

*The  
Connecticut  
Agricultural  
Experiment  
Station,  
New Haven*

**Specialty  
Pumpkin Trials  
2009-2011**

ABIGAIL A. MAYNARD PH.D.  
Department of Forestry and Horticulture



*Bulletin 1044  
April 2016*

# Specialty Pumpkin Trials 2009-2011

ABIGAIL A. MAYNARD PH.D.

Department of Forestry and Horticulture

## ABSTRACT

In 2009-2011, 13 cultivars of specialty pumpkins were grown on a sandy terrace soil (Windsor, CT) and a loamy upland soil (Hamden, CT). Average total yield of specialty pumpkins of all cultivars was 15,246 pumpkins/acre (A) at Hamden compared to 9,801 pumpkins/A at Windsor. At Windsor, the average number of pumpkins/plant was 2.2 compared to 3.9 pumpkins/plant at Hamden. The cultivar Gooligan (white) averaged more than 6 pumpkins/plant, while Apprentice (orange), Hooligan (striped), Jack-Be-Little (orange), and Lil Pump-K-Mon (striped) averaged more than 5 pumpkins/plant. The cultivar with the fewest number of pumpkins/plant was Moonshine (white) (1.2 pumpkins/plant). The average weight of Moonshine was 4.7 lb/pumpkin compared to 1 lb or less per pumpkin for the high yielding cultivars. Average germination percentage of Prankster, Lil Pump-K-Mon, Apprentice, and Gooligan exceeded 90%. For cultivars that averaged less than 1 lb/fruit, greater profits are realized when the crop was sold by the pumpkin instead of by the pound, with the smallest cultivar (Baby Boo), increasing profits by over 350%. For cultivars with an average weight/pumpkin over 4 lbs, charging by the pound was the most profitable.

## INTRODUCTION

Investigation of new crops is essential to provide new opportunities for farmers during a time of changing agriculture in southern New England (CT, RI, and MA). Tobacco and dairy farming in southern New England have declined in the last 15 years. Acreage of tobacco declined from 3,725 in 1997 to 2,593 acres in 2012, and the number of dairy farms has declined from 1,061 in 1997 to 550 in 2012 (Anon. 2014). Although the numbers are unknown, some tobacco and dairy farms converted to other crops including vegetables, nursery stock, and Christmas trees; and some diversified to provide supplemental income. New farming ventures on idle and rented land have increased the number of farms (annual income exceeding \$1,000) from 13,206 in 1997 to 14,975 in 2012. Furthermore, the number of vegetable farms increased from 1,821 in 1997 to 2,583 in 2012 (Anon. 2014). Today, about 30,000 acres in southern New England are devoted to vegetable production. About 70% of these farms are less than 50 acres in size.

Small farm sizes have resulted in marketing shifts from wholesale contracts with local supermarkets to direct retail sales. Over 1,000 farms in southern New England offer direct sales through roadside stands and sales rooms, where a variety of fruit, vegetables, nursery stock, and Christmas trees are offered. The development of a network of farmers' markets in southern New England's major urban centers and densely populated suburbs is another important segment of direct sales of vegetables to consumers. The farmer's market offer locally-grown, fresh produce to urbanites unable to travel to the farms and niche crops valued by diverse ethnic groups. According to the Massachusetts, Rhode Island, and Connecticut Departments of Agriculture, there were 531 farmers' markets in 2014, attended by over 1,000 farmers.

In the United States, pumpkins are primarily grown for food processing with a small percentage for ornamental sales through pick-your-own farms, farmers' markets, and retail sales. Top pumpkin producing states include Illinois, Ohio, California, New York, and Pennsylvania (USDA 2008) with Libby's pumpkin processing plant in Morton, Illinois canning more than 85% of the world's pumpkin crop each year. In southern New England, 1,077 growers grew 3,379 acres of pumpkins in 2012, second in acreage only to sweet corn (Anon. 2014). The vast majority of these pumpkins were sold in local markets or directly to consumers. Only 40 farms harvested pumpkins for processing.

To meet changing market demands, many pumpkin cultivars have been developed that differ in size from the smallest (miniatures < 1 lb) to the largest (giant > 50 lb), and also vary in color, shape, stem size, and seed characteristics (naked or edible seeds). Specialty pumpkins come in a wide range of colors and color combinations including white, pale green, tan, burnt orange, and yellow. Shape also varies from the traditional round, to squatty with a flattened or concave top, to oval, to tall and elongated. In southern New England, the predominant market for pumpkins is for jack-o'-lantern types (12 to 20 lbs). However, small pumpkins are desirable for operations that host school tours where each child receives a pumpkin to take home. Smooth pumpkins are preferred for painting or coloring.

