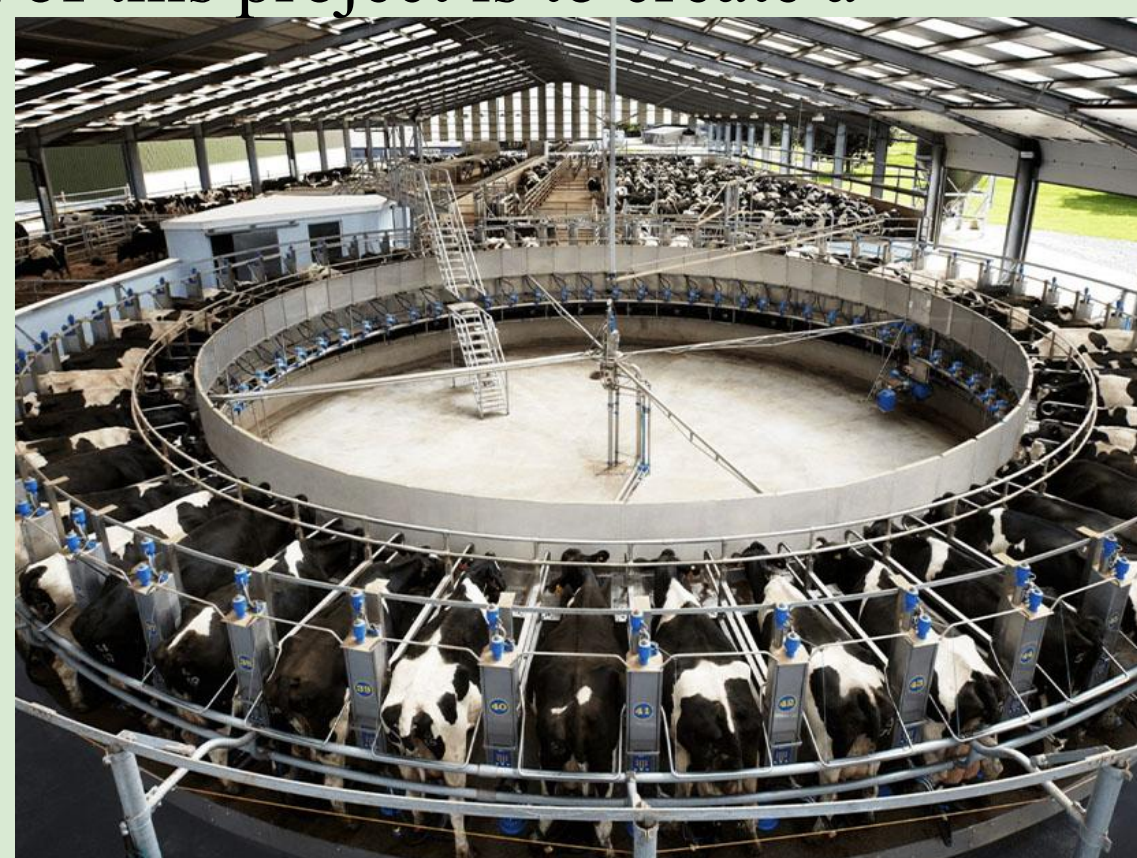


What is the Geospatial Distribution of Dairy Farms in Western New York and How Does this Distribution Compare to Documented Violations of Dairy Farmworkers' Rights?

