Chapter 2

GROWING FOR MARKET
BIG SELLERS AT THE MARKET

**VEGETABLES:**
- Bok choi
- Collards*
- Callaloo*
- Cabbage
- Malabar Spinach*
- Swiss Chard
- Green beans
- Long beans*
- Bitter Melon*
- Cucumbers
- Pumpkin*
- Zucchini*
- Eggplant*
- Okra*
- Peppers
- Carrots
- Garlic*
- Onions
- Scallions*
- Turnips

**HERBS:**
- Cilantro*
- Parsley
- Thyme*
- Celery*
- Honey*

**FRUIT:**
- Berries*
- Grapes*
- Melon*
- Figs*
- Figs*

...+ HONEY!

Crops with a (*) are in very high demand.
An eye-catching **MARKET STAND** is a great way to draw in customers and show off your beautiful produce. Once you have people looking at your stand, it’s easier to sell + attract other shoppers. Here are some techniques to improve your display.

“People are naturally curious; if they see...people gathering..., they will want to know what is creating the interest.”

**SET UP**

Arrange your space so that customers will have room to move around without blocking each other + the produce.

1. Even if you have a narrow display space, the best option is to set up tables IN A LINE, not a U-shape, which can crowd customers + make things hard to reach.

![Diagram showing linear vs. U-shaped display](image)

A linear display makes sure that food is easily reached by more customers.

2. **CREATE LEVELS** to increase display space + make sure everything is visible to your customers.

![Image of a multi-level market stand](image)

3. **SIGNS**

Label + display prices. Customers can be hesitant to ask + will walk away to another stand that is more clearly labeled.

![Signs showing crop prices](image)

Signs for every crop or a sign with all your crops + pricing work!
4. **STACK IT HIGH + WATCH IT FLY!** Keeping your table full + colorful creates an impression of bounty that appeals to customers.

- **Put as much as makes sense on the table** during busy times at the market. Your stand should look FULL throughout the day. You don’t want customers who come later in the day to feel like they are getting stuck with leftovers.
- **Use a SMALLER TABLE** if you don’t have a lot of product.
- **OVERFLOWING BASKETS** “have the added benefit of being easy to keep looking full. If you don’t want to put out a whole basket of something, fill the basket partway with straw or newspaper, + place your product on top. The basket still looks full with a lot less product.”

![Stack it high + watch it fly!](image)

- **Consolidate products**, as you run out, into smaller baskets. Bring multiple containers for display (flat trays, multiple basket sizes).
- **Tilt your boxes + baskets** toward customers so they can see at a glance what’s available.
- **Create blocks of color**; all the yellow tomatoes in one box, all the reds in another. Masses of color are more visible from a distance.

5. **KEEP THINGS LOOKING CLEAN + FRESH**

- **CLEAN** produce + dunk it in cold water after you harvest, it will last longer at the market.
- **Take a sprayer** with cold water + mist your produce often to keep it fresh + glistening.
- **Keep extra things in water**, in the shade or under your table.
6. EDUCATE + ENGAGE YOUR CUSTOMERS
- SAMPLE products that you are having trouble selling or that you have a lot of.
- Provide RECIPES + NUTRITION INFORMATION for unfamiliar items.
- Talk to folks about SEASONALITY (“Why don’t you have tomatoes in June?”), so that people can get used to the farmers market experience.

7. MAKE THINGS EASY FOR YOURSELF!
- Have a defined PAYING + WEIGHING AREA
- Make BAGGING MATERIALS easily available/pre-bag some items
- Keep CASH BOX out of public reach OR a wear cash apron.
- Bring a CALCULATOR, SCRATCHPAD, PENS/PENCILS
- Bring extra MARKERS, BLANK SIGNS, TAPE

8. CUSTOMER RELATIONS
- STAY at your stand.
- WEAR a name tag, apron, t-shirt or something identifying you as the farmer.
- Have EXTRA HELP for crunch times.
- THE CUSTOMER IS ALWAYS RIGHT! Stay courteous, even when tired.
- STAND IN FRONT of your table to welcome customers to the stand.
- KNOWING YOUR CUSTOMERS provides you with important information about how to package your products for the best sales. Some customers will want you to bag their produce, pre-weigh items + label things with prices. You can accommodate all types of customers + keep them coming back for more!

Based on materials by the Virginia Cooperative Extention
Growing for market can provide people in the community with healthy food for their families, + help you earn money for your garden.

**THE SHARE TABLE** is a way for gardeners sell their produce if they are not able to have their own stand at the Wednesday or Saturday Markets. You can bring as small an amount as you want, even one bunch of basil can make a difference!

