.

4. Freely 5 flowering habit.

5. Long flowering period.

6. Inflorescences with orange-colored ray florets with a "brush" of yellow towards the base and yellow-colored disc florets.

7. Strong peduncles that hold the inflorescences above and beyond the foliar plane.

[0178] Plants of the new *Bidens* differ primarily from plants of the parent, 'K-SAIKA001' in ray floret color as inflorescences of the new *Bidens* have orange-colored ray florets with a "brush" of yellow towards the base of the floret whereas inflorescences of 'K-SAIKA001' have yellow and subdud orange bi-colored ray florets.

[0179] Plants of the new *Bidens* can be compared to plants of *Bidens triplinervia* 'Florbikano', disclosed in US. Plant patent application Ser. No. 13/507,488. In side-by-side comparisons conducted in Okayama-ken, Japan, plants of the new *Bidens* differed from plants of 'Florbikano' in the following 5 characteristics:

[0180] 1. Plants of the new *Bidens* were taller than plants of 'Florbikano'.

[0181] 2. Plants of the new *Bidens* had longer and thicker lateral branches than plants of 'Florbikano'.

[0182] 3. Plants of the new *Bidens* and 'Florbikano' differed in ray floret color as plants of 'Florbikano' had yellow orange and dark orange bi-colored ray florets.

[0183] 4. Plants of the new *Bidens* had longer peduncles than plants of 'Florbikano'. Detailed Botanical Description

[0184] The following observations and measurements describe plants grown in 40-cm containers during the late spring in a polyethylene-covered greenhouse in Okayama ken, Japan and under cultural practices which approximate those generally used in commercial *Bidens* production. During the production of the plants, day temperatures ranged from 20° C. to 30° C. and night temperatures ranged from 5° C. to 10° C. Plants were one year 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:

[0185] *Bidens triplinervia* 'Florbikanoyel'.

Parentage:

[0186] Self-pollination of *Bidens triplinervia* 'K-SAIKA001', not patented.

Propagation:

- [0187] Type: By vegetative cuttings.
 [0188] Time to initiate roots, summer: About two weeks at temperatures about 20° C. to 30° C.
 [0189] Time to initiate roots, winter: About three weeks at temperatures about 10° C. to 15° C.
 [0190] Time to produce a rooted young plant, summer: About three weeks at temperatures about 20° C. to 30° C.
 [0191] Time to produce a rooted young plant, winter: About four weeks at temperatures about 10° C. to 15° C.
 [0192] Root description: Fine, fibrous; white in color.
 [0193] Rooting habit: Freely branching; dense.
 [0194] Plant Description:
 [0195] Plant and growth habit: Large, upright, outwardly spreading and mounding plant habit; vigorous growth habit.
 [0196] Branching habit: Freely branching habit with lateral branches potentially forming at every node.
 [0197] Plant height: About 40 cm.
 [0198] Plant diameter or spread: About 100 cm.
 [0199] Lateral Branches:
 [0200] Length: About 20 cm.
 [0201] Diameter: About 1.6 mm.
 [0202] Internode length: About 11.5 cm.
 [0203] Strength: Strong, flexible.
 [0204] 15 Texture: Slightly pubescent.
 [0205] Color: Close to 144A tinted with close to N77A.
 [0206] Foliage Description:
 [0207] Arrangement: Opposite, simple.
 [0208] Length: About 3.5 cm.
 [0209] Width: About 2.3 cm.
 [0210] Shape: Roughly deltoid; 5 pinnatisect.
 [0211] Apex: Acute.
 [0212] Base: Acute.
 [0213] Margin: Deeply incised; laciniate.
 [0214] Texture, upper and lower surfaces: Smooth, glabrous.
 [0215] Venation pattern: Pinnate.
 [0216] Color:
 [0217] Developing leaves, lower surface: Close to 137D.
 [0218] Developing leaves, upper surface: Close to N137D.
 [0219] Fully expanded leaves, upper surface: Close to 137A, venation, close to 137A.
 [0220] Fully expanded leaves, lower surface: Close to 137C, venation, close to 137B.
 [0221] Petioles:
 [0222] Length: About 1.4 cm.
 [0223] Diameter: About 0.9 mm.
 [0224] Texture, upper surface: Sparsely pubescent.
 [0225] Texture, lower surface: 5 Smooth, glabrous.
 [0226] Color, upper surface: Close to 137B tinted with close to N77B.
 [0227] Color, lower surface: Close to 137B.

