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Nelson et al.

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(54) **STRAWBERRY PLANT NAMED ‘BG-4315’**
(50) Latin Name: *Fragaria ananassa*
Varietal Denomination: **BG-4315**
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(57) **ABSTRACT**
This invention relates to a new and distinct variety of strawberry plant named ‘BG-4315’. This new strawberry plant named ‘BG-4315’ is primarily adapted to the growing conditions of the central coast of California, and is primarily characterized by its weak interveinal blistering, acute terminal leaflet base, inner calyx is smaller than outer calyx, orange red to red fruit color, and medium to large fruit size.
4 Drawing Sheets

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Latin name of the genus and species of the plant claimed:
Fragaria ananassa.
Variety denomination: ‘BG-4315’.

BACKGROUND OF THE INVENTION
The present invention relates to a new and distinct strawberry variety named ‘BG-4315’. This new variety is a result of a controlled cross made in 2002 in an ongoing breeding program between strawberry variety designated ‘BG-633’ (patented, U.S. Plant Pat. No. 13,320) and strawberry variety designated ‘BG-1445’ (a non-patented selection). Due to the combining of the reciprocal seed lots, it is unknown as to which parent variety is the seed parent and which parent variety is the pollen parent. The variety is botanically known as *Fragaria ananassa*.

The seedling resulting from the aforementioned cross was selected from a controlled breeding plot in Ventura County, Calif. in the winter of 2004. After its selection, the new variety was asexually propagated by stolons in both San Joaquin County, Calif. and Siskiyou County, Calif. The new variety was extensively tested over the next several years in fruiting fields in Ventura County, Calif. This propagation has demonstrated that the combination of traits disclosed herein as characterizing the new variety are fixed and remain true to type through successive generations of asexual reproduction.

BRIEF SUMMARY OF THE INVENTION
‘BG-4315’ is primarily adapted to the climate and growing conditions of the central coast of California. The nearby Pacific Ocean provides the needed humidity and moderate temperatures to produce a strong vigorous plant and maintain fruit quality during the winter and spring production months. The following traits have been repeatedly observed and are determined to be unique characteristics of ‘BG-4315’, which in combination distinguish this strawberry plant as a new and distinct variety:

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1. Weak interveinal blistering;
2. Acute terminal leaflet base;
3. Inner calyx is smaller than outer calyx;
4. Orange red to red fruit color; and
5. Medium to large fruit size.
The strawberry variety that is believed to be most closely related to the new variety ‘BG-4315’ is ‘BG-1975’ (patented, U.S. Plant Pat. No. 17,725). In side-by-side comparisons to the similar strawberry variety ‘BG-1975’, ‘BG-4315’ differs by the following combination of characteristics as described in Table 1.

TABLE 1			
COMPARISON TO THE SIMILAR VARIETY			
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)	
Marketable yield (gm/plant)	1,180	1,080	
Fruit predominant shape	Conical	Ranges from conical to almost cylindrical	
Insertion of achenes	Level with the surface	Ranges from level with to below the surface	
50% of plants with ripe fruit	Medium	Ranges from medium to early	
Plant size	Medium	Ranges from medium to large	
Foliage color	Medium green	Ranges from medium to light yellow green	
Petiole pubescence	Moderate	Heavy	
Position of fruiting truss relative to foliage	Level with the foliage	Ranges from level with to above the foliage	

For identification, a series of molecular markers have been determined for this new variety.
‘BG-4315’ differs from its parents, ‘BG-633’ and ‘BG-1445’ by the following combination of characteristics as described in Table 2.

TABLE 2

COMPARISON WITH PARENT VARIETIES			
Characteristic	'BG-4315'	'BG-633' (U.S. Plant Pat. No. 13,320)	'BG-1445'
Marketable yield (gm/plant)	1,180	964	692
Fruit gloss	Medium	Weak	Medium
Fruit size	Ranges from medium to large	Ranges from medium to large	Large
Plant size	Medium	Ranges from medium to small	Medium

BRIEF DESCRIPTIONS OF THE PHOTOGRAPHS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new strawberry variety 'BG-4315', at various stages of development as true as it is reasonably possible with color reproductions of this type. Color in the photographs may differ slightly from the color value cited in the botanical descriptions which accurately describe the color of 'BG-4315'. The depicted plant and plant parts of the new strawberry variety 'BG-4315' are approximately six months old. The photographs were taken in Ventura County, Calif.:

FIG. 1 shows typical fruiting field characteristics of 'BG-4315', taken in the month of April 2011;

FIG. 2 shows a close-up view of the typical leaf structure of 'BG-4315', taken in the month of April 2011;

FIG. 3 shows typical mature and immature field fruit of 'BG-4315', taken in the month of April 2011; and

FIG. 4 shows typical internal and external mature fruit characteristics of 'BG-4315', taken in the month of April 2011.

