Can Organic Farming Become the Convention Again?

Agriculture provides a foundation for all human civilization. The ability to consistently and reliably produce food has been and will continue to be the paramount concern for any society's survival. Since as early as 9500 B.C.E the development of agriculture has led to the stabilization of human civilization. Since the industrial revolution, developments in agriculture have drastically transformed the way food is produced and distributed. In order to support a growing population, methods of mass food production have become the standard in all developed nations. Advancements in chemical fertilizers and pesticides have allowed for reliably large yields of food supply. Though some areas of the world have been able to create an overabundance of food, many other areas remain which are plagued by food shortage and as a result starvation. (Cullen) Looking to the future, agricultural research seeks to anticipate the challenges of changing climate, a growing world population, and the effects that current farming methods have had on the ecosystem.

Sustainable Agriculture has emerged in recent years as a strong movement geared towards discovering the most efficient ways to produce food while also focusing attention on improving the ecosystem and conserving natural resources. Advocates of this movement believe that sustainable agriculture methods are the solution to current and future food production problems. Sustainable Agriculture is often associated with organic farming.
The term organic is the only label that is sanctioned and controlled by the United States Department of Agriculture (USDA). Congress established this in 1990 with the Organic Foods Production Act (OFPA). In order to use this label, farmers must adhere to stringent standards of food production. The main qualities of organic farming are that chemical fertilizers and pesticides are not used on food, nor is food genetically engineered or modified. Instead, organic farming uses cow manure for fertilizer, and natural pest control methods. This was the way that almost all food was produced before the 1940s. After the second World War the development of new food processing technologies marked the beginning of non-organic methods becoming the standard. (Maczulak)

By the 1990s food produced with organic methods was only available through small specialty health food stores, or by purchasing directly from an organic grower. However, the popularity of organic food has increased substantially. Organic food sales grew from a $181 million to $2.2 billion between 1990 and 2000. This trend has persisted despite the fact that the 1990 OFPA caused a drastic increase in the cost of food labeled organic. (Maczulak)

Many questions remain unanswered. Studies have been and continue to be conducted which compare food yield per area of land of organic and conventional farms with mixed results. In some cases the evidence indicates that organic farming can produce much more food than conventional farming given the same amount of land, while other studies indicate that organic farming produces slightly less. (Desonie) One of the beliefs held by organic farmers is that organic methods are healthier for both the environment and human health. (Desonie)
farming advocates is that these methods are more beneficial in the long run. Because of this, time consuming longitudinal studies are required to supply convincing evidence. There are questions of labor and cost that go into organic farming. Some studies indicates that organic farming costs less because of not using chemical fertilizers and pesticides, yet more because there is much more manual labor involved.

After reading a number of academic resources, I’m left with a question that I took for granted initially. Can organic farming alone meet the food production demands of the world? I think that it can. I think not only that it can, but also that eventually it will have to. It appears as though the dominant method of production and supply currently in place is not meeting the demands of the world, nor will it meet the growing demands of the future.

I plan to investigate this question by finding out more about current conventional methods and why they are currently failing to feed the world. I will also find as many preexisting studies as possible in order to develop a more representative view of the debate. I am also still in need of evidence that is more current. I would like to find evidence from the last two or three years regarding developments in organic farming research. I will also need to find more information regarding the methods of organic farming, the costs, and the benefits. I will also find more information regarding population growth as well as environmental changes in order to see how organic farming and conventional farming will be able to sustain food supply in the future.
Sources:

