



(12) **United States Plant Patent**
Franken-Bembenek

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(54) **PRUNUS TREE ROOTSTOCK NAMED**
‘GI31817’

(50) Latin Name: *Prunus* hybrid
Varietal Denomination: **GI31817**

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(58) **Field of Classification Search**
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(57) **ABSTRACT**

A new and distinct *Prunus* hybrid plant used as a rootstock for
cherries that induces precocity and flat branching of the
grafted plant.

2 Drawing Sheets

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Botanical classification: *Prunus* hybrid.
Varietal denomination: ‘GI31817’.

BACKGROUND OF THE INVENTION

The present invention comprises a new and distinct cultivar
of *Prunus* hybrid used as a rootstock known by the varietal
name ‘GI31817’. The new variety was discovered in Giessen,
Germany in 1970. The new variety is the result of a planned
breeding program between an unnamed *Prunus canescens*
variety (female parent) and a mixture of pollen as the male
parentage from several unnamed and presumably unpatented
varieties of *Prunus avium*. The new variety has larger leaves,
less leaf pubescence, stronger vigor, and induces stronger
vigor of a grafted tree than its female parent. When compared
to the varieties making up its male parentage, the new variety
does not grow as upright and also induces less growth and
higher precocity of a grafted tree. The purpose of the breeding
program was to produce a series of size-controlling, produc-
tive, and precocious rootstocks for sweet cherries. The new
variety has been trial and field tested and has been found to
retain its distinctive characteristics and remain true to type
through successive propagations.

The new variety is similar to *prunus* rootstock ‘GI 148/2’
(U.S. Plant Pat. No. 9,622) in its rootstock induction of pre-
cocity, rootstock induction of flat branching, and the absence
of root suckers. The leaves of the new variety have a different
appearance than those of ‘GI 148/2’. Further, the vigor of a
grafted tree on the new variety is much greater than on ‘GI
148/2’.

DESCRIPTION OF THE DRAWINGS

The accompanying photographic drawings illustrate the
new cultivar taken during the first vegetation period after in

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vitro propagation at a nursery in Oberdorlar, Germany, with
the color being as nearly true as is possible with color illus-
trations of this type:

FIG. 1 is a close-up picture of the leaves and branches of
the new variety; and

FIG. 2 is a picture of a numerous plants of the new variety.

DESCRIPTION OF THE PLANT

The following detailed description sets forth the character-
istics of the new cultivar. The data which defines these char-
acteristics were collected by asexual reproduction carried by
green cuttings under mist and in vitro conditions. The first
asexual reproduction occurred in approximately 1975 in
Giessen, Germany. The color readings were taken in natural
daylight. Color references are primarily to The 2001 R.H.S.
Colour Chart of The Royal Horticultural Society of London.
Except where stated otherwise, the data collected for the
description herein was taken on five-year old plants grown in
an orchard under standard growing conditions in Witzen-
hausen-Wendershausen, Germany.

PLANT

Use: As a rootstock for sweet, sour, and ornamental cherries.
Fragrance: None observed.
Growth type: Semi-upright to upright.
Height: 360 cm five years after planting (in Giessen, Ger-
man).
Spread: 310 cm five years after planting (in Giessen, Ger-
many).
Pathogen resistance:
Fungal disease.—Tolerant to *Monilia laxa*.
Viruses.—Tolerant to ilarviruses PDV (prune dwarf
virus) and PNRSV (*prunus necrotic ringspot virus*).

Trunk circumference: 88 mm two years after planting (in
Giessen, Germany).
Trunk bark color: 175B.
Branches:
 Internode length.—Medium. 5
 Diameter.—Medium.
 Texture.—Very weak pubescence.
 Color.—175B.
Leaves:
 Length.—Medium; 9 cm on long shoots, and 6 cm on 10
 spur shoots.
 Width.—Medium; 4 cm on long shoots, and 3 cm on spur
 shoots.
 Form.—Elliptic.
 Apex.—Acute.
 Base.—Obtuse.
 Margin.—Serrate.
 Upper surface textures.—Weakly glossy.
 Lower surface texture.—Weak pubescence present.
 Venation pattern.—Reticulate.
 Color.—Upper surface: 137A. Lower surface: 137C.
 Petiole length.—1.0 cm.
 Petiole texture.—Weak pubescence present.
 Stipule length.—Intermediate.
Flowers:
 Pediceal length.—1.5 cm.
 Peduncle length.—3.5 cm.

Peduncle texture.—Glabrous.
 Bud color.—56D.
 Bloom timing.—Similar to most sweet cherry cultivars,
 like ‘Hedelfinger’ (not patented).
 Shape.—Round.
 Petals.—Number: Five. Length: 0.8 cm. Width: 0.8 cm.
 Shape: Round. Color (fully opened): White on both
 surfaces.
 Sepals.—Number: Five. Length: 0.4 cm. Diameter: 0.4
 cm. Color: 144A.
 Pistil number.—One.
Fruit shape: Elliptic.
Tree winter hardiness: Good; USDA Hardiness Zone of 6 to 7
(possibly 5b to 8a).
15 Performance as a grafted rootstock:
 Root sprouts.—No suckers observed.
 Anchorage.—Good.
 Compatibility.—Good.
 Vigor.—Reduces size of tree compared to *Prunus avium*
20 rootstock, much more vigorous than ‘GI 148/2’, more
 vigorous than ‘GI 148/1’.
I claim:
 1. A new and distinct variety of *Prunus* hybrid plant used as
25 rootstock as shown and described herein.

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Fig. 1



Fig. 2