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(12) **United States Plant Patent**  
**Vijverberg**

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(54) **CHrysanthemum plant named  
'VYBOWL'**

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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**ABSTRACT**

A Chrysanthemum plant named 'VYBOWL' characterized by its medium sized blooms with yellow ray-florets and brown disc florets.

**5 Drawing Sheets**

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**RELATED CULTIVARS**

'VYBOWL' is related to 'VYKING' (Ser. No. 09/708, 588). 'VYBOWL' is a sport of 'VYKING'.

**BACKGROUND OF THE INVENTION**

'VYBOWL' is a product of a breeding and selection program which had the objective of finding color mutants of 'VYKING'. The new plant of the present invention comprises a new and distinct cultivar of chrysanthemum plant that is a natural occurring sport of a parent chrysanthemum named 'VYKING'. A comparison with Parent chrysanthemum 'VYKING' and 'VYRON' (U.S. Plant Pat. No. 10,850) is also made in this application. The new cultivar was discovered as a whole plant mutation in April 1999 by Nol Vijverberg in a controlled environment (greenhouse) in 's-Gravenzande, Holland. The first act of asexual reproduction of 'VYBOWL' was accomplished when vegetative cuttings were taken from the initial selection in June 1999 in 's-Gravenzande, Holland.

**SUMMARY OF THE INVENTION**

The present invention is a new and distinct variety of chrysanthemum bearing medium sized blooms with yellow ray-florets and brown disc florets.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The present invention of a new and distinct variety of chrysanthemum is shown in the accompanying drawings, the color being as nearly true as possible with color photographs of this type.

FIG. 1 shows a stem of the cultivar in full bloom.

FIG. 2 shows the various stages of bloom of the cultivar.

FIG. 3 shows the foliage of the cultivar.

FIG. 4A shows a stem of 'VYKING' and 'VYBOWL'.

FIG. 4B shows the blooms of 'VYKING' and 'VYBOWL'.

**DESCRIPTION OF THE INVENTION**

This new variety of chrysanthemum is of the botanical classification *Chrysanthemum morifolium*. The observations and measurements were gathered from plants grown in

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April/May in a greenhouse in 's-Gravenzande, Holland in a photo-periodic controlled crop under conditions generally used in commercial practice. The greenhouse temperatures during this crop were at day-time between 18° C. and 25° C. 5 and at night 20° C. After a long day period of 14 days the photo-periodic response time in this crop was 52 days. After the long day period to flowering growth retardants were applied 2 to 3 times in an average dose of 2.5 gram/liter water. No tests were done on disease or insect resistance or 10 susceptibility. No tests were done on cold or drought resistance. This new variety produces medium sized blooms with yellow ray-florets and brown disc-florets blooming on the plant for 3 weeks. This new variety of chrysanthemum has been found to retain its distinctive characteristics throughout 15 successive propagations however the phenotype may vary significantly with variations in environment such as light intensity and temperature. To show the phenotype as described 'VYBOWL' can be planted without assimilation lightning (high pressure sodium lamps) between week 50 20 and week 40 of the next year under greenhouse conditions in Holland. With assimilation light (minimum level 2500 lux) it can be planted year round under greenhouse conditions in Holland.

The variety 'VYKING' is a natural mutant of 'VYRON'. 25 The variety 'VYBOWL' is a natural mutant of 'VYKING'. When 'VYKING', 'VYBOWL' and 'VYRON' are being compared the following differences and similarities are noticed: The differences of 'VYKING', 'VYBOWL' and 'VYRON' are (1) flower-side, (2) flower-form, (3) response-time, (4) growth and (5) flower-count for which characteristics 'VYBOWL' has been selected out of 'VYKING'. All other characteristics of 'VYKING' and 'VYBOWL' are similar.

30 (1) Flower-size: 'VYRON' and 'VYBOWL' have the same flower-size, the flower of 'VYKING' is smaller (illustrated by FIGS. 4A and 4B). (2) Flower-form: 'VYKING' has a more "tidy" flower as 'VYRON'. The ray-florets are more regular and the flower-disc is a little smaller. 'VYBOWL' has the flower form of 'VYKING'. (3) Response-time: 'VYRON' has a response-time of 9 weeks (62 days), 'VYKING' has a response-time of 56 days and 'VYBOWL' has a response-time of 49 days. (4) The growth of 'VYBOWL' is more vigorous than the growth of both 'VYRON' and 'VYKING'. (5) The flower-count of

'VYBOWL' is higher than the flower-count of 'VYKING' and 'VYRON'.

