

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

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(54) **EUPHORBIA INTERSPECIFIC HYBRID
PLANT NAMED ‘ECKCORY’**

(50) Latin Name: *Euphorbia pulcherrima*×
Euphorbia cornea
Varietal Denomination: **Eckcory**

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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 185 days.

This patent is subject to a terminal dis-
claimer.

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(52) **U.S. Cl.** **Plt./302**

(58) **Field of Search** Plt./302, 303–307

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP4,761 P	8/1981	Stirnadel	Plt./302
4,724,276 A	2/1988	Ecke, Jr.	800/1
PP8,735 P	5/1994	Guthier	Plt./304
PP13,341 P2 *	12/2002	Kobayashi	Plt./303
6,515,200 B1 *	2/2003	Kobayashi	800/269

OTHER PUBLICATIONS

Dehgan, Phylogenetic significance of interspecific hybrid-
ization in *Jatropha* (Euphorbiaceae), *Sytematic Bot.*,
9(4):467–478, 1984.

Dole et al., “Investigations on the nature of a graft–trans-
missible agent in poinsetta,” *Can. J. Bot.*, 71:1097–1101,
1993.

Dolezel et al., “Embryo development and in vitro culture of
Allium cepa and its interspecific hybrids,” *Z Pflanzenzucht*,
85:177–184, 1980.

Dressler, “A new and attractive poinsettia, *Euphorbiaceae*,
from Guerrero, Mexico,” *Bol. Soc. Bot. Mexico*, 35:17,
1975.

Keller et al., “Interspecific crosses of onion with distant
Allium species and characterization of the presumed hybrids
by means of flow cytometry, karyotype analysis and
genomic in situ hybridization,” *Theor. Appl. Genet.*,
92:417–424, 1996.

Krauter et al., “Efficient interspecific hybridization in the
genus *Helianthus* via ‘embryo rescue’ and characterization
of the hybrids,” *Theor. Appl. Genet.*, 82:521–525, 1991.

Le Duc and Albrecht, “Dogwood Poinsettia *Euphorbia*
cornea (Dressler) A. Radcliffe–Smith, A New Floral Pot
Crop,” *HortScience*, 31:472, 1996.

Lee et al. “Phytoplasma induced free–branching in commer-
cial poinsettia cultivars,” *Nat Biotechnol*, 15(2):178–182,
1997.

Sorenson and Brewbaker, “Interspecific compatibility
among 15 *Leucaena* species (Leguminosae: Mimosoideae)
via artificial hybridizations,” *Amer. J. Bot.*, 81(2):240–247,
1994.

Suszwik, “The secret of free branching poinsettias,” *Belts-
ville Area Research Highlights: 1998 Reprints from Agri-
cultural Research*, p. 56, 1998.

Co–pending U.S. Appln. No. 09/690,370, filed Oct. 16,
2000.

* cited by examiner

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(57) **ABSTRACT**

The variety “Eckcory” is a new and distinct interspecific
hybrid plant. The plant is characterized by clean and dark
green foliage, elliptical leaves that have acute bases and
acuminate tips, brightly colored pink and white bracts and
strong lateral branching.

1 Drawing Sheet

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**CROSS-REFERENCE TO RELATED
APPLICATIONS**

This application claims the priority of U.S. patent appli-
cation Ser. No. 09/690,370, filed Oct. 16, 2000.

Botanical classification: *Euphorbia pulcherrima*×*Eu-
phorbia cornea* interspecific hybrid.

BACKGROUND OF THE INVENTION

The invention relates generally to the new and distinct
variety of interspecific plant termed “Eckcory.” The new
plant was created in my greenhouse and laboratory in
Encinitas, Calif. The plant was prepared by crossing the
Euphorbia pulcherrima variety “M-6,” a Paul Ecke Ranch
proprietary variety, with a seedling of the uncultivated
species *Euphorbia cornea*. The variety was selected by

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excision of a newly formed embryo from a seedpod fol-
lowed by growth into a plantlet on nutrient agar medium.
The cultured plantlet was transplanted to a greenhouse
growing-medium, where it developed into the mature plant
of the invention. As the plant matured, it exhibited strong
terminal dominance with little lateral branch development.
To induce lateral branching, the new plant was grafted onto
a “selfbranching” rootstock by application of the procedures
set forth in U.S. Pat. No. 4,724,276.