Inflorescence Description:

- [0228] Appearance: Single (daisy) inflorescence form with ray and disc florets; inflorescences positioned above and beyond the foliar plane on strong peduncles; inflorescences face mostly upright to outwardly.
 [0229] Flowering habit: Freely flowering habit with numerous inflorescences developing per plant.
 [0230] Fragrance: None detected.
 [0231] Natural flowering season: Long flowering period, plants flower continuously from spring until the autumn in Japan.
 [0232] Inflorescence longevity: Inflorescences last about one week on the plant; inflorescences persistent.
 [0233] Inflorescence Buds:
 [0234] Height: About 4 mm.
 [0235] Diameter: About 3.5 mm.
 [0236] Shape: Ovoid.
 [0237] Color: Close to 151A and 152A.
 [0238] Inflorescence Size:
 [0239] Diameter: About 3.8 cm.
 [0240] Depth (height): About 1 cm.
 [0241] Disc diameter: About 3.5 mm.
 [0242] Receptacle diameter: About 1.2 cm.
 [0243] 15 Receptacle height: About 3.5 mm.
 [0244] Receptacle color: Close to 147A.
 [0245] Ray Florets:
 [0246] Length: About 1.9 cm.
 [0247] Width: About 1.3 cm.
 [0248] Shape: Ovate.
 [0249] 5 Apex: Acute.
 [0250] Base: Obtuse.
 [0251] Margin: Entire.
 [0252] Texture, upper and lower surfaces: Smooth, glabrous.
 [0253] Number of ray florets per inflorescence: Five arranged in a single Whorl.

Color:

- [0254] When opening, upper surface: Towards the apex, close to 169A; towards the base, close to N163C.
 [0255] When opening, lower surface: Towards the apex, 15 close to 169A; towards the base, close to 21A.
 [0256] Fully opened, upper surface: Towards the apex, close to 169A; towards the base, close to 17A; with development, color towards the apex becomes closer to N163B and towards the base, close to 17B.
 [0257] Fully opened, lower surface: Towards the apex, close to 169B; towards the base, close to 17B; with development, color towards the 5 apex becomes closer to N163B and towards the base, close to 17C.

Disc Florets:

- [0258] Shape: Tubular; apex dentate.
 [0259] Length: About 5 mm.
 [0260] Diameter: About 1 mm
 [0261] Number of disc florets per inflorescence: About 39.
 [0262] Color, when opening: Towards the apex, close to 1620; towards the base, close to 144C. Color, fully opened: Towards the apex, close to 17B; towards the base, close to 144B.

Phyllaries:

- [0263] Quantity per inflorescence: Six in a single whorl.
 [0264] Length: About 4 mm.
 [0265] Width: About 0.8 mm.
 [0266] Shape: Lanceolate.
 [0267] Apex: Acute.
 [0268] Base: Truncate.
 [0269] Margin: Entire.
 [0270] Texture, upper and lower surfaces: Smooth, glabrous.
 [0271] Color, upper and lower surfaces: Close to 137A.
 [0272] Peduncles:
 [0273] Length, terminal peduncle: About 12.5 cm.
 [0274] Diameter: About 1.3 mm.
 [0275] Strength: Strong; flexible.
 [0276] Aspect: Erect to about 45° from vertical; peduncles holding inflorescences above and beyond the foliar plane.
 [0277] Texture: Smooth, glabrous.
 [0278] Color: Close to 144A tinted with close to N77A.
 [0279] Reproductive Organs:
 [0280] Androecium: Present on disc florets only.
 [0281] Quantity per disc floret: One.
 [0282] Filament length: About 1.2 mm.
 [0283] Filament color: 5 Close to 145C.
 [0284] Anther shape: Lanceolate.
 [0285] Anther length: About 1.2 mm.
 [0286] Anther color: Close to 200A.
 [0287] Pollen amount: Abundant.
 [0288] Pollen color: Close to 21A.
 [0289] Gynoecium: Present on ray and disc florets.
 [0290] Pistil length: About 5.5 mm.
 [0291] Style length: About 3 mm.
 [0292] Style color: Close to 153D.
 [0293] Stigma shape: Bi-parted.
 [0294] Stigma color: Close to 15A.
 [0295] Ovary color: Close to 145D.
 [0296] Seeds and fruits: Seed and fruit development have not been observed on plants of the new *Bidens*.

Disease & Pest Resistance:

- [0297] Plants of the new *Bidens* have not been shown to be resistant to pathogens and pests common to *Bidens* plants.

Garden Performance:

- [0298] Plants of the new *Bidens* have exhibited good tolerance to rain and wind and have been observed to tolerate temperatures from about 1° C. to about 47° C.

Example 3

Botanical Description of 'Florbikanre'

[0299] Plants of the new *Bidens* have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions 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 'Florbikanre'. These characteristics in combination distinguish 'Florbikanre' as a new and distinct *Bidens* plant:

1. Large, upright, outwardly spreading to somewhat trailing and mounding plant habit.
2. Vigorous growth habit.
3. Freely branching habit.
4. Freely flowering habit.
5. Long flowering period.
6. Inflorescences with light red-colored ray florets and yellow-colored disc florets.
7. Strong peduncles that hold the inflorescences above and beyond the foliar plane.

[0300] Plants of the new *Bidens* differ primarily from plants of the parent, 'KR-SAIKA001' in ray floret color as inflorescences of the new *Bidens* have light red-colored ray florets whereas inflorescences of 'KRSAIKA001' have subdued red colored ray florets.

[0301] Plants of the new *Bidens* can be compared to plants of *Bidens triplinervia* 'Florbikano', disclosed in US. Plant patent application Ser. No. 13/507,488. In side-by-side comparisons conducted in Okayama-ken, Japan, plants of the new *Bidens* differed from plants of 'Florbikano' in the following characteristics:

[0302] 1. Plants of the new *Bidens* were taller than plants of 'Florbikano'.

[0303] 2. Plants of the new *Bidens* had longer and thicker lateral branches than plants of 'Florbikano'.

[0304] 3. Plants of the new *Bidens* had longer leaves than plants of 'Florbikano'.

[0305] 4. Plants of the new *Bidens* and 'Florbikano' differed in ray floret color as plants of 'Florbikano' had yellow orange and dark orange bi-colored ray florets.

[0306] 5. Plants of the new *Bidens* had longer peduncles than plants of 'Florbikano'. Detailed Botanical Description

[0307] The aforementioned photographs and following observations and measurements describe plants grown in 40-cm containers during the late spring in a polyethylene covered greenhouse in Okayama-ken, Japan and under cultural practices which approximate those generally used in commercial *Bidens* production. During the production of the plants, day temperatures ranged from 20° C. to 30° C. and night temperatures ranged from 5° C. to 10° C. Plants were one year 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.

[0308] Botanical Classification:

[0309] *Bidens triplinervia* 'Florbikanre' Parentage:

[0310] Self-pollination of *Bidens triplinervia* 'KRSAIKA001', not patented.

[0311] Propagation:

[0312] Type: By vegetative cuttings.

[0313] Time to initiate roots, summer: About two weeks at temperatures about 20° C. to 30° C. Time to initiate roots, winter: About three weeks at temperatures about 10° C. to 15° C. Time to produce a rooted young plant, summer: About three weeks at temperatures about 20° C. to 30° C.

