

NINE MYTHS ABOUT INDUSTRIAL AGRICULTURE AND HUNGER

MYTH 1: INDUSTRIAL AGRICULTURE AND FREE TRADE WILL FEED THE WORLD.

TRUTH: World hunger is not created by lack of food but by poverty and landlessness which deny people access to food. Industrial agriculture—i.e., large-scale, corporate-run, export-oriented monoculture farming—and free trade agreements actually increase hunger by raising the cost of farming, forcing millions of farmers off the land, and by growing primarily high-profit export and luxury crops rather than food for local people to eat. The United Nations Food and Agriculture Organization (FAO) has found that it is abundance, not scarcity, that best describes the world's food supply. Every year, enough wheat, rice, and other grains are produced to provide every human with 3,500 daily calories. In fact, enough food is grown worldwide to provide 4.3 pounds of food per person per day, which would include two and a half pounds of grain, beans, and nuts, a pound of fruits and vegetables, and nearly another pound of meat, milk, and eggs.

As the World Health Organization explains, “Hunger is a question of maldistribution and inequality—not lack of food.”

One reason 800 million people go hungry every day is food dependence. As changes in industrial agriculture—including biotechnology—and international trade agreements dramatically increase the costs of farming and corporate consolidation, tens of millions of the world's farmers find themselves in a situation of spending more in production costs, yet receiving less income. Millions lose their land, their ability to grow their own food and their income. As corporate-agribusiness takes over, exports may boom while hunger continues unabated or actually worsens. Export crop production and current trade rules squeeze out basic local food production and local farmers. The result is more landlessness, more migration to cities, more poverty and more hunger.

MYTH 2: INDUSTRIAL FOOD IS SAFE, HEALTHY, AND NUTRITIOUS.

TRUTH: Industrial agriculture contaminates our vegetables and fruits with pesticides, slips dangerous bacteria into our lettuce, and puts genetically engineered (GE) growth hormones into our milk. As the industrialization of the food supply progresses, we are witnessing an explosion in human health risks and a significant decrease in the nutritional value of our meals. A central component of the industrialized food system is the large-scale introduction of toxic chemicals, which shows no signs of decreasing. Cancer is the primary concern associated with toxic dependency. Cancer risk affects not only consumers, but also farmers, field hands, and migrant workers.

Industrialized food production has resulted in a rise in food-borne illnesses. Researchers from the Centers for Disease Control (CDC) estimate that food-borne pathogens now infect up to 80 million people a year and cause over 9,000 deaths in the United States alone. This increase is largely due to the industrialization of poultry and livestock production and the confinement of food animals in inhumane and overly crowded conditions. Another factor is the use of antibiotics in farm animal production, which may be accelerating antibiotic resistance exhibited by dangerous pathogens. When confronted with the health crisis their food has caused, the purveyors of industrialized food assure us that new industrial technologies will fix everything. Irradiating food is one example. Studies have shown that consuming irradiated meat can cause DNA damage, resulting in abnormalities in laboratory animals and their offspring. Irradiation may also destroy essential vitamins and nutrients and can make food taste and smell rancid.

MYTH 3: INDUSTRIAL FOOD IS CHEAPER THAN TRADITIONALLY GROWN FOOD AND THEREFORE MORE ACCESSIBLE.

TRUTH: If you added the real cost of industrial food—its health, environmental, and social costs—to the current supermarket price, not even our wealthiest citizens could afford to buy it. We expend tens of billions of dollars in taxes, medical expenses, toxic clean-ups, insurance premiums, and other pass-along costs to subsidize industrial food producers. Given the ever-increasing health, environmental, and social destruction involved in industrial agriculture, the real price of this food production for future generations is incalculable.

Environmental Costs: Intensive use of pesticides and fertilizers seriously pollutes our water, soil, and air. Animal factories in the U.S. produce 1.3 billion tons of manure each year. Laden with chemicals, antibiotics, and hormones, the manure leaches into rivers and water tables, polluting drinking supplies and killing fish. The overuse of chemicals and machines on industrial farms erodes away the topsoil; the U.S. has lost half of its topsoil since 1960. The food on an average American's plate now travels at least 1,300 miles from the field to the dinner table. This long-distance transport of industrial food exacerbates air and water pollution problems.

Health Costs: The human health costs of consuming industrial foods include food-borne illnesses, cancer (due to the use of pesticides, hormones, and other chemical inputs) and obesity and heart disease (due to industrial fast-food diets). Farmworkers themselves suffer acute pesticide poisoning, and, according to the U.S. Department of Agriculture, work in one of the most accident-prone industries in the United States.

