



# **VIRGINIA TECH DINING SERVICES FARM**

**2015 ANNUAL REPORT**



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*Photographs courtesy of Victoria Betzel, Rial Tombes Carver, and Alex Hessler.*

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## EXECUTIVE SUMMARY

The Dining Services Farm (DSF) is a collaboration between Virginia Tech Dining Services, The Department of Horticulture, and the College of Agriculture and Life Sciences (CALs). The DSF began in 2009 as a small garden at Kentland Research Farm to provide experiential learning opportunities for students in the Civic Agriculture and Food Systems Minor and grow fresh produce for Dining Services. The mission of the DSF is to promote sustainable agriculture and community food systems by serving as a resource for education, research, and outreach for Virginia Tech and the Blacksburg community. 2015 marked the DSF's 7<sup>th</sup> year as an educational farm-to-campus program providing hands-on exposure to sustainable food and agriculture in the field, the classroom, and the dining hall.

The Sustainable Agriculture Practicum (HORT 2984) was taught in spring and fall semesters, engaging students in a unique field-based learning experience growing and harvesting fresh vegetables, fruit, and herbs at the DSF and Urban Horticulture Center. Additionally, students from multiple departments across campus participated in tours, hands-on activities, and independent projects at the DSF. The DSF hosted six tours for community and agricultural groups, and was featured in six popular print and Internet publications and three professional presentations.

Several improvements to facilities and infrastructure at the DSF in 2015 made farm operations and educational activities more efficient and effective. Expansions to the washing and packing shed and the purchase of a mechanical brusher washer improved post-harvest handling of many vegetable crops. Future improvements set in motion in 2015 will allow for the installation of a walk-in cooler, ice machine, salad greens spinner, and refrigerator. A collaborative project with students and faculty in the Department of Building Construction provided the impetus for plans to replace a dilapidated barn used as community and storage space with a new three-sided pole barn.

2015 was the most productive growing season at the DSF yet, with **48,316 pounds** of produce valued at **\$40,152.14** harvested and served on campus in Virginia Tech's award-winning dining halls. Total operating costs, excluding salaries, were **\$39,581.12**.

## ABOUT THE DINING SERVICES FARM

### *History of the Dining Services Farm*

The DSF began in 2009 as a educational farm-to-campus program complimenting an interdisciplinary, experiential-based sustainable agriculture and food systems minor being planned in the College of Agriculture and Life Sciences (CALs). A partnership between CALs, Dining Services, Kentland Research Farm, and the Department of Horticulture was formed to implement a student educational farm at Kentland. A USDA Higher Education Challenge grant, “Restoring Community Foodsheds: A Multidisciplinary Curriculum Translating Science into Practical, Innovate and Sustainable Solutions for Economic Viability, Food Security and Health” was awarded in 2009 – 2013 (Award No. 2009-38411-19770) to develop the Civic Agriculture and Food Systems Minor in CALs. Grant funds supplied seeds and equipment and supported a Farm Manager-Educator, a part-time Foodshed Liason between the farm and Dining Services, and three hourly student wage farm assistants. In 2009, a quarter-acre garden at Kentland Farm was designated as a site for experiential learning for students in the minor and the production of fresh produce for Dining Services.

By 2011, the program had grown from its original site to encompass more than two acres. Procurement of produce from the farm to campus was facilitated by a student manager hired by Dining Services, along with the Dining Services Sustainability Coordinator. The Farm Manager-Educator and the Dining Services Sustainability Coordinator participated in curriculum development for the minor and facilitated student volunteering at the farm. Dining Services furnished a farm crew of salaried staff from May to August. By 2014, the farm had increased to six acres, and the Farm Manager-Educator position was transitioned to a joint academic-auxiliary instructor-level faculty position financially supported by Dining Services, CALs, and the Department of Horticulture. In May 2014, with funding from CALs and Dining Services, a high tunnel was constructed at the Urban Horticulture Center (UHC) and utilized for summer tomato and winter salad production.



Governors School for Agriculture students at the DSF.

***Student Engagement***

The Sustainable Agriculture Practicum was developed in Fall 2014 as a hands-on field course in organic and sustainable vegetable production that takes place at the DSF and Urban Horticulture Center. The course has been offered every semester since Fall 2014. The DSF continues to support field-based learning activities and independent projects for students in the CAFS Minor, and provides regular farm tours to many classes throughout CALS. Weekend volunteer workdays expose students from across campus to the excitement of working with their hands and contributing to the Virginia Tech food system.



Rose Martin, Dining Services pastry chef, admiring apples at Kentland Farm orchards.

***Sustainable Dining***

Students participate in the DSF every day when they eat farm-to-campus produce in Virginia Tech's dining halls. Since 2009, the DSF has provided approximately 180,000 pounds of sustainably grown vegetables, fruit, and herbs to all five dining halls and Personal Touch Catering. Signs, photographs, featured dishes, and special events highlighting the DSF help students recognize the interconnectedness of sustainable food and farming with the wellbeing of the Virginia Tech community.

***Interdisciplinary Research***

The DSF is a unique field laboratory for interdisciplinary research on sustainable agricultural production practices and agroecology. As a working, diversified horticulture farm, the DSF is a model agricultural system for conducting applied research in a real-world setting. Students and faculty in multiple departments in CALS are encouraged to integrate experiments into production fields, and may receive technical support from DSF personnel.

***Community Outreach and Extension***

As a highly visible collaborative project on campus and in the community, the DSF is medium for promoting public awareness and understanding of sustainable agriculture and community food systems. The DSF strives to demonstrate agricultural practices that are environmentally sound, socially just, and economically viable. The DSF actively builds relationships with state and local farmers, master gardeners, extension agents, and professionals through tours and presentations. The dissemination of knowledge generated by the DSF supports the advancement the sustainability and profitability of small-scale agriculture in Virginia. The farm-to-campus partnership that brings thousands of pounds of fresh produce into Virginia Tech dining halls is a model for institutional sourcing of campus-grown food nationwide.

## DINING SERVICES FARM MISSION

- Provide experiential learning opportunities in sustainable agricultural production for Virginia Tech students through hands-on participation at the Dining Services Farm.
- Educate Virginia Tech students about sustainable agriculture and food systems by serving produce grown on the Dining Services Farm in Virginia Tech dining halls.
- Foster collaborative, interdisciplinary research and education around food and agriculture among Virginia Tech students, staff, and faculty.
- Promote awareness of sustainable agriculture and community food systems through community outreach and public education.



Virginia Tech Summer Academy: Animal and Poultry Sciences Track taste-testing sweet corn.