DETAILED BOTANICAL DESCRIPTION

The new variety 'BG-4315' has not been observed under all possible environmental conditions. The characteristics of the new variety 'BG-4315' may vary in detail, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type and location. In addition, the characteristics of any parental variety or comparison variety included in Tables 1-9 of the present invention may vary in detail, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type and location.

The aforementioned photographs, together with the following description of the new variety 'BG-4315', unless otherwise noted, are based on observations taken during the 2011 growing season in Ventura County, Calif. These measurements and ratings were taken from plants of 'BG-4315' dug from a high-elevation nursery located in Siskiyou County, Calif. during early October 2010 and planted approximately four to five days later in Ventura County, Calif. The approximate age of the observed plants is six months. Yield observations and fruit quality characteristics are averaged from six years of data collected from the 2006 through 2011 growing seasons. Flower measurements and characteristics are from secondary flowers unless otherwise noted. Fruit characteristics and measurements are from secondary fruit unless otherwise noted.

Color terminology where noted follows The Royal Horticultural Society Colour Chart, London (2007).

The following tables 3-9 describe fruit, plant, stolon, foliage, fruiting truss, flower and pest disease characteristics of the new strawberry 'BG-4315' in comparison to the similar strawberry variety 'BG-1975'.

TABLE 3

FRUIT CHARACTERISTICS			
Characteristic	'BG-4315'	'BG-1975' (U.S. Plant Pat. No. 17,725)	
Color of mature fruit	RHS 45B Ranges from orange red to red	RHS 45A Ranges from orange red to red	
Color of internal flesh	RHS 44A Medium red	RHS 44A Medium red	
Fruit length (cm)	4.2	4.5	
Fruit width (cm)	4.0	3.9	
Fruit length/width ratio	1.06	1.14	
	Ranges from as long as broad to slightly longer than broad	Slightly longer than broad	
Calyx diameter (cm)	4.4	5.2	
Average fruit weight (gm)	26.9	26.6	
Achene color, shaded side	RHS 153C Yellow green group	RHS 152D Yellow green group	
Achene color, sun-exposed side	RHS 184B Greyed purple group	RHS 183A Greyed purple group	
Achenes per berry	317	300	
Achene weight (mg)	0.55	0.67	
Marketable fruit yield (gm/plant)	1,180	1,080	
Fruit size	Ranges from medium to large	Ranges from medium to large	
Predominant fruit shape	Conical	Ranges from conical to almost cylindrical	
	Difference in shapes between primary and secondary fruit	Ranges from slight to moderate	
Band without achenes	Absent or very narrow	Absent or very narrow	
Unevenness of fruit surface	Medium	Weak	
Evenness of fruit color	Ranges from slightly uneven to even	Ranges from slightly uneven to even	
Fruit glossiness	Medium	Ranges from medium to strong	
Insertion of achenes	Level with surface	Ranges from below surface to level with surface	
Insertion of calyx	In basin	In basin	
Attitude of calyx	Spreading	Spreading	
Size of calyx in relation to fruit diameter	Slightly larger	Ranges from slightly larger to much larger	
Adherence of calyx	Strong	Very strong	
Firmness of fruit skin	Ranges from medium to strong	Ranges from medium to strong	
Firmness of fruit flesh	Firm	Medium	
Keeping quality	Good	Good	
Distribution of red color of the flesh	Marginal and central	Marginal and central	
Hollow center expression	Moderate	Moderate	
Fruit flavor	Good	Very good	
Soluble solids (% brix)	8.5	8.6	
Time of first flowering	Medium	Ranges from early to medium	
Time of first harvesting	Medium	Ranges from early to medium	
Harvest period	Early January to late May	Early January to late May	
Type of bearing	Not remontant	Not remontant	

