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(12) **United States Plant Patent**  
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- (54) **SEEDLESS GRAPEVINE NAMED**  
**‘ARDTHIRTYFIVE’**
- (50) Latin Name: *Vitis vinifera*  
Varietal Denomination: **ARDTHIRTYFIVE**
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(57) **ABSTRACT**

A new distinct variety of grapevine named ‘ARDTHIRTY-FIVE’ abundantly forms attractive crunchy seedless berries with a red skin coloration; medium density in large clusters which display a naturally sweet flavor, commonly ready for harvesting during July in San Joaquin Valley of Central Calif., U.S.A., and displays good eating qualities as a table grape. The fruit firmness renders the fruit well amenable for handling, shipping, and storage.

**1 Drawing Sheet**

**1**

Classification: The present invention relates to a new *Vitis vinifera* Grapevine.

Variety denomination: The new Grapevine has a varietal denomination ‘ARDTHIRTYFIVE’.

**BACKGROUND OF THE INVENTION**

A breeding program was initiated during the late 1990’s near Bakersfield in San Joaquin Valley of Central Calif. In 2013, during this breeding program, a new variety of *Vitis vinifera* was created by deliberate cross breeding of two parent plants by emasculating of the pollen bearing organ of the female and introducing pollen from another male origin. The female parent of the new variety was 10-10+2, which is a very fertile and crispy seedless white table grape variety (non-patented in the United States). The male parent (i.e. the pollen parent) of the new variety was 25-51+2, a naturally sweet and crisp seedless red variety (non-patented in the United States).

**TABLE 1**

ARDTHIRTYFIVE compared with parents & closely related variety:				
	ARDTHIRTY-FIVE	10-10+2 (Maternal)	25-51+2 (Paternal)	Flame (unpatented in the United States)
Berry shape	Broad ellipsoid	Cylindrical	Broad ellipsoid	Globose
Berry color	Red	White	Red	Greyish red
Bunch density	Lax	Medium	Medium	Tight

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The parentage of the new variety can be summarized as follows:

10-10+2 X 25-51+2

5 An artificial pollination was created, and the result was an embryo which possessed unique genetic qualities. The rudiments resulting from the above pollination were embryo rescued. In 2014 the plant was transplanted to Bakersfield in San Joaquin Valley of Central Calif.

10 It was found that the new grapevine of the present invention possesses the following combination of characteristics:

- (a) Forms attractive crunchy seedless berries with a red skin coloration; in medium density, large clusters which display a naturally sweet flavor,
- (b) Commonly bears fruit during the month of July in the San Joaquin Valley of Central California, U.S.A., and
- (c) Bears fruit that is firm and is well amenable for storage, handling, and shipping.
- (d) Produces 40 bunches per vine, and an average of about 1-2 bunches per shoot, at a total of 48 lbs fruit per vine.

20 The new variety during observation to date has displayed no visible disease, and has displayed an ability to well resist cold, drought, heat; but sensitive to direct exposure to sun and wind. The fruit of the new variety has been found to display excellent handling and shipping qualities combined with desirable dessert eating qualities.

25 The new variety of the present invention has been found to undergo asexual propagation beginning in 2015 near Bakersfield in the San Joaquin Valley of Central Calif., U.S.A. by bud grafting on mature Thompson rootstock (non-patented in the United States). Such asexual propagation has been conducted thereafter in successive years to date and has shown that the characteristics of the new variety

are strictly transmissible from one generation to another. Accordingly, the new variety undergoes asexual propagation in a true to type manner.

SUMMARY OF THE INVENTION

The new variety ARDTHIRTYFIVE is a red seedless table grape with a high production, e.g., about 40 bunches per vine, and an average of about 1-2 bunches per shoot.

Asexual reproduction by micro propagation of the new variety as performed near Bakersfield, Calif., U.S.A., shows that the forgoing and other distinguishing characteristics come true to form and are established and transmitted through succeeding propagations.

