'Hesse' Canning Clingstone Peach

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'Hesse' clingstone peach [*Prunus persica* (L.) Batsch] is an "extra late" processing peach with orange-yellow flesh that produces a high-quality processed product. The tree is productive in standard and high-density plantings under central California conditions. 'Hesse' is being released to replace lower-quality cultivars that are harvested at the same time as 'Starn' and 'Corona'.

Origin

'Hesse' was the result of a 1973 open-pollination of 'Riegels' (Fig. 1). The seedling was selected at Davis, Calif., in 1977 and tested as breeding line 18,6-60. Due to its good performance in field and processing evaluations, 'Hesse' was propagated and placed in regional trials in Central Valley, Calif., beginning in 1978. The name 'Hesse' is given in honor of Claron O. Hesse, in recognition of his substantial contribution to peach improvement at the Univ. of California, Davis.

Description

'Hesse' fruit are clingstone and nonmelting with a fine texture and good flavor, as judged by us. Fruit shape is uniform, nearly symmetrical, and globose (Fig. 2). The fruit apex generally is rounded with a slight tip. Average suture diameter is 69 mm. The stem cavity is broad, moderately deep, and oval. The primary ground color is an orange-yellow; 0% to 25% of the fruit skin shows a dull-red blush, often in a striped or dappled pattern. Skin pubescence is slight. Flesh color is a uniform orange-yellow from skin to stone cavity. No red pigmentation is present in the flesh. Fruit ripens with 'Starn' and 'Corona', which are classified in the extra late California clingstone peach maturity group. Leaves are large, dark green, with well-defined and regular crenations. Leaf margins are slightly undulate. The glands are predominantly globose, with petiole glands usually stalked. Leaf gland position is alternate.

Flowers are nonshowy and medium in size. Petals are broadly oval to slightly ovate and light pink. Petal margins are a slightly darker pink and moderately undulate. The entire petal generally is cupped inward. Full bloom occurs

typically exceeds 1100 h. Pollen is yellow and abundant.

Performance

Trees are productive and upright to upright-spreading. 'Hesse' is adapted to the range of environments of the Central Valley, which is characterized by a Mediterranean climate with hot, dry summers and cool, wet winters. Winter chilling time ranges from 800 to 1200 h. Flowers and fruit are moderately susceptible to brown rot caused by *Monilinia fruticola* (Wint.) Honey. 'Hesse' performance

in late February at a time similar to that of other commercial cling peach cultivars in central California, where chilling time at <7C

Fig. 1. 'Hesse' peach pedigree. Seed parent is at top. OP = open-pollination.

Fig. 2. Leaf, fruit, and stone morphology of 'Hesse' peach (bar = 5 cm).

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Table 1. Performance of 'Hesse' clingstone peach compared with that of 'Halford' and 'Starn' in central California (1980-91).

Performance characteristic	Cultivar		
	Halford	Starn	Hesse
	<i>Rating²</i>		
Canned			
Appearance	2.8	3.4	4.3
Flavor	2.7	2.6	2.9
Texture	3.0	3.0	3.3
Bruising	1.9	1.3	2.5
Brown rot	1.7	1.5	1.9
Crop load	4.0	4.8	4.5
	<i>Measurement³</i>		
Split pits (%)	3.3	7.0	0.8
Harvest firmness (N)	37.8	38.3	33.4
Fruit diameter (mm)	72	70	69
Case yield/ton	65.0	65.1	66.2
Ripe date	24 Aug.	25 Aug.	26 Aug.

²Ratings were subjective on a scale of 1 (least desirable) to 5 (most desirable).

³Flesh firmness was measured with a Magness-Taylor firmness tester using an 8-mm tip with fruit skin removed. Case size is 24 no. 2 1/2 cans, each measuring 900 ml.

compares favorably with that of 'Halford' and 'Starn', which are standard cultivars of similar maturity (Table 1). Major advantages of 'Hesse' are improved appearance and processed-product color, low occurrence of split pits, and absence of red pigment at the stone cavity.

Availability

A limited amount of budwood indexed for Prunus necrotic ringspot virus and prune dwarf virus is available under license agreement with the Univ. of California. License information for propagating 'Hesse' peach may be obtained by writing to the Office of Technology Transfer, 1320 Harbor Bay Parkway, Suite 150, Alameda, CA 94501.