

# Evaluation of 13 Slicing Cucumbers in Southwest Michigan

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## Objectives

The purpose of this trial is to evaluate the performance of 13 slicing cucumber selections for their adaptability to southwest Michigan growing conditions.

## Summary

Four of 13 slicing cucumber entries (SV8592CS, USACX10429, USACX10428 and SV4220CS) performed better than other entries in total and Number 1 fruit yield. Yields were generally low for all entries due to fewer harvests in 2014 (five compared to 8 to 10 in most years).

## Methods

### *Fertilizer*

Prior to planting, polymer-coated urea (44-0-0), 0-0-60, 95% sulfur, and Granubor were broadcast and incorporated at 70, 200, 28, and 15 pounds/acre, respectively. After planting, nutrients were applied through a drip system using 4-0-8-2 (Ca), 28-0-0, and 0-0-30. The 4-0-8-2 was applied June 16 and 23 at 7 pounds nitrogen per acre. The 28-0-0 was applied June 30, July 7, and 28 at 7 pounds nitrogen per acre. The 0-0-30 was applied June 30, July 7, 14, 21, and 28 at 14 pounds potassium (K<sub>2</sub>O) per acre. Total nitrogen amounted to 66 pounds per acre and total potassium amounted to 232 pounds per acre.

### *Weed Control*

Weeds were controlled through a backpack sprayer application of Gramoxone prior to vine runnering followed by hoeing.

### *Planting*

Each entry was direct seeded on June 23 into a plasticmulched, raised bed containing a single drip irrigation tape. Spacing was 5.5 feet between rows and 18 inches in the row for a plant count of 5,280 plants per acre. There were 8 plants per plot with four replications per entry.

### *Plant Care*

Plants were irrigated as needed and pests controlled using recommended commercial practices.

### *Harvest and Data Collection*

Plots were harvested five times between July 21 and August 7 and graded into Number 1, Number 2, and cull fruit and then subjected to statistical analysis.

## Results

Yield in all categories was down in this trial due to the lower number of harvests compared to previous trials. By the fifth harvest, the number of Number two and cull fruit had risen to the point that it was decided to not harvest further. Eight entries had statistically similar total yield and four had similar yield of Number 1 fruit (Table 1). Total yield for the 13 entries ranged from

376 to 712 bushels per acre, while yield of Number 1 fruit ranged from 161 to 466 bushels per acre (Table 1). USAC8834 had the highest number of cull fruit at 399 bushels per acre. This high number is probably because USAC8834 is a beit alpha-type that is more adapted to greenhouse or tunnel production. When placed in the open field, the fruit have a significant number of fruit scars and crooked fruit.

The best performing entries were SV8592CS, USACX10429, USAX10428, and SV4220CS. These four had high total yield, high yield of Number one fruit, and a low number of cull fruit. However, all but SV4220CS had a high level of Number two fruit.

**Table 1.** Yield in 11/9 bushels/acre (bu/a) of 13 slicing cucumbers in 2014 at the Southwest Michigan Research and Extension Center, Benton Harbor, Michigan. Row spacing was 5.5 feet between rows and 1.5 feet in the row (5,280 plants/acre). Numbers in bold are not significantly different than the highest yielding entry.

Cultivar	Seed Company	Total Bu/a	No. 1 Bu/a	No. 2 Bu/a	Cull Bu/a
SV8592CS	SM	<b>712</b>	<b>388</b>	<b>119</b>	206
USACX10429	UA	<b>705</b>	<b>466</b>	<b>130</b>	109
USACX10428	UA	<b>670</b>	<b>401</b>	<b>136</b>	133
Superior	UA	<b>638</b>	309	<b>120</b>	208
SV4220CS	SM	<b>634</b>	<b>370</b>	76	188
Cobra	UA	<b>619</b>	288	<b>111</b>	220
USAC8834	UA	<b>597</b>	161	37	<b>399</b>
Corinto	JS	<b>560</b>	226	<b>94</b>	239
Lisboa	BE	514	233	58	222
USAC12000	UA	501	262	26	213
Diomedea	SY/RG	483	213	72	198
Senor	UA	439	236	55	148
Navajo	UA	376	209	32	135
<b>Lsd .05</b>		<b>181</b>	<b>104</b>	<b>53</b>	<b>94</b>