Pumpkins are a profitable niche market for many farmers and many pick-your-own operations offer more attractions than pumpkins including hayrides, corn mazes, and petting zoos. To eliminate the need to weigh each fruit, pumpkins sold at local markets are usually priced according to size. Small pumpkins are often priced at \$1 to \$2 each, with larger pumpkins priced from \$2 to \$6 each. Giant specimen pumpkins often

can sell for \$15-\$30 or more depending on size. According to the University of Massachusetts, production costs in growing pumpkins are \$1,351/A (Personal communication Ruth Hazzard 2014). In North Carolina trials, some varieties of mini pumpkins (< 1.5 pounds) can produce over 26,000 fruit/A which could net the grower over \$50,000/A, assuming sale of the entire crop (Kelly and Hoyt 2007). Other larger specialty pumpkins with yields about 5,000 fruit/A are also profitable.

Most specialty pumpkins variety trials have taken place in the South (Bratsch 2006, Kelly and Hoyt 2007). Trials in New York that included only jack-o-lantern and pie pumpkins were not replicated and were for a single growing season (Bornet and Blomgren 2003). Earlier trials at the Connecticut Agricultural Experiment Station were limited to traditional and pie pumpkins (Hill 1994, Hill 1995). This is the first reported study that compares the yield and economic return of white and miniature specialty pumpkins in the Northeast.

## METHODS AND MATERIALS

*Sites and soils.* Trials of specialty pumpkins were conducted for three years at the Valley Laboratory in Windsor, CT on Merrimac sandy loam (Entic Haplorthod), an inland sandy terrace soil with somewhat limited moisture holding capacity (Shearin and Hill, 1962); and at Lockwood Farm in Hamden, CT on Cheshire fine sandy loam (Typic Dystrochrept), a coastal loamy upland soil with moderate moisture holding capacity (Reynolds, 1979).

*Cultivars.* Twelve cultivars were grown in 2009 at both sites: Apprentice, Wee-B-Little, Gooligan, Minitreat, Lil Pump-K-Mon, Hooligan, Snackjack, Moonshine, Baby Bear, Baby Pam, Baby Boo, and Prankster. Ten cultivars were grown in 2010 at both sites: Apprentice, Wee-Be-Little, Moonshine, Lil Pump-K-Mon, Baby Boo, Hooligan, Minitreat, Gooligan, and Baby Pam. Twelve cultivars were grown in 2011 at both sites: Apprentice, Gooligan, Wee-B-Little, Baby Boo, Baby Bear, Lil Pump-K-Mon, Baby Pam, Moonshine, Jack Be Little, Hooligan, Minitreat, and Prankster. Characteristics of the specific cultivars and seed sources are described in Table 1.

*Culture.* Pumpkins were seeded in the greenhouse on April 29, 2009. Seedlings were grown in Promix BX (Premier, Red Hill PA) in 3x3x3-inch Jiffystrips and placed in a greenhouse maintained at 75°-90°F. After germination, plants were thinned to one per pot. Seedlings were moved to a cold frame for hardening before transplanting in the field. Water-soluble 20-20-20 fertilizer (one tbs/gal) was added to the seedlings before they were transplanted in the field on June 2-3. They were planted 3 feet apart in rows 5 feet apart with 15 plants/cultivar.

In 2010, pumpkins were direct seeded in the field on June 4 in Hamden and on June 8 in Windsor. In 2011 pumpkins were direct seeded on June 22 in Hamden and on June 23 in Windsor. Three seeds were planted in each of fifteen sites per cultivar. Sites were 3 feet apart in rows separated by 4 feet each. Three weeks after seeding, the number of germinated seedlings was counted for each cultivar and each planting site was thinned to one seedling per site. New seed was used each year with reported germination rates of greater than 95% according to the labels.

Pumpkins were seeded or transplanted in rows of black plastic mulch (3' wide) applied by a tractor-pulled plastic layer. Holes were punctured in the plastic at each planting site. At Hamden, drip irrigation tubing was laid before the plastic was applied.

*Fertilization.* The field soils (pH 6.5) were fertilized at a rate of 1300 lb/A 10-10-10 just before seeding or transplanting. Different experimental fields at each location were used each year to minimize potential disease build-up.

