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GVSU Sustainable Agriculture Project: Composting

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S.A.P. Composting Project

Jillian Ashton

Nicholas Keller

Eric Vaitkevicius

Benjamin Walling



Our Community Partner

Started by just six students back in 2008, the S.A.P. (Sustainable Agricultural Project) has exploded over the years, promoting sustainable food practices. Not only are they cultivating food, the S.A.P. fosters a place for learning, leadership, and community.

Farm Manager - Youssef Darwich

Problem Statement

Currently, the S.A.P. (Sustainable Agricultural Project) has a working composting pile that isn't reaching its full optimization potential, due to a lack in systems planning. Our group has worked toward analyzing the S.A.P.'s current processes to eliminate the inefficiencies and to maximize the quality of the composting process and product.

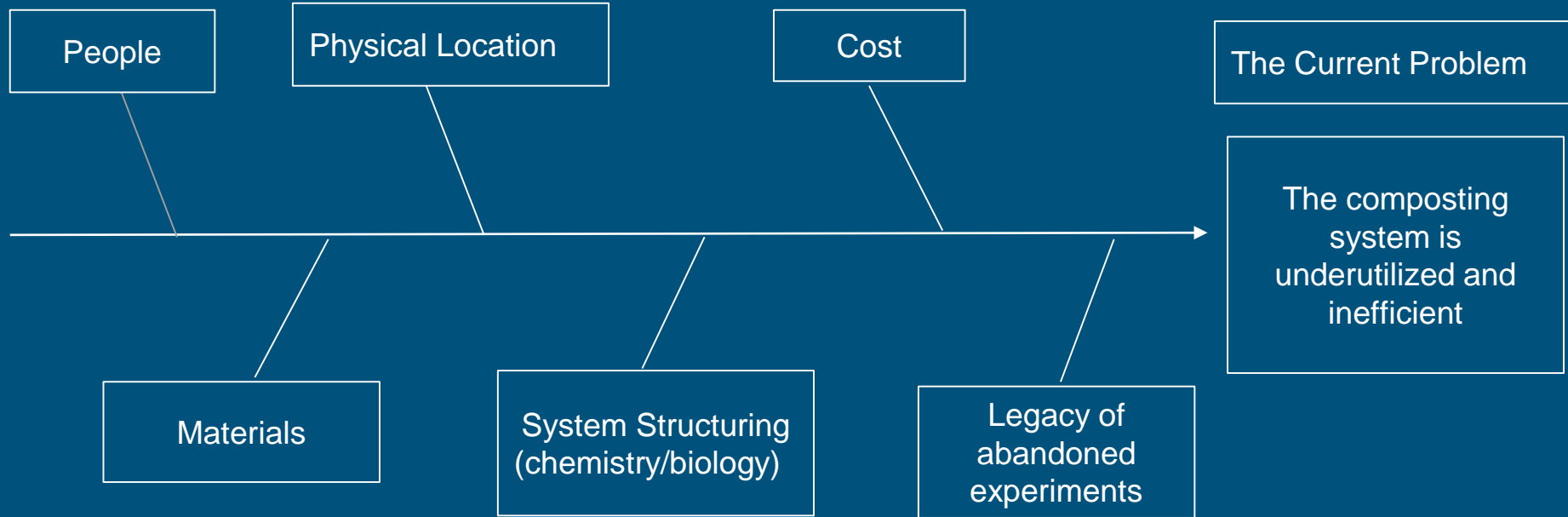
This final product will be used to inoculate the S.A.P.'s nursery and planting beds to produce higher quality produce for the community.



