'Jerseycot' Apricot

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'Jerseycot' is an early ripening, orange-fleshed, freestone apricot (Prunus armeniaca L.) for homeowners and the local fresh market. 'Jerseycot' is the first apricot cultivar to be released by the New Jersey Agricultural Experiment Station (1) 'Jerseycot' combines several desirable attributes, including good tree health, consistency of cropping, disease resistance, and good fruit quality. It is being introduced to allow apricot production in New Jersey and areas with a similar climate.

Origin

Apricot breeding was initiated at the New Jersey Agricultural Experiment Station in 1950. 'Jerseycot' resulted from hybridizing two unnamed selections (RR18-64 x CR3-135) from the New Jersey breeding program (Fig. 1). The cross was made in 1970 by L. Fredric Hough and Catherine H. Bailey. The fruit was first observed in 1977. Trees were propagated and evaluated at Cream Ridge from 1983-86 under the designation NJA44. Trees currently are being evaluated by breeders in New York, West Virginia, South Carolina, Georgia, and Texas.

Description

'Jerseycot' fruit ripen early, 2 weeks before 'Goldcot' and 16 days before 'Veecot'. Fruit are round and medium in size (4.0-4.5 cm in diameter) when thinned, and trees carry a commercial load. The skin is pale orange and lacks a blush when picking ripe (Fig. 2). Cracks in the skin on the shoulders occasionally have been observed. The flesh is bright orange, sweet, juicy, and has the aroma of a cantaloupe. The flesh is not sufficiently firm for long-distance shipment, but should be adequate for U-pick, roadside markets, and homeowners. The flesh is usually free at the pit but may adhere slightly to the suture in some seasons. The fruit ripen uniformly and do not drop readily when ripe.

The pit is medium in size, tan in color, and has a grainy surface. The kernel is bitter.

Tree growth habit is intermediate between upright and spreading. Flowers are a very pale pink and bloom with early-blooming cultivars. 1 day before 'Veecot' and 'Har­cot'. The leaves are medium in size and usually have two or more large, globose glands on the petiole.

'Jerseycot' is resistant to many of the diseases that limit apricot production in the east. Apricots are not grown commercially in New Jersey, largely because of poor tree health. Injury to tree trunks by cold or fluctuating temperatures in winter and spring, coupled with fungal canker (Cytospora spp.) and bacterial canker (Pseudomonas syringae Van Hall) often kills trees. Trees of 'Jerseycot' have exhibited very good tree health, showing no gumming, whereas adjacent cultivars exhibited a high mortality rate. Full sibs, half sibs, and other relatives of 'Jerseycot' with M604 from Morden, Manitoba, Canada in their pedigrees also have exhibited exceptional tree health. Fruits and leaves appear resistant to bacterial spot (Xanthomonas campestris pv. pruni (Smith) Young et al.). Trees of 'Jerseycot' have remained free of the disease when neighboring trees have been severely defoliated. Brown rot (Monilinia fructicola (Wint.) Honey) has not been a problem when commercial spray recommendations have been followed.

Many apricot cultivars do not produce a regular crop in New Jersey. Cropping consistency depends on a) flower bud survival in late winter and early spring and b) tendency to set fruit even when conditions are unfavorable. Flower buds of 'Jerseycot' have exhibited a very good level of hardiness following test winters. On 22 Jan. 1984, a low of −27°C was recorded at the Rutgers Fruit Research and Development Center. As a result, 100% of the peach flower buds were killed. Yet, enough flower buds survived on 'Jerseycot' to produce a full crop. Flower bud survival over a 10-year period on the original tree has averaged in excess of 80%, which is far superior to 'Goldcot'. During this same 10-year period, 'Jerseycot' failed to set fruit only once, and thus has an exceptionally consistent cropping record. 'Jer­seycot' will set fruit when conditions are cool, wet, and unfavorable for pollination and fruit set. Young trees exhibit the same level of bud hardness and cropping consistency.

Trees of 'Jerseycot' have been propagated

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and have performed well on 'Lovell' peach and apricot seedling rootstock. Apricot seedling rootstock is recommended.

Availability

'Jerseycot' is being released to the public to allow apricot culture in the Middle Atlantic states, where tree mortality and inconsistent cropping currently limit production. Trees are available from Adams County Nursery, Aspers, PA 17304. Nurseries interested in propagating trees may contact the Rutgers Fruit Research and Development Center for limited quantities of budwood.

Literature Cited


'Redwing' Raspberry


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Additional index words. Rubus idaeus, primocane-fruiting, fruit breeding

'Redwing' is a primocane-fruiting ('fall-fruiting') red raspberry (Rubus idaeus L.) cultivar (Fig. 1) developed by the Univ. of Minnesota fruit breeding program. It typically begins fruiting 10 to 14 days earlier than 'Heritage', the most widely grown commercial floricane-fruiting cultivar. 'Redwing' is intended to supplement or replace 'Heritage' in situations where earlier primocane fruiting is desired.

Origin

'Redwing' originated from a cross of 'Heritage' x 'Fall Red' made in 1969. It was selected in 1972 as MN 629 and tested since 1974 in Minnesota at Excelsior (east), Morris (west-central), Grand Rapids (north-central), and Staples (central) as well as at several cooperating experiment stations.

Description and performance

'Redwing' has been compared with other primocane-fruiting cultivars in replicated trials established at the Horticultural Research Center, Excelsior, Minn. in 1979 and 1984 (Tables 1 and 2) and at other locations. These trials typically have used a cultural system in which plots are mowed in the spring and only the primocane crop is harvested. At Excelsior, the yield of 'Redwing' has been similar to or less than 'Heritage', apparently due to less development of fruiting laterals (1). At other Minnesota locations with a shorter growing season, 'Redwing', because of its earliness, yielded more than 'Heritage'. First harvest and peak harvest dates for 'Redwing' have averaged 10 to 14 days earlier than 'Heritage', but several days later than 'Fall Red'. Fruit size and color are similar to 'Heritage'. Firmness and skin strength of 'Redwing' are rated lower than 'Heritage', but better than 'Fall Red'. Quality of frozen packs usually has been rated lower than 'Heritage' because of reduced firmness. Flavor has been rated similar to or slightly lower than 'Heritage'.

Table 1. Performance of raspberry cultivars at Excelsior, Minn. in 1981–1985 from a planting established in 1979.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Yield (t/ha⁻¹)</th>
<th>Berry wt (g/berry)</th>
<th>Average first harvest</th>
<th>Average peak harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heritage</td>
<td>4.0</td>
<td>3.8</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Redwing</td>
<td>4.3</td>
<td>2.4</td>
<td>2.3</td>
<td>2.6</td>
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<td></td>
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<td></td>
<td></td>
<td>1.4</td>
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</tr>
</tbody>
</table>

|          | 1.8            | 28 Aug.            | 24 Sept.              |
|          | 2.1            | 17 Aug.            | 4 Sept.               |

*aMeans differ significantly (P ≤ 0.05).

Fig. 1. Fruit of 'Redwing' raspberry.

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