

## Norwich Public Schools Processing Kitchen Project Overview and Lessons Learned

### Background

In 2013 the staff of Norwich Public Schools (NPS) Food Service Program launched an initiative to increase student consumption of local produce. In the past, NPS purchasing of vegetables from local farmers has been sporadic and occurs only when farmers approach the district. The Norwich School Food Service Department wanted to develop a better process and create the infrastructure for local produce procurement. It was determined that a produce processing kitchen and a system for processing was needed. The CT Department of Agriculture Viability Grant opportunity made this possible. In Spring of 2013, Norwich Public Schools were awarded a grant of \$49,999 with a commitment for 100% matching funds from the school district to create and institute a processing kitchen in one of its schools. That school would act as the central processing kitchen for others schools within the district. The project was conducted in two phases and with support of local and state partners. The processing kitchen stands today as as a fully functioning operation to semi-process fresh produce from local farmers and distribute to schools throughout the district to help introduce and increase consumption of local produce.

### Grant Purchases

- Steamer
- Quick-chill unit
- Vacuum sealer
- Two-door freezer
- Pans
- Plastic bags
- Van decorated with the Farm to School Logo and 'smiling' vegetables

### Processing Kitchen Project Timeline

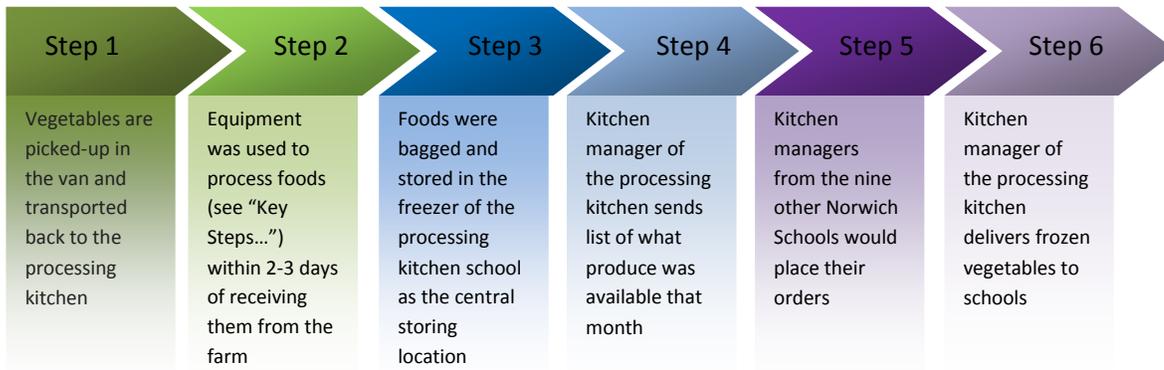
#### **Phase One**

- Purchasing the processing equipment
- Modifying the layout of the kitchen to make it conducive to the processing of produce
- Inspection by local health department to ensure compliance with all health codes
- Updating HACCP plan to include the processing kitchen

#### **Phase Two**

- Finding and growing relationships with local farmers
- Creating a process for purchasing, transportation, processing, and distribution to kitchens
- Assessing and modifying labor needs for implementation of processing
- Identifying opportunities to promote the use of local produce and the processing kitchen

## Flowchart: From Farm to Menu



### Partnerships

This project would not have been possible without partner farmers who supplied Norwich Public Schools with a variety of produce throughout the school year and have since made commitments to grow vegetables for NPS in future years. The CT Department of Agriculture’s Farm to School coordinator played an integral role in introducing NPS to farmers interested in selling to schools. Additional relationships were secured by partners in the CT Department of Administrative Services, CT State Department of Education Led Project, and Start with Half a Cup. As well as relationships with farms secured through visits made by the Norwich School Food Service Director, and the Norwich FoodCorps CT service member.

