

# GVSU Sustainable Agriculture Project

2016  
Review



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Farm Manager

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Seeds

**The season starts with seeds in the greenhouse and this year we were lucky to utilize the new space in Kinshi hall of science. The modern facilities allow for the optimal conditions for seeds to germinate and begin their life at Grand Valley.**



**While the greenhouse on campus provides an optimal conditions, the hoophouses still allow us to extend the season. One of the first crops we plant in the year are carrots. Carrots are very cold hardy and don't mind the frigid**



**conditions of February. The carrots were ready to harvest at the end of April, just in time for our CSA season! Ctrl + Click the image to check out a Youtube video.**

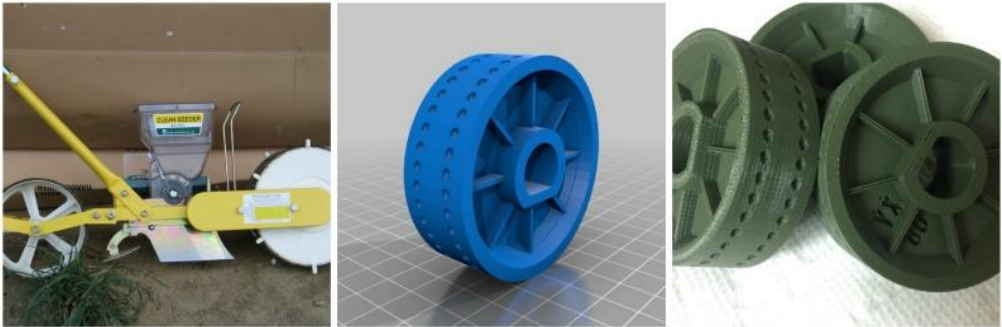
**This spring, we partnered with the Women's Leadership House (now the Gender Justice House) to create seed bombs! Seed bombs are a weapon of mass creation. Seeds, wildflowers in this instance, are covered with clay and a little bit of compost, providing protection from being eaten by critters and nurturing the conditions for growth.**



**What was a bare field is now covered with wildflowers, providing habitat for beneficial organisms and food for our honeybees.**



**The Jang Seeder is a modern tool we use on the farm to precisely plant seeds into the soil. The seeder has modular rollers which help adaptable to the various shapes and sizes of seeds. With the help of our 3D printer in the library, we even printed our own!**



## Soil

Healthy soil is the key to growing healthy plants. At the SAP we place a special emphasis in creating good structure rich with biological life. Our BCS Walking tractor has proved to be invaluable this year managing and making productive use of our 4 acres. The machine has various attachments, including a fall mower and rotary plow (pictured), which are used to clear existing vegetation and make raised beds for planting.



The Sustainability Reinvestment Fund has been established through the contributions of various departments and auxiliaries including: Finance and Administration, Campus Dining, University Bookstore, Student Senate, and the Office of Sustainability Practices. Faculty and students will have access to grants for sustainable development projects both on campus and in the community. The goal of the fund is to support projects that can be replicated across the university, working in support of GVSU's goal of becoming a national leader in sustainable practice. To find out more, visit the Office of Sustainability Practices

[Website](#)

The BCS walking tractor allowed us to prepare ground for a willow biomass experimental plot. Professor Erik Nordman and intern, now alumni, Matt Dejonge received funding from the *SAP Grant* to test four willows on their ability to store carbon energy in the form of biomass.

The willows were planted from cuttings the size of a pencil grew up to 7 foot tall this growing season. In the winter we will cut the stems to ground, stimulating the willows to coppice, or grow multiple stems, which will be allowed to grow for 3 years, after which they will be 15+ ft tall and incredibly dense . We will then harvest the material, which can be used for structures, compost, or to heat our hoopouses in the winter!





# Flowers

Each year more flowers bloom at the SAP. A new addition to the flower family was dahlias and they are here to stay. Dahlia's have such amazing variation, ranging from giant yellows blossoms, to small dark flowers and everywhere in between.





