

The Case for Organic Farming

"Organic" farming allows only natural substances and fertilizers, while not allowing or limiting synthetic substances. It originated in the early 20th century and has been growing steadily since. In 2012, its market reached \$63 billion worldwide.^[src] In 2019, 1.5% of total farmland was used for organic farming.^[src]

Pros

No GMOs: this helps to save costs while reducing the potential risk of GMOs to the environment or to human health.^[src]

Nutrition: as found by Mayo Clinic, there are some benefits in organic food: there is higher omega-3 (heart healthy), a mild increase in nutrients, less cadmium (a toxic metal), and lower amounts of harmful pesticides.^[src]

Recycling of resources: the compost used in organic farming is made from green manure or compost. This is also beneficial for local biodiversity.^[src] Crop rotation also achieves the same effect.

Soil/water quality: organic farming lessens the likelihood of toxic chemicals entering the water supply or spilling into the soil. It can also restore soil.^[src]

Cons

Hard to set up: some smaller farmers may choose to stick to conventional farming simply because it takes a while to convert to organic farming and there are regulations to make sure they meet standards.^[src]

Time-consuming: farmers have to check on their farms more due to the lack of chemical fertilizer.^[src]

Organic pesticides: some pesticides could be harmful even if branded for organic use. Natural pesticides aren't as effective as chemical pesticides, which leads to more spraying, and more toxicity.^[src]

No GMOs: without using GMOs, organic farming loses the various genetic technologies that help to ward off pests or disease.^[src]



Verdict

I mean, look at how big the "Environmental damage" subsection is in the Cons section for conventional farming, compared to the "Organic pesticides" section in the Cons section for organic farming. It's clear who wins here, and it's organic farming. By a large margin.

Plan

Due to the mostly negative effects of conventional farming, I would advise a mixture of organic farming with some elements of conventional farming mixed in. Since organic farming yields less than conventional farming, people could research which fertilizer is least environmentally harmful yet still yields the most crops, and use that along with the organic fertilizer. By attempting to mass-produce organic food, this solves the problem of price and could even make it common among people.

The Case for Conventional Farming

"Conventional" farming, or intensive farming, uses higher levels of input and output per unit of land to create higher crop yields.^[src] Created in the 19th century during the Industrial Revolution, it has become the common type for most commercial agriculture, and the one that produces most of the food you see at supermarkets.

Pros

Increased performance: due to its nature, conventional farming yields more than it costs. They can also use a large area of land and can sell higher when the demand is high. Organic farmers deal with this using crop rotation.^[src] This higher crop yield can help feed more people.

More job opportunities: massive amounts of labor are needed to sustain conventional farming, so a large job market is created.^[src]

Affordable prices: using intensive farming for food solves the hunger problem (see above) while also making food prices affordable, giving people an affordable balanced diet.^[src]

Smaller spaces: Organic farming requires a large amount of space to cultivate its crops. Conventional farming produces more crops in a smaller space (see above).^[src]

Cons

Environmental damage: because it doesn't use natural fertilizers like organic farming does, the chemical fertilizers/pesticides/insecticides used in conventional farming wreak havoc on the environment. It also contributes to greenhouse gases and disease through the large amount of animals kept in crowded small spaces. It also creates habitat loss through deforestation and soil erosion, as well as water pollution through chemical run-off.^[src] It also causes pesticide and herbicide resistance, which makes the problem worse as parasites spread and become stronger (see below).^[src] Finally, the practices used in conventional farming only aggravates the effects of climate change due to fossil fuel emissions, and exploitation of land and water.^[src]

Pesticides and human safety: due to conventional farming, pesticides are present in the food and drink that we eat, and they cannot be washed away easily. Pesticides lead to huge health risks.^[src]

Cheap but low quality: on the other hand, if it's not providing good job opportunities, it is reducing human labor due to extensive usage of machines for farming. The affordable prices can backfire when a high-quality organic product is more expensive than a cheaper, yet low-quality, conventional farming product.