**HOW THE SHARE TABLE WORKS**
The *Share Table* sells produce for gardeners in the neighborhood. It is run by our Youth Interns, who give support to community gardeners all season.

**Often, youth are setting up, selling + displaying new produce all at once. If you want your produce on the table quickly, please bring it early, washed, bunched, sorted + counted.**

**DROPPING OFF AT THE SHARE TABLE STEP-BY-STEP:**

1. **BRING PRODUCE:** *It is easier to put out your produce if it is dropped off early.
   - **SATURDAYS** between 8am-9:30am. Produce will NOT be accepted after 11am; the market can slow down + produce is less likely to be sold.
   - **WEDNESDAYS** between 3pm-4:30pm. Produce will not be accepted after 5pm.
   
   You can drop off produce at UCC on before the markets if you let us know in advance.

2. **CHECK IN:**
   - Look for the DROP OFF TABLE. You will see a scale, the Share Table Log, Rubber bands, Water, Clippers, berry crates + blank signs in case you need.
   - **WEIGH/COUNT + RECORD ON THE SHARE TABLE LOG** what you brought.
   - Put it in a DISPLAY CRATE.
   - **MAKE A SIGN** that has your crop, name + prices.
AFTER THE MARKET:
- Not all the produce you drop off gets sold due to weather, time of the season, display, drop off timing, quality, etc...
- If your produce doesn’t sell, it will be DONATED to the Youth Program or Pink Houses Community Farm Stand (a Market Stand that operates as a Food Pantry) at the end of the day.
- If you want to pick it up, do so BEFORE THE END of the market.

HOW TO GET REIMBURSED:
- Gardener’s get 90% of the profit. 10% goes to run East New York Farms! Programs (like the Youth Program).
- You can REQUEST A CHECK at the end of each month. Checks need at least 1 week to be written.
- You will receive a RECORD of your sales as well. You can check this against your own records to see what didn’t sell well, or what you might want to grow more of next season. Feel free to call or visit the office if you have questions about your sales.
- If you do not request a check by January 1st your money will be donated to East New York Farms!.
**SHARE TABLE LOG EXAMPLE**

**FULL NAME:** Ana Banana  
**PHONE #:** 718.222.2222

- **CROP + Amount Brought to Market:** Tomatoes: 3.5 lbs
- **SOLD *STAFF ONLY:** Collards: 4 bunches

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**FULL NAME:** Mr. Green  
**PHONE #:** 718.333.3333

- **CROP + Amount Brought to Market:** Peppers: 3 boxes
- **SOLD *STAFF ONLY:** Hot Peppers: 1 box

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**FULL NAME:** Carol Oak  
**PHONE #:** 917-333-5555

- **CROP + Amount Brought to Market:** SQUASH: 1.5 lbs
- **SOLD *STAFF ONLY:** Thyme: 5 bunches

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**FULL NAME:** Bob Brassica  
**PHONE #:** 646-777-9999

- **CROP + Amount Brought to Market:** Honey: 5 bottles
- **SOLD *STAFF ONLY:**

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**NOTES:**

- Write your FULL NAME + CONTACT info even if you think we have it.
- Write what you brought (in your column (# bunches, pounds, bottles, etc...)).
- Everything in GRAY is STAFF USE ONLY.

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**THE SHARE TABLE**

- **GROSS (Vendor Income):**
- **GARDENER'S:** (GROSS x .9) (90% earned)
- **ENYFS (GROSS- Gardener)$:**
- **GROSS (Vendor Income) = TOTAL RECEIPTS ?**
- Total Gardener $ (Total Share)  
- Total ENYFS (Total Share Table)
WHAT IS BITTER MELON?

Bitter melon, with its botanical name *Momordica charantia*, is also known as Balsam Pear, Bitter Gourd, Carilla, Karela, Sorossie, Cerasse, Ku Gua, + Foo Gwa in different areas of the world. Bitter melon grows in parts of East Africa, Asia, the Caribbean, South America, + BROOKLYN! It is eaten as well as used as an herbal medicine.

CARIBBEAN CUSTOMERS FROM A WIDE VARIETY OF COUNTRIES EAT 3 DIFFERENT TYPES OF BITTER MELON:

- **Long (10-16 inches long):** These are light green, with rounded bumps + a less bitter flavor.
- **Small (4-8 inches):** These are dark green, with rounded bumps, + are more bitter. The smaller fruits are used for flavor + may be eaten stuffed.
- **Spiky (4-8 inches):** These are dark green + more bitter. In Brooklyn, they generally command a higher price.
- **BONUS:** Fresh or dried, LEAVES are used for medicinal teas.

