

are coherent, have large drupelets and are of very good quality. Fruits are tart, which is desirable for culinary purposes. In frozen and preserve tests at Geneva, 'Brandywine' produced one of the best flavored jams. It is one of the latest ripening cultivars, extending the fruiting season. It ripens about the last week in July at Geneva, N.Y.

'Brandywine' plants are available from the New York State Fruit Testing Cooperative Association, Geneva, N.Y. 14456, and from Mr. Ed Makielski, Makielski's Berry Farm, Ypsilanti, Michigan. This cultivar has been submitted to the virus-indexed propagation program from which foundation, registered and certified plants are available.

## 'Rosica' — A New Mango Variety Selected in Ica, Peru

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Ica is situated in 14° S. Lat. and 75° 40 W. Long. Its climate is dry with very infrequent rains, mild winter and sunny weather in summer. Many kinds of fruit trees: mangoes, avocados, figs, peaches, pecan nuts, grapes, etc., are cultivated. Most of them are in small orchards.

Previous to 1940 our local varieties of mango trees, all polyembrionics, were propagated from seeds and consequently the offspring reproduced the same characteristics as the mother plant.

The main defects of local varieties are irregular bearing and the production of small seedless fruits called "cuaresmeros" in Spanish and pulp containing abundant fibers.

Since about thirty years ago with the introduction of new mango varieties, such as 'Haden', 'Davis Haden' and others, mango trees are produced in nurseries from seeds and later grafted.

### Origin

This new variety originated on a bud mutation of a branch of 'Rosado de Ica', a local variety. In 1966, budstick were taken from this branch and grafted on 50 trees in the mango orchard of the Departamento de Fruticultura de la Estación Experimental Agrícola "San Camilo" of Ica.

### Description

The description given hereafter is based on observations of more than 15 years of the original sport and about 10 years of a group of budded trees. This new variety was named 'Rosica' from the words Rosado and Ica, formerly named 'Subtanjalla'.

Tree: Size medium to large, exhibits good lateral branching.

Leaves: Abundant leaves slightly drooping; mean length 23 cm, breadth 5.7 cm; flat; shape of the leaves lanceolate acute apex; emerging leaves light green with slight brick-red tinge.

Shoots: The main period of the emergence of new shoots is from December to March. Under our conditions during this time the tree produces one to three flushes with a 8.6 cm long average. Stray shoots may appear during October to December.

Inflorescence: Conical shape, multiple, average size 26 x 17.5 cm without leaves; the color is yellowish green with coral red on branches; glabrous. Fruit bud differentiation is produced on terminal new shoots or directly in axillary buds of shoots which bore terminal inflorescence in the previous season, with no intervening vegetative growth. Besides the panicles may arise directly from the axillary buds of the shoots which flowered, but did not set fruit.

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Flowers: Mostly hermaphrodite (59%); mean size 8.49 mm. Flowering period is from July to September.

Fruit: Large (500 g) like 'Haden'; shape oval and plump; stalk inserted squarely; basal cavity absent; apex rounded; stigmatic point in depression or cleft; average size 10.8 x 8.3 x 7.5 cm; a difference of the 'Haden' and another local varieties that they produce dwarf seedless fruit, 'Rosica' does not. Skin, medium thick, ground color orange, obscure glands sparse, no corkiness. Pulp moderate firm, fiber scanty, orange color; flavor good, pleasant, with mild aroma, taste very sweet; abundant pulp with average weight 76.3% of the fruit ('Haden' 71.6%). Fruit quality good to very good.

Stone: Small size; some fibers along the ventral edge; fill cavity; mean 9% of the fruit weight.

Ripening time: 'Rosica' is precocious; the fruits reach maturity during February to March; at the same time as the 'Haden' variety.

Yield: The mango trees which are just reaching the full bearing age produce an average yield of 65 K per tree.

Hybridization: At this time 'Rosica' is the only local monoembryonic variety; that is, produces one zygotic

embryo per seed, while the polyembryonic varieties produce asexual progeny. Thus 'Rosica' variety can be used as pistillate parent in the crosses to obtain new mango varieties.

### Conclusion

The 'Rosica' mango variety selected in Ica, Perú has many outstanding qualities. During the observation period this new variety tends to bear very regularly and to produce good yields of fruits of high quality and good appearance without dwarf fruits. 'Rosica' may be considered a great promise to obtain new varieties in a mango breeding program.

### References

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## HARRY GUENGERICH RETIRES

Harry Guengerich (B. S. University of Missouri) recently retired as Director of Research at Stark Bro's Nurseries & Orchards Co., Louisiana, Missouri. In this position he was responsible for the company's progress in fruit varietal, rootstock and interstem selection as well as their disease and propagation research. His special area was virus research and the establishment of the company's Virus Certification program. Through these efforts he introduced and refined various techniques for indexing fruit tree nursery stock as well as the selection

of virus free rootstocks and interstems used in the industry today.

Guengerich has published a number of general and technical papers on virus indexing, fruit and nut tree propagation and varietal selection.

Prior to coming to Stark Bro's in 1945 he was a commercial orchardist, a research specialist at the Missouri Fruit Experiment Station in Mountain Grove, Missouri; Fruit Extension Specialist in Jackson County, Missouri; Manager of Agricultural Operations at Unity Farms in Lee Summit, Missouri.