*Weed control.* Weeds around each plant were controlled by the black plastic mulch. Weeds in the aisles were mechanically controlled by rototilling 1-2 times before vines completely carpeted the aisles.

*Insect and disease control.* Insects and diseases were controlled by Manzate (mancozeb), Quadris (azostobin), Asana (esferivaterate), and Bravo (chlorothalmit) applied per labeled directions as needed throughout the growing season.

*Irrigation.* Water was supplied by drip irrigation at Hamden. At Windsor, water was supplied by overhead sprinklers as needed. Plots were irrigated at both sites so that plots received at least 1 inch of water per week either through rainfall or irrigation.

*Harvest.* Pumpkins were harvested in September of each year. Fruits were counted, weighed, and evaluated for quality.

*Statistical Analysis.* A two-factor (cultivar, site) analysis of variance (ANOVA) was used to compare both the number of pumpkins per plant and weight per plant. Tukey's HSD test was used to test for significant differences between the cultivar yields at  $p < 0.05$ .

## RESULTS

*Percent germination.* In 2010, the average germination for the 10 cultivars was 77% at Windsor compared to 65% at Hamden (Table 2). At Windsor, germination of Apprentice and Lil Pump-K-Mon was 100%, while Gooligan, Hooligan, and Moonshine had over 90% germination. At Hamden, germination of Apprentice, Lil-Pump-K-Mon, and Moonshine was over 90%.

In 2011, the average germination for 12 cultivars was 93% at Hamden compared to 81% at Windsor (Table 2). The conditions for germination appeared to be more favorable in 2011 compared to 2010, especially at Hamden where germination increased by a difference of 28%. The increased germination percentage in 2011 may have been due to the later planting date in 2011 which may have resulted in more optimal soil temperatures for germination especially in Hamden. At Hamden, Apprentice, Baby Boo, Baby Pam, Gooligan, Hooligan, Lil Pump-K-Mon, Prankster, and Wee-Be-Little all had 100% germination, while Moonshine had 93% germination. At Windsor, Baby Boo, Baby Pam, Lil Pump-K-Mon, Prankster, and Wee-B-Little had 100% germination while Apprentice had 93% germination.

Averaging the two years at both sites, Apprentice, Gooligan, Lil Pump-K-Mon, and Prankster (only 2011) had over 90% germination. Apprentice and Lil-K-Mon were the most consistent cultivars, averaging over 90% germination both years at both sites. Prankster had 100% germination at both sites the one year it was grown (2011). Moonshine had over 90% germination at both sites in 2010 and at Hamden in 2011. Averaging the two years at both sites, Baby Bear averaged the lowest germination (31%) with Minitreat averaging 59% germination over the two years at both sites. Every year Baby Bear had the lowest germination percentage of all cultivars at both sites.

*Yield.* A significant year x cultivar interaction occurred; therefore yield (number of fruit/plant) means were separated and analyzed by year.

In 2009, the average yield at Hamden was 3.9 fruit/plant compared to 2.2 fruit/plant at Windsor, a difference of 77% (Table 3). All cultivars had greater yields at Hamden compared to Windsor except for Apprentice and Minitreat. Baby Bear had the same yields at both sites. The yields of Baby Boo and Gooligan were over three times greater at Hamden compared to Windsor while the yields of Hooligan and Lil Pump-K-Mon were over 80% greater. The cultivars with the highest yields at Windsor were Lil Pump-K-Mon (4.1 fruit/plant) and Hooligan (4.0 fruit/plant) while Snackjack, Moonshine, and Prankster had the lowest yields (1.2, 1.0, 0.9 fruit/plant, respectively). At Hamden, Gooligan produced the highest yields (8.9 fruit/plant) while Lil Pump-K-Mon and Hooligan had yields greater than 7 fruit/plant.

In 2010, the average yield at Hamden was 4.2 fruit/plant compared to 2.8 fruit/plant at Windsor, a difference of 50% (Table 3). All cultivars had higher yields at Hamden compared to Windsor except for Baby Bear, Baby Pam, and Minitreat. The yield of Hooligan was over three times greater at Hamden compared to Windsor while the yield of Gooligan was almost two times greater. The yield of Minitreat at Windsor was 7 times the yields at Hamden. The cultivar with the highest yield at Windsor was Apprentice (6.4 fruit/plant) followed closely by Lil Pump-K-Mon (4.5 fruit/plant) and Gooligan (4.4 fruit/plant). At Hamden, Gooligan and Hooligan produced the highest yields (8.7 and 8.0 fruit/plant, respectively) while Apprentice yielded 7.3 fruit/plant.

