
*Evaluation of Several Yellow Squash and Two Zucchini Squash Cultivars for Production During Spring 1997 at Live Oak, FL 97-15*Robert C. Hochmuth, Jennifer L. Hornsby, George J. Hochmuth¹**Introduction**

Squash of all types, are grown in northern Florida during spring and fall seasons on several hundred acres. Several new squash cultivars have become available to growers recently. This trial was conducted to evaluate a selection of these cultivars under the conditions in northern Florida.

Materials and Methods

Plots were established in a Lakeland fine sand at the Suwannee Valley Research and Education Center near Live Oak, Florida. Preplant soil tests (Mehlich-1 extract) showed 51 ppm P, 28 ppm K, 28 ppm Mg, and 379 ppm Ca. Soil pH was 6.4 using a 1:2 (soil:water) extract. The soil was fertilized prior to planting with 600 lbs per A of 13-4-13 (N-P₂O₅-K₂O) on March 11, 1997. The crop also received an additional 80 lbs per A of N and K₂O via weekly fertigation from April 7 to May 17. Beds were formed on 5 ft centers, fumigated with a 98:2 methyl bromide and chloropicrin mixture at a rate of 400 lbs per broadcast acre, and covered with black plastic mulch. Irrigation tubing was laid in a 1 inch deep groove in the center of the bed at the time of mulching. The final beds were 36 inches wide and 6 inches high.

Plots 25 feet in length were established on the beds. Treatments were arranged in a randomized complete-block design and replicated 4 times. The plots were seeded on March 19, 1997 with two rows per bed and seed spaced 24 inches apart in each row on the bed. Plots were irrigated by drip irrigation using a tensiometer as a scheduling aid. Water was applied to maintain a soil moisture level of -8 to -12 centibars at a 12-inch depth. Insects and diseases were managed in accordance with a recommended spray program.

Fruits were harvested 10 times from May 2 to May 23. Early harvests were the first three harvests. Fruits were graded into two categories, marketable or cull. Fruits in

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both categories were counted and weighed. A third category for fruit mosaic symptoms was available during grading. Data were subjected to analysis of variance procedures.

Results and Discussion

Squash yields for early and total season are presented in Table 1. Marketable and cull yields are presented; however, data for fruit with mosaic symptoms are not presented. No mosaic symptoms were observed on any harvested fruit.

Early yellow squash yields ranged from 212 to 365 bu/A with 'Picasso', 'FMX 690', and 'Gentry' providing top early yields. This low early yield of 212 bu/A with 'SS6' was not significantly different from yield of most other cultivars. Early yields of the two zucchini cultivars were about 400 bu/A and not significantly different from each other. Highest early cull yields were found with 'Enterprise' and 'FMX6 94'. Other cultivars with relatively high early cull yields included: 'FMX 690', 'Destine III', and 'Sunbrite'.

Total season marketable yield for the two zucchini cultivars was near 1,000 bu/A and not significantly different from each other. Total season marketable yield for yellow squash cultivars ranged from 734 to 584 bu/A. Most yellow cultivars had yields between 600 and 700 bu/A. Only 'Sunglo', 'Gentry', 'FMX 690', 'Picasso', and 'Monet' and yields over 700 bu/A, but were not significantly different from most other yellow squash cultivars.

Highest cull yield for the season was found with 'FMX 694', 'Enterprise', and 'Sunbrite'. Most culls were due to misshapen fruit; however, 'FMX 694' also had "off types" graded as cull. All other yellow cultivars had similar low cull yields. Very low cull yield was found with both zucchini cultivars, 'XPHT 1777' and 'XPHT 1776'.

Average fruit weights of the two zucchini cultivars were similar to each other and all yellow squash cultivars were also similar to each other. Yellow squash cultivar average fruit weights were 0.3 to 0.4 lbs with no significant difference detected. Fruits of all yellow squash cultivars were significantly smaller than fruits of both zucchini cultivars.

In summary, several new yellow squash cultivars performed as well or better than a standard cultivars, 'Lemondrop'.

Industry Cooperators

Rogers Seed Co. (seed), PO Box 1827, Gilroy CA 95021

Ferry Morse (seed), PO Box 4938, Modesto GA 95352-4939

Asgrow Vegetable Seed (seed), Duaine E Kief, 412 Holly Hill Ct., Tallahassee FL 32312

Robert Irrigation Products, Inc. (drip tape), 700 Rancheros Dr., San Marcos CA 92069

IMC Rainbow (fertilizer), PO Box M, Tifton GA 31793

Hendrix and Dail (fumigant), 7610 US Hwy 41 N, Palmetto FL 34221

Contact Extension Service for names and addresses of current Florida representatives. Mention of a specific company or product does not constitute endorsement over other companies or equivalent products.

Table 1. Early and total yield, and average fruit weight of several yellow and two zucchini squash cultivars in the spring of 1997 at Live Oak, FL.

Cultivar	Seed Source	Type	Stem Color	Early ^z Yield (bu/A) ^y		Total Yield (bu/A)		Average Fruit Wt. (lbs)
				Marketable	Cull ^x	Marketable	Cull	
XPHT 1777	Asgrow	Zucchini	Green	436	1	1024	8	.73
XPHT 1776	Asgrow	Zucchini	Green	382	1	959	6	.80

Picasso	Ferry Morse	Crookneck	Green	365	17	711	26	.40
FMX 690	Ferry Morse	Crookneck	Green	326	35	722	49	.31
Gentry	Rogers	Crookneck	Green	305	9	733	23	.30
FMX 694	Ferry Morse	Crookneck	Green	281	40	626	97	.30
Enterprise	Rogers	Straight	Green	280	49	669	77	.38
Monet	Ferry Morse	Straight	Yellow	275	12	705	18	.36
Sunglo	Rogers	Crookneck	Green	274	12	734	18	.30
Destiny III	Asgrow	Crookneck	Green	267	27	598	33	.33
Prelude II	Asgrow	Crookneck	Green	263	15	624	34	.31
Liberator	Asgrow	Straight	Green	254	15	662	21	.43
Lemondrop	Asgrow	Straight	Green	233	9	611	15	.40
Sunbrite	Rogers	Crookneck	Green	221	24	585	71	.30
SS6	Rogers	Straight	Yellow	212	18	627	33	.32
Significance (P=0.05) ^w				**	**	**	**	**
LSD				67	13	142	34	0.16
^z Early harvest was calculated using the first three harvests. ^y One bushel of squash is 42 lbs. ^x Cull fruit was misshapen or "off type". ^w Differences at the 5% level were highly significant (**).								