Through the help of the Norwich FoodCorps CT service members and the dedicated kitchen staff, the project was represented in the town’s St. Patrick’s Day Parade. The “veggie van” and staff dressed in costumes loaned by the CT Department of Agriculture to walk alongside the van was proudly displayed at the parade. Participation in the parade highlighted the local project and gave the community a chance to see what is happening in the schools around healthy eating. The van is also taken to meetings around the state to promote the use of local produce.

### Key Stakeholders

A critical component of the project was promoting the fact that Norwich Public Schools is purchasing and serving locally grown produce. Individuals involved in the project were Norwich Food Service Director, Roberta Jacobs; Kitchen Manager, Erin Perpetua; the Norwich Public Schools kitchen staff; Jane Slupecki, CT Department of Agriculture, FoodCorp CT Service Member Leah Korger; Dawn Crayco, End Hunger CT!, and staff from the Norwich Health Department.

#### Partner CT Farms and Produce Supplied Norwich, School year 2013-2014

Farm	Location	Produce
LoPresti	Preston	Tomatoes, cabbage varieties, cauliflower, squash, green peppers, broccoli, blue hubbard squash, acorn squash, and butternut squash
Our Acres	Lebanon	Tomatoes, summer and zucchini squash, green beans, swiss chard, corn on the cob, and beets
Malerba’s	Norwich	Corn on the cob, summer squash, peaches
Provider Farm	Salem	Cabbage and beets

## Successes

Throughout the school year, the students were introduced to many new types of produce, both fresh and semi-processed. These efforts have extended beyond the cafeteria to include books about farms and farmers being added and featured in the school library offerings. Overall, the Norwich Farm to School Program has grown significantly and has complimented and enhanced other efforts like the Norwich FoodCorps Service Member's projects to increase access, awareness, and engagement around eating local, healthy foods in schools.

## Challenges

One of the biggest challenges was convincing the farmers of the district's intention to buy produce from them at a large scale. Initial conversations yielded only enough produce to incorporate into one or two schools meals. Conversations with a few of the farmers revealed that some of them were hesitant to supply to the schools because the cost of the produce from the farm is higher than what could be bought commercially, and there was concern they would be asked to lower their prices. For at least one farmer, this hesitancy came from a past negative experience in working with a school that did not pay their bills regularly. A season of purchasing (and asking for more) has demonstrated the NPS commitment to purchase from these farmers, and it has developed a relationship in which the farmers are willing and planning to plant for the schools in the coming years. Always remember to follow proper procurement practices when working with a vendor.

Operationally, staff found that the processing took more time than initially anticipated. The task of processing was initially built into the school day, and a worker's regular day time hours. Due to the logistics of getting school meals ready, space constraints, and the amount of time needed to process all of the produce, resulted in the need to pay staff overtime to finish the processing after the regular work day.

### **Best Practices in Building a Processing Kitchen**

- Ensure the kitchen is large enough to work on several steps of processing at the same time. An underused kitchen or adding a second shift to a larger kitchen work well.
- Research equipment to make sure the right equipment is purchased.
- Develop contacts with local farmers. It may be unrealistic to plan to drive more than 30 minutes to get to a farm.
- Research the proper way to process vegetables. The farmers can help with this.
- Have staff that is willing to move speedily, and can keep an eye on food waste. If half of the produce ends up in the garbage as trimmings, money is being lost.
- Agree on pricing with the farmers before the produce is exchanged. (How much for a case, pound, etc.?) Be sure to follow proper procurement practices.
- Communicate well with staff in your district and ensure they understands that they are expected to use the processed produce, and not order from a supplier as they have in the past.

## Associated Costs

The majority of expenses, approximately \$80,000 (grant funding and match), were related to the equipment used to process and store the produce, and the van to move the product. These were mostly one-time expenses; food services do not anticipate ongoing costs outside of fuel and additional bags for food storage which has been budgeted for. There was also the unexpected expense of overtime labor which has now been and will continue to be figured into future plans and budgets. The question of how to split up the costs for the processed foods was solved by adding together the extra labor to process and the cost of the fresh produce, and dividing proportionately among the kitchens.