In 2011, the average yield at Hamden was 4.5 fruit/plant compared to 3.0 fruit/plant at Windsor, a difference of 50% (Table 3). All cultivars had greater yields at Hamden compared to Windsor except for Minitreat and Wee-Be-Little. Moonshine had the same yields at both sites. The yield of Baby Bear was five times higher at Hamden compared to Windsor while the yield of Jack-Be-Little was 80% greater. The yield

of Minitreat at Windsor was 40% greater than the yield at Hamden. The cultivar with the highest yields at Windsor was Apprentice (5.4 fruit/plant) followed closely by Gooligan and Hooligan (both 5.0 fruit/plant). At Hamden, Apprentice produced the greatest yield (9.1 fruit/plant) followed by Jack-Be-Little (7.2 fruit/plant).

Averaging all plantings (all years, both sites), Gooligan had the highest yield (6.1 fruit/plant) followed by Jack-Be-Little and Lil Pump-K-Mon (both 5.6 fruit/plant) and Apprentice and Hooligan (both 5.4 fruit/plant) (Table 4). Moonshine produced an average of only 1.2 fruit/plant, but the fruit averaged 4.7 lbs/fruit compared to one pound or less for the top yielders.

Because of its larger size, Moonshine would probably be sold by the pound instead of by the gourd for the smaller pumpkins. Looking at yields as pounds/plant instead of number/plant, Lil Pump-K-Mon and Moonshine had the greatest yields (5.6 lb/plant) when averaging all the plantings while Gooligan averaged 5.5 lb/plant and Prankster averaged 5.0 lb/plant.

*Transplants vs direct seeding.* Growing the crop from transplants instead of direct seeding appeared to have little effect on the yields of most cultivars. The only exceptions were Apprentice, Baby Boo, and Wee-Be-Little. The yields of Apprentice increased over 300%, or about 5 fruit/plant, when the crop was direct-seeded compared to utilizing transplants. On the other hand, the yields of Baby Boo and Wee-Be-Little decreased 21 and 50% respectively when direct-seeded, about 1 fruit/plant for both cultivars.

The advantages of using transplants are two-fold. First, crops grown from transplants mature earlier compared to direct seeded crops (Leskovar and Cantliffe 1993). Early maturity is especially important for a crop with a long growing season because it results in larger plants which may increase yields (Leskovar and Cantliffe 1993). In these trials, fruit from both transplants and direct-seeded plants matured well before October. Second, transplants produce a full dense stand while direct seeding may produce skips without plants where seeds did not germinate. This can be avoided by planting more than one seed per planting site and thinning to one plant. The disadvantages of using transplants are increased cost and labor as well as the added maintenance of a greenhouse. Clearly, it appears that, for most cultivars, direct seeding is the more cost effective.

*Selection of Cultivars.* There is a wide variation of specialty pumpkins that perform well in southern New England that differ in both appearance and yield. There are five fruit characteristics to consider when choosing a variety: fruit color, size, shape, smooth or ribbed, and yield. Fruit colors ranged from orange to white to multicolored. Sizes ranged from 0.3 to 4.7 lb/fruit with shapes that were either round or flattened.

Many cultivars that look identical as to color and size were found to have large differences in yields. Choosing the higher yielding cultivar can translate into thousands of dollars more profit per acre. All the 13 varieties evaluated produced marketable pumpkins. However, yields varied from just over 4,000 fruit/A to over 22,000 fruit/A. Cultivars with the greatest yields (5 or 6 fruit/plant) were Apprentice and Jack-Be-Little (orange), Gooligan (white), Hooligan, and Lil Pump-K-Mon (both striped). At a retail price of \$1.00/pumpkin, there is a potential crop value of \$22,143/acre. By growing the cultivar Apprentice instead of the cultivar Minitreat (both small, orange, and round), the grower could potentially produce almost 15,000 more pumpkins per acre or gross almost \$15,000 more per acre. If selling the pumpkins by the pound, the cultivars with the greatest yields were Prankster (orange), Moonshine (white), and Lil Pump-K-Mon (striped). While striped cultivars Hooligan and Lil Pump-K-Mon were virtually identical as far as number of fruit per plant, the heavier Lil Pump-K-Mon produced 3.3 tons more per acre more than Hooligan. At an average retail price of \$0.75/lb, this would translate to almost \$5,000 more per acre growing Lil Pump-K-Mon instead of Hooligan.