BRIEF DESCRIPTION OF THE DRAWING

The accompanying photographic illustration shows typical six-year-old specimens of the new variety, vegetatively propagated, in color as nearly true as it is reasonably possible to make in a color illustration of this character. Colors in the photograph may differ from the color values cited in the detailed botanical description below, which accurately describes the colors of the new Grapevine.

The drawing shows leaves, stems and grapes of ARDTHIRTYFIVE.

DETAILED BOTANICAL DESCRIPTION

The chart used in the identification of colors is The R.H.S. Colour Chart of The ROYAL HORTICULTURAL SOCIETY (3<sup>rd</sup> Edition). The description is based on the observation of plants growing on 'Thompson Seedless' rootstock outdoors near San Joaquin Valley of Central California, U.S.A.

VINE CHARACTERISTICS:	
vigor	Vigorous upright shoots
productive capacity	Bearing at a natural, average capacity. Spur pruning.
trunk	Strong and developed. Diameter is 3.3 inches, measured at 5.2 inches above ground. Rough with a fibrous, shaggy exterior. Light maple brown coloring (greyed orange 177C)

Date of bud burst in Bakersfield Calif.: February 24<sup>th</sup>.

YOUNG SHOOT CHARACTERISTICS:	
Openness of tip	wide open
Density of prostrate hairs on tip	absent or very sparse
Anthocyanin coloration of prostrate hairs on tip	none (yellow green 144A)
Density of erect hairs on tip	medium

YOUNG LEAF CHARACTERISTICS:	
Color of upper side of blade	yellow green 144A
Color of lower side of blade	yellow green 144B
Density of erect hairs between main veins on upper side of blade	sparse

-continued

YOUNG LEAF CHARACTERISTICS:		
5	Density of erect hairs between main veins on lower side of blade	sparse
	Density of prostrate hairs on main veins on upper side of blade	sparse
	Density of prostrate hairs on main veins on lower side of blade	sparse

SHOOT CHARACTERISTICS:		
15	Attitude (before tying)	semi-erect
	Color of dorsal side of internodes	yellow green 144B
	Color of ventral side of internodes	yellow green 152B
	Color of dorsal side of nodes	yellow green 145A
	Color of ventral side of nodes	yellow green 151A
	Density of erect hairs on internodes	absent or very sparse
20	Density of prostrate hairs on internodes	sparse
	Length of tendrils	3.5 inches
	Diameter of tendrils	0.04 inches
	Color of tendrils	yellow green 153A
	Number of tendrils at bloom	3
	Positioning of first flowering and fruiting node	the first bunch is in the 3 <sup>rd</sup> node
25	Inflorescence number per flowering shoot	1-2

FLOWER CHARACTERISTICS:		
30	Reproductive organs	fully developed stamens and fully developed gynoecium
	Flower length	0.3 inches
	Flower diameter	0.15 inches
35	Pistil length	0.1 inches
	Pistil color	green 143B
	Pollen Amount	poor
	Pollen color	yellow 6A
	Stamen color	yellow green 144A
	Stamen length	0.1 inches
40	Number of stamen	5

First bloom in Bakersfield, Calif.: May 1<sup>st</sup>.

Date of full bloom in Bakersfield, Calif.: May 9<sup>th</sup>.

MATURE LEAF CHARACTERISTICS:		
50	Size of blade	5.5 x 5.5 inches
	Shape of blade	pentagonal
	Base descriptors	pentagonal
	Leaf margin	doubly serrate
	Leaf apex	acute
	Blistering of upper side of blade	absent or very sparse
	Depth of upper lateral sinuses	shallow
	Number of lobes	three
	(Only varieties with lobed leaves)	
	Arrangement of lobes of upper lateral sinuses	closed
	Arrangement of lobes of petiole sinus	wide open
60	Length of teeth	0.6 inches
	Ratio length/width of teeth	large
	Shape of teeth	both sides convex
	Density of prostrate hairs between main veins on lower side of blade	absent or very sparse
65	Density of erect hairs on main veins on lower side of blade	absent or very sparse