Kerrin Cleary, State University of New York College at Geneseo

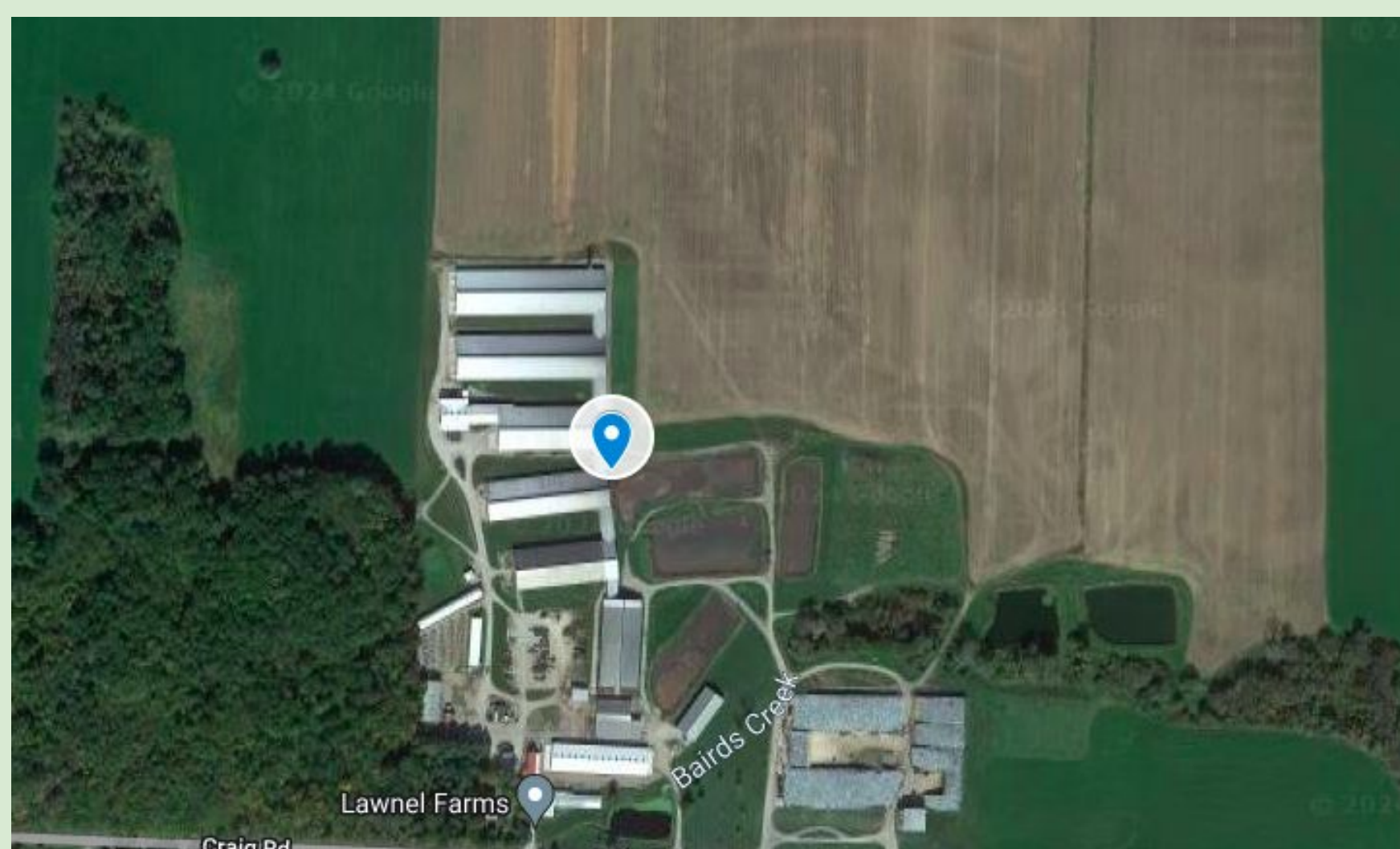
Abstract

The dairy industry in Western New York plays a crucial role in the region's economy and agricultural landscape. However, there are many injustices within the dairy industry. This project aims to map dairy farms in Western New York while discussing dairy farmer workers' rights with the goal of implementing them. The overall goal of this project is to create a transparent publicly accessible map of dairy farms expand my knowledge of farmers workers rights and how to be an advocate for them in western New York. The first step is to create a comprehensive map of dairy farms in Western New York using geospatial technology such as Google Earth Pro and Mymaps. The next step is to identify areas with a high concentration of dairy farms and analyze their socio-economic significance. The ongoing research after Great Day will be focused on dairy farmers workers rights and the geographical connection. An important aspect of this project is making the information the easily accessible information, which this is crucial to enable allow farmworkers and activists others to interpret this data for their own usage.



Objectives

- Create a comprehensive map of all dairy farms across the 8 counties of western New York
 - Many small-scale family-owned farms are not recognized by GIS technology or satellite imagery, leaving their businesses unknown
- Allow public access to this database to use the information
 - To accomplish this, I will create a guide on how to use MyMaps
 - Transparency is a huge part of this project, allowing public access to this map allows for others to use this information for their own studies and
- Further study OSHA and other farmer workers rights violations using the map
 - After GREAT Day I plan to expand my GIS research into the social sciences and connect environmental justice to what I have mapped.