If direct-seeding, most cultivars had satisfactory (>70%) germination with two exceptions: Baby Bear (31%) and Minitreat (59%). Both these cultivars are orange. Prankster (100%) (one year's data) and Apprentice (96%) had the highest germination rates for orange cultivars while Gooligan (92%) had the highest germination rate among the white cultivars. Lil Pump-K-Mon (98%) the highest germination for the striped-multicolored cultivars.

In Table 5, cultivars are ranked (1 to 5, highest to lowest) within each color taking into consideration yield (both number of fruits per plant and lbs/plant) and germination percentage. Apprentice and Prankster ranked the highest for orange pumpkins, Gooligan for white pumpkins, and Lil Pump-K-Mon for striped

pumpkins. In addition, there are subtle differences in size and shape which might be considered when choosing a cultivar, depending on local markets.

*Economic analysis.* The costs of growing pumpkins are identical regardless of the size of the pumpkin. Thus, all profits are associated with the yield, how the pumpkins are sold (by the pumpkin or by the pound), and price. The price of small specialty pumpkins sold by the pumpkin varies from \$1.00 to \$2.00 per pumpkin. Whether to charge for specialty pumpkins by the pumpkin or by the pound depends on the average size of the pumpkin and the price charged per pound or per pumpkin (Table 6). If charging \$0.75/lb, the grower would earn more per acre by charging by the pumpkin (\$1.00/pumpkin) instead of by the pound for 8 of the 13 cultivars included in our trials. All of the cultivars that averaged less than 1 lb per fruit had greater profits when the crop was sold by the pumpkin instead of by the pound, with the smallest cultivar (Baby Boo), increasing profits by over 350%. For cultivars that had greater profits when sold by the pound (\$0.75/lb), the smallest (Baby Bear and Snackjack) had average weights of 1.5 and 1.4 lbs, respectively. For these smaller pumpkins, the grower would gross between 6 and 12% more if the pumpkins were sold by the pound instead of by the pumpkin. For a larger pumpkin such as Moonshine (4.7 lb/fruit), the grower would gross 251% more selling the fruit by the pound and Prankster (2.8 lb/fruit) would gross 109% more. If the price charged was \$0.50/lb, only cultivars averaging 2.0 lbs and over (Baby Pam, Moonshine, and Prankster) grossed more per acre by charging by the pound than by the pumpkin (\$1.00/pumpkin). On the other hand, at \$2.00/pumpkin, all cultivars except Moonshine were more profitable charging by the pumpkin. Clearly, for small specialty pumpkins, especially for those averaging under 1 lb/fruit, charging by the pumpkin was the most profitable. Once the average weight/pumpkin was over 4 lbs, charging by the pound was the most profitable.

#### **ACKNOWLEDGEMENTS**

Funding for this research was provided by the National Institute of Food and Agriculture, U.S. Department of Agriculture, Hatch project number CONH-576.

#### **LITERATURE CITED**

- Anon. 2014. Connecticut State Agriculture Overview – 2012, United States Department of Agriculture, National Agricultural Statistics Service.
- Bornt, Chuck and Ted Blomgren. 2003. Selecting the right pumpkin for your market. 2003 Jack-O-Lantern and pie pumpkin variety trials. Cornell Cooperative Extension.
- Bratsch, Anthony. 2006. Specialty Crop Profile: Pumpkins. Virginia Cooperative Extension, Publication Number 438-100, May 2006.
- Hill, D.E. 1994. Pumpkin Trials 1992-1993. Conn. Agri. Exp. Sta., New Haven. Bull. 919. 13 p.
- Hill, D.E. 1995. Pumpkin Trials 1995 and Three-year Compendium. Conn. Agri. Exp. Sta., New Haven. Bull 929. 13 p.
- Kelly, William Terry and Greg D. Hoy. 2007. Several new pumpkins perform well in Georgia-North Carolina variety trials. 2007 Extension Research Report, pp. 178-181.
- Lescovar, D.I. and D.J. Cantliffe. 1993. Comparison of plant establishment method, transplant, or direct seeding on growth and yield of bell pepper. JASHS 118(1):17-22.
- Reynolds, C.A. 1979. Soil Survey of New Haven County, Connecticut. United States Department of Agriculture, Soil Conservation Service. 197 pp.
- Shearin, A.E. and D.E. Hill. 1962. Soil Survey of Hartford County, Connecticut. United States Department of Agriculture, Soil Conservation Service. 126 pp.
- USDA, 2008. Vegetables and Melons Situation and Outlook Yearbook, Economic Research Service, May 2008.

