

Pumpkins

Pumpkins fit into a diverse farming operation well with their low maintenance and low water requirements, high yields, and potential to extend the growing season late into the fall. Pumpkins are a good soil covering crop and this provides an opportunity to clean up annual weeds. It is an inexpensive crop to grow, and a good side market is pumpkin seeds. The market system for pumpkins however, can be extremely fickle.

One insect pest that can be troublesome in our area is the striped cucumber beetle which we didn't have trouble with this year but it is difficult for organic producers to control. The extra large varieties require a longer season than we normally have here so they are a bit of a gamble to grow. We have powdery mildew problems, but it can encourage crop ripening and allows workers to see the crop for harvest, so it can actually benefit the grower in some ways!



Thirteen varieties of pumpkins were grown on approximately 4 acres at the Horticulture Research Center (HRC) outside of Fort Collins, Colorado during the 2004 growing season. We direct-seeded (hand planted) the pumpkins on June 3rd at 2' in-row spacing (single row) into beds with 5' centers. The pumpkins were planted in 3 replications of approximately 40 pumpkin plants each in a randomized complete block design.



The pumpkins were furrow irrigated several times during the growing season. The last irrigation may have been too late causing plants to continue vegetative growth rather than fruit ripening. Weeds were controlled using flame weeding, hoeing, and hand pulling. The pumpkins were cut, grouped, and covered with row cover to protect against frost damage the last week of September.

Unfortunately we were hit with a severe golf-ball sized hail storm on August 10, 2004. We estimate that 55% of the medium to large pumpkin crop was lost due to hail damage. The cool season also contributed to many of the pumpkins remaining green late into the season. See our [Study Area](#) web page for more information about the season's weather.



Hail damage!

Our relatively high planting density didn't appear to impact pumpkin size too much (based on personal observation). An article in the journal Hort Technology reports planting densities for the Southeast (Cushman KE, Nagel DH, Horgan TE, Gerard PD. 2004. *Plant population affects pumpkin yield components*. HortTechnology 14 (3): 326-331) for comparison.
















We sold our pumpkins to school groups and had a "Pumpkin Truck" parked on campus near the greenhouses. We used the honor system (we asked people to insert money in the top of the driver's window) and we were happy to see that there are many honest people at CSU!



Below are photos, yield data, and comments for each of the varieties. Data was recorded only on pumpkins that were at least 50% orange at the time of weighing (October 18th and 19th).

Photo	Variety	Yield Data Averages (S.E. = Standard Error)	Comments
	<i>Jack Be Little</i>	0.47 lbs./fruit (0.04 lbs. S.E.) 6.9 ripe fruits/plant (2.3 S.E.)	Prolific, tiny pumpkins for decoration or eating, restaurants interested in for stuffing/soup bowls.
	<i>Baby Bear</i>	2.0 lbs./fruit (0.08 lbs. S.E.) 2.4 ripe fruits/plant (0.09 S.E.)	Very prolific, later producing.
	<i>Baby Pam</i>	2.7 lbs./fruit (0.14 lbs. S.E.) 1.3 ripe fruits/plant (0.16 S.E.)	Baby Pam had significantly heavier pumpkins than Baby Bear but produced less orange pumpkins than Baby Bear.

	<p><i>Big Rock</i></p>	<p>18.5 lbs./fruit (1.9 lbs. S.E.) 0.64 ripe fruits/plant (0.06 S.E.)</p>	<p>Large, heavy, pumpkins, most were green in late October</p>
	<p><i>Howden Biggie</i></p>	<p>19.1 lbs./fruit (6.4 lbs. S.E.) 0.33 ripe fruits/plant (0.11 S.E.)</p>	<p>A very large pumpkin, turns orange late though so it is a bit of a gamble to grow.</p>
	<p><i>New Rocket</i></p>	<p>14.0 lbs./fruit (0.64 lbs. S.E.) 0.65 ripe fruits/plant (0.09 S.E.)</p>	<p>Long, thin handle, large pumpkin.</p>
	<p><i>Racer</i></p>	<p>10.8 lbs./fruit (0.94 lbs. S.E.) 0.92 ripe fruits/plant (0.09 S.E.)</p>	<p>Medium-small pumpkin, nice shape, early producing.</p>

	<p><i>Rock Star</i></p>	<p>16.2 lbs./fruit (0.85 lbs. S.E.) 0.53 ripe fruits/plant (0.12 S.E.)</p>	<p>Low yields, uneven fruit shape, many rotten stems, medium size, not a recommended variety.</p>
	<p><i>Rocket</i></p>	<p>13.3 lbs./fruit (1.3 lbs. S.E.) 0.8 ripe fruits/plant (0.03 S.E.)</p>	<p>A large pumpkin, good stems.</p>
	<p><i>Rouge</i></p>	<p>11.6 lbs/fruit (1.0 lbs. S.E.) 0.6 ripe fruits/plant (0.09 S.E.)</p>	<p>Beautiful deep red/orange color, great for soups, weak stems, unique shape and color interests consumers.</p>
	<p><i>Sorcerer</i></p>	<p>15.2 lbs/fruit (2.4 lbs. S.E.) 0.97 ripe fruits/plant (0.1 S.E.)</p>	<p>A large pumpkin, but many were still green in the end of October.</p>

	<p><i>Tom Fox</i></p>	<p>12.4 lbs/fruit (0.3 lbs S.E.) 0.53 ripe fruits/plant (0.07 S.E.)</p>	<p>Late pumpkin, fat handle.</p>
	<p><i>Orange Smoothie</i></p>	<p>5.0 lbs./fruit 4.5 lbs./plant n = 22 plants</p>	<p>This variety was not included in the replicated experiment. Very appealing smooth skin, attractive small pumpkin for carving or baking.</p>