## 2015 OPERATIONS AND ORGANIZATIONAL STRUCTURE

### *Operations*

The DSF manages six acres of land at Virginia Tech's Kentland Research Farm for the production of fresh vegetables, fruit, and herbs using organic practices. Approximately four of the six acres are cultivated, with 2.6 acres in production in 2015. An additional half-acre of land under conventional management at Kentland Farm was used to produce tomatoes, winter squash, and pumpkins. Facilities used by the DSF include a 27,000 ft<sup>2</sup> open-sided barn, a 700 ft<sup>2</sup> washing and packing shed, and a repurposed milking parlor used for storing tools. Tractors used on the DSF to conduct tillage and other field operations are owned and maintained by CALS, and operated by Kentland Farm staff and the DSF farm manager. Tractor-drawn implements used on the DSF are owned by CALS and the Department of Horticulture. A 2,888 ft. <sup>2</sup> high tunnel located at the UHC is used for season-extended vegetable production and transplant propagation. Department of Horticulture greenhouses located on Virginia Tech's main campus are also used for transplant propagation. An additional high tunnel was purchased in Summer 2015 to be located at Kentland Farms, but will not be constructed until Summer 2016.

During the spring and fall semesters, students in the Sustainable Agriculture Practicum provide labor for vegetable production and harvest. A twelve-person crew consisting of Dining Services staff works at the farm from late May to early August. In return for financial support to the DSF, all produce is provided to Dining Services at no cost and is distributed to dining halls across the Virginia Tech campus.

### *Organizational Structure*

A diverse group of faculty, staff, and students from Virginia Tech Dining Services, The Department of Horticulture, and the CALS collaborate to achieve the multi-faceted objectives of the DSF. Personnel in CALS and the Department of Horticulture oversee crop production, manage facilities and equipment use and maintenance, and facilitate student involvement in educational opportunities at the farm through courses, tours, and volunteer events. Personnel in Dining Services coordinate crop production planning with chefs and procurement administrators, conduct farm produce pick-up, processing and storage, and delivery to dining halls, oversee Dining Services staff labor at the farm, and facilitate media outreach to the Virginia Tech student body about the DSF. The DSF is overseen by the **Horticulture-Dining Services Collaboration Steering Committee**, which is comprised of representatives from Horticulture, Dining Services, and CALS, and convenes twice annually. Horticulture and Dining Services split-fund an instructor-level faculty position (Alex Hessler) to manage crop production at the DSF and teach courses in the Department of Horticulture.

| Name                      | Title  | Role with DSF   |
|---------------------------|--|---|
| Rial Carver               | Sustainability Coordinator, Dining Services                | Coordinates produce distribution in Dining Services; outreach; coordinates DSF farm crew. |
| Susan Clark               | Associate Professor, Horticulture Director, CAFS Minor     | Coordinates partnership with CAFS minor.  |
| Ted Faulkner              | Director, Dining Services                                  | Director of Dining Services.  |
| Roger Harris              | Department Head, Horticulture                              | Oversees Horticulture resource allocation.  |
| Bill Hess                 | Associate Director, Dining Services                        | Oversees Dining Services resource allocation.   |
| Alex Hessler              | Instructor, Director of DSF, Horticulture                  | Directs DSF crop production; supervises DSF farm crew; teaches Sustainable Ag. Practicum  |
| John James                | Urban Horticulture Center Facilities Manager, Horticulture | Manages Urban Horticulture Center Facilities; assists with high tunnel infrastructure.    |
| Dwight Paulette           | College Farm Coordinator, CALS                             | Coordinates Kentland Farm operations and resources.                                       |
| Anthony Purcell           | Assistant Director for Southgate, Dining Services          | Oversees DSF produce distribution; coordinates Dining Services resource allocation        |
| Jon Wooge                 | Kentland Farm Manager, CALS                                | Manages Kentland Farm staff and operations.   |
| Dining Services Farm Crew | N/A  | Assist with vegetable production and harvest, May – Aug.                                  |
| Sustainable Ag. Practicum | N/A  | Assist with vegetable production and harvest, Sept–Nov, March – May.                      |



The 2015 summer Dining Services staff farm crew with the year’s garlic harvest.

## 2015 HARVEST AMOUNTS AND MARKET VALUE

Market value is determined as the price typically paid by Dining Services to the produce vendor Produce Source Partners (PSP). See Appendix for detailed report of harvest and value by individual crop.

|                     | <b>Pounds<br/>Harvested</b> | <b>Market<br/>Value</b> |
|---------------------|-----------------------------|-------------------------|
| <b>Vegetables</b>   | 42,312.25                   | \$30,342.29             |
| <b>Fruit</b>        | 5,011.50                    | \$3,014.80              |
| <b>Herbs</b>        | 992.40                      | \$6,795.06              |
| <b><u>Total</u></b> | <b>48,316.15</b>            | <b>\$40,152.14</b>      |

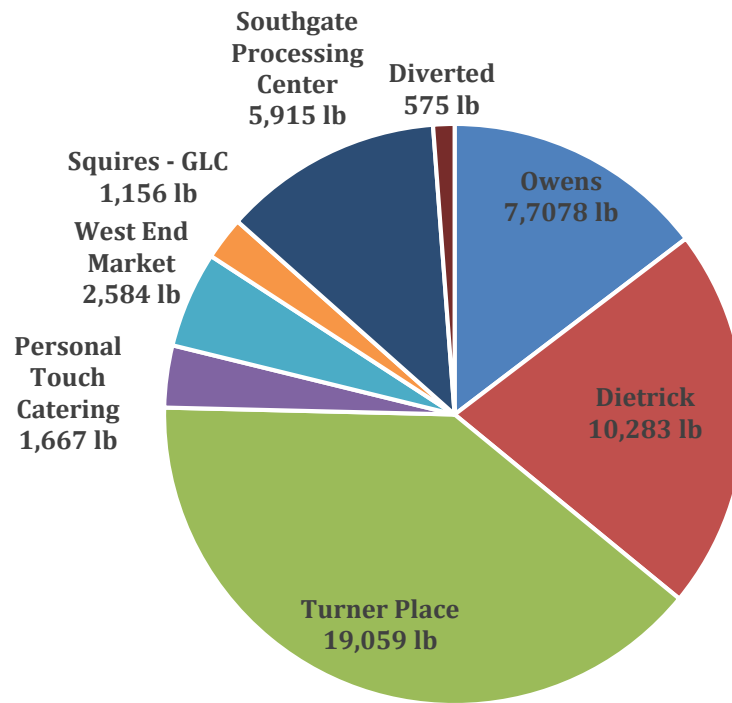
## 2015 EXPENDITURES

Total operating expenses for 2015 are listed below by category. See Appendix for separate expense reports for Dining Services and Horticulture.

|  |                    |
|--|--------------------|
| Seeds                                  | \$4,850.76         |
| Supplies                               | \$7,262.40         |
| Tools and Equipment                    | \$11,761.80        |
| Furniture                              | \$300.79           |
| Fuel                                   | \$538.17           |
| Moveable High Tunnel                   | \$14,867.20        |
| <b><u>Total Operating Expenses</u></b> | <b>\$39,581.12</b> |



## 2015 PRODUCE DISTRIBUTION SUMMARY



From left to right: Chef de Cuisine Mark Badger, and Executive Chefs Mark Bratton, Mark Moritz, John Scherer, and Randy Van Dyke

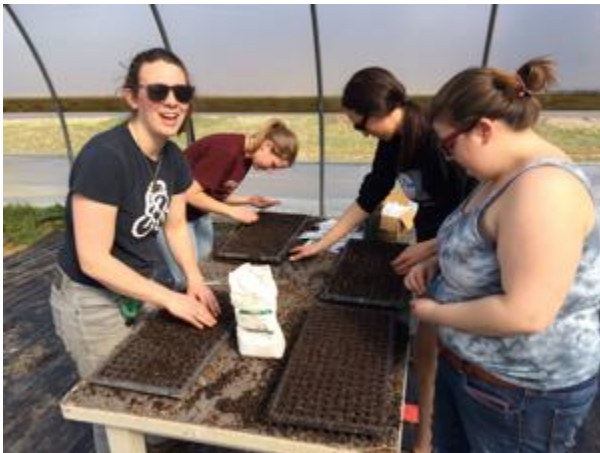
## STUDENT ACADEMIC PARTICIPATION

### *The Sustainable Agriculture Practicum: HORT 2984; 2 credits.*

The Sustainable Agriculture Practicum was offered as a special studies course in the Department of Horticulture in spring and fall of 2015, and was approved as an official course, **HORT 2834; 3 credits**, for Spring 2016. In 2015, 17 students representing 11 different majors enrolled in this field-based experiential course located at the DSF. The course meets from March to May in the spring semester and August to November in the fall semester. Students participate in all aspects of operating the farm, including plant propagation, seeding and planting, cultivation, harvest, and post-harvest handling. Daily activities are accompanied by lectures, discussions, and field walks to explore the principles of organic and sustainable crop production in greater detail. As the DSF continues to evolve and grow, students are active agents in shaping and improving the DSF production site and community space. In 2015, Practicum students installed lockers and sinks, built tool racks, and configured new equipment in the packing shed for more efficient produce washing and handling.

The Sustainable Agriculture Practicum is a unique experience at Virginia Tech, valuable to students of diverse backgrounds and aspirations. Students pursuing a professional career in a related agricultural field gain an appreciation for the practical challenges and opportunities of sustainable agriculture and food systems. A few students have gone on to work for local horticultural farms. For many, the Practicum builds confidence in their ability to apply newly learned skills to solve real-world challenges. All of the students have grown in their sense of ownership and agency as member of the Virginia Tech community.

The DSF engages students in other academic programs and courses in CALS through tours, activities, and projects. The DSF is a principle community partner to the **Civic Agriculture and Food Systems (CAFS) Minor**, serving as a field-site for experiential learning and independent research projects. In 2015, Chris Youngs, Agricultural Sciences '15, partnered with the DSF to conduct his CAFS Minor capstone project by restoring two antique Allis Chalmers G cultivating tractors.



Students in Organic Vegetable Production and the Sustainable Agriculture Practicum helping with planting and harvesting.

In Spring 2015, the DSF farm manager partnered with faculty in the Department of Building Construction (DBC) in CAUS to engage students in that department in a structural analysis of a barn at the DSF as a senior capstone project. The findings of that analysis, along with recommendations made by DBC faculty and students, provided the impetus for the pursuit of renovations of DSF-Kentland Farm facilities in 2016.

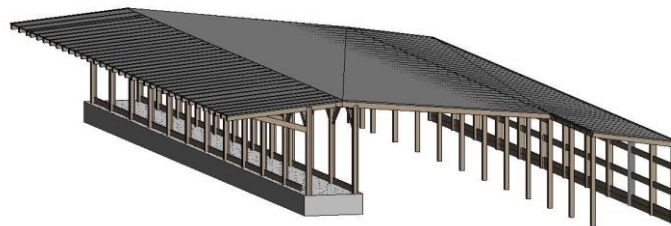


Figure 1: Design 1 Overview

Graphic model created by DBC students of the barn at the DSF.

**Tours of the DSF were given to students in the following courses:**

Organic Vegetable Production (HORT 4834)

Home Gardening (HORT 2984)

Introduction to Civic Agriculture (ALS 2204)

Ecological Agriculture: Theory and Practice (ALS 3404)

Virginia Tech Summer Academy: Animal and Poultry Sciences Track.  
Governors School for Agriculture at Virginia Tech



Student volunteers from Engineers Without Borders with a harvest of decorative gourds.

## STUDENT VOLUNTEERING

- Number of student volunteers: 46
- Volunteer hours logged: 92

Thank you to all the volunteer groups that participated at the Dining Services Farm in 2015.

- Nu Kappa Epsilon.
- Theta Tau.
- Engineers Without Borders.
- Sustainable Food Corps.

## RESEARCH PARTNERSHIPS AND SUPPORT

The DSF engages in partnerships with CALS faculty and graduate students by facilitating the integration of research projects into production sites managed by the DSF and by providing technical assistance when possible. In 2015, DSF personnel provided support to seven research projects conducted by entomology graduate students in Dr. Tom Kuhar's vegetable entomology lab at Kentland Farm.

### ***Projects conducted in Dining Services Farm plots:***

- Evaluation of the Botanical Pesticide *Sabadilla* for the Control of Harlequin Bug on Collards.

### ***Provided assistance with nutrient and weed management for the following projects:***

- Control of Brown Marmorated Stink Bugs in Bell Peppers.
- Control of Lepidopteran larvae in Sweet Corn.
- Control of Black Cutworm in Field Corn.
- Control of Slugs in Field Corn.
- Evaluation of Kaolinite (Surround) and Essential Oils to Protect Vegetables from Brown Marmorated Stink Bugs.

### ***Provided assistance with transplant production, weed management, and harvest for the following project:***

- Managing Mexican Bean Beetle, *Epilachna Varivestis* Mulstant, in Snap Beans Using Reflective Mulches.





The Kuhar entomology lab and one of their research projects evaluating control of black cutworm in field corn.

## **OUTREACH**

June 2 and June 9, 2015. Virginia Tech Dining Services Culinary Camp. Twenty children participated in gardening activities at DSF.

June 8, 2015. Cloverbud Agriculture Day Camp. Virginia Cooperative Extension. Twelve children participated in gardening activities at the DSF.

June 24, 2015. Twilight Tour: Dining Services Farm. Virginia Cooperative Extension.

August 23, 2015. Kentland Farm Field Day. A tour of the Dining Services Farm, entomology projects, weed management plots, the manor house, and Dairy Science complex.

August 27, 2015. Virginia Tech Horticulture-Dining Services partnerships, and description of vegetable pest management research at Kentland Farm. Virginia Agricultural Council meeting and tour.

September 25, 2015. Dining Services Farm and Dairy Center Tour. Virginia Tech Family Weekend.



Cloverbud Agriculture Day Camp exploring the rhubarb patch in the herb garden.