**Table 1.** Characteristics of specialty pumpkin cultivars used in trials at Windsor and Hamden in 2009, 2010, and 2011.

Cultivar (Source*)	2009	2010	2011	Characteristics**
Apprentice (H)	X	X	X	small, orange, smooth, round
Baby Bear (J R H Rm)	X	X	X	medium, orange, ribbed, slightly flattened
Baby Boo (R H Rm)	X	X	X	very small, white, ribbed, flattened
Baby Pam (R H Rm)	X	X	X	medium, orange, sl. ribbed, thick stalk
Gooligan (H)	X	X	X	small, white, ribbed, flattened
Hooligan (J H)	X	X	X	small, lt org w/dark org stripes, ribbed, flattened
Jack-B-Little (R H Rm)			X	very small, orange, ribbed, flattened
Lil Pump-K-Mon (Rm) X		X	X	small, white w/org to grn stripes, ribbed, flattened
Minitreat (H)	X	X	X	small, orange, smooth, round
Moonshine (J H Rm)	X	X	X	large, white, smooth, thick stalk
Prankster (H)	X		X	large, orange, smooth, thick stalk
Snackjack (Rm)	X			medium, orange, smooth
Wee-B-Little (JRHRm)	X	X	X	very small, orange, smooth

\*\*Very small – average less than 0.5 lbs/fruit, Small – average 0.5 to 1 lbs/fruit, Medium – average 1 to 2 lbs/fruit, Large – average greater than 2 lbs/fruit

\*J – Johnny’s Seed, Albion, ME, R – Rupp’s Seed, Wauseon, OH, H – Holmes Seed, Canton, OH, Rm – Reimer Seed, St. Leonard, MD

**Table 2.** Percent germination of specialty pumpkin cultivars grown at Windsor (W) and Hamden (H) in 2010 and 2011.

Cultivar	2010		2011		Average
	W	H	W	H	
Apprentice	100a	91ab	93ab	100a	96
Baby Bear	22e	16f	20e	67d	31
Baby Boo	49d	47e	100a	100a	74
Baby Pam	76c	60d	100a	100a	84
Gooligan	98a	84bc	87b	100a	92
Hooligan	96a	73cd	87b	100a	89
Jack Be Little	-	-	73c	87c	80
Lil Pump-K-Mon	100a	94a	100a	100a	98
Minitreat	56d	33e	73c	73d	59
Moonshine	93ab	96a	40d	93bc	80
Prankster	-	-	100a	100a	100
Snackjack	-	-	-	-	-
Wee-B-Little	84bc	60d	100a	100a	86
Average	77.4	65.4	81.1	93.3	80.8

Means followed by the same letter within the same year within the same column were not significantly different by Tukey’s HSD test at the five percent level

**Table 3.** Average number of fruit/plant for cultivars grown in 2009, 2010, and 2011 at Windsor (W) and Hamden (LF).

Cultivar	2009		2010		2011	
	W	H	W	H	W	H
Apprentice	2.4c	1.7cd	6.4a	7.3ab	5.4a	9.1a
Baby Bear	3.3b	3.3c	2.6c	2.2d	1.3d	6.5bc
Baby Boo	1.9d	7.3b	2.8c	4.2c	3.4c	4.8d
Baby Pam	1.3d	2.5c	1.4d	1.3e	1.9d	2.0f
Gooligan	2.9bc	8.9a	4.4b	8.7a	5.0a	6.7b
Hooligan	4.0a	7.2b	2.5c	8.0a	5.0a	5.5cd
Jack Be Little	-	-	-	-	4.0bc	7.2b
Lil Pump-K-Mon	4.1a	7.6b	4.5b	6.8b	4.4ab	5.9c
Minitreat	1.9d	1.3d	2.1c	0.3f	1.4d	1.0f
Moonshine	1.0e	1.2d	0.7d	1.4e	1.3d	1.3f
Prankster	0.9e	1.3d	-	-	1.7d	3.2e
Snackjack	1.2e	1.5d	-	-	-	-
Wee-B-Little	1.8d	2.5c	1.0d	1.3e	1.1d	0.9f
Average	2.2	3.9	2.8	4.2	3.0	4.5

Means followed by the same letter within the same year within the same column were not significantly different by Tukey's HSD test at the five percent level

**Table 4.** Summary of number (#) of pumpkins/plant, number (#) of pumpkins/acre (A), weight (lb)/pumpkin, weight (lb)/plant, and tons (T)/acre (A) at both sites averaged over 3 years.

