

# PEPPERS

*Capsicum annuum, Solanaceae*

## Final Crop Analysis

### Estimated Harvest goals:

Market	Total Yield Goal [lbs/units]	Notes
CSA	1,750	
Farmer's Market	30	
Big Y A	80	
Big Y NH	80	
Big Y G	40	
DC	150	
Earthfoods	75	
Greeno	60	
Sylvan	40	
Catering	120	

### Cultivars/varieties and seeds:

Cultivar	Source	Amount	Cost	Org or Untreated?
Olympus	Johnny's	1,000	89	Org
Lunchbox	Johnny's	1,000	18.30	Org
Early Jalapeno	Johnny's	1,000	74.75	Org

### Reasons for selecting these cultivars:

Olympus grows large green bell peppers which is a standard item for us and looks good at the market, but does especially well with our wholesale markets. I thought Lunchbox would be a fun variety to grow because the peppers it produces are small, colorful, and quite sweet, we would also be able to make more profit off of these peppers as they are somewhat of a specialty item, I chose the Early Jalapeno for similar reasons, except it is spicy and not too colorful.

### Did the variety description meet your expectations? Why or why not?

Olympus and Early Jalapeno did very well this season. There was some blossom end rot on the peppers in both the field and in the haygrove but other than that both varieties were healthy and produced good peppers. The Lunchbox have taken a lot longer to mature in the field, yesterday was the first of October and I saw the first ripe peppers on the plants, I had been hoping (more importantly planning) for them to mature by early September.

### Would you recommend these varieties again?

Now that I have tasted a ripe lunchbox, they're delicious, I would recommend seeding and planting that variety a couple weeks earlier than we did this season. I would recommend any big green bell pepper variety, Olympus has done well for us and stayed disease free thus far. We have had some pile-up with the Early Jalapenos and not selling as much as we had planned for, so this may not be a good variety for next year.

**Make suggestions for two other varieties you think would be interesting to try in 2020. List your reasons.**

I think that attempting to grow and sell another small sweet variety could prove worth its while. The variety Cornitos sold by Johnny's grows sweet peppers which are slightly larger than the Lunchbox variety. It could also be interesting to grow a different color bell pepper like the yellow bell Eros or Sweet Sunrise varieties also sold by Johnny's

***Farmer Notes:** It is important to harvest peppers on a regular basis once they have reached maturity and you are harvesting them. This season we went too long before harvesting peppers and some went past their ripe point and became rotten. This can introduce more rot and bacteria into the bed, so best to air on the side of overharvesting (at least for green peppers) and store them given you have the space and time.*

**How and when the crop was seeded/transplanted:**

**Expected yield/ft:** 1lb.

**Direct seed or transplant:** TP

**In-Row Spacing:** 8"

**Between Row Spacing:** 1'

**Number of Rows Per Bed:** 2

**Bed Feet planted:** 2,450'

**Field Planted In:** ALC-7

**Number of succession plantings:** 2

**Broadcast Fertility:** 6/17/19 Composted Chicken Manure 5-4-3 1000 lbs/acre OMRI Potassium Sulfate 500 lbs/Acre

**Additional Fertility:** fish emulsion through sprayer in early September

**Cultural practices:**

With our peppers in the field we planted them in black plastic and had them on drip tape irrigation lines. The haygrove peppers were also in black plastic and had drip tape but were also held up by a perimeter of string attached to staggered stakes along the bed.

**Notes on Irrigation:** During the summer the peppers in the haygrove were watered once a day for a minimum of half an hour, the field peppers were watered on particularly hot days in the summer.

**Diseases observed:**

Blossom end rot was the most pervasive disease that effected this crop.

**Potential Disease Threats:**

Bacterial Spot and Cucumber Mosaic Virus are also potential threats to pepper crops.

**Insect Pests observed:**

We did not observe any insects on these crops

**Potential Insects:**

Peppers tend to have less issues with insects but Green Peach Aphids and Black Cutworms are listed as some of the most prominent insect pests for peppers in the Vegetable Management Guide for 2018-2019.

**Do you think the production practices needed for this crop was worth the yield that we received?**

The Peppers did very well this year except for the lunchbox variety which matured late due to us planting it too late, so I suppose that would be the cultural practice to change if you were to grow lunchbox peppers again. But as far as the care of peppers, weeding them while they are young (as with all crops) will ensure their healthy growth, peppers will outcompete the weeds once the adult leaves have come out though.