The following is a description of the plant and characteristics that distinguish 'VYBOWL' as a new and distinct variety.

The color designations are taken from the plant itself. Accordingly, any discrepancies between the color designations and the colors depicted in the photographs are due to photographic tolerances. The color chart used in this description is: The Royal Horticultural Society Colour Chart, edition 1995.

#### CULTIVAR 'VYBOWL'

##### Bud:

*Size*.—Medium, cross-section 1.5 cm height 1.2 cm.  
*Outside color*.—Yellow-orange 15 B  
*Involucral bracts*.—2 rows, length 7 mm, width 3 mm.  
*Involucral bracts among disc-florets*.—Not present.  
*Involucral bracts color*.—Yellow-green 146 A.

##### Bloom:

*Type*.—Single.  
*Height*.—Flat, 1.3–1.7 cm.  
*Size*.—Medium.  
*Fully expanded*.—5–5.5 cm.  
*Number of blooms per stem*.—Average of 10.  
*Performance on the plant*.—3 weeks.  
*Seeds (if crossed)*.—Produced in small quantities, ovate shaped. Grey-brown 199 A, 2 mm in length.  
*Fragrance*.—Typical chrysanthemum, slight.

##### Color:

*Center of the flower (disc-florets)*.—Immature greyed-orange 166 A. Mature greyed-orange 165 A.  
*Color of upper surface of the ray-florets*.—Yellow 12 A.  
*Color of the lower surface of the ray-florets*.—Yellow 8 A.  
*Tonality from distance*.—A spray mum with yellow flowers and a brown disc.  
*Color of the upper surface of the ray-florets after aging of the plant*.—Yellow 12 A.

##### Ray florets:

*Texture*.—Upper and under side smooth.  
*Number*.—55–65, three rows.  
*Cross-section*.—Concave, one keel.  
*Longitudinal axis of majority*.—Straight.  
*Length of corolla tube*.—Short, 0.4–0.7 cm.  
*Ray-floret margin*.—Entire.  
*Ray-floret length*.—1.7–2.2 cm.  
*Ray-floret width*.—0.5–0.8 cm.  
*Ratio length/width*.—Medium.  
*Shape of tip*.—Rounded, sometimes dentate.

##### Disc florets:

*Disc diameter*.—1.5 cm.  
*Distribution of disc florets*.—Numerous clearly visible at all stages of flowering.  
*Shape*.—Tubular.  
*Color*.—Yellow-green 144 A, greyed-orange 166 A at the tip.  
*Receptacle shape*.—Conical raised.

##### Reproductive organs:

*Stamen (present in disc florets only)*.—Thick, 4 mm in length.  
*Number of stamen*.—4.  
*Stamen color*.—Yellow-green 144 A.  
*Pollen*.—Not present.  
*Styles (present in both ray and disc florets)*.—Thick.  
*Style color*.—Yellow-green 144 A.  
*Style length*.—5 mm.  
*Stigmas color*.—Yellow-green 144 A.  
*Stigma width*.—1 mm.  
*Ovaries*.—Enclosed in calyx.

##### Plant:

*Form*.—A spray mum meant for erect culture.  
*Growth habit*.—Upright.  
*Growth rate*.—Rapid.  
*Height*.—125 cm.  
*Internodes*.—2.5–3.0 cm.  
*Spray formation*.—Corymbiform.  
*Stem color*.—Yellow-green 146 A.  
*Stem strength*.—Strong.  
*Stem brittleness*.—Present.  
*Stem anthocyanin coloration*.—Present, a thin layer of greyed-red 181 A mainly at the base of the stem.  
*Peduncle length*.—Near the top 8 cm, near the middle 14 cm, near the bottom 18 cm.  
*Peduncle color*.—Yellow-green 146 A.  
*Flowering response (photo-periodic controlled crop, not natural season)*.—52 days.

##### Foliage:

*Color mature*.—Upper side yellow-green 147 A. Under side yellow-green 147 B.  
*Color immature*.—Upper side yellow-green 146 A. Under side yellow-green 146 B.  
*Size*.—Large; length 12 cm, width 7 cm.  
*Quantity (number per single stem)*.—32–34.  
*Shape*.—Ovate.  
*Texture upper side*.—Fleshy and glabrous.  
*Texture under side*.—Pubescent.  
*Venation arrangement*.—Palmate.  
*Shape of the margin*.—Crenated.  
*Shape of base of sinus between lateral lobes*.—Round.  
*Margin of sinus between lateral lobes*.—Converging.  
*Shape of base*.—Truncate.  
*Apex*.—Mucronate.