Cultivar	#/plant	#/A*	lb/fruit	lb/plant	T/A*
Apprentice	5.4	19,602	0.8	4.3	7.8
Baby Bear	3.2	11,616	1.5	4.8	8.7
Baby Boo	4.1	14,883	0.3	1.2	2.2
Baby Pam	1.7	6,171	2.0	3.4	6.2
Gooligan	6.1	22,143	0.9	5.5	10.0
Hooligan	5.4	19,602	0.7	3.8	6.9
Jack Be Little	5.6	20,328	0.5	2.8	5.1
Lil Pump-K-Mon	5.6	20,328	1.0	5.6	10.2
Minitreat	1.3	4,719	0.8	1.0	1.8
Moonshine	1.2	4,356	4.7	5.6	10.2
Prankster	1.8	6,534	2.8	5.0	9.1
Snackjack	1.4	5,082	1.4	2.0	3.6
Wee-B-Little	1.4	5,082	0.5	0.7	1.3

\* 3630 plants/acre (4 X 3 foot spacing)



**Table 5.** Ranking of cultivars\* using yield (#/plant and lb/plant) and germination within each color category

	<u>#/plant</u>	<u>lb/plant</u>	<u>Germination %</u>	<u>Total</u>
<u>Orange</u>				
Apprentice	1	2	1	4
Baby Bear	2	1	4	7
Baby Pam	3	3	2	8
Jack-B-Little	1	4	2	7
Minitreat	4	5	3	12
Prankster	3	1	1	5
Wee-B-Little	4	5	2	11
<u>White</u>				
Baby Boo	2	2	3	7
Gooligan	1	1	1	3
Moonshine	3	1	2	6
<u>Striped</u>				
Hooligan	1	2	2	5
Lil Pump-K-Mon	1	1	1	3

\*Snackjack not included because it was not grown in 2009 and 2010

**Table 6.** Economic analysis (\$/A) comparing gross profits when selling specialty pumpkins by the pumpkin or by the pound.

<u>Cultivar</u>	<u>\$1.00/pumpkin</u>	<u>\$2.00/pumpkin</u>	<u>\$0.75/lb</u>	<u>\$0.50/lb</u>
Apprentice	19,602	39,204	11,700	7,800
Baby Bear	11,616	23,232	13,050	8,700
Baby Boo	14,883	29,766	3,300	2,200
Baby Pam	6,171	12,342	9,300	6,200
Gooligan	22,143	44,286	15,000	10,000
Hooligan	19,602	39,204	10,350	6,900
Jack-Be-Little	20,328	40,656	7,650	5,100
Lil Pump-K-Mon	20,328	40,656	15,300	10,200
Minitreat	4,719	9,438	2,700	1,800
Moonshine	4,356	8,712	15,300	10,200
Prankster	6,534	13,068	13,659	9,100
Snackjack	5,082	10,164	5,400	3,600
Wee-B-Little	5,082	10,164	1,950	1,300





---

The Connecticut Agricultural Experiment Station (CAES) prohibits discrimination in all of its programs and activities on the basis of race, color, ancestry, national origin, sex, religious creed, age, political beliefs, sexual orientation, criminal conviction record, gender identity, genetic information, learning disability, present or past history of mental disorder, intellectual or physical disability including but not limited to blindness, or marital or family status. To file a complaint of discrimination, contact Dr. Jason White, Vice Director, The Connecticut Agricultural Experiment Station, P.O. Box 1106, New Haven, CT 06504, (203) 974-8523 (voice), or [Jason.White@ct.gov](mailto:Jason.White@ct.gov) (e-mail). CAES is an affirmative action/equal opportunity provider and employer. Persons with disabilities who require alternate means of communication of program information should contact the Chief of Services, Michael Last at (203) 974-8442 (voice), (203) 974-8502 (FAX), or [Michael.Last@ct.gov](mailto:Michael.Last@ct.gov) (e-mail).

---