Dahlias are used along with several other flowers, including zinnias, cosmos, and daisies to create bouquets to share. Making bouquets like mixing arch, architecture and biology and are fun to make with students. Next year we are considering a flower delivery service. If you are interested in weekly flower deliveries, send an email to [SAPmanager@gvsu.edu](mailto:SAPmanager@gvsu.edu)



The flowers brighten people's day and the best part about growing flowers, is giving them away!



# Community Garden

**This year the Farm Club received a funding award from student senate to revitalize our community garden. The original pine boards were giving way and were replaced with rot resistant cedar. The beds were also re-orientated, expanded, and 4 new plots were established.**



**More than just raised beds, the community garden provides a physical space for friends to work together and enjoy the beauty of the farm!**



## Tools and Techniques

At the SAP we use a variety of tools and appropriate technology to make sustainable agriculture happen. This year, we put on a workshop in the spring to show others what we use and why. To the right, Austin demonstrates some of our new tools, including a broadfork, jang seeder, tilther and a scythe. Below, Chloe uses a tool called a quick greens harvester, which uses a battery powered drill to quickly harvest salad greens. In the right context, this simple tool has increased our harvest efficiency of greens by nearly 2000%







## Irrigation

As part of our irrigation workshop we designed a new sprinkler system for our production field. The sprinkler system is modular and built using conventional underground sprinkler components.

## Interplanting

A core strategy at the SAP is to use the principles of nature to help do the work for us.

In nature, a diversity of organisms work with each other, each occupying a different niche. No species gets out of control thanks to the checks and balances of predators and prey.

Another pattern in nature is the soil is rare bare. Leaving bare soil on the farm provides the conditions for weeds to colonize. By intentionally interplanting species, we fill the function weeds would otherwise occupy, while optimizing our resiliency and productivity.



*Pictured (clockwise) Onions and Lettuce, Carrots and Tomatoes, Cosmos and daisies, Tomatoes and Basil, Sungold Cherry Tomatoes and Calendula*

# Trees

**Two years ago we started a tree nursery at the SAP.**



**This fall we began digging up the trees and planting them into a food forest. With many helpful hands, we planted over 100 apple, chestnuts, plums, and more.**

**Cullin Flynn received a SAP grant for additional supplies for the planting**

**He is researching the role of language in the experiential education of volunteers.**





**The trees are also interplanted with strawberries, mint, raspberries, clover and wildflowers.**



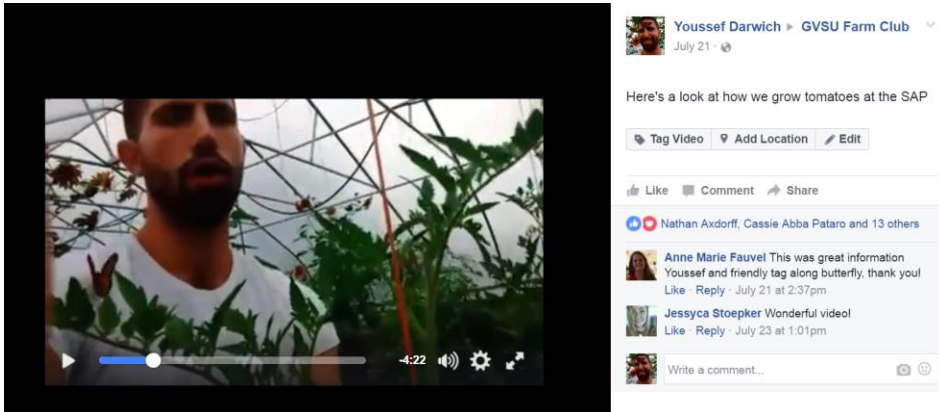
**These trees are an investment into the landscape and will provide ecological, social and economic capital for years to come.**



## Season Extension

Our hoophouses at the SAP allow us to passively store the sun's energy to extend the growing season, allowing us to stay active nearly year round.

They also provide great summer growing conditions for our tomatoes. Here's a video from Youssef on how we grow our tomatoes



A new addition to our larger hoophouses this year – a caterpillar tunnel, funded by the SRF and constructed by ENS 492. These structures are quick to assemble and provide light protection at the beginning and end of the season.



Even so, sometimes in the winter there are down times and we always leave room for a little fun at the SAP.



