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(54) **STRAWBERRY PLANT NAMED 'CIVRH612'**

(50) Latin Name: ***Fragaria* x *ananassa***
Varietal Denomination: **CIVRH612**

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See application file for complete search history.

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(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry plant named 'CIVRH612'. This new everbearer strawberry plant named 'CIVRH612' is primarily adapted to the climate and growing conditions of the high chill areas. It is characterized by a rustic plant which is quite tolerant to leaf and root diseases and slightly susceptible to mildew. The plant has medium vigor, upright habit and good productivity also in the second year of growing. The fruit has a bright red color, conical shape, good size constant throughout the picking season and excellent skin resistance. The picking season is wide and constant. 'CIVRH612' has excellent organoleptic characteristics with aromatic notes of wild strawberry. The flavor is juicy and sweet with high brix levels. Stalk removal is very easy and the fruit is suitable for fruit salads. The fruit has a very good shelf life.

4 Drawing Sheets

Latin name of the genus and species of the plant claimed: *Fragaria* x *ananassa.*

Variety denomination: 'CIVRH612'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct strawberry variety named 'CIVRH612'.

The new strawberry 'CIVRH612' is a product of a planned breeding program conducted by the inventor(s), Leis Michelangelo and Martinelli Alessio, in San Giuseppe di Comacchio (Ferrara), Italy. The objective of the breeding program is to develop new everbearer strawberry varieties with high chill requirement, good productivity also in the second year (two-years production) and excellent shelf life. Select early varieties with a wide harvest period with excellent organoleptic characteristics and skin resistance.

This new strawberry 'CIVRH612' is a result of a controlled cross made by the inventors in 2011, in San Giuseppe di Comacchio (Ferrara), Italy. The female or seed parent is the not released selection of Consorzio Italiano Vivaisti named 3H1F-11. The male or pollen parent is the not released selection of Consorzio Italiano Vivaisti named S7V9-9.

The new strawberry 'CIVRH612' was discovered and selected by the inventors as a single flowering plant within the progeny of the stated cross in 2013 in San Giuseppe di

Comacchio (Ferrara), Italy. This propagation has demonstrated that the combination of characteristics as herein disclosed for the new cultivar are firmly fixed and retained through successive generations of asexual reproduction. The new cultivar reproduces true to type.

After its selection, the new variety was asexually propagated by stolons in a nursery located in San Giuseppe di Comacchio (Ferrara), Italy. The new variety was tested over the next several years at Consorzio Italiano Vivaisti San Giuseppe di Comacchio (Ferrara), Italy and in different European areas with high chill conditions.

BRIEF SUMMARY OF THE INVENTION

'CIVRH612' is an everbearer variety with high chill requirement.

The following traits have been repeatedly observed and are determined to be unique characteristics of 'CIVRH612', which in combination distinguish this strawberry plant as a new and distinct variety:

1. everbearer variety with high chill requirement;
2. good productivity also in the second year of growing;
3. good fruit size constant throughout the picking season;
4. very sweet fruit with excellent aromatic notes of wild strawberry;
5. excellent shelf life; and
6. early and wide harvest during the season.

Of the many commercial cultivars known to the present inventor, the most similar in comparison to the new strawberry variety 'CIVRH612' is the patented variety of Consorzio Italiano Vivaisti named Murano. Plants of the new strawberry variety 'CIVRH612' differ from plants of strawberry variety 'Murano' in the characteristics described in Table 2:

TABLE 2

Characteristic	'CIVRH612'	'MURANO'
Fruit: attitude of sepal	Downwards	Outwards
Fruit: difference in shape of terminal and other fruit	Moderate	Slight to moderate
Fruit: shape	Ovoid	Conical

BRIEF DESCRIPTIONS OF THE PHOTOGRAPHS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new strawberry variety 'CIVRH612', 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 values cited in the botanical description which accurately describe the color of 'CIVRH612'. The depicted plant and plant parts of the new strawberry variety 'CIVRH612' were taken in San Giuseppe di Comacchio (Ferrara), Italy, and are approximately 3 to 5 months old.

FIG. **1** shows typical plants of 'CIVRH612';

FIG. **2** shows typical flowers of 'CIVRH612';

FIG. **3** shows typical leaves of 'CIVRH612';

FIG. **4** shows typical fruits of 'CIVRH612'.

DETAILED BOTANICAL DESCRIPTION

'CIVRH612' has not been observed under all possible environmental conditions. The characteristics of the new variety 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 observations, measurements and values describe the new strawberry variety 'CIVRH612', unless otherwise noted, taken during the 2018 growing season in San Giuseppe di Comacchio (Ferrara), Italy. The observations, measurements and values were taken from plants of 'CIVRH612' dug from a low-elevation nursery located in San Giuseppe di Comacchio (Ferrara), Italy, during 2018 and planted approximately 4 months later in San Giuseppe di Comacchio (Ferrara), Italy. Plants of the new strawberry variety 'CIVRH612' were grown under conditions which closely approximate those generally used in commercial practice.