TABLE 4

PLANT CHARACTERISTICS		
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)
Plant height (cm)	21.8	23.0
Plant spread (cm)	25.2	26.1
Plant size	Medium	Ranges from large to medium
Plant habit	Globose	Globose
Plant density	Medium	Medium
Plant vigor	Ranges from medium to strong	Ranges from medium to strong

TABLE 5

STOLON CHARACTERISTICS		
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)
Stolon color	RHS 146D Yellow green group	RHS 146D Yellow green group
Stolon anthocyanin coloration	RHS 184A Greyed red group	RHS 182A Greyed red group
Stolon anthocyanin intensity	Strong	Weak
Average stolon quantity	Ranges from medium to many	Medium
Stolon diameter at bract (mm)	3.5	3.1
Stolon pubescence	Medium	Strong
Attitude of hairs	Upwards	Slightly outward

TABLE 6

FOLIAGE CHARACTERISTICS		
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)
Foliage:		
Color of upper surface	RHS 137A Medium green	RHS 146B Ranges from light yellow green to medium yellow green
Color of underside	RHS 147C Yellow green group	RHS 147C Yellow green group
Shape in cross section	Slightly concave to flat	Slightly concave to flat
Interveinal blistering	Weak	Ranges from weak to medium
Leaf glossiness	Medium	Ranges from weak to medium
Number of leaflets	3	3
Terminal Leaflet:		
Length (cm)	6.8	7.0
Width (cm)	6.0	6.2
Length/width ratio	1.13	1.13
	Ranges from as long as broad to longer than broad	Ranges from as long as broad to longer than broad
Serrations/leaf	16.4	20.8
Leaf Size	Ranges from medium to small	Ranges from medium to small
Shape of base	Acute	Acute
Shape of teeth	Rounded	Rounded

TABLE 6-continued

FOLIAGE CHARACTERISTICS		
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)
Petiole:		
Petiole color	RHS 144B Yellow green group	RHS 144B Yellow green group
Petiole length (cm)	15.8	15.5
Petiole diameter (mm)	3.3	3.7
Petiolule color	RHS 144B Yellow green group	RHS 144B Yellow green group
Petiolule length (mm)	4.2	11.7
Petiole pubescence	Moderate	Heavy
Attitude of hairs	Ranges from slightly outward to strongly outward	Strongly outward
Stipule:		
Color	RHS 146A Yellow green group	RHS 146C Yellow green group
Anthocyanin coloration	RHS 63A Red purple group	RHS 61B Red purple group
Anthocyanin intensity	Ranges from weak to medium	Weak
Length (mm)	16.2	16.0
Width (mm)	12.1	10.1

TABLE 7

FRUITING TRUSS CHARACTERISTICS		
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)
Anthocyanin coloration	RHS 179C Greyed red group	RHS 181C Greyed red group
Anthocyanin intensity	Weak	Weak
Length at maturity (cm)	26.3	28.6
Position relative to foliage	Level with the foliage	Ranges from level with to above the foliage
Pubescence	Ranges from medium to strong	Strong
Attitude at first pick	Prostrate	Prostrate

TABLE 8

FLOWER CHARACTERISTICS		
Characteristic	‘BG-4315’	‘BG-1975’ (U.S. Plant Pat. No. 17,725)
Petal color	RHS NN155C White group	RHS NN155C White group
Sepal color	RHS 137B Green group	RHS 138A Green group
Corolla diameter (mm)	31.6	27.7
Calyx diameter (mm)	39.9	38.8
Petal length (mm)	13.2	10.7
Petal width (mm)	13.4	10.5

TABLE 8-continued

FLOWER CHARACTERISTICS		
Characteristic	'BG-4315'	'BG-1975' (U.S. Plant Pat. No. 17,725)
Petal length/width ratio	.99	1.02
Petals/flower	6.2	6.3
Sepal length (mm)	17.4	15.5
Sepal width (mm)	6.3	5.5
Sepal length/width ratio	2.75	2.81
Sepals/flower	11.8	12.6
Size of calyx relative to corolla	Larger	Larger
Size of inner calyx relative to outer calyx	Smaller	Ranges from smaller to same
Relative position of petals	Overlapping	Overlapping