Preferences seem to be based on individual taste + cooking method, rather than country of origin.

VENDORS AT THE EAST NY FARMERS MARKET SAY THAT BITTER MELON HAS 3 BENEFITS AS A MARKET CROP:

1. It generates “buzz.” Customers explain to other customers, who haven’t seen the crop before, about cooking methods, health benefits, and how the crop tastes.
2. Bitter melon generates many return customers.
3. At our market, customers seemed to be more likely to spend cash on bitter melon.

HOW TO PLANT

Bitter melon is a tender crop in the same family as cucumbers. Plants are long-lasting + continue to produce through frost, though production peaks in August-September.

- Start more seedlings than you need. Germination tends to be really poor (approximately 65%).
• Start seeds indoors about 4 weeks before planting outdoors. Seedlings should be planted outside after danger of frost is past (Mid May in New York City).

• Seeds can be rubbed with sandpaper or soaked overnight to break through the hard coating before planting.

• We plant seedlings in one row, 2 feet apart.

• Trellis plants to control vines, prevent deformed or discolored fruit, and to allow for maximum production.

• Planting into black plastic, to maximize moisture and heat, but this is NOT a requirement.

HARVEST

• Fruits are harvested late July-October.

• Fruits should be harvested when they are plump + still green, about every 3 days.

• When ripe, they turn orange + sweet, at which point most customers no longer want them (*a Chinese customer made a sauce with the ripe fruit, + customers from Bangladesh sometimes eat the sweet red seeds, but most bitter melon is eaten green.)

• Fruits can be kept refrigerated for several days.

• Leaves were harvested once plants had reached a size where harvesting did not interfere with fruit production.
GROWING BITTER MELON FOR CARIBBEAN + SOUTH ASIAN CUSTOMERS IN EAST NY

VARieties
- Smooth: Hybrid Jumbo and Taiwan Large (from Evergreen Seeds)
- Spiky: India Long Green (from Evergreen Seeds)

PESTs + DISEASES
- Crops do not suffer from any significant pests or pest damage in East New York, but could suffer from similar problems as other curcubits (like cucumbers), like powdery mildew + cucumber beetles. It is important to grow multiple varieties, water well + rotate crops to prevent these problems.

PRICING
- Prices in Caribbean stores varied from $1.50- $2.25 per lb, with more charged for spiky fruits.
- For our organically grown fruit, we charge $2.50/lb.

NAMES
- Customers generally referred to the long and short smooth types of bitter melon as either bitter melon or karela.
- Spiky fruits are generally referred to as karela, or soracee.
- The leaves were referred to as soracee or bitters.

RESOURCES
- Seeds: Johnny’s Selected Seeds, Evergreen Seeds
- National Bitter Melon Council: www.bittermelon.org
- Save your own seed from ripe fruit!

Based on an article by Georgine Yorgey
SEEDING
Start peppers indoors, 8-10 weeks before the last frost. *C. chinense* germinates more slowly than *C. annum* (bell peppers, jalapenos, cayenne etc.), + requires temperatures in the 80-90° range to germinate properly. This is best achieved with a heated greenhouse or a heating mat.

HOW TO PLANT
- **Spacing:** Peppers should be planted a minimum of 24” apart in rows, 30-36” is ideal.
- **Warm soil** temperatures are key—black plastic or mulch will significantly enhance growth.
- **Nutrients:** Peppers do well in rich, well drained soil. Plants should have access to enough phosphorus + nitrogen, but excess nitrogen can cause too much vegetative growth. Calcium is essential for plant structure in *C. chinense*, which can grow significantly larger than *C. annum*. Before planting we use compost + cover crops (hairy vetch, winter rye, + crimson clover) to provide balanced nutrient levels. We supplement with bone meal for its phosphorus + calcium content.
- In our USDA Zone 7b climate, we plant our peppers around June 1st.
- Regular **irrigation** is essential to establish a healthy plant, but can be reduced once ripening begins.
- **Trellising:** *C. chinense* plants can grow beyond 36” in height (we had plants approaching 54” on our farm). Trellises are essential for facilitating harvest + preventing plant breakage. We use the **Florida Weave** method on our farm although tomato cages also work well on a smaller scale.
HARVEST + PROTECTION
- **Picking** the first round of peppers while they are green will increase overall production on the plant, though most customers prefer fully-ripe peppers.
- **Season Extension:** We found no significant difference in productivity or ripening with the use of **row cover** in our pepper trial. We had 13-15 weeks of production for unprotected plants. Our first frost often comes after our market has ended, so there isn’t a great need to protect the plants, though warmer temperatures in the fall will hasten fruiting + ripening.

