

Science Education

Our Agricultural Dilemma

Where we have come from and where we are going.

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Eighteen years ago, Lake Metroparks Farmpark was developed to help our urbanized society understand where and how our daily food is produced. In 1990, approximately 2% of the population in the United States produced the food for the entire country. Since then, Farmpark has introduced a generation of visitors to where milk comes from and how potatoes are grown among other things. Unfortunately, our day-to-day task of conveying the basic knowledge of farming misses some of the bigger picture issues. It is worth considering what has happened to agriculture in the years since we opened.

Since 1990, 6,800 farms and 1.3 million acres of farmland have been taken out of production in Ohio.

The number of acres in soybeans grew by 1.14 million acres. The number of acres in corn dropped by 490,000, but the overall corn crop grew as the yield per acre increased from 121 to 159 bushels. The number of dairy cows dropped 65,000 to 274,000 but the average yield per cow increased to 17,737 pounds (up 4,060 pounds in 17 years).

In 1999, Ohio launched a program to protect farmland from suburban sprawl by purchasing development rights. There have been battles over several issues relating to large scale animal operations in poultry, swine and dairy. Some of the issues have included: waste management, water quality, impact on smaller farms, the need for increased productivity and the rights of landowners.

There are other interesting trends. Sales of organic products have grown 15 to 20% in the past several years and can now be found in large grocery chains. Local farmers' markets have grown in number and can be found all over Lake County, including Farmpark. Community Supported Agriculture (CSA) operations have found markets throughout the country, growing from around



When Farmpark opened in 1990, the fields across Route 6 were still being farmed.

50 in 1990 to more than 1,000 today. Since his departure in 1999, Farmpark's first administrator, Darwin Kelsey, has been promoting small farms and direct marketing of farm products through the Cuyahoga Countryside Conservancy. Periodically you may see his name or organization in the newspaper in support of locally grown farm produce.

Today the discussions are much less about organic versus conventional and more about local and seasonal versus large-scale, slow food versus fast food. Large-scale organic farms use as much energy as large-scale conventional farms and the produce is shipped just as far. Locally raised grass fed beef (available at Farmpark's farmers' market) may be more environmentally friendly than organic corn fed beef shipped from far away. This year, two books on the best seller list, *The Omnivore's Dilemma* and *Animal, Vegetable, Miracle*, speak to these issues. These books tell us that today we consume 400 gallons of oil to produce, process, package and transport our food. It is also interesting that the citizens of the United States have more corn-based carbon in our bodies than inhabitants of Central America. This is a result of the corn energy that we receive not only through grain, but livestock products, corn syrup and other processed foods.

The rising cost of energy has propelled the production of corn-based ethanol to the front page of the newspaper. Demand for corn has dramatically raised the price, impacting farmers planting decisions and reversing the recent decline in the number of acres planted to corn. By the time you read this, we may have a better idea of the impact of this change. Given our reliance on inexpensive corn produced with inexpensive fossil fuels over the last several decades, the trends that we see over the next 18 years may be more surprising and more dramatic than those of the last 18.