## Key Steps and Tips for Processing Local Produce

The goal with processing local vegetables is to slow the food from aging and in a way not to harm it so it can be fully cooked and eaten. The following are NPS school food service staff recommendations from their experience and discussions with others in the field.

1. Wash the produce under running water. If there are solid pieces (squash, tomatoes, etc.) try using a little vinegar. This will loosen anything on the produce. If the produce is “bunchy” (broccoli, cauliflower), use a cold salt bath. This will kill anything living in it the produce. Remember, the water needs to be running, so you can have the water coming in on one side of the bath and overflowing on the other. Also, the temperature of the wash water for tomatoes should be no more that 10 degrees different than that of the product to avoid anything from being absorbed through the skin.
2. Prepare the produce for consumption. It is easier to cut the produce in this state rather than after it is blanched and cooled (with the exception of beets). Chop the produce into uniform pieces easy to serve but still easily measured so there is no preparation needed in the other kitchens.

Zucchini - Slice and place in steam pan

Summer Squash - Peel if a mature piece, otherwise slice and place in steam pan

Green/Purple Beans - Remove stem end, cut into 1”-2” pieces, place in steam pan

Corn - Remove husk, soak in water to loosen silk, remove as much as possible

Tomatoes - Remove core, place in steam pan, top up

Beets - Place in steam pan, skins on

Broccoli - Chop and place in steam pan

Cauliflower - Chop and place in steam pan

Green Peppers - Slice and place in steam pan

Butternut - Separate neck from bowl, slice in half, place in steam pan, cut side up

Blue Hubbard - Place in bun bag, break on a hard surface. (It is too thick/tough to cut. Place in steam pan, peel side down

### 3. Steam/Blanch times

Zucchini/Summer Squash - 1 minute Blue Hubbard - 15- 20 minutes	Beets - 15-30 minutes depending on size	Butternut - Neck - 25-30 minutes, Bowl - 15 minutes
Green/Purple Beans - 2 minutes	Broccoli - 2 minutes	Tomatoes - 30 seconds
Corn - None (skip to #7)	Cauliflower - None (skip to #5)	Green Peppers - 1 minute

4. After steaming, place in ice bath to stop the cooking process (beans, tomatoes, peppers, summer squash, zucchini, cauliflower, beets).

- Butternut and Blue Hubbard - scoop off of peel and whip for even consistency. Season if desired. Add cinnamon and brown sugar if desired.
- Beets, peel and slice after steaming. The peel comes off much easier and the beets are easier to slice. After the longer steam time, they are still **not** fully cooked so they will not be mushy. (skip to #6)
- Tomatoes are entirely different. After they are in the cold bath, the peels comes right off, squeeze to remove the seeds, rinse in juice and place in bin. After this produce is done, I strain and crush the juice to remove any seeds. (skip to #6).

5. Place dried produce in 2" pan and place in quick chill. This will uniformly freeze everything without creating a single frozen block.

6. After the produce is frozen, place in freezer, vacuum bags. Measure out the amounts in each bag so the kitchens know how much is in each.

7. Seal in bag in the vacuum sealer and label. Label with the product name, date, servings per bag and initials of who bagged it.

### Future Plans

The arrangement made with farms to grow produce for next year will result in more local produce included on the breakfast and lunch menus. We are working to set up a procurement system for purchasing using a Request for Pricing Form with our local farmers. With hope, there will be enough produce and enough of a variety to last throughout the school year. Additionally, NPS plans to add a second shift to the kitchen just for the processing of produce. It is anticipated that this will increase efficiency and reduce the number of overall hours being used on produce processing because staff will have the space needed and the ability to focus completely on one task at a time. NPS School Food Services plans to spend more time promoting the partnership with local farms to help students, parents, and the community make the connection from "farm to plate".