MARKETING
- Most of our peppers are **marketed directly** at the two East New York Farmers Markets, + we’ve found that the **color + variety** of peppers help to attract customers to the stand.
- **Pricing:** We market half-pint berry crates for $1.50 (about $5 per pound). Some vendors at the East New York Farmers Market sell Scotch Bonnets for 25¢ each. When we have excess production, we sell to Caribbean restaurants that use the peppers in dishes + for pepper sauce.
- Peppers hold well on the plants + in storage (between 45-50°). Customers (especially restaurants) often make large purchases at once, making them a flexible + profitable crop for direct marketing + wholesale in Caribbean markets.

RECOMMENDED VARIETIES
We trialed several different varieties of **C. chinense** to compare for productivity on our farm + popularity at our market:

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Popularity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Orange Habanero</td>
<td>1. Scotch Bonnet</td>
</tr>
<tr>
<td>3. Caribbean Red</td>
<td>3. Orange Habanero</td>
</tr>
</tbody>
</table>

Other varieties that do well on our farm + in our market but weren’t part of our initial trials include:

- **Chocolate Habanero**
- **Bhut Jolokia(Ghost)**
- **Trinidad Scorpion**
- **Bird Pepper**

These peppers have some of the **highest heat levels** (measured in Scoville units) + attract many repeat customers to our stand.
Seasoning Peppers
Seasoning peppers, also known as pimentos, are cultivars of *C. chinense* that have been selected for sweetness + aroma, without the heat level of habaneros or Scotch Bonnets. They are used throughout the Caribbean in cooking. Ají Dulce is a Puerto Rican variety used in sofrito, + most other islands have distinctive varieties. Since the genes for heat are dominant in peppers, it is advisable to isolate seasoning peppers from hot varieties to prevent crossing. Seasoning peppers are comparatively rare in fresh markets, + have good marketing potential.

SEEDS
Sources
- Johnny’s Selected Seed (johnnysseeds.com)
- Redwood City Seeds (ecoseeds.com)
- Reimer Seeds (reimerseeds.com)
- Trade Winds Seeds (www.tradewindsfruit.com)

Saving Seed
- Saving seeds from locally adapted varieties is a great way to select for hardier strains in the Northeast.
- Peppers cross very easily, so if you want a specific variety it is important to save seeds carefully.
- Pick a bud + bag it with a light netting that doesn’t let insects in. Hopefully the flower will self pollenate. Once the fruit forms, you can remove the bag (you might want to tag the pepper so you don’t forget!). When fruit is ripe + a little soft you can remove the seed.
- If you are not concerned about crossing, simply select the largest + ripest fruits from vigorous plants + remove the seed. Dry on paper towels + store in a cool, dark place. Customers are often the best source for new varieties of seeds.

Because peppers cross so easily, if you want to save a specific variety, it is important to isolate the flower from insects so that it will self pollenate.

Based on materials by David Vigil.
This research project has been funded by Northeast SARE.
THE PIGEON PEA is a legume in the same family as soybeans. Not only can it be productive, but it is water efficient + good for your soil!

USES + BENEFITS

- It is very nutritious! The pea contains high levels of protein + important amino acids.
- It contributes to soil fertility by forming nodules on roots, which contain special bacteria naturally present in the soil. The bacteria capture Nitrogen from the air + transform it into a state which can be used by the plant for growth + development.
- It has a deep root system which enables it to use water + nutrients from deep within the soil.
- Its root system improves the texture of the soil and makes it suitable for water infiltration.

TYPES + VARIETIES

- In East New York, it is important to plant the short-duration or early variety, which comes into fruiting early.
- The Georgia II variety, from the University of Georgia, has produced more successfully that Caribbean + Florida origin seeds.

HOW TO PLANT

- If using the short-duration variety, you can sow seeds directly in the soil + get pea production.
- To ensure production you can sow seeds indoors in early April for transplanting as soon as the ground warms.

