

# BOK CHOY

*Brassica rapa subsp. Chinensis*

## Final Crop Analysis

### Estimated Harvest goals:

Market	Total Yield Goal [lbs/units]	Notes
CSA	700lbs	
Dinning	700	
Student Business	20lbs*EF	
Big Y A	80lbs	
Big Y N	105lbs	

### Cultivars/varieties and seeds:

Cultivar	Source	Amount	Cost	Org or Untreated?
Black Summer	Johnny's	1000	\$6.96	Org
Joi Choy	Johnny's	1000	\$5.35	Org
Asian Delight	Johnny's	5000	\$18.45	Org

### Reasons for selecting these cultivars:

These cultivars were selected for size, appearance and pest resistance. These crops grew well and sized up, one problem is that growing large Bok Choy is not always that marketable. Not sure if Dinning will take large or small but Asian delight was chosen for its ability to be grown as mini choy!

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

For the most part! Although nothing beats knowing a plant variety like having grown it before. Ask Amanda and Jason, people are not crazy about the choy but I think it's a fine crop that can make money if managed well against pests and proper harvest timing.

### Would you recommend these varieties again?

**Yes!** If so harvest Asian delight early, not late better as a mini. Joi Choy did great and gave huge heads. Black summer was nice but it might make more sense to plant a red variety just to break up all the green leaf bok choy.

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

Try Mini variety's if you can keep the pest off them it might be more marketable! Avoid Win win I know it got hit really hard by flea beetles!

### **Farmer Notes:**

*It felt like there was a lot of leftovers in the field, it might be because some successions we planted late or we just got sick of bok choy but if we do grow this amount next year try to figure out why there is seemingly a lot of bok choy left in the fields.*

**Greenhouse seeding**

Variety	Seed date	Tray size	Number of trays	Notes on germination
Black Summer	7/8	128	3	
Joi Choi	7/8	128	3	
Black Summer	7/22	128	3	
Joi Choi	7/22	128	3	
Asian Delight	8/5	128	11	This crop had shorter gestation period thus the late seeding even though it was planted with the 7/22 bok choy.

**Field Planting Info**

Planting #	Plant date	Number of row feet planted	Rows per bed	Planting method	Notes on survival in field
1	8/5	150	2	Bed Furrowed and hand planted	
1	8/5	150	2	Bed Furrowed and hand planted	
2	8/19	150	2	Bed Furrowed and hand planted	
2	8/19	150	2	Bed Furrowed and hand planted	
2	8/19	600	2	Bed Furrowed and hand planted	

**Farmer Notes:**

*This Crop gave me some serious problems while doing spring crop planning. Asian delight was a must faster to germinate variety(possibly a mini variety) which caused me to have strange planting times. Also the Black Summer and Joi Choi came out beautifully just far too big! These plants were planted in field ( and did well with minimum pest damage. Most damage came from harvesting these monsters heads. If I could do it again I would plant later and have the heads be much smaller. People at all the markets were surprised at the size of the produce. They seemed overwhelmed with such a large bok choy. Grow littles guys and harvest on time. If you were to use the same varieties and dates for Bok choy, remember that Asain delight does not size up as large as the other two varies so it should be harvested earlier before it gets tough and holy.*

## **Planting Information**

**Expected yield/ft:** .75 lbs

**Direct seed or transplant:** TP

**In-Row Spacing:** 12"

**Between Row Spacing:** 18"

**Number of Rows Per Bed:** 2

**Bed Feet planted:** 1200

**Field Planted In:** 2400

**Number of succession plantings:** 3

**Broadcast Fertility:** 1,000/A chicken manure 6/17/19, 500/A Potassium Sulfate 6/17/19

**Additional Fertility:** None

**Cultural practices:** Bok Choy was cultivated with the INJ on the Green bean. It was also hand weeded. Overall this plant did well against weeds. It is rather a fragile crop so hoes and tractors occasionally damaged some heads.

**Notes on Irrigation:** Happy plants without artificial watering. No drip or plastic needed :)

**Diseases observed:** No severe diseases. Some leaves had brown rotting stripes but can be just pulled off.

**Potential Disease Threats:** Some diseases that have occurred are downy mildew and Alternaria. Neither appeared at levels that were damaging for production.

**Insect Pests observed:** Flea beetle

**Damage caused:** Small little holes in leaves, looks like pin pricks or slightly larger.

**How was it scouted or observed:** scouted

**Damage caused:** Cabbage worm

**How was it scouted or observed:** Large holes near the edges of the leaves leaving little crescents at the leaf edge.

**Action(s) taken:** On 8/12 pyganic was applied at 18oz per acre. Dipel was additionally applied at 4 cups per acre all done on the green bean with the PTO sprayer.

**Potential Insects:** What should farmers of the future expect to see? Report more than one pest if applicable. Look for anything eating the leaves or roots. Flea beetle and cabbage worm can cause havoc but if plants look unhealthy but leaves are not eaten, look for club root, its a balling of the root that forms galls reduces the success of crop.

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

I'd recommend growing more small varieties. Most shareholders seemed surprised at the size of Blacksummer and Joi Choi varieties. This crop grew well and vigorously and lasted after the first frost.

***Farmer Notes:** Grow this stuff, learn the recipes and enjoy it. Despite the lack of enthusiasm about this crop it can make money and it seems to like the climate here.*

### **Harvest & Storage**

#### **When was the crop ready for harvest? How did you know?**

When heads open up and are full is a good way to tell when to harvest.

#### **How was it harvested?**

Best harvested like any head. Get your harvest number, have your cutters cut desired number of heads, one or two extra and then pack out. Best done with a large sharp knife. You should be able to cut free the head with one quick swift motion. Cutting too low means you have to spend extra time cleaning and trimming. Too high and you cause the head to be smaller than necessary. Find that happy point and stick with it.

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

Depending on how consistent your harvest crew was, you might just need a dunk in water bath, other times you need a dunk, cut and peel.

**List different post-harvest practices for each market (if any)** All markets received wash Bok Choy

**List different shipping practices for each market (if any)** Mostly lock tops for Bok Choy.

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

The best way other than calling bok choy fragile is that it is brittle. The stocks break and bruise easily so careful harvesting and washing is necessary. If we ever hope to entertain the idea of wholesale to Big Y we really need to develop a practice that is quick clean and minimizing chances of damage.

### **Storage and post-harvest handling**

**Curing:** N/A

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

NOPE

***Farmer Notes:** It doesn't store very well so best if harvested and delivered close to each other.*

**Gross Income****Actual Yields and Sales: CSA**

Date	Week #	Unit lbs., bunches, bags	Amount Per share	Total brought to CSA	Notes
9/13	1	Succession	N/a	1 Whole Succession	
9/27	3	heads	2	171	
10/11	5	heads	2	208	
10/25	7	heads	1	104	
11/8	9	heads	1	104	

**Other Markets**

Market	Price/unit	Total Units sold	Total amount of sales
Big Y A	\$1.75	172	\$258
Big Y N	\$1.75	174	\$261
Big Y S	\$1.75	162	\$243
Big Y G	\$1.75	52	\$78
DC	\$1.75	144	\$216

**Total Gross Income Received From Your Crop:** \$ 1,056