Image from
<https://www.bhg.com/gardening/yard/compost/how-to-compost/>

BH
&G

Problem Analysis





Stakeholder Analysis

Power Holders (Controllers of essential parts)

- S.A.P.
- GVSU
- Grant Suppliers

Saboteurs (those who will cause delays)

- Grant Suppliers
- S.A.P. Crew Members

S.A.P. Composting Project

Beneficiaries

- S.A.P.
- GVSU Allendale Campus
- GVSU educational programs

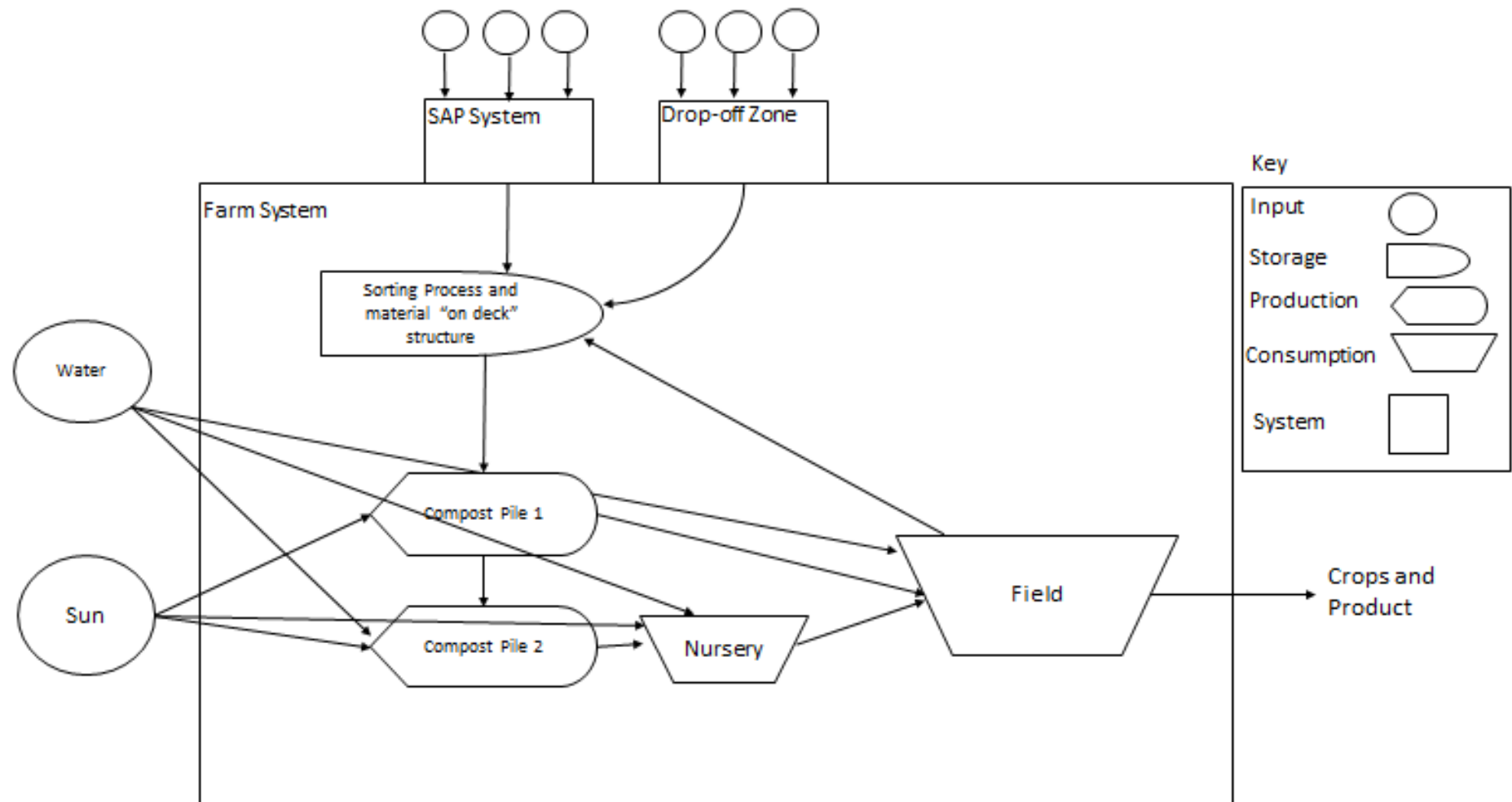
Adversely Affected

- Nobody

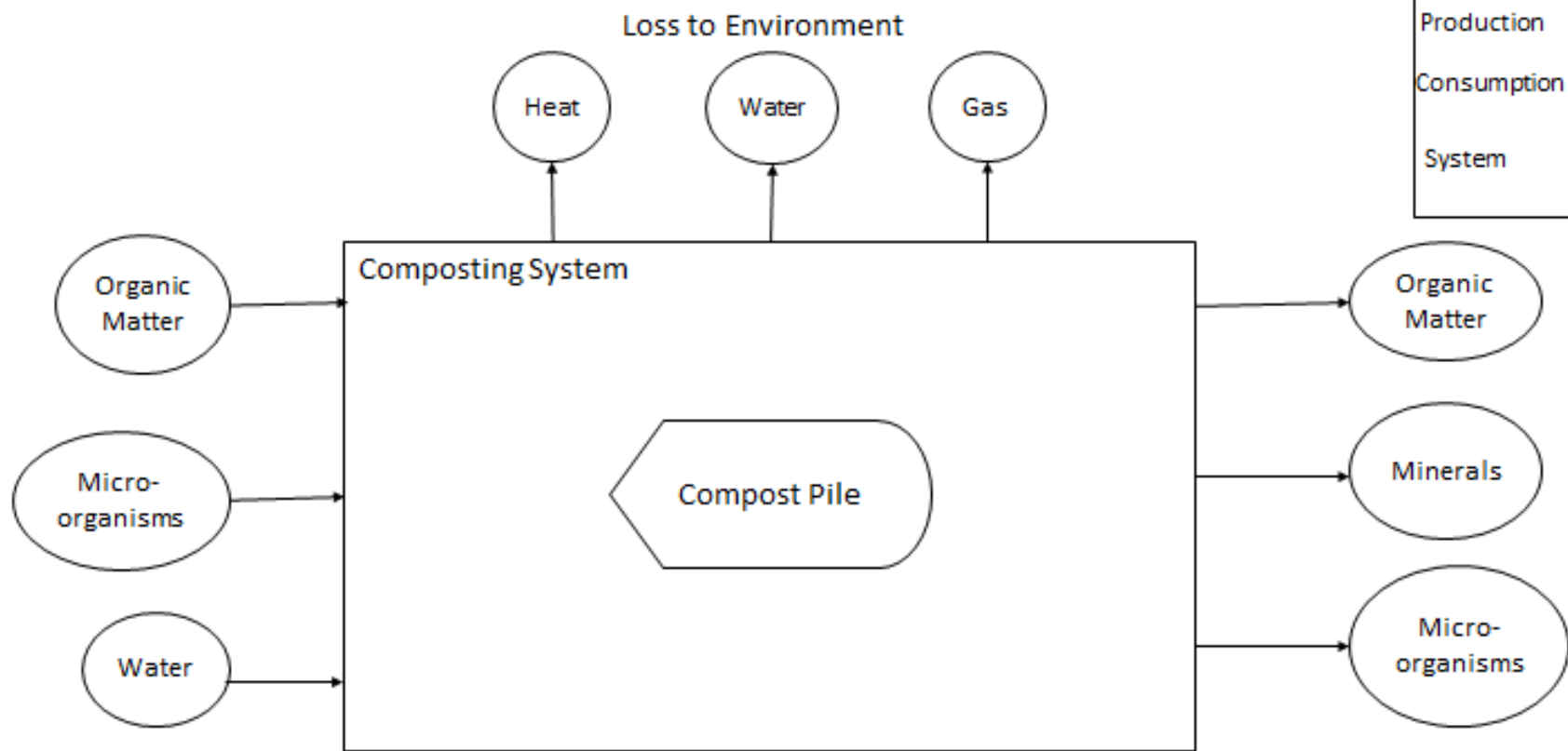
Early Advocators

- S.A.P. members
- Student Environmental Coalition
- Beekeepers Club
- Farm Club

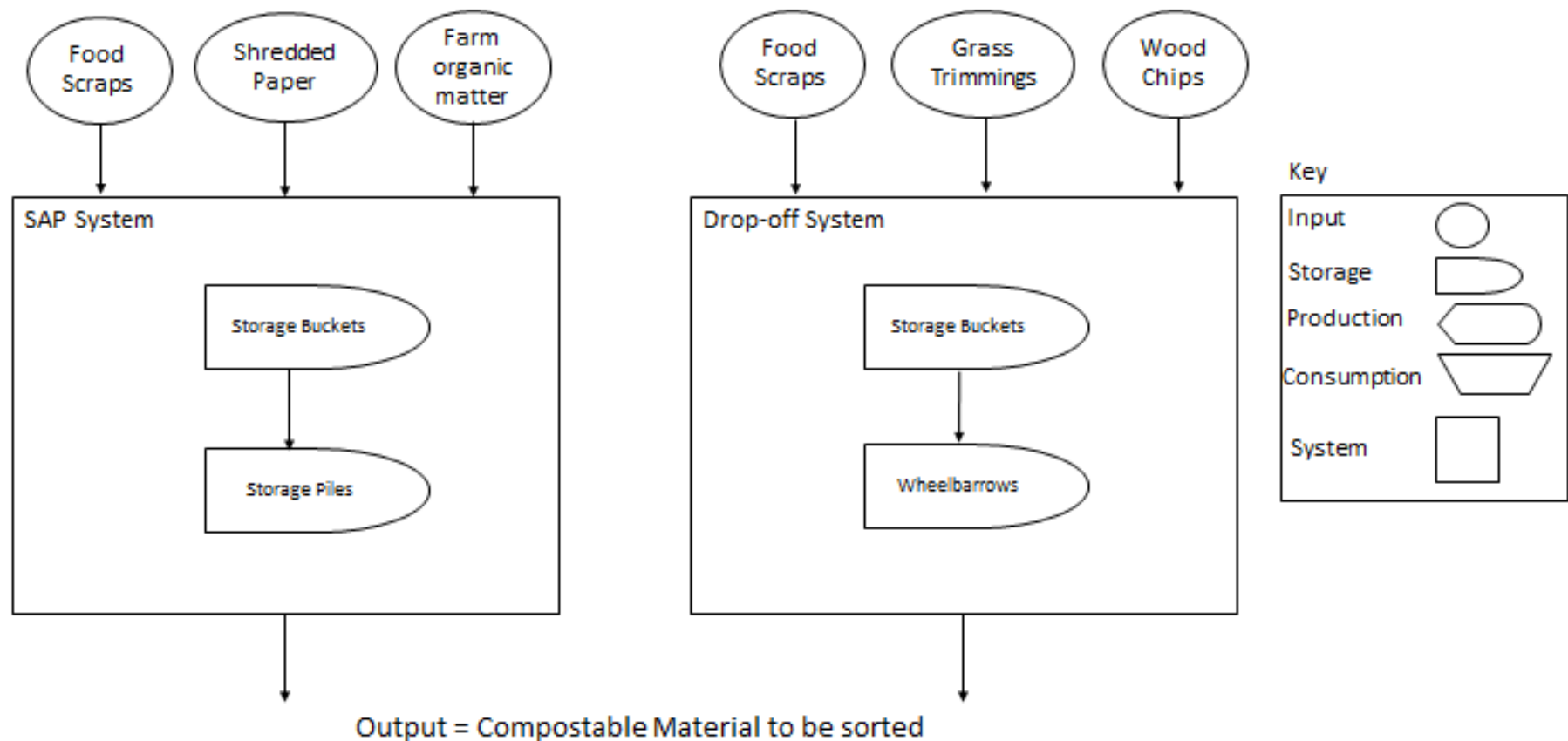
Macro-View



Composting System



Inputs System





Luce St

Luce St

Luce St

Luce St

Luce St

GVSU Sustainable
Agriculture Project

Image
from
Google
Earth

Overall Problems

- Moving the current compost
- Creating the drop off zone
- Getting the funds to make these things happen
- Making sure the systems continue throughout the years