## Fresh Produce

**At the SAP we pride ourselves with producing the high quality, fresh produce by taking care of our soil and tending to the unique biology of each crop.**

**We never spray chemical pesticides and, instead, rely on biology to create great tasting, healthy food to share with our community.**



**The health and safety of our customers is a top priority and we take this commitment very seriously by adhering the guidelines in the Michigan Safe Food Risk Assessment. Our through washing system keeps dirt on the farm and food safe to eat.**



## Crop Focus: Salad Greens

Salad Greens have become a main crop on our farm. With the help of our hoop houses we can grow an abundance of tender veggies early in the spring and late into the fall. This year we experimented with a new variety called “Salanova” with great success!



This year we experimented with expanding our salad mixes to include edible flowers. Check out this facebook below of Austin, one of our interns, talking about the different flowers we use!





# Farmer's Market

The farmer's market is our primary way of sharing our produce.



From June through October our stand at the market allows us to meet customers and tell our story. The farmer's market is also highlighted as part of GVSU wellness initiative



# Community Supported Agriculture

**Our Community Supported Agriculture program allows members in our community to taste the season, by getting a weekly share of fresh vegetables. We offer three 10 week sessions throughout the growing season and we even offer campus delivery!**

**You can sign up for our 2017 CSA [by clicking here:](#)**



## Campus Dining

**Our partnership with campus dining brings the farm into the cafeteria. We especially aim to work together for special meals, such as earth day in the spring and monthly international meals.**



## Donations

**As we are blessed with an abundance of produce, we are eager to share with those in need. This includes our student volunteers and to Replenish, our campus food pantry.**

**This summer, we even had a group of GVSU Nursing students take our produce downtown to the Other Way Ministries, where they put on cooking demonstrations**





## Harvest Party

The annual Harvest Party is the biggest day of the year on the farm.

This year nearly 100 GVSU community members joined for a meal, live music, and conversation in a celebration of an abundant season.



## Fresh From the Garden

Our "Fresh From the Garden" events takes bringing students to the GVSU farm so they can see exactly where food comes from—from the soil to the table. Participants walk the fields, harvest the food and cook it together, all in a matter of a few hours.

"This event is about going out, seeing what's there, and making a dish out of it," Professor McFarland said. "It's about getting in touch with the land that grows their food so people feel comfortable with a range of food activities."



## Farm Club

**Farm Club is a student organization with close ties to the SAP. The group is dedicated to promoting the social, economic, and ecological benefits of sustainable agriculture practices.**

**They facilitate several events throughout the year, including student life night, film screenings, workshops, volunteer days, and field trips.**



**The Farmer Olympics are an annual event put on by the West Michigan Grower's Group, where teams compete in friendly farm related challenges. This year, a group from Farm Club represented the SAP.**



## Classes

**The SAP is a living learning space and, as such, many classes take advantage of the farm by hosting classes and group projects at the SAP. Nearly every discipline has a place at the SAP and we welcome new additions. In 2016, we were happy to host the following classes.**





**ENS 492 Sustainable Agriculture  
Practicum**

Amy McFarland

**BIO 319 Global Agriculture  
Sustainability**

Sheila Blackman

**LIB 310 Creativity**

Elizabeth Kilbourne

**WGS 335 Women Health and the  
Environment**

Julia Mason

**ENS 201 Intro to Environmental  
Studies**

Kelly Parker, Amy McFarland

**BIO 104 Biology for 21st Century**

Paul Keenlance

**CHM 311 Green Chemistry**

Kristina Mack

**HON 280 Social Product  
Innovation**

Nancy O’Niel

**HON 280 Food for Thought**

Amy McFarland

**NUR 317 Clinical Nursing II**

Amy Manderscheid

**IDS 180 Sustainability as a Lifestyle**

Yumi Jakobcic

**LIB 342 Food Matters**

Anne Marie Fauvel

**LIB 330 Idea of Nature**

Sarah King

## Student Projects and Research

Student initiative is at the heart of what drives our success at the SAP. Here are some projects students worked on at the

**Honey Bees** – Emily Nordyke conducted an S3 project looking at the availability flowers for bees to forage throughout the year by collecting and identify pollen from our bee hives.