[0314] Time to produce a rooted young plant, winter: About four weeks at temperatures about 10° C. to 15° C.

[0315] Root description: Fine, fibrous; white in color.

[0316] Rooting habit: Freely branching; dense.

[0317] Plant Description:

[0318] Plant and growth habit: Large, upright, outwardly spreading to somewhat trailing and mounding plant habit; vigorous growth habit.

[0319] Branching habit: Freely branching habit with lateral branches potentially forming at every node.

[0320] Plant height: About 40 cm.

[0321] Plant diameter or spread: About 100 cm.

Lateral Branches:

[0322] Length: About 21 cm.

[0323] Diameter: About 1.3 mm.

[0324] Internode length: About 11 cm.

[0325] Strength: Strong, flexible.

[0326] Texture: Slightly pubescent.

[0327] Color: Close to 144B tinted with close to N77A.

[0328] Foliage Description:

[0329] Arrangement: Opposite, simple.

[0330] Length: About 4 cm.

[0331] Width: About 2.3 cm.

[0332] Shape: Roughly deltoid; 5 pinnatisect.

[0333] Apex: Acute.

[0334] Base: Acute.

[0335] Margin: Deeply incised; lacinate.

[0336] Texture, upper and lower surfaces: Smooth, glabrous.

[0337] Venation pattern: Pinnate.

Color:

[0338] Developing leaves, upper surface: Close to 137B.

[0339] Developing leaves, lower surface: Close to 138B.

[0340] Fully expanded leaves, upper surface: Close to N137A; venation, close to 137B.

[0341] Fully expanded leaves, lower surface: Close to 137C, venation, close to 137A.

Petioles:

[0342] Length: About 1.2 cm.

[0343] Diameter: About 0.6 mm.

[0344] Texture, upper surface: Sparsely pubescent.

[0345] Texture, lower surface: 5 Smooth, glabrous.

[0346] Color, upper surface: Close to N77A.

[0347] Color, lower surface: Close to 146A.

Inflorescence Description:

[0348] Appearance: Single (daisy) inflorescence form with ray and disc florets; inflorescences positioned above and beyond the foliar plane on strong peduncles; inflorescences face mostly upright to outwardly.

[0349] Flowering habit: Freely flowering habit with numerous inflorescences developing per plant. Fragrance: None detected.

[0350] Natural flowering season: Long flowering period, plants flower continuously from spring until the autumn in Japan.

[0351] Inflorescence longevity: Inflorescences last about one week on the plant; inflorescences persistent.

Inflorescence Buds:

[0352] Height: About 5 mm.

[0353] Diameter: 5 About 4 mm.

[0354] Shape: Ovoid.

[0355] Color: Close to 151A.

Inflorescence Size:

[0356] Diameter: About 3.6 cm.

[0357] Depth (height): About 9 mm.

[0358] Disc diameter: About 4 mm.

[0359] Receptacle diameter: About 1 cm.

[0360] Receptacle height: About 3 mm.

[0361] Receptacle color: Close to 137B.

Ray Florets:

[0362] Length: About 1.8 cm.

[0363] Width: About 1.1 cm.

[0364] Shape: Ovate.

[0365] Apex: Emarginate.

[0366] Base: Obtuse.

[0367] Margin: Entire.

[0368] Texture, upper and lower surfaces: 5 Smooth, glabrous.

[0369] Number of ray florets per inflorescence: Five arranged in a single whorl.

[0370] Color: When opening, upper surface: Close to 42A.

[0371] When opening, lower surface: Close to 163A and 169A.

[0372] Fully opened, upper surface: Close to 42A; towards the base, close to 28A; with development, color becomes closer to 169A and towards the base, close 15 to 163A.

[0373] Fully opened, lower surface: Close to 163B and N163A; color does not change with development.

Disc Florets:

[0374] Shape: Tubular; apex dentate.

[0375] Length: About 5 mm.

[0376] Diameter: About 1 mm.