Loss of Farms and Communities: The dislocation of millions of farmers and thousands of farm communities does not appear in the usual food cost calculations. Seventy years ago there were nearly 7 million American farmers. Today, after the onslaught of industrial agriculture, there are only about 2 million, even though the U.S. population has doubled. Current costs associated with industrial food and agriculture do not include welfare and other government payments to ex-farmers and farmworkers driven into poverty.

Tax Subsidies: U.S. taxpayers pay billions of dollars in government subsidies to industrial agriculture. Price supports, price “fixing,” tax credits, and product promotions are all forms of “welfare” for agribusiness. These subsidies add almost \$3 billion to the “hidden” costs of foods to consumers.

MYTH 4: INDUSTRIAL AGRICULTURE IS MORE EFFICIENT AND THEREFORE WILL FEED MORE PEOPLE.

TRUTH: Small farms typically achieve at least four to five times greater output per acre than large farms. Moreover, larger, less diverse farms require far more mechanical and chemical inputs. These ever-increasing inputs are devastating to the environment and make these farms far less efficient than smaller, more sustainable farms. Studies show that smaller farms are more productive than larger farms, in part, because small farmers work their land more intensively and use integrated, and often more sustainable, production systems. As farms get larger, the costs of production per unit often increase because larger acreage requires more expensive machinery and more chemicals to protect crops. Moreover, the large monocultures used in industrial farming undermine the genetic integrity of crops, making them more susceptible to diseases and pests (thus requiring greater use of pesticides).

Often, the highest yield of a single crop, such as corn, can be best achieved by planting it alone on an industrial scale, also known as “monocultures.” Smaller farms rarely can compete with industrial monocultures. They tend to use a method known as “intercropping,” or mixing plant crops. Smaller farms are more likely to rotate or combine crops and livestock, with resulting manure used to replenish soil fertility. These small-scale integrated farms produce far more per unit area than large farms. Though the yield per unit area of one crop (i.e., corn) may be lower, the total output per unit area for small farms, often composed of more than a dozen crops and numerous animal products, is virtually always higher than that of larger farms.

MYTH 5: INDUSTRIAL FOOD OFFERS MORE CHOICES.

TRUTH: What the consumer actually gets in the supermarket is an illusion of choice. Food labeling does not tell us what pesticides are on our food or what products have been genetically engineered. Most importantly, the myth of choice masks the tragic loss of tens of thousands of crop varieties caused by industrial agriculture.

By growing all of our crops in monocultures, industrial agriculture not only limits what we can eat today, but also reduces the choices of future generations. The U.N. Food and Agriculture Organization estimates more than three-quarters of agricultural genetic diversity were lost in this past century. The U.S. government, bending to pressure from agribusiness, has never required labels that inform consumers about the pesticides and other chemicals used on crops or the residues still left on those foods at time of purchase. Agribusiness not only uses its political muscle to prevent food labeling, it also has pushed through laws to stop critics from acquiring important information about foods to consumers. Clever marketing ploys and millions of dollars spent on advertising create a seemingly endless variety of food choices but rarely represent an increase in food choices for consumers. The packages attempt to hide the fact that we are essentially eating the same set of ingredients over and over, even though they go by different names. Local, small, biologically diverse, and organic farming creates real choice for consumers by incorporating thousands of different varieties and tastes into our diets.

MYTH 6:

INDUSTRIAL AGRICULTURE BENEFITS THE ENVIRONMENT AND WILDLIFE.

TRUTH: Industrial agriculture is the largest single threat to the earth's biodiversity. Fence-row-to-fence-row plowing, planting, and harvesting techniques decimate wildlife habitats, while massive chemical use poisons the soil and water, and kills off countless plant and animal communities.

The use of pesticides has been clearly identified as a principal reason for the drastic reduction of biodiversity on farmland. And chemical fertilizers pose an even greater risk to soil and water quality threatening biodiversity and wildlife populations around the world. The huge monocultured fields characteristic of industrial agriculture have dramatically reduced a number of wildlife populations by transforming habitats, displacing populations of native species, and introducing non-native species. For example, planting thousand-acre fields of corn leaves virtually no room for the propagation of other species. Industrial agriculture cannot hide the fact that it has been a disaster for the environment—chemical poisoning of countless species, irreversible soil loss, and the proliferation of non-native species that choke out indigenous varieties. By contrast, sustainable and organic farming methods result in the reduction of land under the plow and the increase of biodiversity and wildlife on farmlands and beyond.

MYTH 7:

BIOTECHNOLOGY WILL SOLVE THE PROBLEMS OF INDUSTRIAL AGRICULTURE.

TRUTH: New biotech crops will not solve industrial agriculture's problems, but will compound them and consolidate control of the world's food supply into the hands of a few large corporations. Biotechnology will destroy biodiversity and food security, and drive self-sufficient farmers off their land.

