

Organic vs conventional farming essay



Organic Farming versus Conventional Farming With the increase in concern about the dangers of the foods we consume, the demand for organic food has increased at an alarming rate. Conventional farming has been around for more than 100 centuries, and it is one of the most prosperous industries in the world. Organic farming on the other hand dates back to the 20th century. Sir Albert Howard is considered by many to be the pioneer of the organic movement (Heckman). Although some concepts of organic farming date back before Sir Albert Howard's work, in 1943 he published the book *An Agricultural Testament* (Heckman).

In his book he described ideas that would become the fundamentals of organic farming. His main concept was known as "The Law of Return", it suggested that all organic waste be recycled back to farmland (Heckman). The practices used in organic farming were intended to help the environment by conserving water and soil, and reducing pollution (Pitts). Conventional farming and organic farming vary in many different ways. Conventional farmers use chemical herbicides to destroy weeds. However, organic farmers use mulch, rotate crops, or hand pick the weeds (Pitts).

To grow their crops, conventional farmers use every acre of their farm land; but, for the health of the soil, organic farmers rotate their crops (Alvarez). Instead of using pesticides or insecticides, organic farmers use helpful birds, insects, and organic fungicides to decrease disease and pests. Organic fungicides such as *Bacillus subtilis*, *Bacillus pumilus*, and *Trichoderma harzianum* are effectively used to prevent diseases that affect the roots (Murray). Conventional farmers use pesticides to protect the crops from disease, mold, and insects.

Chemical fertilizers are used in conventional farming to help increase plant growth. Conventional farming permits farmers to apply the precise amount of fertilizer needed to prevent waste pollutants (“Organic Foods”). “Without chemicals, agriculture wouldn’t be what it is today. There’s no way they could grow the amount of crops they grow without it” (Hillemeier). Compost and manure, which are natural fertilizers, are used in organic farming to give nourishment to the plants and soil. Using compost and organic waste helps increase the nutrients of the crops. What many consumers don’t realize is that organically grown foods are just as likely to be toxic if not regulated. Feces, a common organic fertilizer, contain dangerous pathogens that could get into food if farmers don’t compost the crops properly” (Hillemeier). The United States Department of Agriculture (USDA) has developed a certification program for organic foods; the program requires that organic foods meet the firm guidelines set by the government (“Organic Foods”). Each farmer must submit an extensive amount of information to an accredited certifying agent.

For example, a history of every substance applied to their land in the previous 3 years; the organic system plan (OSP), which describes the practices and substances used in production (“National Organic Program”). Also, every farmer seeking organic certification must give a list of every product being grown, raised, or processed. Those principles help to control how the foods are processed, grown, and handled. Organic farmers have to apply for certification, pass the test, and then pay a fee. Not all organic foods are certified, but all of the foods that are certified are organic (Alvarez).

Standards established by the USDA were an important achievement in the organic movement. Also, it helped to define organics as “ A production system that is managed in accordance with the Organic Foods Production Act and regulations to respond to site-specific conditions by integrating cultural, biological and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity” (Heckman). Organic foods are more expensive for several reasons. Conventionally farmed foods are cheaper in stores because, you are paying for them in your taxes.

Conventional farming is heavily funded by tax payers through the government but, organic farming doesn't obtain any funding (Spevack). Organic farming demands more labor than conventional farming. “ Organic growth is labor intensive. This is a high volume business; we need to make money. Conventional farming is more efficient and allows bigger yields” (Hillemeier). “ One crucial reason why organic food is more expensive to buy than traditionally-farmed foods is that agrochemicals are designed to make food cheaper to produce. Agrochemicals were not developed with nutrition, taste or the ecology in mind.

The chemical designers' remit was to make mass production of food cheaper. End of story. So what we get is a cheap but inferior product” (Spevack). One key reason why most farmers continue to use conventional practices is because organic farming consumes so much time. “ Organic growers, especially of vegetables and even corn and soybeans can make two, three, or four times as much for their crops. There's definitely a market for it” (Hillemeier). Organic farmers stay away from herbicides, so as a result they depend on hand picking the weeds.

Since organic farmers avoid using chemical fertilizers, they replace them with animal manure and compost. It is very bulky and more expensive to ship. The production costs of organic farming are shown in the prices you pay for organic foods at the grocery store. But when you look at all of the real cost of food production for conventional farmers, organic farming may actually be more inexpensive (Alvarez). For example, the cost of producing and disposing of pesticides, interchanging eroded soil, and cleaning up contaminated water.

Organic farming is a booming industry, sales in the United States increased from \$23 billion in 2002 to \$40 billion in 2006 (Alvarez). The Organic Trade Association predicts that organic farming industry will increase by 18% annually through 2010 (Hillemeier). Each year, the increase in popularity of unconventional farming practices challenge conventional farming methods, as fear develops over the safety of chemicals used in producing crops. "The Environmental Protection Agency (EPA) researches all chemicals before they are approved for public use.

It usually takes over 10 years for a new chemical to be considered safe for growing commercial crops. They wouldn't approve anything that wasn't safe" (Hillemeier). "Another reason for the growing interest in organic growth is the high price of many necessary chemicals. One-third of what farmers earn goes into buying more chemicals" (Hillemeier). There are many differences between conventional and organic farming, but the benefits and disadvantages of each vary with every farmer. Bibliography Alvarez, Luis. "It's Easy Being Green: Organic