

April 27, 1976

Filed March 6, 1975

W. E. DUFFETT et al.  
GERANIUM PLANT

Plant Pat. 3,875

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### GERANIUM PLANT

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Barberton, Ohio

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1 Claim

The present invention comprises a new and distinct 10  
cultivar of *Pelargonium peltatum*, Ait., hereinafter re-  
ferred to by the varietal name Harvard (#72105013).

Harvard was originated from a cross made under the 15  
supervision of William E. Duffett and Walter W. Knicely  
in a controlled breeding program in Barberton, Ohio in  
the year 1971.

The male, or pollen parent, was Cayucas (unpatented;  
commercially available), an ivy geranium of fuchsia pink  
color of unknown parentage.

The female, or seed parent, was Mexican Beauty (un- 20  
patented; commercially available), an ivy geranium of  
crimson red color of unknown parentage.

Harvard was discovered and selected as a flowering 25  
seedling within the progeny of the stated cross by Wil-  
liam E. Duffett and Walter W. Knicely on Aug. 28, 1972  
in a controlled environment in Barberton, Ohio.

Harvard is a product of a planned breeding program 30  
which had the objective of creating an ivy geranium that  
would fulfill in part or in whole the need for intensi-  
fied dark red flower color, increased color retention and  
increased tolerance for Ohio light and temperature of  
continuous outdoor summer flowering.

The first act of asexual reproduction of Harvard was 35  
accomplished when vegetative cuttings were taken from  
the initial seedling in September 1972 in a controlled  
environment in Barberton, Ohio by a technician accord-  
ing to formulation established and supervised by Wil-  
liam E. Duffett and Walter W. Knicely.

Continued asexual reproduction by vegetative cuttings 40  
for evaluative tests in flowering and stock programs in  
conjunction with horticultural certification initiated June  
18, 1973 in Barberton, Ohio have demonstrated that the  
combination of characteristics as herein disclosed for  
Harvard are firmly fixed and are retained through suc-  
cessive generations of asexual reproduction.

The following descriptive observations, measurements, 45  
and comparisons were derived from plants grown both  
in a greenhouse and under outdoor conditions. The green-  
house-grown, spring-flowered containerized plants were  
moved to an outdoor lath area in late May, early June 50  
and observed during the summer and fall months. The  
environmental conditions under which the observed plants  
were grown closely approximate those generally used in  
commercial practice and are described in Chart A. A 55

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light intensity chart of general use is shown in FIG. 14.14  
in ASHAE Trans., Vol. 64, page 64, and reference is  
made thereto.

The following traits have been repeatedly observed and  
are determined to be basic characteristics of Harvard  
which in combination distinguish this ivy geranium as  
a new and distinct cultivar:

(1) Maroon red flower color with minimal color  
oxidation.

(2) Prolific flowering traits under outdoor summer  
conditions in Ohio.

(3) Medium green glossy foliage.

(4) Vigorous trailing growing with long internode  
length.

(5) Fair foliage durability with slight breakdown un-  
der outdoor summer conditions in Ohio.

The accompanying color photographic drawings show  
typical flower and foliage characteristics of Harvard.  
Sheet 1 illustrates Harvard in bloom, and sheet 2 com-  
prises a photograph showing the development of the in-  
florescence and the foliage of Harvard. It is noted that  
difficulty was encountered in obtaining photographs ac-  
curately representing the true colors of Harvard. The  
actual flower color of Harvard is closely approximated  
in sheet 1, and the foliage color of Harvard is closely  
approximated in sheet 2. The color readings are, how-  
ever, correct.

The phenotype of Harvard may vary significantly with  
variations in environment such as temperature, light in-  
tensity, and daylength outside the ranges described in  
Chart A and Chart B. The genotype of Harvard was  
not observed under all possible environments.

Of the many commercial cultivars known to the pres-  
ent inventors, the most similar existing cultivars in com-  
parison to Harvard are the parental cultivars Mexican  
Beauty and Cayucas. Reference is made to attached  
Chart B which compares certain characteristics of the  
above mentioned cultivars with the same characteristics  
of Harvard. General comparisons are as follows:

(1) In comparison to Mexican Beauty, Harvard has  
more intense maroon red flower color with less blue  
tones and less color oxidation, more prolific outdoor  
summer flowering traits, and less durable prolific outdoor  
foliage traits. The growth habit, internode length, and  
the flower form of Harvard are similar to same as those  
of Mexican Beauty.

