



US00PP17780P3

(12) **United States Plant Patent**
Werner et al.

(10) **Patent No.:** **US PP17,780 P3**

(45) **Date of Patent:** **Jun. 5, 2007**

(54) **PEACH TREE NAMED ‘CAROLINA GOLD’**

(58) **Field of Classification Search** Plt./198
See application file for complete search history.

(50) Latin Name: *Prunus persica*
Varietal Denomination: **Carolina Gold**

Primary Examiner—Kent Bell
Assistant Examiner—June Hwu

(75) Inventors: **Dennis James Werner**, Raleigh, NC (US); **Layne Karlton Snelling**, Cary, NC (US)

(57) **ABSTRACT**

(73) Assignee: **North Carolina State University**, Raleigh, NC (US)

Prunus persica (L.) Batsch ‘Carolina Gold’ is a new and distinct variety of edible peach tree that has the following unique combination of desirable features that are outstanding in a new variety.

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

1. High flower bud chilling (cold) requirement resulting in later flowering relative to many other commercial varieties of peach.
2. Flower buds which demonstrate a high level of resistance to cold temperature injury.
3. Firm, yellow flesh fruit with excellent flavor and aroma, and flesh that is resistant to browning after slicing.
4. Heavy and regular bearing of large size fruit, up to 3 inches in axial diameter.
5. Fruit with late maturity.
6. Foliage and fruit highly resistant to infection by bacterial spot disease.

(21) Appl. No.: **10/993,713**

(22) Filed: **Nov. 22, 2004**

(65) **Prior Publication Data**

US 2006/0112470 P1 May 25, 2006

(51) **Int. Cl.**
A01H 5/00 (2006.01)

(52) **U.S. Cl.** **Plt./198**

6 Drawing Sheets

1

2

Latin name of the genus and species: The Latin name of the novel peach tree variety disclosed herein is *Prunus persica* (L.) Batsch.

Variety denomination: The inventive cultivar of *Prunus persica* disclosed herein has been given the variety denomination ‘Carolina Gold’.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Prunus persica* (peach) grown as a fruit tree for home use and for commercial agriculture. Peach is typically grown for their edible fruit that are used for fresh consumption, or for home canning.

The new and distinct variety of peach (*Prunus persica* (L.) Batsch) originated as a first generation descendant from a hand pollinated cross of ‘Biscoe’ peach (non-patented) × NC-C5S-067 made in 1995 at the North Carolina State University Lake Wheeler Field Laboratory in Raleigh, N.C. ‘Biscoe’ was released and named as a peach cultivar by the North Carolina Agricultural Research Service in 1968, and is available in commerce. The NC-C5S-067 parent used in this hybridization was derived from a hand-pollinated cross of ‘Encore’ (U.S. Plant Pat. No. 4,572) × ‘Calanda San Miquel 2383’ (non-patented) made in 1988 at the Sandhills Research Station, Jackson Springs, N.C. ‘Encore’ was named and released as a peach cultivar by Rutgers University in 1980, and assigned U.S. Plant Pat. No. 4,572. ‘Calanda San Miquel 2383’ is an old land race of peach originating in Spain, with no documented history of release date.

The approximately 160 seeds resulting from the 1995 controlled hybridization were germinated in a greenhouse at North Carolina State University, Raleigh, N.C. in the fall of

1995 and planted in the field in spring of 1996 at the Sandhills Research Station, Jackson Springs, N.C. These trees, growing on their own roots, first produced fruit in 1998, and one seedling, designated NC98-83, was selected for its large yellow flesh fruit, attractive red and yellow skin color, bacterial spot resistance, fruit with high flavor and aroma, late season of ripening, low flesh browning potential, and heavy fruit production. This original plant was growing on its own roots, and demonstrated characteristics identical to those subsequently expressed when propagated on ‘Lovell’ seedling rootstock.

Plants and fruit of this new variety differ from its parents. The new variety produces yellow flesh fruit that are larger, more round, and firmer than ‘Biscoe’. The flesh of this new variety is also resistant to flesh browning after the fruit is sliced for consumption, further distinguishing it from its ‘Biscoe’ parent. Fruit of this new variety are larger, firmer, and show more red color on the skin than the NC-C5S-067 parent. Bacterial spot resistance of the new variety is superior to that demonstrated by NC-C5S-067 and ‘Encore’ (U.S. Plant Pat. No. 4,572), based on field observation under conditions of natural disease infection. The round, smooth fruit have nearly equal amounts of attractive red skin color and golden yellow ground color.

During the years 1999 and 2000, the original plant selection was propagated asexually by grafting of vegetative buds onto the standard peach seedling rootstock cultivar ‘Lovell’. Four grafted trees of the variety were established in test plots at Sandhills Research Station in 2000, and three additional grafted trees of the variety were established at the same station in 2001.

The new variety has routinely been asexually multiplied by grafting, specifically ‘T’ budding. It readily forms a graft