

MANGO - HAWAII

GOUVEIA

An Attractive New Mango

R. A. Hamilton and Warren Yee *Campos - Hawaii*

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POPE

GOUVEIA

MOMI K



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The Authors

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Figure 1.

Cover Photo:

Newly introduced mango varieties, left to right, 'Pope', 'Gouveia', 'Momi K'.

GOUVEIA

AN ATTRACTIVE NEW MANGO

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Origin and Development

Better mangos are continually needed both for dooryard planting as well as prospective new commercial orchards. Over 125 varieties have been collected and tested in trial plantings of the University of Hawaii to satisfy this need for desirable varieties of good appearance and superior quality. This work has been carried on over the past 35 years by members of the Department of Horticulture.

The most recently selected variety of outstanding merit is a seedling selection which has been given the name 'Gouveia.' This name was proposed to honor the late Mrs. Ruth Gouveia of Palolo Valley in Honolulu, who planted and grew the original tree from a seed of the 'Pirie' variety. This new mango came to the attention of horticulturists in 1956 as one of the winning entries in a statewide mango contest conducted by the Cooperative Extension Service.

Tree and Fruit Characteristics

Tree: The tree is medium in size, vigor, and productivity; upright with strong, well-spaced branches and a rounded crown. It is an attractive tree suitable for the home garden as well as for orchard planting. 'Gouveia' is considered a consistent though not exceptionally heavy bearer. The original seedling tree in Palolo Valley has consistently borne high-quality fruit since coming into bearing. Younger grafted trees have repeated this performance.

Fruit: Ovate-oblong, medium in size, about $3\frac{1}{4}$ inches wide by $4\frac{3}{4}$ inches long, averaging about 15 ounces in weight; base obliquely flattened, stalk inserted obliquely, cavity slight, shoulders unequal, ventral shoulder higher and broader than the dorsal, ventral shoulder rounded, dorsal shoulder ending in a long curve, sinus absent, beak a point to missing, apex rounded to broadly pointed.

Skin medium thick, undercolor "yellow ochre"¹ with an attractive "blood red"¹ blush extending over $\frac{2}{3}$ or more of the surface of the fruit; prominent lenticels.

Flesh "cadmium orange"¹; firm, sweet, juicy and almost fiberless. A moderate amount of short fiber adheres to the ventral edge of the seed. The seed is monoembryonic, small and narrow, averaging about 8 percent of the weight of the fruit. Keeping quality of mature fruits in cold storage is very good.

¹"Yellow ochre" 07 page 101, "Blood Red" 820 page 160 and "Cadmium Orange" 811 page 8. Horticultural Colour Chart. Henry Stone & Son Ltd., Banbury, England. 1938.

General Characteristics and Evaluation

New fruit varieties must of necessity excel or at least equal older accepted standard varieties when compared with them. The standard varieties in Hawaii would be 'Pirie' and 'Haden.' It is expected that 'Gouveia' would best suit the needs of those desiring an attractive, highly-colored, late-season variety more attractive in appearance than Pirie and of appreciably better dessert quality than Haden. It meets these qualifications without difficulty. Results of a study by a panel of experts at the University of Hawaii gave 'Gouveia' an excellent score in appearance and flavor compared with other outstanding varieties available in Hawaii. A summary of these comparative ratings is given in Table 1. In Figure 1 the color, shape, and size of 'Gouveia' are compared with those of 'Pope'² and 'Momi K'³ varieties recently introduced by the University of Hawaii.

'Gouveia' requires a warm location and abundant sunlight for the development of high quality, distinctive flavor and attractive color, which are its outstanding attributes. In cool areas with relatively high rainfall, the fruit is low in sugar, develops poor color, and is excessively acid. 'Gouveia' is recommended for planting in warm, sunny, relatively dry areas but cannot be expected to perform well or produce good quality fruit in cool, wet or excessively humid locations.

'Gouveia' is an exceptionally high-quality mango with rich distinctive aromatic flavor. It is classed as a highly-flavored rather than a mild mango.

²Pope Mango. University of Hawaii Agricultural Experiment Station Circular 60. 1960.

³Momi K Mango. University of Hawaii Cooperative Extension Service Circular 405. 1964.

TABLE 1. Summary of taste panel scores on six mango varieties grown at Poamoho Experimental Farm, Oahu

Name	Flavor	Texture	Skin color	Flesh color	Size & shape	Proportion of seed to flesh	Total
Highest possible score	35	30	20	5	5	5	100
Gouveia	29.0	21.0	12.5	4.3	4.5	4.8	76.1
Pope	26.5	24.1	12.6	3.8	4.1	4.5	75.6
Momi K	25.7	22.5	14.0	3.7	3.0	4.4	73.3
Pirie	29.1	22.3	9.2	3.3	3.0	3.0	69.9
Zill	23.6	18.8	11.9	3.4	3.1	4.2	65.0
Haden	17.7	17.6	15.3	3.4	3.7	2.9	60.6
Joe Welch	17.2	18.9	11.3	3.2	4.2	4.1	58.9

Distribution

Scions of 'Gouveia' are available on request to bona fide commercial fruit tree nurseries and to State Department of Agriculture facilities on Oahu and to other islands insofar as plant quarantine regulations permit distribution. Some trees of 'Gouveia' variety are already available through garden shops and commercial nurseries on Oahu. Those desiring to plant 'Gouveia' trees should make an effort to obtain trees from commercial sources. The Horticulture Department will attempt to supply only limited amounts of scions to bona fide nurserymen who desire to begin propagation of this desirable new variety.

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