#### Differences with the comparison Varieties

	'VYBOWL'	'VYKING'	'VYRON'
Flower size	5–5.5 cm	4–4.5 cm	5–5.5 cm
Response time	52 days	56 days	62 days
Growth	Rapid	Slow	Slow
Flower-count per stem	Average of 10	Average of 8	Average of 8

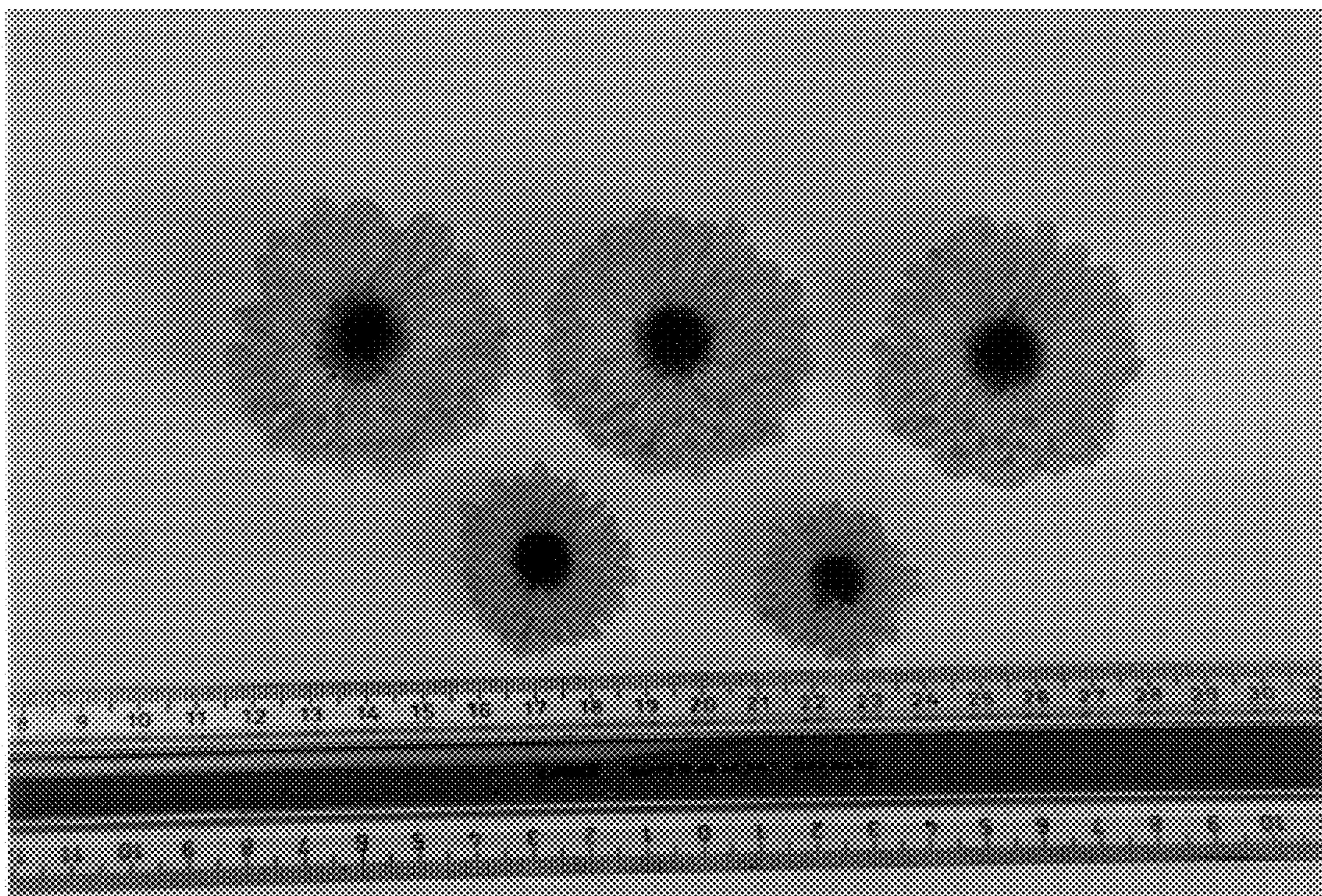
##### I claim:

1. A new and distinct variety of chrysanthemum plant as described and illustrated.

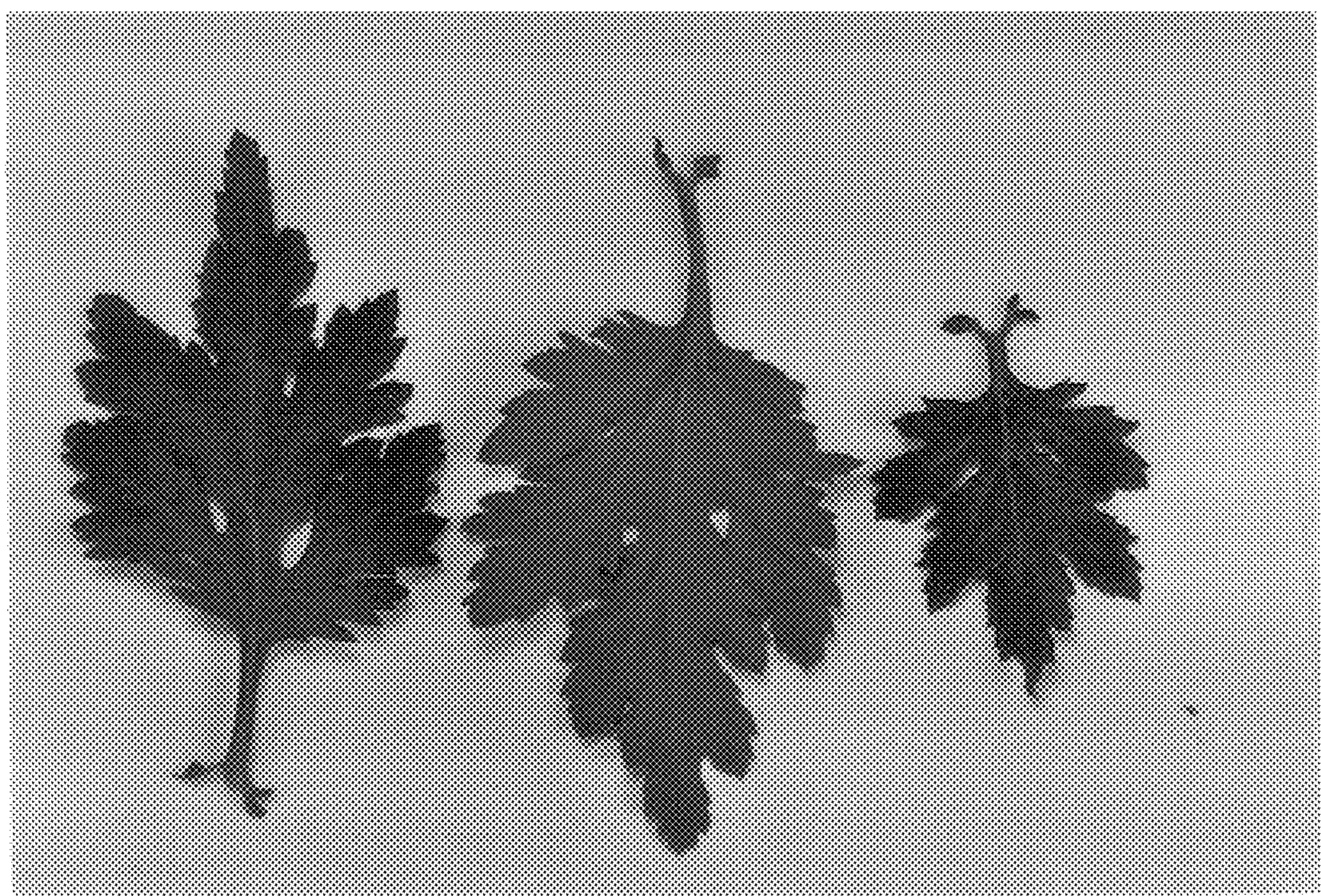
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**FIG. 1**



**FIG. 2**



**FIG. 3**

**Comparison Vyking <--> Vybowl**

**Left is Vyking  
Right is Vybowl**



**FIG. 4A**

## **Comparison Vyking <--> Vybowl**

**Left is Vyking  
Right is Vybowl**



**FIG 4B**