

Evaluation of Pickling and slicing cucumber varieties

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Introduction

New variety releases for both pickling and slicing type cucumbers has expanded the choices for New England growers. Cucumbers are a staple at local farm stands and farmers markets and can be quite profitable. Proper variety selection greatly influences the success of this crop.

Materials and Methods

Five pickling cucumber cultivars and ten slicing cucumber cultivars were evaluated at Highmoor Farm, Monmouth Maine during the 2009 growing season. The experiment was arranged in a randomized complete block with four replications. Each plot consisted of 10 plants spaced at 12" with-in the row on black plastic mulched raised beds spaced approximately 5' on center. Three seeds were sown in each hole on June 16, 2009 and later thinned to one plant. Prior to forming the beds, the field was fertilized with 10-10-10 at a rate equal to 500lb/acre. The plants also received 1 cup of starter solution at after seeding. No other supplemental irrigation was provided. No sprays were made to manage insect or diseases. Weeds were managed by cultivation.

Harvest dates were August 12, 14, 20, 28, September 3 and 11. Number of fruit and fruit weight were recorded for each plot. Fruit length, was determined from 25 randomly selected fruit of each variety on the August 28 and September 3 harvests. Plot yields were summed over all harvests prior to data analysis.

Results

Cool wet weather for much of the summer likely reduced plant growth and yield in this trial. These results may not reflect potential variety performance under better growing conditions. The days to harvest were very similar among the varieties and were probably the result of unfavorable weather and poor growing conditions rather than the genetics of the varieties themselves.

Pickling Cucumbers

'Eureka' had the highest yields of the pickle varieties, although the yield was not significantly different than 'Fancipak' or 'Alibi' (Table 1). 'Alibi' also produced good yields but tended to produce a high percentage of cull fruit compared to 'Eureka' or 'Fancipak'. 'Sassy' and 'Northern Pickling' had the lowest yields in the trial. 'Northern Pickling' had significantly higher cull rate than and other variety in the trial (62%), with many fruit of poor size, shape, and rapidly becoming over mature.

Slicing Cucumbers

All the slicing cucumbers performed well in this trial with acceptable yield, quality and cull percentages. The yield of the slicing cucumbers was similar for all varieties with the exception of ‘Diva’ (Table 2). ‘Diva’ is a Beit Alpha type cucumber and not an American slicing type. ‘Rockingham’ tended to produce more fruit of larger size than the other slicing varieties, although ‘Talladega’ also produced good yields and large fruit. ‘Olympian’ tended to produce fewer fruit than other varieties; while, ‘Intimidator’ tended to have the greatest number of culls.

Table 1. Average plot yield^z and fruit length of pickling cucumbers grown at the University of Maine, Highmoor Farm, Monmouth Maine in 2009.

Cultivar	Marketable fruit				Cull fruit				Fruit Length (in)
	Number ^y		Weight (kg)		Number		Weight (kg)		
Eureka	147.3	a	27.0	a	48.8	b	12.4	b	5.4
Fancipak	125.3	a	23.4	ab	39.5	b	11.2	bc	4.9
Alibi	114.8	ab	21.3	ab	56.8	b	13.7	ab	5.0
Sassy	76.8	bc	16.7	bc	23.8	b	5.2	c	6.1
Northern Pickling	66.3	c	9.6	c	109.3	a	19.5	a	5.2

^zPlots consisted of 10 plants spaced at 12” with-in rows. Means are the average of four plots.

^yMeans followed by the same letter are not significantly different ($p>0.05$)

Table 2. Average plot yield^z and fruit length of slicing cucumbers grown at the University of Maine, Highmoor Farm, Monmouth Maine in 2009.

Cultivar	Marketable fruit				Cull fruit				Fruit Length (in)
	Number ^y		Weight (kg)		Number		Weight (kg)		
Rockingham	107.0	a	35.2	ab	35.3	a	11.2	a	8.7
Talladega	99.8	ab	31.5	ab	27.5	ab	8.5	ab	8.4
Speedway	94.8	ab	28.2	b	27.8	ab	9.0	ab	8.0
Dominator	93.8	ab	29.8	ab	23.5	ab	7.2	ab	8.4
Cobra	91.8	ab	31.5	ab	29.0	ab	8.6	ab	8.4
Stonewall	88.3	ab	25.9	b	32.0	ab	8.5	ab	8.3
Raider	87.8	ab	26.3	b	23.3	ab	7.0	b	8.1
Intimidator	87.3	ab	27.1	b	36.3	a	10.8	a	8.6
Olympian	84.8	b	28.6	b	29.3	ab	8.1	ab	8.4
Diva	55.0	c	18.0	c	18.5	b	7.8	ab	8.0

^zPlots consisted of 10 plants spaced at 12” with-in rows. Means are the average of four plots.

^yMeans followed by the same letter are not significantly different ($p>0.05$)