

Sustainability: How Hmong Farmers Can Bring About Sustainable Methods and Practices to Modern Agriculture

By: Shennie Lee

Spring 2018 ENVR 395

Advisors: Jean Lavigne and Derek Larson

Intro: Contemporary farmers care about how fast their crops/products can grow as well as what they should look like. To do this, they resort to pesticides, fertilizers and GMO which can potentially affect the surrounding environment by contaminating water sources and depleting the land. The Hmong people have been farming for a long time and it is their way of life. Their knowledge of the land and crops derives from an intimate relationship with the way they treat the land and crops. By treating the land with respect and non-harmful chemicals, they can sustain their family and those around them.

Research Question: What sustainable methods and practices can modern agriculture gain from Hmong farmers?

Methods: I interviewed Hmong farmers as well as CSA farmers and I asked them about the use of pesticides and fertilizers, the methods they use to plant their crops, if they are aware about climate change and if that changes their practices, where and when they sell their produce and the difference between Hmong, CSA and American farming. With these questions and data from scholarly articles, I organized a table comparing corporate, Hmong and CSA farmers and their use of fertilizers, pesticides and methods/practices.

FARMERS	METHODS AND PRACTICES
AMERICAN/CORPORATE	Use big machines such as tractors, balers, combines, plows, mowers, planters and sprayers* Crop rotation, multi-cropping, genetic engineering, pesticides, fertilizers
HMONG	Does not use heavy machines on farmland except for rototillers. Practice crop rotation. Labor intensive; use traditional farm tools to help with weeds. Use fertilizers and pesticides.
Community Supported Agriculture	Common Ground Garden at CSBSJU does not use any pesticides, herbicides or fertilizers. Implements sustainable techniques such as cover crops and drip irrigation.

Table. 1. This shows the different methods and practices between American, Hmong and CSA farmers.



Image 2. Hmong farmers use the slash-and-burn method to clear the hillside prepare for crop planting.



Image 1. The farmers market in St. Paul, MN. The farmers are sitting at their stalls selling their produce.



Image 4. The layout of a community-supported agriculture farm.



Image 3. Hmong farmer harvesting potatoes. The farmer is using their hands instead of a machine.

Results: Corporate farmers use a lot of heavy machinery to do all the work on the farm because it is efficient which means they will be able to harvest and sell their crops faster to make more money. Hmong farmers are used to working with their hands and specialized tools to help them plant their crops. They do not rely on heavy machinery to get the job done. CSA farmers are focused on health and their Relationship with the community. Their farming techniques are more sustainable.

Conclusion: By looking at the different methods and practices between corporate, Hmong and CSA farmers, I learned that Hmong farmers know about climate change and they can see and feel a difference. They are practicing to become more sustainable by implementing crop rotation and using enough fertilizers and pesticides on their crops. Corporate farmers are feeling the effects of climate change as well but with the huge amounts of pesticides and fertilizers used, they cannot take back what was done. Like Hmong farmers, CSA farmers do plant a variety of vegetables but they focus on the different types of vegetables grown. They have a direct relationship with their customers and is community oriented.

References:
 Image1: <https://i.ytimg.com/vi/w0Gw27bVC24/maxresdefault.jpg>
 Image 2: <https://journals.openedition.org/moussons/docannexe/image/1887/img-1.png>
 Image 3: <https://i.ytimg.com/vi/-eM375RrC-g/maxresdefault.jpg>
 Image 4: <https://minnesotagrown.com/wp-content/uploads/Farm-farm-winter-csa-1-1.jpg>
 Background: https://upload.wikimedia.org/wikipedia/commons/e/e6/Sembrado_de_soja_en_argentina.jpg
 *<https://articles.extension.org/pages/64614/what-are-the-different-types-of-farm-equipment>