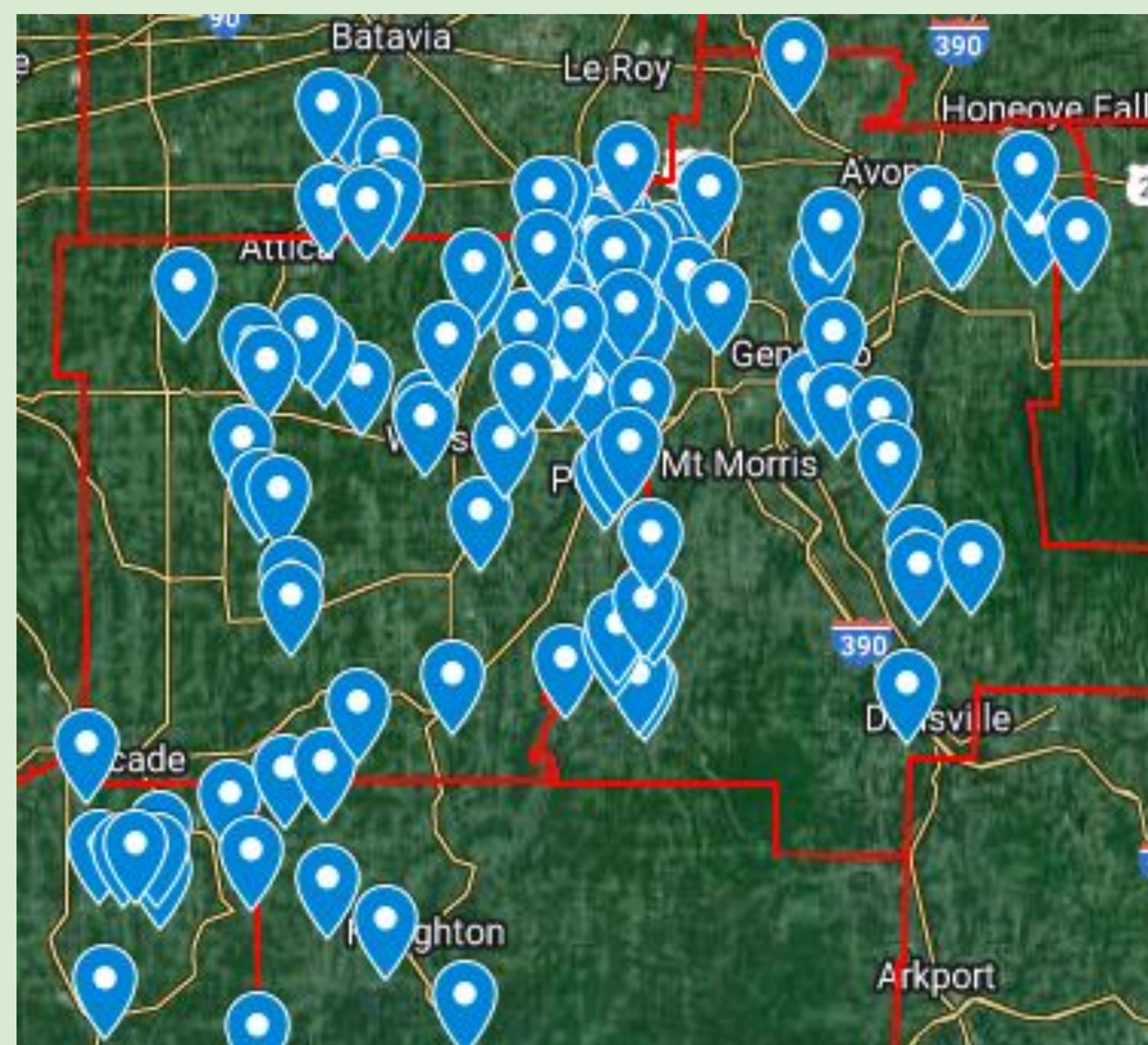
Materials & Methods

I began by expanding my knowledge on the perspective of dairy farm workers, mostly learning about how many of the workers in larger more industrial farms are immigrants. Many of these workers are hired because they can be payed less and work harder (Sexsmith, 2019). Through this research I also learned how to identify a farm, what structures make a property look like a dairy farm from the sky. From this I learned

- On larger more industrialized farms there is typically a single or multiple "cowshed/dairy shed" this is a large metal structure that houses the cows. In my experience this is a generally simple structure with a metal roof, stalls, and concrete
- Silos to hold feed, again depending on the size of the farm this can lead to no silos or multiple
- Large barn structures to hold hay
- Shed to hold machinery
- Building with industrial milking machines for larger farms, possible single milking machines for smaller farms

After having the basic knowledge of what is going on in dairy farms in Western New York the mapping began. Using the information from above I sifted through the counties of WNY looking for the telltale signs of a dairy farm and pinpointing them. Using GIS I was able to add layers to the maps like county and town lines.

