

'Champagne' Fig

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Additional index words. *Ficus carica*, fig breeding, disease resistance, persistent fruit

'Champagne' fig (*Ficus carica* L.) was developed by the Louisiana Agricultural Experiment Station (LAES) to provide a productive, good-quality fruit that ripens during the traditional fig harvesting period. 'Champagne' is a common-type fig and the fourth cultivar released from the LAES fig breeding program that was initiated in the 1950s to develop cultivars for the gulf south region (O'Rourke et al., 2004). 'Champagne' was evaluated in plantings at research stations located at The Burden Center, Baton Rouge, LA (long. 30°24'3" N, lat. 91°6'2" W) and at the Citrus Research Station at Port Sulfur, LA (long. 29°29'7" N, lat. 89°42'7" W). This selection (L55-13-22) was chosen for release because of superior fruiting characteristics.

Parentage

'Champagne' is a selection from a group of seedlings derived from a cross of 'Celeste' × 'C1'. 'C1' is a designation given a caprifig obtained from the University of California at Riverside in ≈1950. The cross was made in 1955 and the selection was made by E. O'Rourke in 1959 and was tested as L55-13-22.

Description

Fruit. A comparison of syconium (fruit) characteristics of seven cultivars of common-type figs was made in the summer of 2008 using fruit from 8-year-old trees growing at Burden Research Center, Baton Rouge, LA. Sixteen uniformly firm, ripe fruit were harvested from each tree in the canopy periphery ≈1.5 m from ground level. Plots were replicated three times with one tree per plot. Fruit were immediately taken to the laboratory for evaluation. Each replicate was weighted and divided into two lots for measuring soluble solids and color. Fruit from one lot of each cultivar were peeled and macerated. Approximately 3 mL of pulp was used to determine percent soluble solids using a benchtop refractometer. A 20-mL sample of the macerated pulp was used to determine internal fruit color using a Minolta CM3500d spectropho-

tometer (Minolta Instrument Systems, Ramsey, NJ) standardized with a white calibration plate (Minolta CM-A120). External fruit color was determined objectively by placing whole fruit from each cultivar on the eye lens of the spectrophotometer along the equator of each fruit. Four fruit were measured for external color at two points along the equator of each fruit and the L, a, and b measurements averaged.

The fruit of 'Champagne' is persistent and does not require pollination. Fruit have a slightly round distal end and taper slightly toward the stem end with a short neck (Fig. 1). 'Champagne' produces good-quality, 30- to 40-mm diameter, and moderate-sized (23 g) yellow fruit (Table 1). The fruit has a partially closed eye (ostiole) on mature fruit. Internal color is gold to caramel color when soft ripe (Table 2). Ripening occurs about the same time as 'Celeste', which is usually the first week of July in Baton Rouge, LA. The main crop of 'Champagne' ripens over a 15-d period, which is comparable to 'Celeste' and 'Kadota'.

Trees and foliage. Trees of 'Champagne' are vigorous, producing upright trunks and, if left not pruned, will produce a pyramid-shaped tree. Very little horizontal growth was observed in the juvenile phase. Foliage cover is sparse when compared with 'Celeste'. Mature leaves of 'Champagne' are palmate with five distinct lobes. The primary lobe is spatulate. Basal lobes are cordate with slight serrations.

Disease resistance. Trees of fig cultivars with known degrees of susceptibility to late summer defoliation were grown in a research orchard at Burden Center at Baton Rouge, LA. Field notes were recorded annually in late summer on the degree of defoliation of

each tree. 'Champagne' is slightly more resistant to defoliation caused by the fig leaf rust [*Cerotelium fici* (E.J. Butler) Arthur] and leaf spot [*Pseudocercospora fici* (Heald & F.A. Wolf) × J. Liu & Y. L. Guo) = *Cercospori fici*] complex than 'Celeste'. Symptoms caused by the two pathogens often appear at the same time creating difficulty in separating the two diseases under field conditions as to which one causes defoliation.

Culture

'Champagne' is a common-type fig that is very productive and has performed well in grower trials and home orchards. This selection has previously been unofficially named and propagated as 'Golden Celeste'; however, 'Golden Celeste' is not necessarily the same as 'Champagne'. 'Champagne' will not



Fig. 1. Fruit of 'Champagne' (L55-13-22) fig.

Table 1. Comparison of fruit characteristics of seven fig cultivars.

Cultivar	Fruit wt ²	Percent SS ³
Magnolia	50.3 a	21.2 a
Champagne	25.2 b	18.1 b
Tiger	27.5 b	17.5 bc
Alma	35.7 b	18.1 b
LSU Gold	31.5 b	15.2 c
O'Rourke	19.8 c	18.1 b
LSU Purple	17.8 c	17.5 bc
Hunt	15.9 c	20.3 ab
Celeste	14.0 c	21.3 a

²Wt is the mean of 16 fruit in grams.

³Percent SS is percent soluble solids as measured by a refractometer.

Means in a column followed by a common letter are not significantly different at the 0.05 level of probability according to Duncan's test.

Table 2. Comparisons of internal and external colorimeter measurements of seven fig cultivars.

Cultivar	Visual color	Color values					
		External			Internal		
		L ^z	a ^y	b ^y	L ^z	a ^y	b ^y
Kadota	Yellow	65.8 a	2.1 c	51.6 a	52.3 a	7.2 d	36.1 a
Champagne	Yellow	64.4 a	2.0 c	50.6 a	50.7 a	6.5 d	38.1 a
Hunt	Tan	50.1 b	12.2 ab	34.2 b	54.3 a	12.9 c	35.1 a
Celeste	Tan	49.3 b	12.0 b	16.4 d	45.1 c	18.5 b	24.4 c
O'Rourke	Tan	46.0 b	8.7 b	23.7 c	51.4 b	6.4 d	34.8 a
Hardy Chicago	Black	30.8 c	14.4 a	11.3 d	45.0 c	22.9 a	24.7 c
LSU Purple	Purple	24.7 d	4.3 c	1.5 e	48.2 b	11.1 c	28.9 b

External measurements are the mean values from 16 uniformly ripe fruit.

Color was measured by a Minolta CM3500d spectrophotometer using standard CIE scale.

^zL = degree of lightness 100 = pure white, 0 = black.

^ya = measurement of green to red on a scale of -80 to 100, -80 = green, 100 = red.

^yb = measurement of yellow to blue on a scale of -80 to 70, -80 = blue, and 70 = yellow.

Means in a column followed by a common letter are not significantly different at 0.05 level of probability according to Duncan's test.

Received for publication 29 Sept. 2009. Accepted for publication 9 Dec. 2009.

Louisiana State University AgCenter journal series 09-306-3828.

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replace any currently recommended cultivar but offers some unique marketing characteristics (Pyzner, 2005). The yellow color is somewhat unique and should present a marketing opportunity for local markets. This selection should complement the recommendation list by increasing the diversity of fruit types. A marketing limitation that should be noted is the tendency of the fruit of 'Champagne' to have a partially closed eye at maturity. Under humid conditions, this could

increase the amount of fruit spoilage compared with 'Celeste'. However, field notes have not denoted a greater tendency for fruit spoilage than other cultivars. When the fruit is harvested at the proper stage for processing (firm ripe), this should not present a problem.

Availability

The LSU AgCenter does not have nursery trees of 'Champagne' available. Limited

quantities of dormant cuttings are available from Charles E. Johnson for research.

Literature Cited

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- Pyzner, J. 2005. Figs for commercial and home orchards in Louisiana. Louisiana State University Agricultural Center publication 1529.