- Pigeon peas have a fragile tap root system, which has to be protected from injury while transplanting. Seeds can be sown in biodegradable pots (newspaper + toilet paper rolls work well!) that can be planted directly in the ground.
PLOT PREPARATION
- The soil should be prepared with cover crop + compost

PLANTING
- **Sow seeds** in mid-May
  *Transplanting is not necessary when using the Georgia 2 variety.
- **Transplant seedlings** at the end of April to early May (when they are 4-6 weeks old). Care should be taken to avoid damage to the root system of the seedlings.
- **Space** plants in rows 2-3 feet apart + 12 inches between plants.
- **A drip irrigation system** can be installed to conserve water + reduce weed pressure.

PESTS + DISEASES
There are no known insect pests + diseases affecting this crop in NYC.

FLOWERING + FRUITING
Pigeon Peas are **daylight sensitive** plants. Flowering will only begin when the plant receives 12 daylight hours. The early maturing variety will flower in 50-60 days. After flowering, the plant will need about 3 weeks to produce mature seeds, when the plant is about 4-5ft in height.

HARVESTING
Pods can be harvested when they are fat + green if consumers want them fresh or they can be harvested later when the pods are dry when only the seeds are required.

*Based on materials by Mohammad Faroze*
**THE MINI-SETTING TECHNIQUE:** Use a Mini-setting Technique, to grow planting material, in early to mid April about 2-3 weeks before planting.

1. Select mature, fresh + healthy corms from a reputable grocery store or properly cleaned + stored from the previous season.
2. Cut corms into ~4oz. pieces with eyes on each.
3. Cover in potting material with cut end facing down.
4. Keep material moist but not wet to avoid rotting.
5. Lateral buds appear in 10-14 days.

**PLOT PREPARATION**

- Add compost + till the soil to enable corm bulking + development.
- Black plastic or straw mulch with drip irrigation is then laid to cover the prepared plot. Hay or any other organic mulch may be used if black plastic is unavailable. Wood chips should NOT be used as a mulch material, because it binds up nutrients.
- **Plant** at the end of April to early or mid May when the planting material has vigorous sprouts. Plant pre-sprouted plants 3-5 inches deep in the planting holes. Space plants 1.5-2 feet apart. Plant early to ensure an early crop for market, especially for consumers who want the young leaves.
- It should be noted that **daylight** affects growth + development of dasheen. Corm + cormel formation is promoted by short day
conditions (not greater than 12 hours daylight), while long day conditions (greater than 12 hours) favors the other developmental stages. A greater chance of producing corms for the market may be achieved by planting mid-summer or June so as to coincide corm formation with the 12 hours daylight conditions in September.

**WATER MANAGEMENT**

Dasheen needs a **LOT of water** for good growth + development. In hot/warm conditions this becomes much more demanding. The soil should be constantly moist but not wet. Using **mulch + drip irrigation** ensures a regular supply of water + restricts the evaporation of moisture.

**HARVEST**

For greens:
- Most customers like the younger leaves that emerge from the root.
- Harvest with a clipper. Leave some young leaves for the plants to photosynthesize + continue production.
- Customers prefer to buy small bunches of young leaves that can be stored for a few days in a cooler.

For corms/cormels:
- Older leaves will begin to yellow + die + corms may be visible at the soil surface. Corm formation begins about 3 months after planting. Cormel formation follows soon after.
- Clean + store tubers like sweet potatoes; harvest must be done carefully to prevent disease + mold from affecting nicks + scars. It is done by loosening the soil using a garden fork. The main plant + suckers are then pulled from the soil. The corms are then cleaned of soil, trimmed of roots + prepared for the market or saved as plant material for the next season.
- Corms can be sold fresh + stored for around 2 weeks. They can also last longer if properly cured before storage resulting in the healing of wounds.
- "Select plant material for next season’s crop at the same time as harvest!"

**EATING!**

- "Most edible varieties of dasheen contain traces of oxalic acid, which can lead to itching in the mouth + hands during contact. To prevent this, make sure you wash it thoroughly. Some folks use vinegar, lime or tamarind juice to wash or cook with to prevent the itchy sensation when eating."
## HARVEST/MARKET SALES LOG

<table>
<thead>
<tr>
<th>CROP/ VARIETY</th>
<th>AMOUNT HARVESTED (BUNCHES, POUNDS, ETC...)</th>
<th>AMOUNT SOLD</th>
<th>PRICE</th>
<th>TOTAL SALES</th>
<th>WHAT DID YOU DO WITH THE LEFTOVER PRODUCE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Collard Greens</td>
<td>10 bu</td>
<td>7 bu</td>
<td>$1.50</td>
<td>$10.50 (7bu x $1.5)</td>
<td>Donated to Soup Kitchen</td>
</tr>
</tbody>
</table>

**TOTAL:**

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*Based on materials by JustFood*