



Summer Squash Variety Trial – University of New Hampshire – 2010 and 2011

Seeded: 5/17/10 and 5/25/11; Transplanted: 6/4/10 and 6/10/11.

Grown in Durham, NH in a randomized complete block design, 4 replicates, 6 plants per plot. Plants were spaced 18” apart in rows 7’ between centers on raised beds covered with Biotelo biodegradable black plastic mulch. One application of carbaryl was made to control striped cucumber beetle.

In 2010 and 2011, ten yellow summer squash cultivars (eight in each year; six in both years) were evaluated in a replicated field trial. Fruits were harvested every Mon, Wed and Fri from 7/2-8/20 in 2010, and from 7/11-8/19 in 2011. Season-long results from both years are shown below:

Cultivar ^a	'B' gene?	Rank Order Yield (no. fruit)		Rank Order Yield (weight)		Rank Order Avg. fruit size		Comments
		2010	2011	2010	2011	2010	2011	
Cheetah (H)	-	-	8	-	5	-	3	Slender, smooth fruit.
Cougar (H)	yes	3	4	2	3	2	2	Rough, teardrop shaped fruit. Spiny plant.
Enterprise (SW)	-	5	7	4	7	2	4	Smooth, tapered fruit. Extremely spiny plant.
Fortune (SW)	yes	2	1	3	2	6	8	Slightly ridged; teardrop-shaped golden fruit.
Goldprize (R)	-	-	6	-	4	-	1	Tapered, fairly smooth yellow fruits.
Slick Pik (JSS)	-	6	3	6	8	5	7	Slender elongated fruit. Smooth stems.
SuccessPM (HM)	-	8	5	8	6	4	6	Smooth, teardrop-shaped fruit. Tall plant, not PMR in 2011.
Sunray (H)	yes	4	-	7	-	6	-	Similar to Fortune; but with shorter fruits.
Superpik (H)	yes	1	2	1	1	8	5	Long, rough-skinned fruit. Extremely spiny plants.
Zephyr (JSS)	-	7	-	5	-	1	-	Bicolor - Smooth, long yellow fruit w/light green tips and pale stripes.

^a Seeds provided by or purchased from Harris Seeds (H), High Mowing Seeds (HM), Johnny’s Selected Seeds (JSS), and Seedway Seeds (SW).

Within each year, there were no significant differences in yields, between varieties. When both years’ data were combined, Superpik and Fortune produced significantly more fruit (over 29 fruit per plant, on average) than the lowest producing summer squash, Success PM (20.5 fruit per plant, on average).

The ‘B’ (or ‘precocious’) gene causes the stem of the squash to be yellow rather than green. Varieties with this gene do not show symptoms when infected by viruses, and fruits tend to have a more “golden” or rich yellow appearance. The leaves of these varieties may turn bright yellow under certain environmental stresses such as low temperature, as they did in June 2011 (see photo below). Plants grow out of this condition, but it may cause a yield reduction as it interferes with



photosynthesis. In our study, three of the four varieties that contained the 'B' gene, Cougar, Fortune and Superpik, were the highest yielding varieties over both years.

In general, yellow summer squash is more spiny (and therefore difficult to pick) than zucchini. In particular, the varieties Cougar, Enterprise and Superpik were noted as extremely spiny in our study.

On August 9, 2011 each plot was evaluated for powdery mildew (PM) severity on a 0-5 scale (0 = no visible sporulation, 5 – heavy sporulation on all leaves and petioles). All varieties, including the PM tolerant SuccessPM, were moderately susceptible, with average PM ratings of 2.5 or greater.

For more info, please contact Becky Sideman at becky.sideman@unh.edu.

Cougar



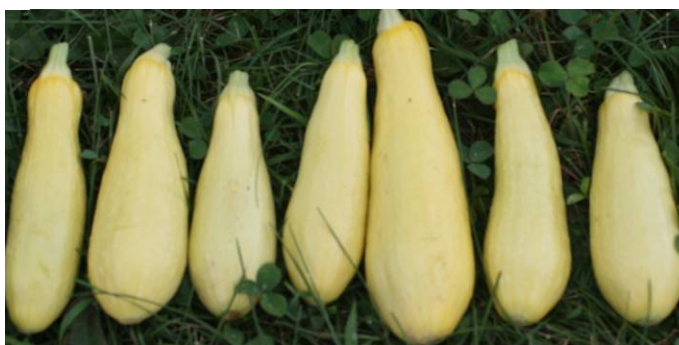
Fortune



Enterprise



Success PM



Sunray



Superpik





Zephyr



Slick Pik



Gold Prize



Cheetah



Leaf yellowing on plants with the 'B' gene