Yield observations and fruit quality characteristics are averaged from 2 years of data collected from the 2017 through 2018 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 references are made to The Royal Horticultural Society Colour Chart (R.H.S.), 2001, except where general colors of ordinary significance are used. Color values were taken under daylight conditions at approximately 10:00 A.M. in San Giuseppe di Comacchio (Ferrara), Italy. The approximate age of the observed plants is 3 to 5 months.

The following tables 3-9 describe fruit, plant, stolon, foliage, fruiting truss, flower and pest/disease characteristics of the new strawberry 'CIVRH612'.

TABLE 3

FRUIT CHARACTERISTICS

Characteristic	'CIVRH612'
Color of mature fruit	Red (45A red group)
Color of internal flesh	Orange-red (33B orange-red group)
Length (cm)	Average 4.5 cm
Width (cm)	Average 4.9 cm
Ratio length/width	1.16
Calyx diameter (cm)	Average 3.5 cm
Average weight (gm)	Average 20 gm
Achene color	Yellow (150B yellow-green group)
Number of achenes per cm^2	About 6.8 achenes/cm^2, measured in the middle of the fruit
Marketable yield (gm/pit)	Average 600-800 gm/plt
Size	Large
Predominant shape	Conical
Difference in shapes between primary and secondary fruit	Moderate
Band without achenes	Absent or very narrow
Unevenness of surface	Even or very slightly uneven
Evenness of color	Even or very slightly uneven
Glossiness	Strong
Insertion of achenes	Below the surface
Insertion of calyx	Level with the surface
Attitude of the calyx	Outward
Same size Size of calyx in relation to fruit diameter	
Adherence of calyx	Weak to medium
Firmness of skin	Firm
Firmness of flesh	Firm
Distribution of red color of the flesh	Marginal
Hollow center expression	Absent or small
Flavor	Very sweet, aromatic and juicy
Soluble solids (% brix)	8.8° Brix
Time of first flowering	Early
Time of first harvesting	Early (first picking the 23rd of May 2019 in San Giuseppe di Comacchio (Ferrara), Italy)
Harvest period	From the end of May to October
Type of bearing	Day neutral

TABLE 4

PLANT CHARACTERISTICS

Characteristic	'CIVRH612'
Height (cm)	Average 28 cm
Spread (cm)	Average 43 cm
Size	Medium to large
Habit	Upright
Density	Medium
Vigor	Medium

TABLE 5

STOLON CHARACTERISTICS

Characteristic	'CIVRH612'
Average number per plant	About 25 stolons/mother plant in our nursery in San Giuseppe di Comacchio (Ferrara) Italy
Anthocyanin coloration	Absent
Anthocyanin intensity	None
Diameter at bract (mm)	Average 3.6 mm
Pubescence	Medium

TABLE 6

FOLIAGE CHARACTERISTICS

Characteristic	'CIVRH612'
Foliage:	
Color of upper surface	Green (141A green group)
Color of underside	Green (146B yellow-green group)
Shape in cross section	Concave
Interveinal blistering	Weak to medium
Glossiness	Medium
Number of leaflets	Three (3)
Terminal Leaflet:	
Length (cm)	Average 11.5 cm
Width (cm)	Average 11 cm
Length/width ratio	1.04
Serrations/leaf	Free
Size	Small to medium
Shape of base	Obtuse
Shape of teeth	Serrate to crenate
Petiole:	
Length (cm)	Average 15.9 cm
Diameter (mm)	Average 4.71 mm
Petiolule length (mm)	Average 8.8 mm
Pubescence	Weak
Attitude of hairs	Upwards
Stipule:	
Length (mm)	Average 28.7 mm
Width (mm)	Average 9.5 mm
Anthocyanin coloration	Absent or very weak
Color	Red-purple (63A red-purple group)

TABLE 7

FRUITING TRUSS CHARACTERISTICS

Characteristic	'CIVRH612'
Length (cm)	Average 25 cm
Position relative to foliage	Slight above to the foliage
Pubescence	Dense
Anthocyanin intensity	None
Attitude at first pick	Outward

