Can Progressive, Cutting-edge Organic Agriculture Feed Everyone?

Change We Can Believe In

In 2007, then presidential candidate Barack Obama promised that if elected he would direct more money for organic agriculture. He also said, “If I am elected president of the United States, I will support legislation that will require the mandatory labeling of genetically modified foods.” Now, well into his second term, it seems Obama has no intention of honoring his promises. Even if Obama honored his word, would such steps be enough to ensure our survival?

Can organic farms yield comparable outputs with conventional farms? To answer this question in 2002, Dr. Paul Mader and colleagues analyzed more than two decades of data. On average, organic farms yielded 80% of the output conventional farms produced. Although the yield was lower, the quality of the produce and the quality of the soil was far superior in every conceivable way. There are more nutrients found in organic foods.

Farmers all over the world are proving it can be done…
The use of chemicals, so prevalent in modern agriculture, may result in a high yield (for a time), but their use is actually more expensive than organic food production. Conventional agriculture is more profitable for farmers due to government subsidies. That’s right; our taxes pay farmers *more* to cause harm to the environment and to produce chemically laden foods.

Subsistence strategies are a cultural phenomena. Just as language cannot be separated from culture neither can food be

separated from culture. The food people eat and how the food is produced varies dramatically from one group of people to another. As with linguistic centrism, people tend to think that their way is the best way. Americans are often under this delusion in regards to feeding the world without simultaneously polluting it. Could the world feed itself without the so called benefits brought forth by the chemicals and drugs used in conventional agriculture?

Sustainable Farms

Farmers all over the world are proving it can be done, among them farmers such as Takao Furuno, a successful organic farmer from Japan. The Furuno farm works as a part of an ecosystem. Every year, after planting their rice, they release hundreds of ducklings into the rice paddies. The ducklings consume weeds that would otherwise compete with the rice. They also consume pests such as insects and snails. The ducklings fertilize the rice with their waste and oxygenate the water by their movements.

Sustainable, humane, and organically produced foods also tend to taste better.
The Azolla fern is also grown on the farm. This plant helps to fix nitrogen into the soil as it feeds the ducks, provides cover for the fish from predators, and provides habitat for critters that also help feed the ducks.

By manipulating the natural processes on their farm, the Furuno family’s level of production is amazing. With only three hectares of land, they yield 7 tons of rice, 300 ducks, 4,000 ducklings, and sufficient vegetables for a hundred people.

Japan is a relatively small country. When including the entire Japanese archipelago, the total landmass is about 142,000 square miles. The Furuno farm is twice as productive as other conventional Japanese farms – not 80% as productive as Mader’s

study would indicate. *Twice as productive.* With this kind of yield, 2% of the Japanese people could farm and feed their nation, organically and sustainably.

Eduardo Suiza's Sustainable Fois Grais

Sustainable, humane, and organically produced foods also tend to taste better. Eduardo Suiza has been helping to prove this.

Recently he took 1st place in the Cu de Cois Culinary Competition for his legendary fois grais.

Chef Dan Barber explained that fois grais literally means to force feed geese or ducks a massive amount of food. This makes their liver expand by a factor of eight, a practice many see as inhumane. Eduardo Suiza uses an entirely different approach. He lives by the concept of giving the geese what they want. On his farm, he has everything the geese might need – olives, figs, lupin bushes and other plants to feed the geese.

In the fall, the temperature drops and Eduardo's geese gorge themselves in preparation for the coming winter. After the geese gorge themselves, Eduardo slaughters some of his birds. This makes a more natural, more humane, and better tasting fois grais. His geese are so content; they invite wild geese flying by to join them. These regular additions to the flock voluntarily stay.

Examples of a sustainable approach to food production can be found all over the world. Thankfully, not all of these examples are in small-scale farming. In the Seville province

of Spain, located 10 miles from the Atlantic Ocean, another example of sustainable, high quality agriculture thrives.

Veta La Palma 27,000 Acre Farm

Aquaculture has been instituted on an island farm, and their productivity and quality has caught the attention of the world. The original owners planned to create a cattle ranch so they dug canals to drain the water away. Despite their best efforts, the area was poorly suited for dry farming or raising large amounts of cattle, so eventually the property changed hands. The new owners had a different concept; they reworked the canals to reverse the water flow back inland. The result: Veta La Palma.

> *Here was a company trying to solve what's become this unimaginable problem for us chefs. How do we keep fish on our menus?" – Dan Barber*

Veta La Palma is a 27,000 acre farm with an amazing annual yield –1,200 tons of fish and shrimp. This aquaculture is self-sustainable; there is no need to feed the fish, as the fish feed themselves. There is no need to feed the shrimp, as the shrimp also feed themselves. In addition, the fish have attracted more than 250 different species of birds (some of which are endangered), and many of these birds fly to the farm from over 150 miles away. One might think that losing fish to the birds is the last thing anyone in aquaculture would want, but the farm is so productive they can feed the birds as well. Veta La Palma has become the largest bird sanctuary in Europe

as a well as an incredibly successful fish farm.

Organic agriculture is seen by some as low-tech, and it is often described in terms of what it isn’t rather than what it is. Organic agriculture is agriculture without the use of chemical fertilizers, pesticides, or herbicides. But it is so much more. Organic agriculture isn’t low tech; far to the contrary, the techniques used in organic agriculture today would astound the farmers of days past. True, sustainable, organic farming is a holistic approach to the microbes in the soil, the plants, the animals, and the relationships between them.

Barack Obama and Monsanto

In 2007, during the presidential debates, Barack Obama promised that if he got elected he would allocate more money for organic agriculture. Instead of honoring that promise, he appointed a man with ties to Monsanto, Tim Vilsack, to head the USDA. If we are to have change that we can believe in, it has become apparent that we must become the change.

Voting for change doesn’t necessarily bring change. Agribusiness votes, too, and they vote with their donations to politicians’ political campaigns. Monsanto, ADM, and other large agribusinesses are able to drown out the desires of the American people with huge sums of money.

Conclusion

Collectively we can change the world overnight by changing the way we spend our money. If we don’t want GMOs on the market, we can stop buying them. If we don’t want our foods grown in chemicals and sprayed with chemicals, we can stop buying conventional produce. And if we don’t want animals to be treated inhumanely, we can purchase our meats more

selectively, as well. Together, by changing our buying habits, we can change the world. That’s change we can believe in.

Further Reading:

- *5 Reasons Small Scale Gardening Could Save the World*
- *Ten Great Gardening Tips*
- *Urban Gardening*
- *Planning Your Organic Garden*

Sources:

- *How I Fell In Love with a Fish* – Veta la Palma, TED Talks
- *A foie gras parable* – Eduardo Sousa, TED Talks
- Jay Withgott and Scott Brennan, *Environment The Science Behind The Stories* (Boston: Pearson Education, 2011), 274.