**Harvest & Storage:****When was the crop ready for harvest? How did you know?**

Our fall peppers were planted in ALC-7 and were harvested on 9/13. The Olympus peppers were ready before the jalapenos by a couple weeks in that field and the lunchbox were planted too late to get a full harvest out of though some lunchbox peppers did mature in time to get to the farmer's market, but only 1 green bin's worth. The Olympus peppers are a large green variety and are matured when the fruits have gotten to be about 4-6" long and the plant is about 3-4' high. The jalapenos are ready when the tips of the peppers begin to turn purple or brown and lateral tan "scar marks" appear.

**How was it harvested?**

Peppers were harvested by hand either with hand clippers or a knife, cutting the stem of the pepper, or by twisting the pepper to break the stem. Sometimes we harvested into buckets which I found easier to carry through the field, other times we used the green bins.

**How was it washed at the wash station?**

Peppers were run through the brush washer.

**List different post-harvest practices for each market (if any)**

Peppers were washed for every market.

**List different shipping practices for each market (if any)**

Peppers are sent in wax bushel boxes for student businesses, dining, donations, and sometimes Big Y if there was a small amount. If there was a large enough amount peppers could go to Big Y in lock-top containers.

**What different or improved harvest and shipping recommendations can you make?**

Because peppers are mostly packed into wax bushel boxes, I think it would save time to pack them into wax boxes in the field while harvesting and give those boxes a double dunk in the tanks at the washroom.

**Storage and post-harvest handling:**

**Curing:** N/A

**Washing before storage:** yes, brush washer

**Storage Requirements:** 47-55°, 90-95%RH, 14-20 days

**How should this crop be processed for long term storage:** Peppers are not kept for long term storage.

**Where your crop was stored this fall?**

The ALC cooler

**How well did this crop fair in storage and how did it enter storage?**

The peppers did really well in storage this season. We kept them in lock-top bins after washing and some lasted almost a month before needing to go to compost (though not many made it that long before going to market).

**Were there any problems in storage?**

We did not experience any major problems with storage, but there was some slight softening in peppers, especially those on the bottom of bins, that had been stored for close to 3 weeks. It is important to pour out any excess water that may be in the bins after putting washed peppers into them to avoid slime mold and rot.

**Actual Yields and Sales: CSA**

<b>Date</b>	<b>Week #</b>	<b>Unit</b> lbs., bunches, bags	<b>Amount</b> <b>Per share</b>	<b>Total brought</b> <b>to CSA</b>	<b>Notes</b>
9/13	1	Lbs.	4 whole 2 half	342	
9/20	2	Lbs.	5 whole 3 half	446	
9/27	3	Lbs.	3 whole 2 half	238	
10/4	4	Lbs..	5 whole 3 half	446	
10/11	5	Lbs.	4 whole 2 half	342	

**Other Markets – report total amount sold to each market over the season**

<b>Market</b>	<b>Price/unit</b>	<b>Total Units</b> <b>sold</b>	<b>Total amount of sales</b>
<b>Big Y Amherst</b>	\$1.75/lb.	248lbs.	\$433.13
<b>Big Y Northampton</b>	\$1.75/lb.	156lbs.	\$272.13
<b>Big Y South Hadley</b>	\$1.75/lb.	191lbs.	\$333.38
<b>Big Y Greenfield</b>	\$1.75/lb.	127lbs.	\$222.25
<b>Dining Commons</b>	\$1.75/lb.	551lbs.	\$963.38
<b>Earthfoods</b>	\$1.75/lb.	20lbs.	\$35
<b>People's Market</b>	\$1.75/lb.	34lbs.	\$59.50

**Total Gross Income Received From Your Crop:    \$1985.38**

## **Review and Recommendations:**

### **What was different between what was done and what was planned?**

We had planned on having peppers slightly earlier than we did so we missed probably a week's worth of pepper business. We had also planned on having lunchbox peppers to sell but that variety took much longer to mature and did not come in very well, I think if they had matured as planned we would have made a noticeable though not too much larger profit on peppers this year

### **What worked really well and should be continued?**

We grew peppers in field C, AIC-7, and in the haygrove this season, which meant that we had organic and non-organic peppers. This was good for us because peppers are marketable and sell at a decent price.

### **What changes would you recommend for next year?**

First off would be to put the peppers in the ground earlier. There may be more profitable crops that could go into the haygrove next season, but the peppers we grew there sold well, especially in the summer season.

### **Should we grow this crop again? Why or why not?**

Yes. Peppers bring in a good amount of income for their density and our markets want them.