## **PUBLICITY AND PROJECT DISSEMINATION**

### ***Popular print and Internet publications:***

January 1, 2015. *Virginia Tech Dining Services earns another top ranking.*

<https://www.vtnews.vt.edu/articles/2015/01/012115-dsa-nichediningranking.html>

March 4, 2015. *Dining Services brings farm-to-table to campus.*

[http://www.collegiatetimes.com/news/virginia\\_tech/article\\_05900468-c2d2-11e4-8888-f32b0e1ad709.html](http://www.collegiatetimes.com/news/virginia_tech/article_05900468-c2d2-11e4-8888-f32b0e1ad709.html)

June 8, 2015. *Dining Services garners sustainability recognition for outreach and education.*

<http://www.vtnews.vt.edu/articles/2015/06/060815-dsa-nacufs.html>

July 30, 2015. *Kentland Farm feeds hungry students and intellectual curiosity.*

<http://news.cals.vt.edu/innovations/2015/07/kentland-farm-feeds-hungry-students-and-intellectual-curiosity/>

August 21, 2015. *Small Farm Generates Big Results in Virginia.*



[http://www.lancasterfarming.com/news/southern\\_edition/small-farm-generates-big-results-in-virginia/article\\_da513b97-5ba8-5536-b1cf-1617df01d8c8.html#.Vd8afpffDVJ](http://www.lancasterfarming.com/news/southern_edition/small-farm-generates-big-results-in-virginia/article_da513b97-5ba8-5536-b1cf-1617df01d8c8.html#.Vd8afpffDVJ)

November 24, 2015. *Va. Tech food services farm teaches students more than crop production.*

[http://americanfarm.com/index.php?option=com\\_content&view=article&id=2653:va-tech-food-services-farm-teaches-students-more-than-crop-production&catid=2](http://americanfarm.com/index.php?option=com_content&view=article&id=2653:va-tech-food-services-farm-teaches-students-more-than-crop-production&catid=2)

DSF pumpkin displayed on announcers table during VT vs. Ohio State football Game.

### ***Professional Presentations:***

February 28, 2015. *Diversified Vegetable Production: Foundations for Success.* Virginia Farm Bureau: Young Farmers Winter Expo. Bristol, VA.

May 15, 2015. *Presentation to the 4VA Sustainable Food Systems Symposium.* Front Royal, VA.

October 23, 2015. *The Dining Services Farm: a Collaborative Farm-to-Institution Program at Virginia Tech.* Second Annual Virginia Urban Agriculture Summit. Richmond, VA.

### **Ongoing Goals and Progress**

#### ***Organizational Structure:***

- As the DSF continues to expand its educational programming as well as production acreage, the creation of an assistant farm manager position to support farm operations becomes more critical. This position would enable the current farm manager to invest more in curriculum development, outreach, and fundraising.

- The weekly work schedule of the Dining Services summer farm crew changed from four days a week all summer long to four days a week early in early summer, transitioning to three days a week until the start of the semester. This change reflected a decrease in labor demand at the farm due to improvements in efficiency, and a greater need for staff assistance on campus for processing and freezing farm produce.

#### ***Student Involvement:***

- In 2014 and 2015, the majority of students enrolled in the Sustainable Agriculture Practicum have been upperclassmen. A lack of awareness of the course among new Virginia Tech students and the challenges of integrating course times into busy schedules may be limiting the participation of freshman and sophomores. To address this gap, efforts need to be made to reach out to underclassmen through targeted marketing during orientation, and in lower-level and first year experience courses.
- Due to redundancies in course material and learning objectives between Organic Vegetable Production (HORT 4835) and the Sustainable Agriculture Practicum (HORT 2984), the Horticulture Department curriculum committee agreed to discontinue Organic Vegetable Production beginning Spring 2016. A 1-hour, 1-credit lecture was added to the Sustainable Agriculture Practicum (2834) to provide more in-depth discussion of organic vegetable production principles and practices.
- Faculty and staff from Virginia Tech representing the Department of Horticulture, Dining Services and the CAFS Minor attended the 4VA Sustainable Food Systems Symposium in May 2015 to explore opportunities for collaboration with partnering 4VA Institutions (UVA, JMU, GMU) on sustainable food systems curriculum development and sustainable dining. Representatives from partnering institutions expressed interest in developing opportunities for students from all institutions to participate in summer educational experiences at the DSF. Pursuing this and similar programmatic expansions will require renovations of DSF facilities and resources for curriculum development in order to be successful.

#### ***Infrastructure:***

- A structural analysis performed by Virginia Tech Department of Building Construction students and faculty of an open-sided barn at the DSF determined the barn to be structurally unsound and unfit for continued use. The Horticulture-Dining Services Collaboration Steering Committee decided to cease use of the barn until it could be renovated or replaced. The process has been set in motion to evaluate options for replacing the open-sided barn with a new structure, with construction anticipated to begin in Fall 2016.
- The DSF washing and packing shed occupies one of two rooms in an enclosed shop at Kentland Farm. The adjacent room, previously used for painting farm equipment and vehicles, has been graciously committed by Kentland Farm for additional packing shed space. This new space will be renovated and painted in Spring 2016. This expansion will allow for the installation of needed vegetable handling equipment, including a cooler, ice maker, and salad spinner.

- Rainwater draining off of the UHC high tunnel has been infiltrating the inside of the structure and causing problematic soil saturation. French drains around the perimeter of the tunnel will need to be installed in the near future to address the issue.
- The UHC high tunnel is equipped with thermostat-regulated ventilation fans and a propane heater for precision environmental control. However, the cost of connecting utilities to the tunnel for these amenities has been prohibitively expensive, thus they remain inoperable. Efforts to secure funding or reduce the cost of installation are ongoing.

### ***Production and Harvesting***

- Two Allis Chalmers G cultivating tractors owned by Kentland Farm were restored to operating condition by a CALS undergraduate as a part of his CAFS Minor capstone project. The tractors were configured to perform mechanical weed cultivation for vegetable crops grown by the DSF and CALS faculty researchers. To address the need for additional mechanical weed cultivation implements that function on the variety of cropping systems used at the DSF-Kentland Farm, funding was requested and secured to purchase a three-row finger weeder made by KULT-Kress & Co. in 2016.



Allis Chalmers G restored by CAFS Minor student.

- A mechanical brusher washer (Produce Packing Machinery LLC) was purchased in Fall 2015 for washing root crops grown at the DSF. More than 12,000 pounds of root crops were washed in this machine. Another 20,000 pounds of produce are amenable to being washed in the brusher washer (tomatoes, peppers, pumpkins, etc.). The brusher washer provides immense time savings in post-harvest handling and is actually quite enjoyable to use. Experiences relayed by other farmers suggest that the brusher washer is more effective than a traditional barrel washer for cleaning most root crops except carrots.
- Adopting Good Agricultural Practices (GAP) is critical for farms supplying produce to large institutional dining centers. Major steps were taken to improve food safety practices at the DSF in 2015, including irrigation water chlorination, the installation of hand-washing sinks, and the purchase of new plastic harvest bins and stainless steel tables. In 2016, following the installation of

a walk-in cooler and ice maker, the DSF plans to formalize a Food Safety Plan and undergo a USDA GAP audit.