-continued

MATURE LEAF CHARACTERISTICS:	
Density of erect hairs between the main veins on upper side of blade	absent or very sparse
Density of prostrate hairs on main veins on upper side of blade	absent or very sparse
Length of petiole compared to length of middle vein	equal
Top side color	green 137B
Bottom side color	yellow green 147B
Texture of upper side of blade	rough
Texture of lower side of blade	rough
Vein color on upper blade	yellow green 145A
Vein color on lower blade	yellow green 145C
Venation pattern for upper blade	netlike venation
Venation pattern for lower blade	netlike venation
Petiole length	5 inches
Petiole diameter	0.1 inches
Petiole color	yellow green 144B
Petiole texture	rough

Date of beginning of berry ripening in Bakersfield Calif.:

July 4<sup>th</sup>.

BUNCH CHARACTERISTICS:	
Size (peduncle excluded)	large
Density of berries on bunch	lax
Bunch length	8 inches
Bunch diameter	6 inches
Length of peduncle of primary bunch	2.4 inches
Diameter of peduncle of primary bunch	0.15 inches
Peduncle of primary bunch color	yellow green 145B
Peduncle texture	smooth
Bunches per vine	40
Average bunch weight	1.2 lbs

BERRY CHARACTERISTICS:	
Size	medium
Length	1 inch
Weight	0.3 oz
Diameter	0.8 inches
Shape	broad ellipsoid
Color of skin (without bloom)	greyed red 180A
Flesh color	greyed green 193D
Brix	19
Titration acidity percentage	3.9%
Juice	3.6 ph
Ease of detachment from pedicel	moderately easy
Thickness of skin	medium
Anthocyanin coloration of flesh	none
Firmness of flesh	very firm
Particular flavor	natural, sweet
Formation of seeds	rudimentary
Berries per bunch	106

PEDICEL CHARACTERISTICS:	
Length	0.6 inches
Diameter	0.1 inches
Color	yellow green 145A
Pedicel texture	rough

WOODY SHOOT CHARACTERISTICS:	
Woody shoot texture	smooth
Woody shoot color	greyed orange 165B
Woody shoot length	72 inches
Diameter	0.4 inches
Internode length	3.5 inches

Market use of observed plants: Fresh market.  
 Age and growing conditions: Six years growing under Y system in South Joaquin Valley (hot, dry summers).  
 Shipping characteristics: Fruit was in cold storage. Stored in poly bags inside Styrofoam boxes with sulfur pads. After 30 Days: rachises were 10% green; 2% berry shattering; no berry wrinkling or cracks were apparent.  
 DNA profile: To further the characterize the new variety DNA was extracted from plant samples and a DNA profile was obtained at California Seed & Plant Lab, California USA using base pairs for 10 standard microsatellite DNA markers. The data is presented hereafter.

TABLE 2

DNA profile for ARDTHIRTYFIVE		
Microsatellite DNA Marker	Allele Sizes in Base Pairs	
M1	228	234
M2	249	249
M3	179	194
M4	212	216
M5	273	273
M6	145	151
M7	187	205
M8	247	255
M9	214	214
M10	247	247

The ARDTHIRTYFIVE variety has not been observed under all possible environmental conditions to date. Accordingly, it is possible that the phenotypic expression may vary somewhat with changes in light intensity and duration, cultural practices, and other environmental conditions.

Additional information relating to plant and fruit disease and pest resistance or susceptibility has not been observed to date. Specification of the plant hardiness zone and the heat/cold resistance has not been observed to date.

What is claimed is:

1. A new and distinct grapevine, botanically known as *Vitis vinifera*, identified as 'ARDTHIRTYFIVE', substantially as shown and described herein.

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