**Soil** – Mike Milaski conducted a 2 year S3 experimenting the effects of compost as a soil amendment and clover as a living mulch in our research plots.

**Place making** – Skyla Snarks looked at how having a community garden plot or regularly volunteering at the SAP impacted students sense of place.  
Independent Studies

**Willow** – Matt Dejonge helped establish the willow research plots with Professor Erik Nordman. This project was funded by the SAP grant through the Office of Undergraduate Research

**Experiential learning** – Cullin Flynn is explored the effect of both technical and metaphorical language in the experiential learning of students while planting trees at the farm. This project was funded by the SAP grant through the Office of Undergraduate Research

**Broadcasting** – Joshua Vissers created this video of a Friday in the late fall at the SAP. [Click here to watch](#)



## The Wesley House

The Wesley house is a shared space between the SAP and the Wesley Fellowship. Greg Lawton, Director of Wesley at GVSU, acts as the landlord to our student interns and helps collaborate on events. This spring, Wesley and the SAP collaborated with a series of eco-spiritually discussions, connecting food faith and farming.



## Faculty and Staff

The SAP received support and guidance from a number of faculty and staff at the University. This includes the essential support from:

The SAP Advisory Committee

Facilities Services

Brooks College of  
Interdisciplinary Studies

Office of Sustainability  
Practices

Office of Undergraduate  
Research

Human Resources





# Group Volunteering

Every year we host a number of group volunteering and from all parts of our community. This year we were happy to see:

**Rotary Club**

**Spring and Fall Make a Difference Day groups**

**Omega Delta Kappa**

**Women's Leadership House**

**G. R. Ford Jobs Corp Center**



# Visitors

In addition to volunteer days, we also welcome visitors to come and experience the farm.

**OAISD Career Line Tech**  
**Allendale Elementary School**  
**Camp Optimist**  
**West Michigan Growers Group**  
**Continental Dairy**  
**Bayer**  
**Kellogg**  
**COCOA compost**  
**Ottawa Conservation District**  
**Northern Central Michigan College**  
**Dickenson Elementary**



## Spotlight: I Challenge Uth

For the second consecutive year, a group of middle schoolers spend the week



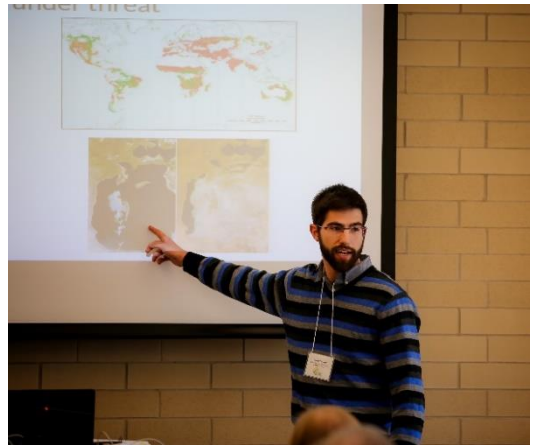
at the SAP as part of OAISDs I Challenge Uth Program. Teams are charged with solving a problem for their host organization and this year the SAP team attempted to find ways to effectively get our produce to students on campus. The students devised bicycle pulled mobile-market, to go around campus and sell veggies

in hotspots at peak time They also came up with the idea to have veggie kits, a salsa kit for example, of proportioned ingredients to make an easy dish.

## Presentations

In addition to on farm adventures, we also shared our story at

West Michigan Sustainable Business Forum,  
Ottawa Conservation District,  
Natural Resource Conservation Service,  
GRPS City High,  
Allendale High School Career Fair,  
Stem-o-sphere, Grand Rapids Public  
Museum,  
Sustainability Spotlight





# In The News

Wood TV Profiled research based at our beehives at GVSU.



The SAP was the cover story for the winter 2015 edition of the Journal for Educational Procurement.



Both [Youssef](#) and [Austin](#) visited Shelly Irwin this year at WGUV.

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## Sustainable Community Voices

By SHELLEY IRWIN • APR 20, 2016

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Sustainable Community Voices with Youssef Darwich and Eddie Tadlock.