### ***Produce Utilization***

- The selection of crops grown at the DSF has evolved to address the specific opportunities and challenges of producing fresh produce for a large institutional dining center on a small educational student farm. Focus has and continues to shift towards crops with high value relative to production labor, and those that have high interest among chefs and uniqueness to student diners. Examples include salad greens, herbs, fingerling potatoes, hot peppers, and roma tomatoes.
- Produce deliveries from the DSF to campus were reduced from twice weekly to once a week. Though this made coordinating deliveries simpler, the lack of easily accessible cooler space at the DSF complicated efforts to properly store produce ahead of time. A cooler on site is a critical addition in the near future.
- All produce grown at the DSF in 2015 was destined for particular dining halls in predetermined amounts according to extensive communication with individual chefs and procurement directors before the start of the growing season. This “standing order” system greatly reduced produce waste and diversion, increased interest among chefs in utilizing DSF produce, and made the availability of particular products being served more consistent and visible. See Appendix for the 2015 Standing Order Invoice Sheet.
- Nearly 1000 pounds of herbs were produced in 2015, with the possibility of significantly increasing herb production in the future. Dining Services froze much of these herbs during the summer for later use. Increased herb processing and freezing will require proactive communication among personnel at multiple levels at different dining facilities to coordinate sharing of staff and equipment for summer processing and freezing.

## **APPENDIX**

### **2015 Harvest Totals and Market Value**

| <b>Vegetables:</b> | <b>LBS Received</b> | <b>Per LB Cost:</b> | <b>Total</b> | <b>Price Reference*</b> |
|--------------------|---------------------|---------------------|--------------|-------------------------|
| Asparagus          | 221.75              | \$2.38              | \$527.77     | PSP Local               |
| Beans, Green       | 1,203.00            | \$0.79              | \$950.37     | PSP Local               |
| Beets              | 713.00              | \$1.73              | \$1,233.49   | PSP Local               |
| Braising Mix       | 20.00               | \$2.96              | \$59.20      | PSP National            |

|                          |                  |         |                    |              |
|--------------------------|------------------|---------|--------------------|--------------|
| Broccoli                 | 210.50           | \$1.41  | \$296.81           | PSP National |
| Carrots                  | 549.00           | \$0.50  | \$274.50           | PSP National |
| Cauliflower              | 82.00            | \$2.10  | \$172.20           | PSP National |
| Collards                 | 1,310.00         | \$0.72  | \$943.20           | PSP Local    |
| Corn, Sweet              | 2,357.00         | \$0.38  | \$895.66           | PSP Local    |
| Garlic                   | 228.00           | \$2.21  | \$503.88           | PSP National |
| Garlic Scapes            | 48.00            | \$15.00 | \$720.00           | Estimate     |
| Gourds                   | 625.00           | \$0.18  | \$112.50           | PSP Local    |
| Kale, Lacinato           | 451.00           | \$0.85  | \$383.35           | PSP National |
| Kale, Red Russian        | 171.00           | \$0.85  | \$145.35           | PSP National |
| Lettuce, Green Leaf      | 1,144.00         | \$2.13  | \$2,436.72         | PSP Local    |
| Lettuce, Romaine         | 35.00            | \$2.13  | \$74.55            | PSP Local    |
| Mix Salad Greens         | 67.00            | \$2.96  | \$198.32           | PSP National |
| Peppers, Bell Green      | 1,270.00         | \$0.67  | \$850.90           | PSP Local    |
| Peppers, Bell Red        | 960.00           | \$1.32  | \$1,267.20         | PSP National |
| Peppers, Carmen Red      | 400.00           | \$1.70  | \$680.00           | PSP National |
| Peppers, Poblano         | 862.00           | \$1.28  | \$1,103.36         | PSP Local    |
| Potatoes, Fingerling     | 825.00           | \$1.56  | \$1,287.00         | PSP National |
| Potatoes, Kennebec       | 1,380.00         | \$0.57  | \$786.60           | PSP National |
| Potatoes, Red            | 1,375.00         | \$0.39  | \$536.25           | PSP National |
| Pumpkins                 | 4,211.00         | \$0.18  | \$757.98           | PSP Local    |
| Spinach                  | 18.00            | \$1.75  | \$31.50            | PSP National |
| Squash, Zucchini         | 99.00            | \$1.76  | \$174.24           | PSP Local    |
| Sweet Potatoes 45-50 ct  | 2,516.00         | \$0.56  | \$1,408.96         | PSP Local    |
| Sweet Potatoes           | 4,674.00         | \$0.18  | \$841.32           | PSP Local    |
| Swiss Chard              | 1,485.00         | \$1.25  | \$1,856.25         | PSP National |
| Tomato, Cherry           | 139.00           | \$1.90  | \$264.10           | PSP National |
| Tomato, Roma             | 4,836.00         | \$0.76  | \$3,675.36         | PSP Local    |
| Tomato, Roma (Field)     | 1,924.00         | \$0.76  | \$1,462.24         | PSP Local    |
| Winter Squash, Acorn     | 160.00           | \$0.48  | \$76.80            | PSP Local    |
| Winter Squash, Buttercup | 375.00           | \$0.91  | \$341.25           | PSP Local    |
| Winter Squash, Butternut | 4,254.00         | \$0.47  | \$1,999.38         | PSP Local    |
| Winter Squash, Red Kuri  | 384.00           | \$0.91  | \$349.44           | PSP Local    |
| Winter Squash, Cushaw    | 730.00           | \$0.91  | \$664.30           | PSP Local    |
| <b>Total: Vegetables</b> | <b>42,312.25</b> |         | <b>\$30,342.29</b> |              |

| <b>Fruit:</b>       | <b>LBS Received</b> | <b>Per LB Cost</b> | <b>Total</b>      | <b>Price Reference</b> |
|---------------------|---------------------|--------------------|-------------------|------------------------|
| Apples              | 560.00              | \$0.69             | \$386.40          | PSP Local              |
| Blackberries        | 44.50               | \$3.79             | \$168.66          | PSP Local              |
| Peaches             | 1,967.00            | \$0.80             | \$1,573.60        | PSP Local              |
| Raspberries         | 7.00                | \$5.34             | \$37.38           | PSP National           |
| Rhubarb             | 33.00               | \$1.72             | \$56.76           | PSP National           |
| Watermelon          | 2,400.00            | \$0.33             | \$792.00          | PSP National           |
| <b>Total: Fruit</b> | <b>5,011.50</b>     |                    | <b>\$3,014.80</b> |                        |

| <b>Herbs:</b> | <b>LBS Received</b> | <b>Per LB Cost</b> | <b>Total</b> | <b>Price Reference</b> |
|---------------|---------------------|--------------------|--------------|------------------------|
| Basil         | 603.00              | \$7.30             | \$4,401.90   | PSP Local              |

|                     |                  |         |                    |              |
|---------------------|------------------|---------|--------------------|--------------|
| Chives              | 20.50            | \$13.35 | \$273.68           | PSP National |
| Cilantro            | 148.00           | \$5.90  | \$873.20           | PSP National |
| Dill                | 9.00             | \$9.00  | \$81.00            | PSP National |
| Lemon Balm          | 7.20             | \$10.00 | \$72.00            | PSP National |
| Mint                | 3.00             | \$10.57 | \$31.71            | PSP National |
| Oregano             | 9.70             | \$11.07 | \$107.38           | PSP National |
| Parsley             | 166.20           | \$3.90  | \$648.18           | PSP National |
| Sage                | 14.00            | \$12.42 | \$173.85           | PSP National |
| Thyme               | 11.80            | \$11.20 | \$132.16           | PSP National |
| <b>Total: Herbs</b> | <b>992.40</b>    |         | <b>\$6,795.06</b>  |              |
| <b>Grand Total</b>  | <b>48,316.15</b> |         | <b>\$40,152.14</b> |              |

\*Price references taken from the Produce Source Partner (PSP) Local List, when available. Otherwise, the price reference is taken from the PSP National price or estimated from a secondary vendor.