Proposed Solutions

- Change the layout of the pile into long rows
- Build a second compost system that will help maximize the yield of the compost
- Build a large screen to sort out the compost



Preventing the Legacy of Another Failed Composting Project

- Bringing awareness, involvement, and knowledge about the composting project is key to its future success
 - SAP community
 - GV community + beyond
- Incorporate composting workshops for hands-on learning
 - Inspire further involvement
 - Overall understanding of the chemistry/biology that is involved



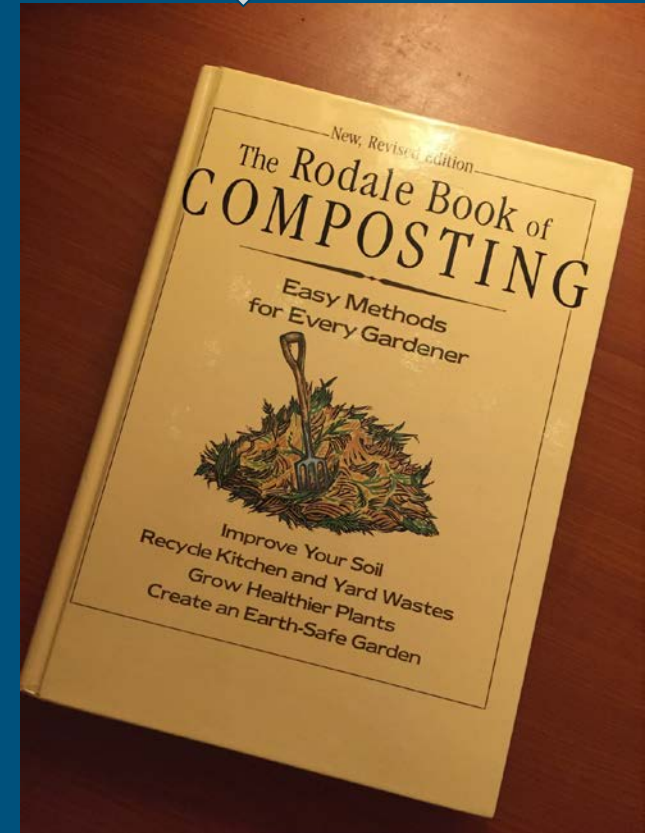
Inspired by our field trip to Urban Roots:

- Learned to view composting as a craft
 - Integration of chemistry and biology
 - Following or creating your own recipe
- Volunteering ourselves sparked this interest

Further Recommendations

- Move the compost to a different location
 - Maximize input and output
 - Close to drop-off zone
- Purchase or get a skid steer
- Hire a full time composting manager
- Focus on bringing an overall awareness/involvement to the composting project
 - Composting workshops!
- Incorporate research and intention into what is being put into the pile
 - *The Rodale Book of Composting*

Greg's "Composting Bible"



Funding

- We have applied for funding from the Sustainable Reinvestment Fund
- We are asking for \$400 for supplies



Image from <https://conscious-compost.com/designing-and-building-small-scale-asp-systems/>

Supply Requests

- PVC Glue
- PVC Adaptors
- PVC Cap
- PVC Pipe
- 2 X 4 Wood
- Plywood
- Screws
- Leaf Blower
- Compost Thermometer
- Taxes
- Unknown Expenses



Next Steps

- Wait for the results of our application for supply funds
- A transition plan for the project - SAP Intern Nick
- Make Aerated Static Pile
- Create potential job position of compost manager
 - Integrate more awareness and involvement with the composting project
- Monitor flow of compost materials, and adjust flow diagram as necessary.



Contact Information / Questions?

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