Sustainable Community Voices is a monthly conversation on topics related to sustainability. Today, our guests are Youssef Darwich, GVSU's Sustainable Agriculture Project Farm Manager and Eddie Tadlock.

Sustainable Community Voices  
CREATED: APRIL 2016. ART: ILLUSTRATION BY WOODSTOCK. PHOTO: COURTESY OF WOODSTOCK.

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## Thankful Thursdays

By SHELLEY IRWIN • JUL 21, 2016

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Austin VanDyke is our special guest for this installment of Thankful Thursdays.

Thankful Thursdays, showing the impact of private gifts at GVSU by highlighting the generosity of University supporters. Today, Austin VanDyke, a recipient of the DeWitt Barrels Inc. Environmental Science and Natural Resources Management Scholarship is our special guests.

TAGS: [SCHOLARSHIPS](#) [SCHOLARSHIP PROGRAMS](#)

## Interns

Our interns are at the heart of all work and vision of our work at the SAP. With their extra responsibility to care for the farm, they are given the freedom to choose their path. [Click here to apply!](#)

**Renee Tardani, Plant Biology**

**Matt Dejonge, Natural Resource Management**

**Alejandra Castro, Liberal Studies**

**Austin Vandyke, Natural Resource Management**

**Sam Bender, Natural Resource Management**

**Chris Galbraith, Plant Biology**

**Chloe Ross, Natural Resource Management**

**Andrijka Macko, Liberal Studies**

**Ben Lachman, Natural Resource Management**

**Jennie Stevenson, Animal Biology**

**Cassie Pataro, Public Non Profit Administration & Liberal Studies**



## Student Spotlights



**Josh Lycka, a GVSU alumni and one of the original students who started the community garden, is now teaching agriculture as part of a Peace Corp program in Paraguay.**

Dana Eardley, a past intern and co-author of the [SAP handbook](#), spent her final semester in Detroit as part of the [collaborative program](#) between GVSU and MSU. Dana's internship is at D-Town Farm, a program of the Detroit Black Community Food Security Network.



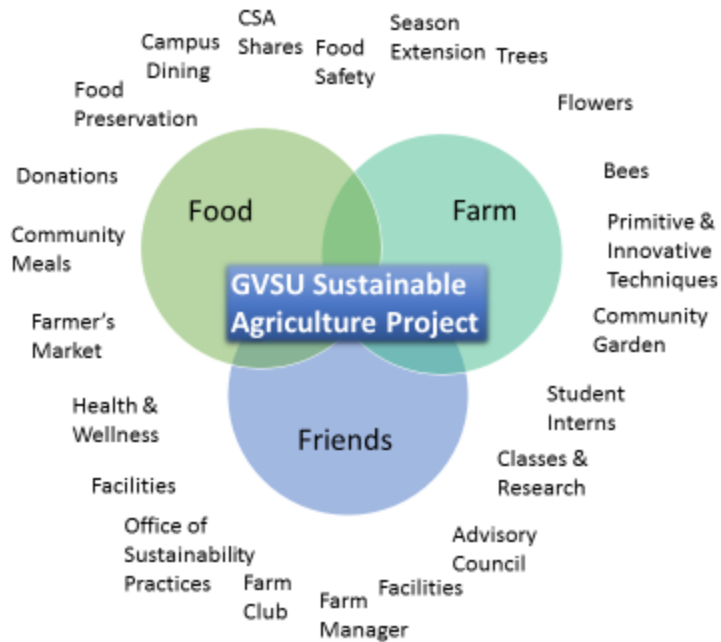
Austin Vandyke is the serving president of Farm Club and was awarded our Dave Feenstra Lead Intern Award, in honor for our late Farm Manager, for his active role in our community. As president of the Farm Club, he has helped organize fellow students to take action. [[You can give to the Dave Feenstra Lead Intern Fellowship [here](#)]]



Lamont Arlington will be a new intern new semester working with Youssef and others to put on a podcast and video series. At our Harvest Party Lamont earned his spot in the SAP hall of fame by writing over 30 custom poems!







# Thank You

**Gvsu.edu/SustaianbleAgProject**

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