Table 2. Third through 6th year yields of blueberry cultivars (Field C3, Ideal Farm, Castle Hayne, N.C.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wolcott</td>
<td>2760</td>
<td>5122</td>
<td>7028</td>
<td>3881</td>
</tr>
<tr>
<td>Bounty</td>
<td>2432</td>
<td>4774</td>
<td>8082</td>
<td>7911</td>
</tr>
<tr>
<td>O'Neal</td>
<td>2130</td>
<td>5278</td>
<td>3259*</td>
<td>7375</td>
</tr>
</tbody>
</table>

*Extrapolated yields based on performance of 12 plants.
*Yield reduced by severe bud mite infestation.
*Yield reduced due to freeze injury.

Received for publication 9 May 1988. We extend our appreciation to D.L. Peterson for his advice and assistance in the mechanical harvesting trials of 'Bounty'. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked advertisement solely to indicate this fact.


'Bounty' Peach

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Additional index words. Prunus persica, mechanical harvesting, uniform ripening, cold hardiness.

'Bounty' peach [Prunus persica (L.) Batsch] was released because of its large fruit size, excellent flavor (as judged by us), and productivity, particularly under dry soil conditions of eastern Texas. Its ability to produce fruit of uniform maturity throughout the canopy makes it especially suitable for once-over harvesting. 'Bounty' has outstanding potential as a mid-season fresh-market peach for the south-central United States, particularly Texas, and is suggested for trial in the mid-Atlantic and eastern United States.

Origin

'Bounty', tested as B7020, was selected in 1973 by H.W.F. at the USDA/ARS Agricultural Research Center, Beltsville, Md. Its pedigree is shown in Fig. 1. It was tested extensively at Beltsville; the USDA/ARS Appalachian Fruit Research Station, Kearneysville, W.Va.; at the Texas A&M Univ. Agricultural Research and Extension Center, Overton, by K.P. and E.N.; at the USDA/ARS Southeastern Fruit and Tree Nut Research Laboratory, Byron, Ga., by W.R.O.; and, to a limited extent, by D. Ramming, USDA/ARS Fruit Production Research Field Station, Fresno, Calif., by D.J. Werner, North Carolina State Univ.; D. Cain, Clemson Univ.; C.J. Draper, and R.C. Lamb, New York State Agricultural Experiment Station, Geneva.

LITERATURE CITED


Fig. 1. Pedigree of 'Bounty' peach.
Table 1. Yield and percentage of no. 1 fruit followed once-over harvesting of four peach cultivars, Kearneysville, W.Va.7

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Tree age (years)</th>
<th>Average yield/tree (kg)</th>
<th>No. 1 fruit (%)</th>
<th>Percentage of no. 1 fruit in each diameter (mm) size class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bounty</td>
<td>4</td>
<td>74</td>
<td>77</td>
<td>76 70 64 57 51</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>79</td>
<td>46</td>
<td>9 3 1 0 0</td>
</tr>
<tr>
<td>Redskin</td>
<td>4</td>
<td>56</td>
<td>42</td>
<td>16 4 1 0 0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>67</td>
<td>10</td>
<td>15 4 1 0 0</td>
</tr>
<tr>
<td>Loring</td>
<td>4</td>
<td>59</td>
<td>3</td>
<td>15 4 1 0 0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>64</td>
<td>11</td>
<td>7 1 1 0 0</td>
</tr>
<tr>
<td>Harvester</td>
<td>8</td>
<td>74</td>
<td>8</td>
<td>18 18 18 18 18</td>
</tr>
</tbody>
</table>

7All trees except 'Harvester' were harvested with an over-the-row shake harvester (see ref. 2).
7Number 1 fruit were undamaged firm fruit with sufficient ground color for marketing.

Table 2. Percent live flower buds of 'Bounty' trees compared with peach cultivars growing in proximity.4

<table>
<thead>
<tr>
<th>Year</th>
<th>Low winter temp (°C)</th>
<th>Cultivar</th>
<th>Live flowers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>—22°</td>
<td>Bounty</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>—28°</td>
<td>Harvester</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>—23°</td>
<td>Redhaven</td>
<td>89</td>
</tr>
</tbody>
</table>

4Evaluated by cutting buds and recording the percentage with dead pistils. Based on a total sample of 100 buds, 25 from each of four trees collected at random from 1.5- to 2-m height in the canopy.
4ND = no data collected.

June to 14 July in Byron, Ga.; and from 11 to 18 Aug. in Kearneysville, W.Va., or about 16 days after 'Redhaven'.