### 2015 Expenses: Paid by Dining Services

| Category               | Amount      |
|------------------------|-------------|
| Seeds                  | \$4,084.57  |
| Supplies               | \$5,127.29  |
| Tools and<br>Equipment | \$8,444.20  |
| High Tunnel            | \$14,867.20 |
| Fuel                   | \$517.31    |



**Grand Total** **\$33,040.57**

| Purchase Date | Vendor                     | Item                    | Category            | Amount             |
|---------------|----------------------------|-------------------------|---------------------|--------------------|
| 2/4/15        | Johnny's Selected Seeds    | Seed Order #1           | Seeds               | \$147.40           |
| 2/18/15       | Johnny's Selected Seeds    | Seed Order #2           | Seeds               | \$710.45           |
| 2/18/15       | Johnny's Selected Seeds    | Seed Rollers            | Tools and Equipment | \$105.00           |
| 2/19/15       | Harris Seeds               | Seed Order              | Seeds               | \$135.55           |
| 3/17/15       | Johnny's Selected Seeds    | Supplies #1             | Tools and Equipment | \$270.00           |
| 3/16/15       | Gempler's                  | Safety Equipment        | Supplies            | \$449.25           |
| 3/24/15       | PME Compost                | Compost                 | Supplies            | \$577.94           |
| 3/18/15       | Berry Hill Irrigation, Inc | Irrigation Equipment    | Supplies            | \$1,090.35         |
| 4/1/15        | Seven Springs Farm         | Fertilizer, Cover Crops | Supplies            | \$2,829.75         |
| 3/30/15       | SeedWay                    | Seeds                   | Seeds               | \$109.79           |
|               | Organic Growers            |                         |                     |                    |
| 4/9/15        | Supply/Fedco               | Seed Potatoes           | Seeds               | \$1,304.20         |
| 6/2/15        | New Sprout Organic Farms   | Sweet Potato Slips      | Seeds               | \$498.24           |
| 4/21/15       | High Mowing Organic Seeds  | Squash Seeds            | Seeds               | \$64.50            |
| 6/16/15       | Steel Tables               | Stainless steel tables  | Tools and Equipment | \$1,578.80         |
| 6/16/15       | Flexcon Containers         | Harvest Crates          | Tools and Equipment | \$2,166.40         |
| 7/27/15       | Johnny's Selected Seeds    | Salanova Mix            | Seeds               | \$87.75            |
|               | Southwest VA Farmers       |                         |                     |                    |
| 9/12/15       | Market                     | Pallet Bins             | Supplies            | \$180.00           |
| 9/19/15       | Peaceful Valley            | Garlic                  | Seeds               | \$411.69           |
| 8/3/15        | Cottle Strawberry Nursery  | Strawberry Plugs        | Seeds               | \$615.00           |
| 6/11/15       | Lar Lyn Farms              | Brusher Washer          | Tools and Equipment | \$4,324.00         |
| 6/30/15       | Rimol Greehouse Systems    | Movable High Tunnel     | High Tunnel         | \$14,867.20        |
|               |                            |                         | <b>Total</b>        | <b>\$32,523.26</b> |

### 2015 Fuel Use

| Use Period | Vendor      | Item   | Description   | Amount          |
|------------|-------------|--------|---|-----------------|
| 3/20-3/25  | Foster Fuel | Diesel | Loading compost, unloading supplies   | \$14.82         |
| 4/21       | Foster Fuel | Gas    | Gas Cans  | \$13.90         |
| 4/11-5/26  | Foster Fuel | Gas    | Allis Chalmers G, gas cans  | \$165.31        |
|            |             |        | Tilling, cultivation, potato planting, fertilizer application, plastic laying |                 |
| 4/28-5/20  | Foster Fuel | Diesel |   | \$90.79         |
| 6/2        | Foster Fuel | Gas    | Chevy 1500  | \$66.03         |
|            |             |        | Mow cover crops, discing plots, miscellaneous usage                           |                 |
| 6/3-6/30   | Foster Fuel | Diesel |   | \$63.96         |
| 8/29-9/28  | J. R. Fuel  | Gas    | Gas cans, Chevy 1500  | \$55.09         |
|            |             |        | Tilling, cover crop planting, bucket tractor                                  |                 |
| 9/1-9/27   | J. R. Fuel  | Diesel |   | \$47.41         |
|            |             |        | <b>Total</b>  | <b>\$517.31</b> |

### 2015 Expenses: Paid by the Department of Horticulture

| Category               | Amount     |
|------------------------|------------|
| Fuel                   | \$20.86    |
| Furniture              | \$300.79   |
| Seeds                  | \$766.19   |
| Supplies               | \$2,135.11 |
| Tools and<br>Equipment | \$3,317.60 |