(2) In comparison to Cayucas, Harvard has maroon  
red flower color, more vigorous (more trailing) growth  
habit, longer internode length, and more prolific outdoor  
summer flowering traits. The flower form of Harvard  
is similar to that of Cayucas.

In the following description, all color references are  
to the Munsell Limit Color Cascade, 1972 edition. The  
notation (a) indicates that the color values were deter-  
mined between 2:00 p.m. and 2:30 p.m., on June 7,

1974 under 150 foot candle light intensity at Barberton, Ohio. The notation (b) indicates that the color values were determined between 2:00 p.m. and 2:30 p.m. on July 22, 1974, under 150 foot candle light intensity at Barberton, Ohio, and the notation (c) indicates that color values were determined between 1:00 p.m. and 1:30 p.m. on Sept. 30, 1974 under 25 foot candle light intensity at Barberton, Ohio.

Botanical classification: *Pelargonium peltatum*, Ait., cv Harvard.

I. INFLORESCENCE

A. Umbel:

Average diameter: 3.5 inches.  
Peduncle: Ranges from 2 inches to 3 inches in length, averaging 2.4 inches.  
Pedicel: 0.75 inch.

B. Corolla:

Average diameter: 1.5 inches.  
Type: Semi-double; rotate.

Color:	Spring (a)	Summer (b)
Abaxial.....	41-14	42-14
Adaxial.....	41-10	42-11
Blotch.....	41-16	42-16

C. Bud:

Shape: Conodial.

Color:	Spring (a)	Summer (b)
Abaxial.....	41-14	41-14
Adaxial.....	41-11	41-11
Blotch.....	41-16	41-16

D. Reproductive Organs:

Androecium: Stamen: monodelphous; dorsifixed. Pollen: present.

Gynoecium: Stigma: 5-lobed; linear. Carpel: 5 locules; pubescent.

E. Response Period: Early.

F. Production: Good.

Date:	Average number of flowers
July 15, 1974.....	17
Aug. 1, 1974.....	16
Aug. 15, 1974.....	19
Sept. 1, 1974.....	16

G. Durability:

Shatter resistance: Poor.

Tolerance of botrytis: Good.

II. PLANT

A. Foliage:

Form: Reni-form.

Margin: Undulate.

Color (c): Abaxial: Approximately 21-14. Adaxial: 12-12 overlaid with white.

Durability (outdoor): Good.

B. Growth Habit:

Form: Trailing.

Height: Vigorous.

Internode length: Long.

C. Durability:

Tolerance of botrytis: Good.

CHART A—ENVIRONMENT FOR IVY GERANIUM PERFORMANCE EVALUATION COMMONLY USED IN BARBERTON, OHIO

	Environment	
	I. Greenhouse	II. Outdoor lath (30% light reduction)
Period of year.....	February through May	June through September
Temperature (° F.).....	Night—62-65; Bright day—72-75; Cloudy day—68-70.....	Uncontrolled dependent on prevailing weather conditions.
Light.....	Uncontrolled dependent upon natural daylength and light intensity. Light shade compound on greenhouse glass.	Uncontrolled dependent upon natural daylength and light intensity. 30% intensity reduction from lath.
Schedule and specifications.	Take vegetative cutting—February 19. Cutting specification—2-2.75 inches in length. Direct stick—February 20; 5 cuttings per 10 inch basket. Media—1 part soil, 1 part peat, 1 part perlite. Pinch—every 4 nodes to finish April 10. Flower—May 28.	Move to outdoor lath location—early June (product produced in I).

CHART B—COMPARISON OF HARVARD WITH MEXICAN BEAUTY AND CAYUCAS

Cultivar	Flower color	Growth habit	Internode length	Outdoor flowering traits	Flower form	Outdoor Foliage durability
Harvard.....	Maroon red.....	Vigorous and trailing.....	Long.....	Excellent.....	Semidouble.....	Fair.
Mexican Beauty.....	Crimson red.....	do.....	do.....	Fair.....	do.....	Good.
Cayucas.....	Fuchsia pink.....	Compact and spreading.....	Medium.....	do.....	do.....	Do.

NOTE.—Comparisons made of plants grown in a greenhouse and under outdoor lath in Barberton, Ohio under conditions described in Chart A and Chart B.

We claim:

1. A new and distinct cultivar of geranium characterized particularly by its maroon red flower color with minimal color oxidation, prolific flowering traits under outdoor summer conditions in Ohio, medium green glossy foliage, vigorous trailing growth with long internode length, and by its fair foliage durability with slight breakdown under outdoor summer conditions in Ohio.

No references cited.

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