Trees of 'Bounty' pruned to the open vase form tend to mature fruit uniformly throughout the canopy. Once-over harvesting trials in Kearneysville indicated that 'Bounty' trees produced the highest percentages of mature, marketable fruit in a single harvest event when compared with several commercial cultivars (Table 1). 'Bounty' trees appear to be resistant to bacterial spot [Xanthomonas campes-tris pv pruni (Smith) Dye] under normal disease pressure, but have been found to be moderately susceptible under epiphytotic conditions in North Carolina. Bud hardness was average to above average in evaluations conducted in Kearneysville (Table 2). Myers and Okie (1) evaluated 'Bounty' (as a breeders selection) for flowering and productivity in Byron, Ga. following a 21 Jan. 1985 low of —21°C. It rated 3 for quantity of bloom on a scale of 0 = no bloom, 4 = several blooms at each node; and 8 (heavy) for crop load (the ratings of selections were not published in that report). Flower bud production on 'Bounty' is moderately high (1.25 times that of 'Redhaven') (3). The levels of cold hardiness and flower bud production exhibited by 'Bounty' provide for high levels of productivity in all but the coldest peach-producing areas. 'Bounty' has not cropped well in tests conducted in Geneva, N.Y.

The ability of 'Bounty' to produce large crops of firm, large fruit under non-irrigated dry-land conditions in eastern Texas indicates an outstanding potential for 'Bounty' in areas where water is limited.

The uniform maturation of a high percentage of fruit suggests that 'Bounty' may also be useful in once-over hand or mechanical harvesting operations. Its large size and non-oxidizing flesh make it particularly suitable for roadside stands that serve customers interested in canning fresh peaches.

The Agricultural Research Service has no trees of 'Bounty' for general distribution. Information on sources of budwood may be obtained from R.S., USDA/ARS, Appalachian Fruit Research Station, Rt. 2, Box 45, Kearneysville, WV 25430; or K.P., Texas A&M Univ. Agricultural Research Extension Center, Overton, TX 75684. Preliminary virus indexing on Primus tomentosa at the Irrigated Agricultural Research and Extension Center, Prosser, Wash., indicated that the 'Bounty' trees tested were free of Prunus necrotic ringspot, prune dwarf, and tomato ringspot viruses. Virus indexing is continuing.
**TropicSnow**: A Freestone, White-flesh Peach for Subtropical Climates

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Additional index words. Prunus persica, fruit breeding, low chilling

'TropicSnow' peach is released jointly by the Texas Agricultural Experiment Station of the Texas A&M Univ., System and the Florida Agricultural Experiment Station, Univ. of Florida.

'TropicSnow' is a new low-chilling (200 chilling units), high-yielding, high-quality, medium-early white-fleshed freestone peach cultivar. It is adapted to subtropical climatic areas and is recommended for commercial, "U-pick," and home plantings of the Lower Rio Grande Valley and other parts of southern Texas and central Florida.

Currently, the United States does not have a significant commercial market for peaches with white flesh. However, because of the increasing export and import of fresh fruits, including countries where white peaches are desirable, this cultivar has the market quality and shipping characteristics to potentially find its way into future market channels. This cultivar is a complement to the recent Florida release of 'Flordaglo', a white-fleshed peach similar in chilling requirement and 10 days earlier ripening.

In most years, 'TropicSnow' ripens in mid-May in the Lower Rio Grande Valley of Texas and mid- to late-May in central Florida. This harvest season makes 'TropicSnow' an ideal choice to plant with 'EarliGrande' (Bowen, 1980), 'Flordaprince' (Sherman et al., 1982), 'TropicSweet' (Rouse and Sherman, 1987), and 'FlordaGrande' (Rouse et al., 1985). 'TropicSnow' ripens with 'FlordaGrande' in most seasons, finishing the harvest season for ultra-early subtropical peaches before the start of the traditional medium-chill, early peach season in late May and June.

97 days from bloom in Gainesville, Fla. We judge the fruit to have very high quality for the maturity season, and this cultivar is the first freestone white peach to ripen in the season. Fruit may have a large suture in some seasons, but are firm with a bright red overcolor. External color is 25% to 50% red over a creamy white ground color. Flesh is white and highly resistant to browning on cut surfaces.

Trees are spreading and lend themselves to standard pruning for open centers. Trees set large numbers of flower buds and require extensive fruit thinning in the absence of spring frost. When properly managed, trees produce heavy crops of large fruit. Leaf glands are reniform. Leaves and fruit are highly resistant to bacterial spot [Xanthomonas campestris pv. pruni (Smith) Dye].

'TropicSnow' trees require 200 chilling units. A chilling unit is the maximum amount of chilling that can be satisfied in 1 hr at an optimum temperature. The optimum for chilling in most peach cultivars has been established at 7°C; we believe the optimum for chilling in 'TropicSnow' to be near 3°C. We have observed that trees will set and mature a full crop with slightly less than the required chilling units, but flowering and foliation may

![Fig. 1. Pedigree of 'TropicSnow' peach.](image1)

![Fig. 2. Fruit of 'TropicSnow' peach.](image2)