**Grand Total** **\$6,540.55**

| Purchase Date | Vendor                   | Item  | Category            | Amount   |
|---------------|--------------------------|---|---------------------|----------|
| 2/4/15        | AgSquared                | AgSquared Basic                             | Supplies            | \$99.00  |
| 3/18/15       | A.M. Leonard             | Hand weeders                                | Tools and Equipment | \$213.91 |
| 3/21/15       | ULINE                    | Mesh salad bags                             | Supplies            | \$95.99  |
| 3/21/15       | Heaveners                | Brush, paint, screws, sandpaper             | Supplies            | \$74.31  |
| 3/21/15       | Berry Hill               | Row cover hold-down bags                    | Supplies            | \$85.53  |
| 3/25/15       | Heaveners                | Nuts, bolts, lumber                         | Supplies            | \$10.00  |
| 3/25/15       | Heaveners                | Rust remover                                | Supplies            | \$5.22   |
| 3/25/15       | Heaveners                | Fuel additive                               | Supplies            | \$35.25  |
| 3/24/15       | Advanced Auto Parts      | Oils and fluids                             | Supplies            | \$80.00  |
| 3/21/15       | Advanced Auto Parts      | Funnel                                      | Supplies            | \$3.15   |
| 3/20/15       | Blacksburg Auto Parts    | Filters                                     | Supplies            | \$71.10  |
| 3/21/15       | Advanced Auto Parts      | Battery charger                             | Supplies            | \$29.47  |
| 4/1/15        | Johnnys Selected Seed    | Parsley, cilantro, cauliflower              | Seeds               | \$73.25  |
| 4/15/15       | Tractor Supply           | Gear lube for spader                        | Supplies            | \$9.18   |
| 4/15/15       | Lowe's                   | Tape, glue, hand tools, cleaning supplies   | Supplies            | \$71.08  |
| 4/26/15       | Best Sharpening Stones   | Knife Sharpeners                            | Supplies            | \$72.85  |
| 4/27/15       | Micro-Mark               | Magnetic knife holder                       | Supplies            | \$35.65  |
| 4/27/16       | Willsies Equipment Sales | Potato hilling discs                        | Tools and Equipment | \$693.00 |
| 5/2/15        | Heaveners                | Screws, bolts, wire, hose connector, funnel | Supplies            | \$26.69  |
| 5/4/15        | Rakers                   | Rosemary (Arp)                              | Seeds               | \$36.94  |
| 5/6/15        | Heaveners                | Wood  | Supplies            | \$70.39  |
| 5/6/15        | Heaveners                | Wood-exchanged                              | Supplies            | \$8.00   |
| 5/6/15        | West Marine              | Grundens aprons                             | Tools and Equipment | \$321.90 |
| 5/8/15        | A.M. Leonard             | Digging forks                               | Tools and Equipment | \$109.97 |
| 5/27/15       | VT Surplus               | Miscellaneous furniture                     | Furniture           | \$210.00 |
| 5/28/15       | Office Depot             | Markers, white board, eraser                | Supplies            | \$64.30  |
| 6/4/15        | Heaveners                | Tools, shop vac                             | Tools and Equipment | \$207.79 |
| 6/4/15        | Heaveners                | Laundry sink                                | Furniture           | \$90.79  |
| 6/4/15        | Seven Springs            | Cover crop seed, bood meal, fish emulsion   | Supplies            | \$268.00 |
| 6/5/15        | PVCFittings.com          | Blue-white flow meter                       | Tools and Equipment | \$95.84  |
| 6/5/15        | Farmers Friend           | Quick-cut greens harvester, repair kit      | Tools and Equipment | \$658.45 |
| 6/5/15        | Welter Seed & Honey      | Teff seed                                   | Seeds               | \$193.00 |
| 6/5/15        | Heaveners                | Crescent wrench                             | Tools and Equipment | \$22.99  |

|          |                             |   |                     |                   |
|----------|-----------------------------|---|---------------------|-------------------|
| 6/15/15  | Heaveners                   | PVC couplings                                   | Supplies            | \$13.85           |
| 6/16/15  | Heaveners                   | Float ball rod for accu-tab                     | Supplies            | \$15.77           |
| 6/17/15  | Edgewater Pool and Spa      | Chlorine test kits                              | Supplies            | \$21.98           |
| 6/30/16  | Salem Stone                 | Gravel for high tunnel at UHC                   | Supplies            | \$253.69          |
| 7/2/15   | The Home Depot              | Hose, wrench, screwdrivers, hammer, etc.        | Tools and Equipment | \$159.32          |
| 7/2/15   | Lowe's                      | Misc. tools                                     | Tools and Equipment | \$219.73          |
| 7/2/15   | Lowe's                      | Return, drill set, wrench                       | Tools and Equipment | -\$44.96          |
| 7/2/15   | VT Surplus                  | Wood, volley ball net                           | Supplies            | \$60.00           |
| 7/6/15   | Heaveners                   | Wrenches, nuts, bolts, screws, pre-mix concrete | Tools and Equipment | \$43.15           |
| 7/7/15   | Heaveners                   | Screws, cement                                  | Supplies            | \$38.23           |
| 7/7/15   | Heaveners                   | Return, pre-mix concrete                        | Supplies            | -\$16.17          |
| 7/8/15   | Heaveners                   | Misc. nuts, bolts, screws                       | Supplies            | \$7.15            |
| 8/10/15  | Growers Supply              | Irrigation timer, thermometer                   | Tools and Equipment | \$113.04          |
| 8/4/15   | Pestproducts.com            | Intice 10 Perimeter Bait                        | Supplies            | \$42.19           |
| 8/5/15   | Heaveners                   | Diatomaceous earth, pliers, hose valve,         | Supplies            | \$38.55           |
| 8/12/15  | Heaveners                   | Propane tank and fill                           | Supplies            | \$47.68           |
| 8/19/15  | Heaveners                   | Ground fault receptacle for packing shed        | Supplies            | \$15.99           |
| 8/19/15  | Blacksburg Feed and Seed    | Fescue, ryegrass, clover                        | Seeds               | \$463.00          |
| 9/17/15  | Kencove Farm Fence Supplies | Electric fence supplies                         | Supplies            | \$203.25          |
| 9/21/15  | Heaveners                   | Extension cord, clamps for brusher washer       | Supplies            | \$28.48           |
| 9/22/15  | Heaveners                   | PVC fittings for brusher washer                 | Supplies            | \$37.94           |
| 10/10/15 | Tractor Supply              | Rubber boots                                    | Tools and Equipment | \$165.66          |
| 10/10/15 | Home Depot                  | Soap, allen wrenches                            | Tools and Equipment | \$34.16           |
| 10/28/15 | ULINE                       | Mesh potato sacks                               | Supplies            | \$111.37          |
| 12/4/15  | Fleet Services              | Fuel-Hahn garden dump truck use                 | Fuel                | \$20.86           |
| 12/5/15  | Home Depot                  | Air compressor, tow bar                         | Tools and Equipment | \$166.85          |
| 12/5/15  | Lowe's                      | Air tools, ratchet straps                       | Tools and Equipment | \$136.80          |
|          |                             |   | <b>Total</b>        | <b>\$6,540.55</b> |

### 2015 Dining Services Summer Farm Staff Salaries

| Employee (names withheld) | # Days worked | # Hours Worked | Hourly Rate (Salary/2080) | Summer Salary |
|---------------------------|---------------|----------------|---------------------------|---------------|
| NW                        | 21            | 168            | \$10.00                   | \$1,680.00    |
| NW                        | 27            | 216            | \$10.00                   | \$2,160.00    |

|                     |            |             |           |                    |
|---------------------|------------|-------------|-----------|--------------------|
| NW                  | 33         | 264         | \$10.03   | \$2,647.92         |
| NW                  | 43         | 344         | \$10.20   | \$3,508.80         |
| NW                  | 34         | 272         | \$10.22   | \$2,779.84         |
| NW                  | 36         | 288         | \$10.75   | \$3,096.00         |
| NW                  | 36         | 288         | \$10.92   | \$3,144.96         |
| NW                  | 34         | 272         | \$11.25   | \$3,060.00         |
| NW                  | 37         | 296         | \$11.53   | \$3,412.88         |
| NW                  | 27         | 216         | \$11.53   | \$2,490.48         |
| NW                  | 34         | 272         | \$11.73   | \$3,190.56         |
| NW                  | 36         | 288         | \$12.90   | \$3,715.20         |
| <b><u>Total</u></b> | <b>398</b> | <b>3184</b> | <b>--</b> | <b>\$34,886.64</b> |