[0377] Number of disc florets per inflorescence: 5 About 42.

[0378] Color, when opening: Towards the apex, close to N167C; towards the base, close to 145B. Color, fully opened: Towards the apex, close to 172A; towards the base, close to 145A.

Phyllaries:

[0379] Quantity per inflorescence: Seven to eight in a single Whorl.

[0380] Length: About 5 mm.

[0381] Width: About 0.8 mm.

[0382] Shape: Lanceolate.

[0383] Apex: Acute.

[0384] Base: Truncate.

[0385] Margin: Entire.

[0386] Texture, upper and lower surfaces: Smooth, glabrous.

[0387] Color, upper and lower surfaces: Close to 137B.

Peduncles:

[0388] Length, terminal peduncle: 5 About 19 cm.

[0389] Diameter: About 0.9 mm.

[0390] Strength: Strong; flexible.

[0391] Aspect: Erect to about 45° from vertical; peduncles holding inflorescences above and beyond the foliar plane.

[0392] Texture: Smooth, glabrous.

[0393] Color: Close to 144B tinted with close to N77A.

Reproductive Organs:

- [0394] Androecium: Present on disc florets only.
- [0395] Quantity per disc floret: One.
- [0396] Filament length: About 2 mm.
- [0397] Filament color: Close to 145D.
- [0398] Anther shape: Lanceolate.
- [0399] Anther length: About 1.6 mm.
- [0400] Anther color: Close to 200A.
- [0401] Pollen amount: Abundant.
- [0402] Pollen color: Close to 21A.
- [0403] Gynoecium: Present on ray 5 and disc florets.
- [0404] Pistil length: About 6.5 mm.
- [0405] Style length: About 4 mm.
- [0406] Style color: Close to 153D.
- [0407] Stigma shape: Bi-parted.
- [0408] Stigma color: Close to 15A.
- [0409] Ovary color: Close to 145D.
- [0410] Seeds and fruits: Seed and fruit development have not been observed on plants of the new *Bidens*.

Disease & Pest Resistance:

- [0411] Plants of the new *Bidens* have not been shown to be resistant to pathogens and pests common to *Bidens* plants.

Garden Performance:

- [0412] Plants of the new *Bidens* have exhibited good tolerance to rain and wind and have been observed to tolerate temperatures from about 1° C. to about 47° C.

Example 4

Stable and Predictable Introgression of Coloration

[0413] The instant *Bidens* coloration and color patterns can be stably and predictably introgressed into diverse *Bidens* genetic backgrounds. The instant *Bidens* can be used as a male or female parent in crosses for introducing the trait into new *Bidens* plants, thereby creating diverse *Bidens* genetic backgrounds.

[0414] Additionally, and as known in the art, *Bidens* plants can be reproduced asexually by vegetative propagation or other clonal method known in the art. For example, and in no way limiting, a *Bidens* plant having at least one inflorescence with red ray florets, can be reproduced by (a) obtaining a tissue cutting from said plant, (b) culturing said tissue cutting under conditions sufficient to produce a plantlet with roots and shoots; and (c) growing said plantlet to produce a plant.

Example 5

[0415] Referring to FIG. 9, a *Bidens* plant according to example 5 will be described. The *Bidens* plant according to example 5 belongs to *Bidens triplinervia* or any progeny of *Bidens triplinervia*. The *Bidens* plant coloration and color patterns is stably and predictably introgressed into diverse *Bidens* genetic background.

[0416] Further, the *Bidens* plant includes any *Bidens* hybrid which is developed by crossing *Bidens triplinervia* with another *Bidens* type. For example, a new *Bidens triplinervia*, which comprises characteristics of the *Bidens* plant according to example 5, is created by making use of *Bidens triplinervia*. Then any *Bidens* hybrid which is developed from the new *Bidens triplinervia*, is created by crossing

the new *Bidens triplinervia* with any *Bidens* such as *Bidens ferulifolia* that is capable of crossing with *Bidens triplinervia*. And, a new *Bidens* plant such as *Bidens ferulifolia*, which comprises the characteristics of example 5, is able to be created in the end. It is needless to say that producing hybrid by crossing a plant with another plant type and then developing the hybrid with unique characteristics is a well-known conventional technique in plant fields.

