

An Overview: Conventional & Organic Agriculture



Just as every consumer makes food choices based on their own tastes and priorities, farmers make decisions about what works best for their own farms. Conventional and organic agriculture are both important to supporting this diversity and choice.

The Basics

- // **What:** Conventional and organic farming both share the same priority: producing safe, nutritious food and supporting farmers' livelihoods. Both organic and conventional farming affect the environment in different ways – and farms don't divide neatly into two simple categories. Conventional farms aren't all the same, and organic farms aren't all the same – some farms even use both conventional and organic practices, depending on the choice of crops.
- // **Why:** There is no right or wrong way to farm. Every choice a farmer makes can have advantages and disadvantages. Preserving farmers' ability to use every tool available allows them to make the best decisions for their farms and to continue providing consumers with choice.
- // **How:** Conventional utilizes modern technologies to optimize efficiency while preserving natural resources. Conventional farmers generally use modern technologies like GMOs, chemical crop protection, synthetic fertilizers and other practices. Organic is focused on an ecological production management system that minimizes farm inputs. Organic requirements differ between countries, but they generally aim to control pests, diseases and weeds with approaches such as crop rotations, disease resistant crop varieties, and the use of non-synthetic pesticides (whenever available), and fertilize the soil using recycled organic materials, like animal manure.

The Background

Consumers today are more interested than ever in how their food is produced and there are a wide variety of choices available to them based on their own priorities and values. These choices often come back to the method of farming that was used to produce ingredients: modern conventional farming, organic or some combination of the two. Farmers too have choices and must decide what products or practices work best for their own farms and there is no clear cut "best" approach to farming.

The Highlights

Both conventional and organic farming use modern crop protection products.

- // All farms face enormous pressure from insects feeding on crops, disease rotting them or weeds competing with them for light, nutrition and space, and must take action to manage them.
- // Organic farming uses biological crop protection products, pheromones, copper, sulfur, natural compounds and practices that encourage beneficial insects to control pests. In fact, our "Biologicals by Bayer" product line develops pesticides specifically for organic crop protection. There are also several organic herbicides on the market.¹
- // Conventional farmers can use all of these in addition to modern technologies such as plants that are developed to be resistant to pests, or modern herbicides and insecticides.

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The Highlights

Conventional and organic foods are equally nutritious.

- // Stanford University completed a massive review of 237 studies on multiple crops over four decades. It found no health or nutritional benefits from eating organic foods when compared to conventionally grown foods.²

Conventional farming produces higher yields.

- // While organic production methods have improved, studies show they provide an average of 34 percent lower yields across most crops when compared to similar agricultural practices.³

Farmers need customized agronomic solutions.

- // Technologies and management practices should be tailored to fit each farm and optimize its productivity. Chemical and biological solutions can help farmers protect crops while preserving natural resources.

Conventional food is just as safe as organic food.

- // Consumers sometimes buy organic food because they think it's safer. However, government regulators set limits for traces of pesticide residues found in conventional food and closely monitor residues to protect human health. Research shows that the benefits of eating a healthy diet outweigh any risk of residues in food.⁴
- // In addition, residue analysis in the U.S. has shown that 80 percent of the residues detected on conventional crops are at levels low enough that they would not be considered as a violation of the organic rules because they are 20 times lower than the allowed levels set by EPA.⁵

Modern agriculture is sustainable.

- // Simply put, it takes less land to grow more food using modern, conventional agriculture. Organic farms rely heavily on mechanical tillage, which can cause soil erosion and water loss, or expensive hand labor to remove weeds. Preserving soil, water and energy resources has enabled modern farming to grow food sustainably on the same land for more than 100 years.

Key Things to Remember

- // There is no right or wrong way to farm. Every choice a farmer makes can have advantages and disadvantages. Preserving farmers' ability to use every tool available allows them to make the best decisions for their farms and to continue providing consumers with choice. All farms face enormous pressure from insects feeding on crops, disease rotting them or weeds competing with them for light, nutrition and space, and must take action to manage them.
- // Modern, conventional agriculture has key sustainability benefits in terms of land use, reduced soil erosion and water protection.

References

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