Will Biotechnology Feed the World?: Industrial agriculture has relentlessly pushed the myth that biotechnology will conquer world hunger. However, the hunger problem facing the world lies not with the amount of food being produced, but rather with how this food is distributed. If biotech corporations really wanted to feed the hungry, they would encourage land reform, which puts farmers back on the land, and push for wealth redistribution, which would allow the poor to buy food.

As for genetic engineering being an answer to world hunger, that too is just another fallacy, and rather could be a major contributor to starvation. Patents on seeds that are now genetically engineered by biotech corporations are made to produce a sterile seed after a single growing season, ensuring that the world's farmers cannot save their seed and instead will have to buy from corporations every season. More than half of the world's farmers rely on saved seeds; should sterile seeds escape from the engineered crop and contaminate non-GE local crops, unintentionally sterilizing them, mass starvation could result.

Will Biotechnology Protect the Earth?: The idea that biotechnology is beneficial to the environment centers on the myth that it will reduce pesticide use by creating plants resistant to insects and other pests. In actuality, a study in 2000 by the U.S. Department of Agriculture found that there is no overall reduction in pesticide use with GE crops.

Will Biotechnology Produce Safe Food?: According to even U.S. government scientists, the genetic engineering of foods could make safe food toxic. GE foods may contain both old and new allergens, which could create serious reactions in millions of consumers. Biotech foods can also have lower nutritional values. What makes these risks even more alarming is that the U.S. government requires no mandatory safety testing or labeling of any GE foods.

Is Biotechnology Cheap and Efficient?: Biotech companies have spent billions of dollars researching the effects of creating transgenic organisms such as inserting fish genes into tomatoes. To date, biotechnology has yet to bring to market a single product that actually benefits consumers yet it passes on the enormous costs of their research.

Is “Golden Rice” the Answer?: “Golden Rice” is named for its slightly orange color, due to the incorporation of a daffodil gene that can produce beta-carotene, a nutrient humans can convert into vitamin A. Because vitamin A deficiency contributes to blindness and infectious diseases among the poor in developing countries, this rice was aggressively advertised as a miracle grain. An analysis of industry data shows that in order for those most vulnerable to blindness, infants, to get enough vitamin A from breast milk, their mothers would have to consume almost (39.6) 40 pounds of cooked rice per day. Similarly, an adult male would need to eat 18 pounds of cooked golden rice to meet his daily vitamin A requirement. In other words, if golden rice were simply substituted for a daily diet of conventional white rice, a child or adult would receive only eight percent of their daily vitamin A requirement. Even so, the body can only convert beta-carotene into vitamin A if adequate amounts of fat and protein are also part of the diet. Generally speaking, malnourished people, by definition, lack fat and protein in their diets. Nutritional deficits can be easily and cheaply corrected with a more varied diet. Green leafy vegetables, oranges, and red palm oil all are high in vitamin A. So, why pursue “Golden Rice?” Because 90 percent of the world’s rice is grown and consumed in Asia, making this part of the world a vast and potentially profitable market for a GE version of the crop.

MYTH 8: NATURE IS TO BLAME FOR HUNGER.

TRUTH: Human-made forces are making people increasingly vulnerable to nature’s vagaries. Food is always available for those who can afford it—starvation during hard times hits only the poorest. Millions live on the brink of disaster in South Asia, Africa and elsewhere, because they are deprived of land by a powerful few, trapped in the unrelenting grip of debt, or miserably paid. Natural events rarely explain deaths; they are simply the final push over the brink. Human institutions and policies determine who eats and who starves during hard times. Likewise, in America many homeless die from the cold every winter, yet ultimate responsibility doesn’t lie with the weather. The real culprits are an economy that fails to offer everyone opportunities, and a society that places economic efficiency over compassion.

MYTH 9: POPULATION IS TO BLAME FOR HUNGER.

TRUTH: Population growth is not the root cause of hunger. Like hunger itself, it results from underlying inequities that deprive people, especially poor women, of economic opportunity and security. According to the U.N. Food and Agriculture Organization, “Increases in food production in the last thirty-five years have outpaced the world’s unprecedented population growth by about 16 percent.” Although rapid population growth remains a serious concern in many countries, nowhere does population density explain hunger. For every Bangladesh, a densely populated and hungry country, we find a Nigeria, Brazil or Bolivia, where abundant food resources coexist with hunger. Costa Rica, with only half of Honduras’ cropped acres per person, boasts a life expectancy—one indicator of nutrition—11 years longer than that of Honduras and close to that of developed countries. Rapid population growth and hunger are endemic to societies where land ownership, jobs, education, health care, and old age security are beyond the reach of most people. ▲