TABLE 9

PEST AND DISEASE REACTIONS		
Characteristic	'BG-4315'	'BG-1975' (U.S. Plant Pat. No. 17,725)
Two-spotted spider mite	Moderately susceptible	Moderately susceptible
Powdery mildew	Moderate	Moderately susceptible
Botrytis fruit rot	Moderately susceptible	Moderately susceptible
Angular leaf spot	Susceptible	Susceptible

We claim:

1. A new and distinct strawberry plant named 'BG-4315', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIG. 1



FIG. 2



FIG. 3

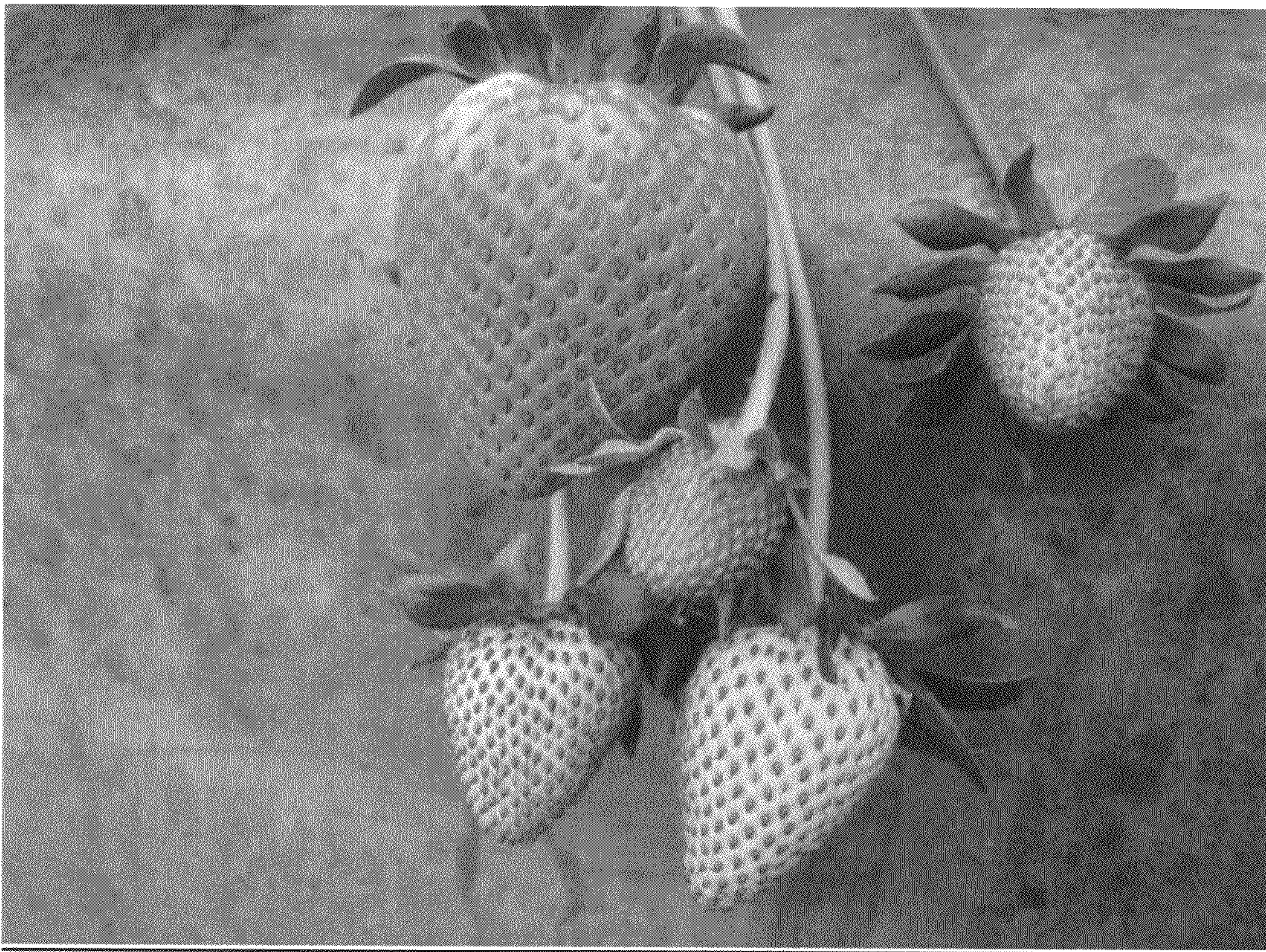


FIG. 4