TABLE 8

FLOWER CHARACTERISTICS

Characteristic	'CIVRH612'
Petal color	
Mature (upper)	White (155 D white group)
Mature (lower)	White (155 D white group)
Petal shape	
Overall	Rounded
Apex	Round
Base	Round
Petal length (mm)	Average 11.2 mm
Petal width (mm)	Average 12.2 mm
Petal length/width ratio	0.92
Number of petals/flower	About 5 to 6
Sepals color	
Mature (upper)	Green (143 A green group)
Mature (lower)	Green (144 B yellow-green group)
Sepal shape	
Overall	
Apex	Pointed
Base	Broad
Sepal length (mm)	Average 8.8 mm
Sepal width (mm)	Average 4.8 mm
Sepal length/width ratio	1.8
Number of sepals/flower	About 10 to 12
Corolla diameter (mm)	Average 33.5 mm
Calyx diameter (mm)	Average 34.2 mm
Size of calyx relative to corolla	Same size to slight bigger
Relative position of petals	Overlapping

TABLE 9

PEST AND DISEASE REACTIONS

'CIVRH612' is a rustic plant quite tolerant to leaf and root diseases, and slightly susceptible to mildew.

We claim:

1. A new and distinct strawberry plant named 'CIVRH612', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIG. 1

FIG. 2

FIG. 3

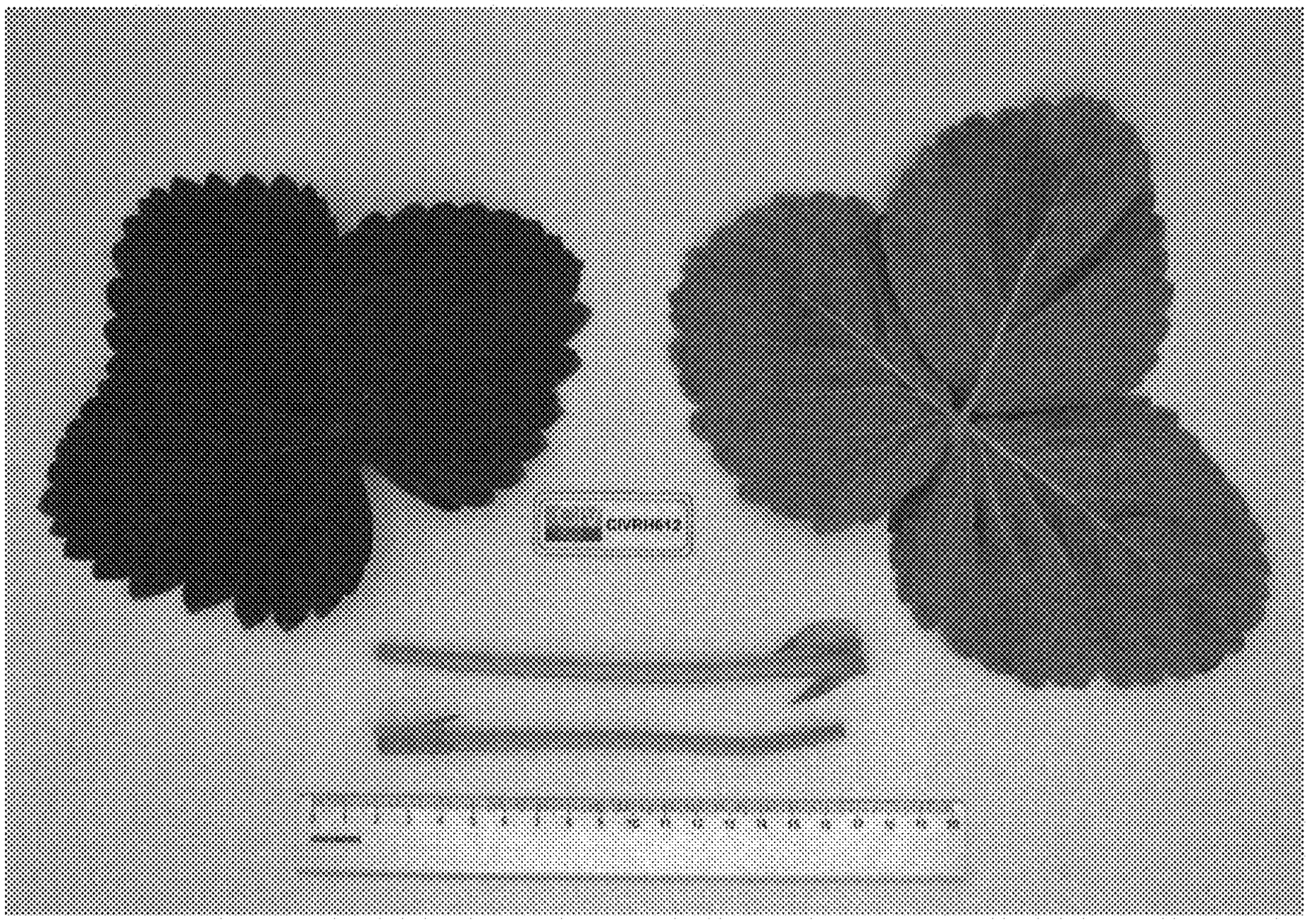

FIG. 4