The plant of the invention is distinct from the parent
plants from which it was derived. For example, *Euphorbia*
pulcherrima is a “short day” plant with respect to flower
initiation, while *Euphorbia cornea* is a “long day” plant.
However, the interspecific hybrid flowered in response to
short days and the time to full flower development was
found to be a relatively short six weeks, compared to the *E.*

pulcherrima parent that took nine weeks for flower development under the same growing environment.

The first vegetative propagation of the plant in vitro occurred in October, 1998 in Encinitas Calif. The plant was first propagated ex vitro by grafting in August, 1999 in Encinitas, Calif. The distinctive characteristics of the plant remained consistent following propagation.

BRIEF DESCRIPTION OF THE DRAWING

The plant of the invention is illustrated in the accompanying color photographs.

DETAILED DESCRIPTION OF THE VARIETY

The following is a detailed description of the new plant as observed in Encinitas, Calif., USA during May 2000. Observations were recorded from flowering plants, grown as one branched plant per pot. Plants were about 14 weeks from unrooted cuttings when photographs were taken. The pot was 17 cm in diameter and 13 cm in height. Color designations are compared to the 1986 edition of R.H.S. Colour Chart, first published in 1966 by The Royal Horticultural Society, London, England.

Origin:	An interspecific hybrid created by cross-pollinating a cultivated <i>Euphorbia pulcherrima</i> plant with an uncultivated <i>Euphorbia corناstra</i> plant.
Classification:	Botanical - <i>Euphorbia X hybrid</i>
Form:	Shrub
Height:	Short-medium
Growth Habit:	Flowering was observed, branched plant in a pot with an overall height of 42 cm, including the pot and an overall width of 42 cm. The plant grew upright but was somewhat spreading. The average diameter of the inflorescences, which were primarily composed of colored bracts, was 20 cm.
Branching:	Lateral branches develop and terminate in a flower without pinching. However, when pinched before flower induction to remove terminal dominance, all lateral branches develop uniformly and at a faster rate. The plant of description was pinched leaving 12 nodes on the stem. Strong lateral branches of nearly equal length and vigor arose, one from each stem node, resulting in a plant with 12 lateral branches. The lowermost lateral had 14 nodes and the uppermost, 9 nodes subtending the flower.

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Average branch diameter and color:	The average branch diameter was approximately 3 mm, and color was 146C.
Growth Rate:	Rooting of stem cutting occurs in 18–21 days under intermittent mist. The plant will flower in about 6 weeks under continuous long night conditions and night temperatures of about 16–18 degrees C.
Foliage:	The foliage is clean and dark green from bottom to top of the plant. The leaves are of medium size, leaf blades typically 10 cm long and 5 cm wide for the larger lower leaves and 6 cm long and 2.5 cm wide for the smaller upper leaves. Leaf petioles are green and 6 cm long on the larger leaves to 3 cm on the smaller leaves. The upper leaf surface is glabrous, but slightly rugose and the under surface is finely pubescent.
Leaf shape:	Leaves are elliptic with acute bases and acuminate tips. Leaf margins are entire.
Leaf arrangement:	Leaf arrangement alternate, single. Petiole length about 4 cm, diameter about 2 mm, color 178B (mature leaf petiole), 146C(immature leaf petiole).
Number of Leaves	Typical number of leaves per lateral branch about 12, observed 9 to 14 leaves per lateral branch.
Color:	Upper side - Dark green, darker than RHS 139A Under side - Green, near RHS 147B
Bracts:	There were 2–4 pink transitional bracts at the upper stem nodes just below the inflorescence. These were 7–8 cm long and 3 cm wide. Eight to 10 bracts subtending the cyathia varied in size from 5 cm long and 2 cm wide to 1.5 cm long and 1 cm wide.
Shape:	Bracts are elliptic with acute bases and acuminate tips. Bract margins are entire.
Color:	Upper side - Pink, near RHS 57D Under side - Grayish-White, near RHS 156D
Flowers:	Generally, 8–10 rudimentary and sterile cyathia (flowers) were present at maturity. Each cyathium was about 5 mm long and 3 mm wide and green in color.
Pathogen resistance:	Resistance to pathogens and pests common to <i>E. pulcherrima</i> or <i>E. corناstra</i> has not been observed on plants grown under commercial conditions.

What is claimed is:

1. A new and distinct *Euphorbia* interspecific hybrid plant variety named “Eckcory” as illustrated and described herein.

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