

## Podcast 2

### *What are different kind of farming techniques, methods, and their impacts on the environment?*

What are different kind of farming techniques, methods, and their impacts on the environment? I will present a kind of trichotomy, of large-scale farming, medium-size farms, and small farms, and explain the origins of each. There are many different kinds of large scale farms - dairy, crop, aquaculture, poultry, and meat, to name a few (Plotnick, 2016). In particular, we'll focus on the large-scale crop farms, like the few thousand acre potato or broccoli farms in northern Maine, or fields beyond fields of corn, wheat, and barley in the midwest. These farms use methods of farming which often grow one or two different crops in their fields. The term for this is monoculture if it's just one crop year after year, and polyculture if it incorporates a crop rotation schedule, when the plants grown in one area are different every year or season, in different places on the same land year after year. Though it is a bit dichotomous to break these methods into mono and polyculture, it is effective in showing how some farms operate. Large scale agriculture, no matter its mono or poly-culture, often uses moderate to large amounts of -icides. These -icides, categorized as things like pesticides, insecticides, or herbicides, can leech into the ground or underground water aquifers, and contaminate the local ecosystem, or it can be absorbed by the plant, and have an impact on the person who is eating the product. You may have already been exposed to these different types of large-scale farming, and its human and environmental impacts through reading articles, hearing the news, or watching the popular film "Food Inc.," however, it is important to review this material and use it to compare to other types of farming.

One step below the large-scale farm size is a mid-size farm, which has been declining since the late 20th century, and only recently has been reported that there has been a 5% decrease in these kind of farms since 1992 and 2012. A mid size farm is defined by its Gross Cash Farm Income level, which is usually between \$350,000 and \$1 million, usually in acreage between one hundred to one thousand acres (Burns & Kuhns, 2016). This decrease is related to development of more efficient and effective equipment, governmental subsidies for larger farms, and the rise of larger companies contracting with farmers to lock in prices ahead of harvest, making them invest the equipment and practices of larger farms (Dephillis, 2013) . Midsize farms have been bullied out of their original niche, and given the option to increase production, or get left behind. Farms like Lakeside Family Farms in Newport, Maine, have maintained a unique identity of midsize diverse vegetable farm. For example, Lakeside finds unique ways to adapt to the dichotomous large-small farm system, selling both wholesale and to local CSA programs, or hiring inmates from a local prison as farmworkers. Midsize farms represent a unique and shrinking category, which often go unrecognized, but still play an important part in the food system.

Unlike Midsize farms, small farms have been on the rise in recent years. Small farms often produce food for CSAs, farmers markets, and local stores. Something like Colby's garden, or Veggies for All in Unity, would be considered a small farm. Many of these farms grow diverse crops, and often practice organic or natural methods of pest treatment and fertilization. These farms are defined as those with sales from \$1,000 to the mid hundreds of thousands (AJL, 2009) . In Maine, small farms are uniquely well-supported by MOFGA, Maine Organic Farmers and Gardeners Association, and have grown from a total of 7,000 to 9,000 farms in the last 15 years, according to a report released in 2013 (Berleant, 2013). This kind of farming is beneficial in decreasing energy use from transportation, packing, and storing mass

quantities of food across the country. A study in Cornell recently showed that we could reduce fossil energy used in the US food system by about 50% with simple changes in creating more local foods (Lang, 2008) . Although it is better for the environment, small farms can only do so much, and challenges still exist to who has access to the food produced at small farms, how young farmers gain knowledge and know-how, and the feasibility of actually re-structuring the food system, given political and economic foundations of the food system in larger agriculture. Small farms, despite their drawbacks, still provide an important and valued part to the food system today.

In this comparison of the different sizes of farms, I would steer away from saying that one kind of farm - small, medium, or large - is better than the other, or that we need to change what kind of farms we have. Each category of farms has its benefits and drawbacks, and each works in a system that supports, or does not support its existence in some degree. If we were to work to a model of change, it would include tremendous policy changes, and simply put, overhauls of social, political and economic structures and operations. This podcast is meant as a resource and a guide to understanding different kinds of farms, and the different practices of each, and the complicated social and political climate surrounding each.

### Works Cited

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