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Factsheet

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# USDA Coexistence Fact Sheets
# Overview

## Agriculture's Coexistence Opens the Door for Growth

Agriculture's history is rich and diverse in the United States, and it remains the backbone of our country. Every person around the world is connected by a common need – food. As U.S. farmers continue to meet the changing and growing demands of consumers worldwide, it is vital to recognize the importance of supporting and respecting different types of agriculture. The U.S. Department of Agriculture (USDA) is committed to leading this support, and encouraging coexistence to build a stronger industry for all farmers.

Coexistence, as defined in a report of the USDA Advisory Committee on Biotechnology and 21st Century Agriculture (AC21), is the concurrent cultivation of conventional, organic, identity preserved (IP) and genetically engineered crops consistent with underlying consumer preferences and farmer choices. In other words, it is the existence of different types of production at the same time and in the same area. Coexistence can be witnessed in different industries, educational institutions and even neighborhoods – where people with different ideas work together to compromise and cooperate for the greater good. Agriculture is no different. Market demands on U.S.-grown crops are increasing, and it will take products from the organic, conventional and biotechnology sectors to meet those demands. Understanding the differences and challenges of each sector, recognizing opportunities for growth in each sector, and understanding how one sector impacts the other two, will be critical as the agriculture industry continues to expand.

There are a variety of market demands for U.S. agriculture products, all of which influence the type of crops grown. From the widespread adoption of biotech crops – accounting for more than 90 percent of some crops planted – to the rapid growth of organic food production, the variety of crops and crop production methods help anchor the agriculture industry as the backbone of the United States.

## A Growing Population Expects a Growing Food Supply

By 2050, U.S. farmers will need to help feed 9 billion people worldwide with all types of healthy, nutritious and affordable food. With that population growth comes a boom in the global middle class, which will also increase the demand for different types of food, from organic produce to premium cuts of protein. The growing population means there will be a need for more food than ever, and more choices of food made available than ever, and U.S. farmers are preparing to meet those needs head on. The reality is one sector can't meet this demand alone.

As one sector of agriculture expands, so does the entire agriculture industry. All farmers, whether they grow conventional, organic, or biotech crops, should benefit from the continued growth of all three sectors of U.S. agriculture, as should the local communities and food industries that support agriculture.

However, as each of these sectors of agriculture continues to grow, there can be natural pressure points. This increases the need for each farmer to not only know how their actions impact their own fields, but how they impact their neighbors' fields.

Pressure points can be identified in various ways. From pollen or pesticide drift from one farmer's field to another, to the uncertainty created in the marketplace by challenging Federal regulations in court, agriculture's pressure points create real and significant problems for all farmers. The impacts of these pressure points can be felt throughout the industry.

**The Three Coexisting Crop Sectors**

Within the agriculture industry, the three primary sectors in crop production are: organic crops, crops grown using conventional methods, and crops grown using seeds adapted by biotechnology. These three sectors, while related, all have different production and management systems, and require coexistence efforts throughout the production system to reach their full market potential. Additionally, specialty crops are grown for specific end markets, and consist of produce like apples, potatoes, and squash. Some specialty crops have been genetically engineered to resist pests or disease.

*Certified Organic*

Certified organic farmers commit to growing crops without the use of synthetic pesticides or fertilizers, without the use of biotechnology seeds, or without the use of ionizing radiation (most often used for food preservation). Organic farmers are also required to meet product specifications, which requires eliminating the risk of commingling of their organic products with any product deemed non-organic. The organic market continues to expand at a rapid pace, driven largely by consumer demands for a wide variety of organic food products.

*Conventional*

Conventional crops are those varieties that have not been bred using biotechnology, but are raised in similar fashion as biotech crops, including the use of synthetic pesticides and fertilizers. Some conventional crops enter the commodity stream where they are mixed with other conventional and genetically engineered (GE) varieties. Often times, they are grown with specific chemical or physical characteristics in mind, and are intended for a specific end-use, such as human foods or cosmetics. Because some of these specific conventional crops are destined for a specific use, they require close monitoring and handling to preserve their identity (which is known as identity preserved, or IP). Farmers who grow these types of conventional crops also have a need to eliminate the risk of commingling of their products with others.

*Biotechnology*

Biotech seeds are developed through a scientific process that takes a specific gene or section of gene material from one organism and inserts it into the genetic code of another. Farmers who choose to grow biotech seeds have a variety of seed characteristics to choose from, and they can choose which characteristics offer them the best results in their given growing conditions. Universities, independent scientists and agriculture companies have invested millions in testing the safety of biotech crops, which cumulatively show that the biotech crops that have been commercialized are safe for animal and human consumption. Other leading health organizations, such as the American Medical Association and the World Health Organization, also concluded biotech crops are as safe as other crops and do not pose any risk to long-term human health. Biotech seeds have been widely adopted by farmers because they offer

pest and herbicide resistance, allowing farmers to use conventional pesticides in smaller amounts and greater flexibility in applying herbicides. Some biotech seeds have also been engineered to withstand pressures from the weather, and even increased yield potential.

Despite these different crop production methods, coexistence is key to a strong agricultural future and can be achieved. USDA does not believe one type of production method is best; nor does it believe that one type of crop offers more benefits than others. USDA does believe, though, that the markets for all types of crops are expanding, and it will take all three sectors to meet the growing global demand and consumer desires. Supporting neighboring farmers to also enable them to grow crops for the markets they choose is essential for building an industry that can meet the challenges of growing more food.