[0417] As shown in FIG. 9, the *Bidens* plant according to example 5 comprises ray florets and disc florets, wherein the *Bidens* plant belongs to *Bidens triplinervia* or any progeny of *Bidens triplinervia*; and the ray florets have a red color. More specifically, the ray florets are entirely light red-colored, and the disc florets have a yellow color. Further at least one ray floret comprises one petal and at least one extra petaloids which connect to the petal, and the petal and the extra petaloids have the same color.

[0418] Detailed descriptions about the ray florets of the *Bidens* plant according to example 5 are as follows. Other botanical features of the *Bidens* plant according to example 5 are similar to the *Bidens* plants written as “Florbikanoyel”, “Florbikanre”, and “Florbikano”.

Ray Florets:

- [0419] Length: About 2.5 cm.
- [0420] Width: About 1.5 cm.
- [0421] Shape: Ovate.
- [0422] Apex: Emarginate.
- [0423] Base: Obtuse.
- [0424] Margin: Entire.
- [0425] Texture, upper and lower surfaces: Smooth, glabrous.
- [0426] Number of ray florets per inflorescence: About 8–11 (mostly, 10) arranged in a single whorl, with extra petaloids.

Petaloids:

- [0427] Quantity of petaloid: 1-2 per floret, 8–22 per inflorescence
- [0428] Color: the same as ray florets
- [0429] Length: About 2.0 cm.
- [0430] Width: About 0.4 cm.
- [0431] Shape: Elliptical.
- [0432] Apex: Acute.
- [0433] Base: Acute.
- [0434] Margin: Entire.

Color:

- [0435] When opening, upper surface: close to 42A.
- [0436] When opening, lower surface: close to 163A; with development, close to 169A.
- [0437] Fully opened, upper surface: Towards the apex, close to 42A; towards the base, close to 28A; with development, color towards the apex becomes closer to 169A and towards the base, close to 163A.
- [0438] Fully opened, lower surface: close to 163B; with development, close to N163A.
- [0439] Hereinafter, a method for producing the new *Bidens* plant according to example 5 will be described. First, the new *Bidens* plant with the characteristics of example 5 is created by utilizing crossing technique and the phenomenon of mutation. Second, by making use of selection technology, the *Bidens* individuals having acquired unique

characteristics (that is, the ray florets are entirely light red-colored, at least one ray floret comprises one petal and at least one extra petaloids, which connects to the petal, and the petal and the extra petaloids have the same color) are selected.

[0440] Further, a method for producing the *Bidens* plant according to example 5, comprising (a) crossing a first *Bidens* plant comprising characteristics of example 5, with a second *Bidens* plant that comprises or does not comprise the characteristics of example 5, and (b) selecting progeny having the characteristics. Furthermore, tissue from the *Bidens* plant of example 5 can be asexually propagated to produce the *Bidens* plant comprising the characteristics of example 5, not to mention, this asexually reproduce includes a conventional cutting from the *Bidens* plants. And it is needless to say that the *Bidens* plants can be produced from seeds having the characteristics of example 5. The seeds are sexually reproduced by utilizing the *Bidens* plants.

Example 6

[0441] Referring to FIG. 10, a *Bidens* plant according to example 6 will be described. The *Bidens* plant according to example 6 belongs to *Bidens triplinervia* or any progeny of *Bidens triplinervia* the same as example 5. The *Bidens* plant according to example 6 comprises ray florets and disc florets, wherein the *Bidens* plant belongs to *Bidens triplinervia* or any progeny of *Bidens triplinervia*; and the ray florets have a red color. More specifically, as shown in FIG. 10, the ray florets are entirely dark red-colored, and the disc florets have a yellow color. Further, ray florets with a black color will soon be realized by making use of the *Bidens* plant according to example 6.