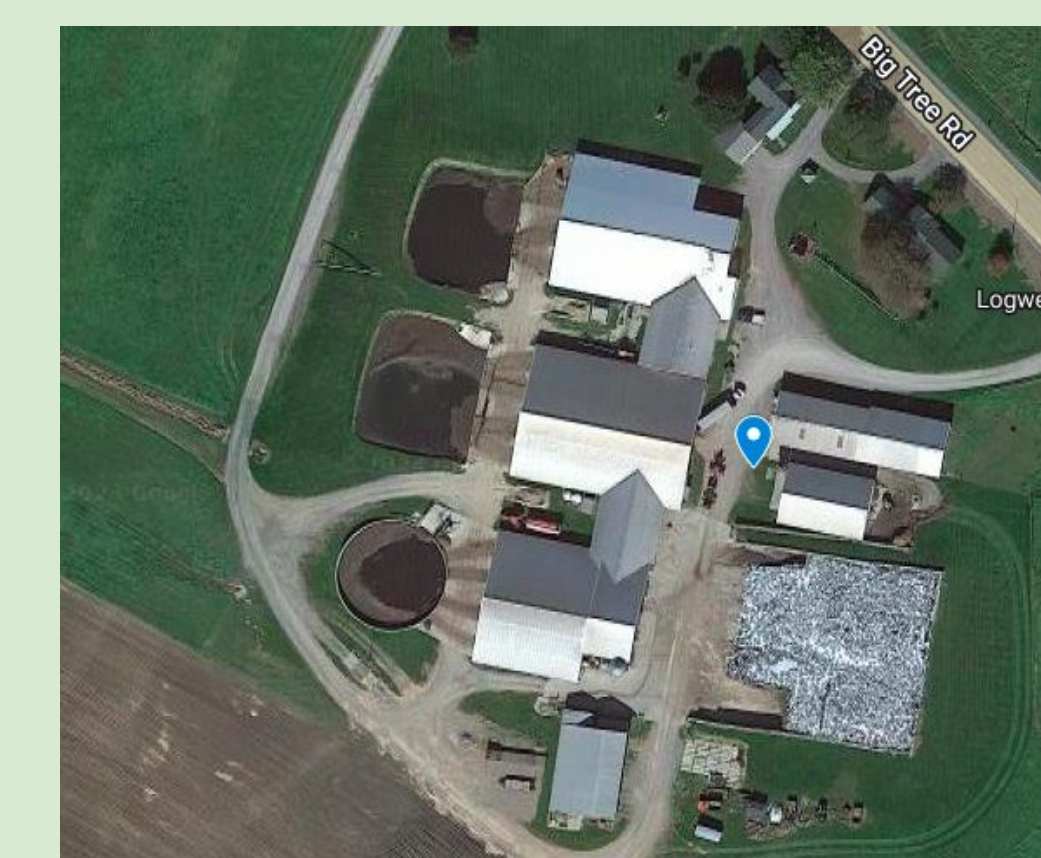
Map



Conclusion

This project has been an eye-opening experience connecting the two subjects of Geospatial Analysis and Workers Rights. The connection of these two elements allowed for a deep analysis of dairy farm workers rights and how to construct a publicly accessible map. Furthermore, the task of constructing this map allowed for prioritization of GIS while the social science research allowed for violations to be publicly known and can act as an advocating for change.

Example



This is one of the first farms I had mapped, using my knowledge of what to look for I concluded this was a good example, There are multiple areas for cattle, waste water and storage. For each farm mapped I labeled what led me to conclude it was a dairy farm.

References

- Suter, J. F., & Vossler, C. A. (2013). Towards an understanding of the performance of ambient tax mechanisms in the field: Evidence from upstate New York Dairy Farmers. *American Journal of Agricultural Economics*, 96(1), 92–107. <https://doi.org/10.1093/ajae/aat066>
- Sexsmith, K. (2019). Decoding worker "reliability": Modern Agrarian Values and immigrant labor on New York Dairy Farms. *Rural Sociology*, 84(4), 706–735. <https://doi.org/10.1111/ruso.12267>
- Renew now. *New York Agriculture*. New York Farm Bureau. (n.d.). <https://www.nyfb.org/about/about-ny-ag#:~:text=Average%20farm%20size%20is%20205%20acres%2C,up%20from%20202%20acres%20in%202012>
- Admin. (2020, October 14). What is the difference between family farms and corporate farms?. *WisdomAnswer*. https://wisdomanswer.com/what-is-the-difference-between-family-farms-and-corporate-farms/#What_is_the_difference_between_family_farms_and_corporate_farms

Acknowledgements

This project would not have been possible without Dr. Jessica Gilbert-Overland, her guidance throughout this process and her expertise made this all possible. I would also like to thank my roommates for their instant support. A special thanks must be given towards the hard working dairy farmworkers of Western New York.