### 2015 Standing Order Invoice Sheet

DATE: [ ]

| Crop                     | First Week Available | Units needed per week (in lbs) |          |          |        |         |       |  | This Week | Next Week | In two Weeks  | Notes     | Available Per Week |
|--------------------------|----------------------|--------------------------------|----------|----------|--------|---------|-------|--|-----------|-----------|---|-----------|--------------------|
|                          |                      | Owens                          | West End | Dietrick | Turner | Squires | Total |  |           |           |   |           |                    |
| Beets                    | 9/3                  | 30                             | 0        | 0        | 20     | 0       | 50    |  |           |           | Owens would like 30 lbs every other week.                       | 50 lbs    |                    |
| Broccoli                 | 10/1                 | 0                              | 70       | 0        | 0      | 0       | 70    |  |           |           |   | 100 lbs   |                    |
| Carrots                  | 25-Sep               | 40                             | 45       | 0        | 0      | 0       | 85    |  |           |           | Owens Carrots on a needed basis                                 | 100 lbs   |                    |
| Cauliflower              | 15-Oct               | 0                              | 100      | 0        | 0      | 0       | 100   |  |           |           |   | 100 lbs   |                    |
| Garlic                   | 7/15                 | 10                             | 120      | 10       | 10     | 0       | 150   |  |           |           | Should last 6 weeks or so                                       | 120 total |                    |
| Greens, Collards         | 15-Aug               |                                |          |          |        |         |       |  |           |           | Dietrick 100 lbs every four weeks                               | 200 lbs   |                    |
| Greens, Kale             | 15-Aug               | 50                             | 0        | 100      | 100    | 0       | 250   |  |           |           |   |           |                    |
| Greens, Swiss Chard      | 15-Aug               |                                |          |          |        |         |       |  |           |           |   |           |                    |
| Head Lettuce             | 15-Aug               | 0                              | 0        | 0        | 50     | 140     | 190   |  |           |           |   | 210 lbs   |                    |
| Lettuce Mix              | 1-Oct                | 15                             | 0        | 0        | 30     | 0       | 45    |  |           |           |   | 50 lbs    |                    |
| Pepper, Carmen           | 3-Sep                | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   | 75 lbs    |                    |
| Pepper, Green Bell       | 15-Aug               | 20                             | 0        | 0        | 0      | 0       | 20    |  |           |           |   | 150 lbs   |                    |
| Pepper, Poblano          | 15-Aug               | 35                             | 0        | 0        | 40     | 0       | 75    |  |           |           |   | 75 lbs    |                    |
| Pepper, Red Bell         | 15-Aug               | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   | 75 lbs    |                    |
| Potatoes, Fingerling     | 15-Aug               | 75                             | 0        | 200      | 50     | 0       | 325   |  |           |           |   | 100 lbs+  |                    |
| Potatoes, Kennebec       | 15-Aug               | 75                             | 0        | 0        | 300    | 0       | 375   |  |           |           | Note: Owens would like a 3 week rotation of 75 lbs of 1 variety | 100 lbs+  |                    |
| Potatoes, Red            | 15-Aug               | 75                             | 0        | 0        | 0      | 0       | 75    |  |           |           |   | 100 lbs+  |                    |
| Power Greens Mix         |                      | 0                              | 40       | 0        | 0      | 0       | 40    |  |           |           |   |           |                    |
| Spinach                  |                      | 15                             | 0        | 0        | 0      | 0       | 15    |  |           |           |   | 15 lbs    |                    |
| Summer Squash, Zucchini  | 3-Sep                | 0                              | 65       | 0        | 0      | 0       | 65    |  |           |           |   |           |                    |
| Sweet Corn               | 15-Jul               | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   |           |                    |
| Sweet Potatoes           | 25-Sep               | 75                             | 0        | 250      | 400    | 0       | 725   |  |           |           |   | 100 lbs+  |                    |
| Tomatoes, Cherry         | 15-Aug               | 15                             | 0        | 0        | 0      | 0       | 15    |  |           |           |   | 10 lbs    |                    |
| Tomatoes, Roma           | 15-Jul               | 15                             | 0        | 0        | 200    | 0       | 215   |  |           |           |   | 200 lbs   |                    |
| Pumpkins & Gourds        | 15-Sep               | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   |           |                    |
| Winter Squash, Acorn     | 3-Sep                | 0                              | 0        | 100      | 0      | 0       | 100   |  |           |           | Dietrick Acorn 1 per 3 weeks                                    |           |                    |
| Winter Squash, Buttercup | 10-Sep               | 15                             | 25       | 50       | 0      | 0       | 90    |  |           |           | Dietrick Buttercup 1 per 3 weeks                                |           |                    |
| Winter Squash, Butternut | 3-Sep                | 20                             | 0        | 250      | 50     | 0       | 320   |  |           |           |   |           |                    |
| Winter Squash, Red Kuri  | 10-Sep               | 15                             | 25       | 50       | 15     | 0       | 105   |  |           |           |   |           |                    |
| <b>Fruits:</b>           |                      |                                |          |          |        |         |       |  |           |           |   |           |                    |
| Peaches                  | 1-Jul                | 100                            | 0        | 0        | 200    | 20      | 320   |  |           |           |   | 300 lbs+  |                    |
| Apples, Gala             | 15-Aug               | 200                            | 0        | 0        | 0      | 20      | 220   |  |           |           |   | 150 lbs+  |                    |
| Apples, Jonah Gold       | 30-Sep               | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   | 150 lbs+  |                    |
| <b>Herbs:</b>            |                      |                                |          |          |        |         |       |  |           |           |   |           |                    |
| Cilantro                 | 15-Aug               | 5                              | 5        | 5        | 3      | 0       | 18    |  |           |           |   | 30 lbs    |                    |
| Chives                   | 15-Aug               | 0                              | 0.5      | 0        | 0      | 0       | 0.5   |  |           |           |   | 1 lbs     |                    |
| Dill                     | 15-Aug               | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   |           |                    |
| Lemon Balm               | 15-Aug               | 0                              | 0        | 0        | 0      | 0       | 0     |  |           |           |   | 3 lbs     |                    |
| Oregano                  | 15-Aug               | 0.5                            | 0        | 0        | 0      | 0       | 0.5   |  |           |           |   | 2 lbs     |                    |
| Parsley                  | 15-Aug               | 5                              | 5        | 4        | 1      | 0       | 15    |  |           |           |   | 15 lbs    |                    |
| Sage                     | 15-Aug               | 0                              | 0.5      | 0        | 0      | 0       | 0.5   |  |           |           |   | 2 lbs     |                    |
| Thyme                    | 15-Aug               | 0.5                            | 0.5      | 0        | 0      | 0       | 1     |  |           |           |   | 2 lbs     |                    |

Shaded means look at notes, because it may not be expected every week!