

'O'Rourke' Fig

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'O'Rourke' fig (*Ficus carica* L.) was developed by the Louisiana Agricultural Experiment Station (LAES) to provide a productive tree of good-quality fruit, which ripens during the traditional fig harvesting period. 'O'Rourke' is a common-type fig and the third 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). 'O'Rourke' was evaluated in plantings 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 Sulphur, LA (long. 29°29'7" N, lat. 89°42'7" W). This selection (57-11-103) was chosen for release because of superior fruiting characteristics.

Parentage

'O'Rourke' was selected from a group of seedlings 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 1956 and an individual plant selection made by E.N. O'Rourke in 1960 and tested as L57-11-103. This cultivar is named to honor Dr. Ed O'Rourke's (Professor) service to the fruit industry.

Description

Fruit. A comparison of fruit (syconium) 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 weighed 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 bench-top refractometer. A 20-mL sample of the macerated pulp was used to determine internal fruit

color using a Minolta CM3500d spectrophotometer (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 'O'Rourke' is persistent and does not require pollination. 'O'Rourke' has a round distal end and tapers slightly toward the stem end with a long neck region (Fig. 1). The fruit stalk is longer on 'O'Rourke' than most common fig cultivars with an average length of 14.2 mm compared with fruit stalk on 'Celeste' of 10.4 mm. 'O'Rourke' produces good-quality fruit ≈35 mm in diameter and of moderate size (20 g) and tan in color. The eye (ostiole) of 'O'Rourke' is not completely closed when fully ripe compared with

a closed eye of 'Celeste'. Internal color is golden with red near center of fruit when soft ripe (Table 1). Fruit ripen ≈5 to 7 d before 'Celeste' or approximately the last week of June in Baton Rouge, LA. The longer fruit stalk of 'O'Rourke' attributes to the characteristics of the fruit hanging down when fully ripe. The main crop of 'O'Rourke' ripens over a 15-d period, which is comparable to 'Celeste'.

Trees and foliage. 'O'Rourke' trees are vigorous, producing upright trunks with a tendency to produce horizontal growth during the juvenile phase. Trees of this cultivar have moderate resistance to damage from sub-freezing temperatures. Field notes indicate trees of 'O'Rourke' would be less resistant to freeze damage than 'Celeste' but more resistant than 'Magnolia'. Foliage cover is somewhat sparse on mature trees when compared with 'Celeste' in that trunk and branches of 'O'Rourke' are still visible after full foliation in midseason. Mature leaves of 'O'Rourke' are palmate with five to seven distinct lobes. The primary lobe is spatulate with an irregular, sinuate margin, giving the primary lobe an oak leaf appearance. The leaf base is sagittate with partially imbricate lobes.

Disease resistance. Eight-year-old trees of 'O'Rourke' 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. 'O'Rourke' is 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 X. J. Liu & Y. L. Guo) = *Cercospora 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. 'O'Rourke' 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 'Improved Celeste'; however, 'Improved Celeste' is not

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

Cultivar	Fruit wt ^z	Percent SS ^y
Magnolia	50.3 a ^x	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

^zWt is the mean of 16 fruit in grams.

^yPercent SS is percent soluble solids as measured by a refractometer.

^xMeans in a column followed by a common letter are not significantly different at 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 ^x	L ^z	a ^y	b ^x
Kadota	Yellow	65.8 a ^w	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, and 100 = red.

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

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

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Fig. 1. Fruit of 'O'Rourke' (L57-11-103) fig.

necessarily the same as 'O'Rourke'. This selection most closely resembles 'Celeste', which is one of the most prominent fig cultivars grown in the gulf south region (Pyzner, 2005). 'O'Rourke' produces a larger, earlier maturing fruit than 'Celeste' and complements current recommended varieties by increasing the diversity of fruit types. A marketing limitation is the tendency of the fruit of 'O'Rourke' to have a partially closed eye at maturity. Under humid conditions, this may 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 'O'Rourke' available. Limited quantities of dormant cuttings are available from C.E. Johnson for research.

Literature Cited

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