[0442] Detailed descriptions about the ray florets of the *Bidens* plant according to example 6 are as follows. Other botanical features of the *Bidens* plant according to example 6 are similar to the *Bidens* plants written as “Florbianoyel”, “Florbianre”, and “Florbiano”.

Ray Florets:

- [0443] Length: About 2.5 cm.
- [0444] Width: About 1.5 cm.
- [0445] Shape: Ovate.
- [0446] Apex: Emarginate.
- [0447] Base: Obtuse.
- [0448] Margin: Entire.
- [0449] Texture, upper and lower surfaces: Smooth, glabrous.
- [0450] Number of ray florets per inflorescence: About 8~11 (mostly, 10) arranged in a single whorl, with extra petaloids.

Petaloids:

- [0451] Quantity of petaloid: 1-2 per floret, 8~22 per inflorescence
- [0452] Color: the same as ray florets
- [0453] Length: About 2.0 cm.
- [0454] Width: About 0.4 cm.
- [0455] Shape: Elliptical.
- [0456] Apex: Acute.
- [0457] Base: Acute.
- [0458] Margin: Entire.

Color:

- [0459] When opening, upper surface: Close to 46A.
- [0460] When opening, lower surface: Close to 46A.
- [0461] Fully opened, upper surface: Close to N34A; color does not change with development. Fully opened, lower surface: Close to N34A; color does not change with development.
- [0462] Hereinafter, a method for producing the new *Bidens* plant according to example 6 will be described. First, the new *Bidens* plant with the characteristics of example 6 is created by utilizing crossing technique and the phenomenon of mutation. Second, by making use of selection technology, the *Bidens* individuals having acquired unique characteristics (that is, the ray florets are entirely dark red-colored, and the disc florets have a yellow color) are selected.
- [0463] Further, a method for producing the *Bidens* plant according to example 6, comprising (a) crossing a first *Bidens* plant comprising characteristics of example 6, with a second *Bidens* plant that comprises or does not comprise the characteristics of example 6, and (b) selecting progeny having the characteristics. Furthermore, tissue from the *Bidens* plant of example 6 can be asexually propagated to produce the *Bidens* plant comprising the characteristics of example 6, not to mention, this asexually reproduce includes a conventional cutting from the *Bidens* plants. And it is needless to say that the *Bidens* plants can be produced from seeds having the characteristics of example 6. The seeds are sexually reproduced by utilizing the *Bidens* plants.

[0464] While the foregoing has described what are considered to be the best mode and/or other examples, it is understood that various modifications may be made therein and that subject matter disclosed herein may be implemented in various forms and examples, and that they may be applied in numerous applications, only some of which have been described herein. It is intended by the following claims to claim any and all modifications and variations that fall within the true scope of the present teachings.

What is claimed is:

1. A *Bidens* plant comprising: ray florets and disc florets, wherein the *Bidens* plant belongs to *Bidens triplinervia* or any progeny of *Bidens triplinervia*; and the ray florets have a red color.
2. The *Bidens* plant of claim 1, wherein the ray florets are entirely light red-colored, and the disc florets have a yellow color.
3. The *Bidens* plant of claim 1, wherein the *Bidens* plant coloration and color patterns are stably and predictably introgressed into diverse *Bidens* genetic background.
4. A method for producing the *Bidens* plant of claim 1, comprising:
 - (a) crossing a first *Bidens* plant comprising the characteristics of claim 1, with a second *Bidens* plant that comprises or does not comprise the characteristics of claim 1, and
 - (b) selecting progeny having the characteristics of claim 1.
5. A method for asexually reproducing the *Bidens* plant of claim 1, comprising:
 - (a) obtaining a tissue cutting from said plant,
 - (b) culturing said tissue cutting under conditions sufficient to produce a plantlet with roots and shoots; and
 - (c) growing said plantlet to produce a plant.

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