

# 'Nitta/Molokai' Hybrid and 'Nitta/Waimanalo' Hybrid Eggplants

K.Y. Takeda, T.T. Sekioka, J.S. Tanaka, and S.F. Fukuda

Department of Horticulture, University of Hawaii, Honolulu, HI 96822

Additional index words. *Solanum melongena*, plant breeding

Two long eggplant (*Solanum melongena* L.) cultivars, 'Nitta/Molokai' hybrid and 'Nitta/Waimanalo' hybrid, were released in 1995 by the Dept. of Horticulture of Univ. of Hawaii (Fig. 1). The hybrids are long-fruited types preferred by many Hawaiian consumers of Oriental descent. Hawaii's eggplant growers expressed the need for long eggplant hybrids that combine the desirable attributes of fruit quality (fruit length, color, shelf life) with high yield. These combined qualities were not present in the open-pollinated cultivars that were grown in Hawaii.

## Origin

The parents of the new cultivars are included in the name of the hybrids. 'Nitta' is an open-pollinated cultivar developed by a local farmer, James Nitta, and is grown widely in Hawaii. 'Nitta' is a heavy producer of uniformly shaped fruit with thick skin that have exceptional shelf life. Its fruit are maroon to light purple with an average length of 22 cm and a diameter of 3.8 cm.

'Waimanalo Long' is an open-pollinated cultivar developed by the Univ. of Hawaii from a cross made between 'Taki Long Black' and 'Molokai Long'. It produces a dark purplish-black fruit that retains its color for a longer period than either 'Molokai Long' or 'Nitta'. Average fruit length is 26 cm with a diameter of 3.5 cm. 'Waimanalo Long' has less uniform fruit size and shape, but has a thin, tender skin, and has a shorter shelf life than 'Nitta'.

'Molokai Long' was the major commercial open-pollinated cultivar before the introduction of 'Nitta'. The origin of 'Molokai Long' is unknown and may have been brought to Hawaii by early Japanese immigrants. It produces light purple fruit that averages 27 cm in

length and a diameter of 3.3 cm. 'Molokai Long' lacks the uniformity of fruit shape and has a shorter shelf life than 'Nitta'.

## Description

'Nitta/Molokai' and 'Nitta/Waimanalo' hybrids have an upright growth habit and green foliage tinged with purple. Yield, fruit weight, length, and diameter are similar for both hybrids (Table 1). The fruit color of the hybrids is a deep maroon, which has considerable

consumer appeal. Both hybrids outyielded the parents in the crosses in Hawaii Grade A and total marketable weight of fruit (Table 1). Both were equal to 'Nitta' in fruit weight and produced heavier fruit than 'Molokai Long' or 'Waimanalo Long'. The hybrids were equal in length to 'Molokai Long' and 'Waimanalo Long' and are significantly longer than 'Nitta'. Although both hybrids have similar attributes, growers from the various farming areas prefer a specific 'Nitta' hybrid. For example, the 'Nitta/Waimanalo' hybrid is desired by growers on Molokai, while Oahu eggplant producers contend that the 'Nitta/Molokai' hybrid is best for their areas. The 'Nitta/Waimanalo' hybrid is very popular on Guam.

## Availability

Limited seed of 'Nitta/Molokai' hybrid and 'Nitta/Waimanalo' hybrid eggplant may be obtained by addressing requests to Seed Program, c/o Richard Sakuoka, Dept. of Horticulture, 3190 Maile Way, Room 102, Univ. of Hawaii, Honolulu, HI 96822.

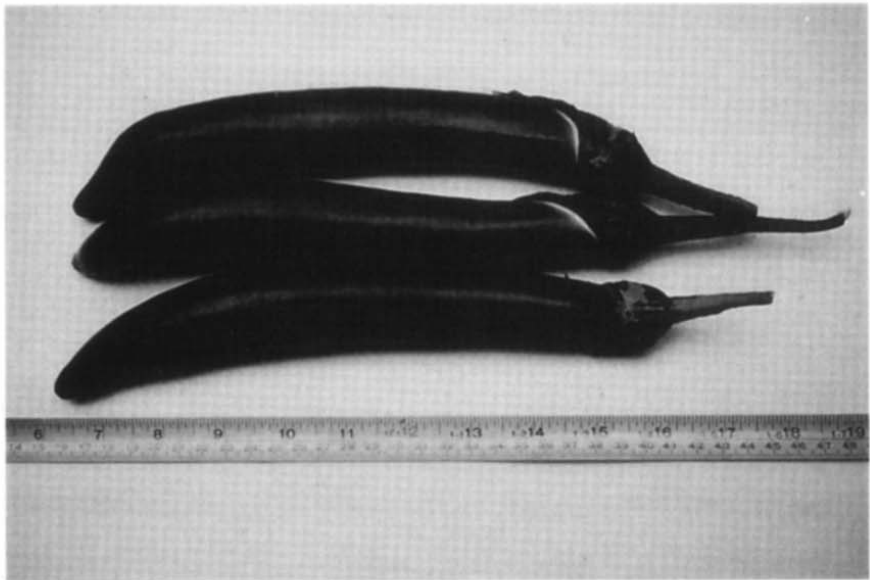


Fig. 1. Fruit of 'Nitta/Waimanalo' hybrid eggplant (scale in inches and centimeters).

Table 1. Performance of 'Nitta/Molokai' hybrid and 'Nitta/Waimanalo' hybrid eggplant compared with standard Hawaiian cultivars.<sup>2</sup>

Cultivar	Yield (kg/plant)		Fresh wt (g/fruit)	Length (cm)	Diam (cm)
	Grade A	Total marketable			
Nitta/Molokai	1.86 A	2.40 A	108 A	28.9 A	3.8 A
Nitta/Waimanalo	1.72 A	1.93 A	107 A	29.2 A	3.6 A
Nitta	1.36 B	1.58 B	113 A	21.3 B	3.8 A
Molokai Long	1.39 B	1.59 B	89 B	27.3 A	3.3 A
Waimanalo Long	0.78 C	0.92 C	89 B	26.1 A	3.3 A

<sup>2</sup>Mean separation within columns by Duncan's multiple range test,  $P \leq 0.05$ . The means were obtained from three trials with five replications conducted on Oahu.

Received for publication 24 July 1995. Accepted for publication 3 Sept. 1996. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked *advertisement* solely to indicate this fact.