

YIELD EVALUATION OF POWDERY MILDEW RESISTANT ZUCCHINI AND YELLOW SUMMER SQUASH VARIETIES

M.L. Casella
Rutgers New Jersey Agricultural Experiment Station
Cooperative Extension Gloucester County
Clayton, NJ 08312

C.A. Wyenandt
Rutgers New Jersey Agricultural Experiment Station Cooperative Extension
Rutgers Agricultural Research and Extension Center
Bridgeton, NJ 08302.

ABSTRACT

Field research was conducted with 7 green zucchini (GZ) and yellow summer squash (YSS) (*Cucurbita pepo*) varieties to evaluate yield and quality under field conditions in 2007 at the Rutgers Agricultural Research and Extension Center in Bridgeton, New Jersey. Varieties were chosen based on past performance from disease evaluation trials conducted in 2005 and 2006 at the same location. Through the research done in 2005 and 2006 the varieties were determined to have intermediate resistance to powdery mildew. In the 2007 study, squash was planted in two seasons. The first planting was seeded into raised beds with black plastic mulch and drip irrigation on Apr 30 and the second planting on Jul 27. Harvests began on Jun 11 and were conducted 3 times weekly for 4 weeks for the spring crop. For the fall crop harvests began on Sep 7 and took place 3 times weekly for 3 weeks. Varieties in spring did not show significant differences in yield, see Table 1. In Fall, ‘Judgement III’ GZ, ‘Wild Cat’ GZ, and ‘Tigress’ GZ had significantly higher yields than the other varieties, see Table 2.

Table 1. Spring squash yields in tons per acre.

Variety	Type	Yield Tons/Acre
XPT 1832 III	Straightneck Yellow Summer Squash, YS ²	7.96
Judgement III	Medium Green Zucchini	7.33
Patriot II	Straightneck Yellow Summer Squash, GS ¹	7.00
Wildcat	Medium Green Zucchini	6.68
Sunray	Straightneck Yellow Summer Squash, YS	6.67
Tigress	Medium Green Zucchini	6.31
Cash Flow	Medium Green Zucchini	6.23
LSD (0.05)		NS

¹ GS indicates green stemmed variety

² YS indicates yellow stemmed variety with the precocious yellow gene

Table 2. Fall squash yields in tons per acre

Variety	Type	Yield Tons/Acre
Judgement III	Medium Green Zucchini	7.34 a
Wildcat	Medium Green Zucchini	6.17 ab
Tigress	Medium Green Zucchini	6.08 ab
Cash Flow	Medium Green Zucchini	5.39 b
Patriot II	Straightneck Yellow Summer Squash, GS ¹	3.29 c
Sunray	Straightneck Yellow Summer Squash, YS	2.66 c
XPT 1832 III	Straightneck Yellow Summer Squash, YS ²	1.57 c
LSD (0.05)		*

¹ GS indicates green stemmed variety

² YS indicates yellow stemmed variety with the precocious yellow gene

Means followed by the same letter are not significantly different, LSD, P=0.05.