

# Agriculture: Seeds of Our Destruction

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Among the most cherished myths in American history is that of the small farmer. Usually, this sentimental meme focuses on a family-owned-and-run farm in a rural setting and is inexorably tied to another parallel myth, that of small-town Americana. As with most myths, a grain of truth exists, but is then expanded into a major fiction. In this instance, the grand embellishment is built around an idea — that of a good, honest, healthy life in close harmony with the natural world. This is how we tend to view agriculture.

Another perspective exists, however, one that takes off the rose-colored glasses to reveal more troubling dimensions.

In the history of the human species, agriculture is a recent invention. 99% of our evolution (about 200,000 years, give or take) was spent in limited kinship groups of 50-70 people who were usually nomadic and operated as hunter-gatherers. More correctly, humans were forager-hunters, since the bulk of the food consumed was based on edible plants, with a smaller percentage of wild animal protein from cooperative hunting. Along the way, as nomadic tribes settled into semi-permanent locations, horticulture developed — essentially the cultivation of edible plants in small-scale gardening — as did herding of various animal species. Overall, though, we lived off the bounty of nature.

Agriculture — meaning the cultivation of food crops in larger-scale farming — grew out of horticulture. Farming first appeared about 12,000 years ago, at roughly the same time that animals were domesticated for labor. Although humans were always territorial, agriculture refined territoriality into formal ownership of land, which resulted in some people gaining more power than others through their control over resources and food. Thus began the systematic inequality of socioeconomic status. As crops, the grains of various grasses could be stored over time and produced the first surpluses of food. That led to trade, markets, and eventually to money. In a very real sense, the onset of agriculture created civilization. *[Yes, I know that this paragraph is an extreme oversimplification of complex developments that evolved over time, but this is essentially the Cliff's Notes version of that history...]*

When agriculture began, could anyone then living have possibly foreseen the extraordinary scope of industrial food production that exists in the world today? I doubt it. By itself, the staggering increase in the numbers of humans is beyond imagining. Estimates of total human population at the start of civilization range from 1-10 million. As of 2019, we number 7.7 billion, an increase of such magnitude as to be nearly inconceivable, most of which occurred over the past two centuries. That's a heck of a lot of mouths to feed.

So, what was originally a brilliant idea — agriculture and farming to insure production of a secure food supply — has evolved into something quite different. Now agriculture is a massive industry conducted on a colossal scale. Agribusiness in America is run and maintained by giant corporations, such as Cargill, Du Pont, Monsanto, Archer Daniels Midland, Land o' Lakes, Dole, Tyson, Perdue, Purina, and hundreds of other large companies that are lesser-known by the public. Globally, agriculture's economic value is estimated at \$2.4 trillion annually.

While many people garden or buy at least some of their food from local farmers' markets or organically-grown sources — the vast majority of Americans are dependent on agribusiness for nearly all their daily sustenance.

Neuro-endocrinologist Robert Sapolsky, on page 326 of his seminal book, **Behave: The Biology of Humans at Our Best and Worst**, puts it this way:

“Which brings us to agriculture. I won't pull any punches — I think that its invention was one of the all-time human blunders, up there with, say, the New Coke debacle and the Edsel. Agriculture makes people dependent on a few domesticated crops and animals instead of the hundreds of wild food sources, creating vulnerability to droughts and blights and zoonotic diseases. Agriculture makes for sedentary living, leading humans to do something that no primate would ever do, namely living in close proximity to their feces. Agriculture makes for surplus and thus almost inevitably the unequal distribution of surplus, generating socioeconomic status differences that dwarf anything that other primates cook up in their hierarchies. And from there it's just a hop, skip, and a jump until we've got Mr. McGregor persecuting Peter Rabbit and people incessantly singing 'Oklahoma.'

Maybe this is a bit over the top. Nonetheless, I do think it is reasonably clear that it wasn't until humans began the massive transformation of life that came from domesticating teosinte and wild tubers, aurochs and einkorn, and of course wolves, that it became possible to let loose the dogs of war.”

This negative attitude about agriculture was once confined to the fringes, but it has steadily worked toward the mainstream among environmentalists and other scientists. No longer a radical idea, it now commands a substantial following.

That might be different if America had not gone down the questionable road of mega corporate agro-industry, but we did, and the world followed suit. It might be different if modern agriculture hadn't so completely mechanized farming that 98% of Americans are now too sedentary; if we hadn't chosen monoculture on a

massive scale; if we hadn't poisoned the ground, air, water, and crops with toxic fertilizers, herbicides, and pesticides; if our insatiable desire for meat hadn't led to regarding animals as mere factory products raised in inhumane and cruel conditions; if we didn't feed so much of our grain harvests to those animals; if we hadn't polluted and over-fished the oceans. In short, agriculture might be different if we hadn't gone crazy and perverted the very idea of how we get our food. But we did, and here we are.

Oh, we know how to farm properly, sustainably, and sanely. All the information and techniques we need have been accumulated and preserved for millennia. Hundreds of millions of people around the world work diligently to restore farming and food to a healthier state. But billions more don't. They eat as obedient consumers, unaware of the depredations of giant agribusiness corporations. While GMOs are debated, much of the American public doesn't know (or care) that certain companies are working to pervert humanity's entire seed bank by replacing heirloom seeds with Frankenseeds that have been genetically modified to produce crops that yield no fertile new seeds. That way, farmers will have to buy single-harvest seeds each and every year (presumably from Du Pont, which will control the market and the price). And let's not even bring up Monsanto's herbicide Roundup, whose active ingredient, the carcinogen *glyphosate*, has been found in both soybeans and cereal grains produced by mainstream agro-industry. So much for the "wisdom" of the market.

We possess the knowledge to stop poisoning ourselves and the planet, but we lack the will to do so. Public attitudes favoring convenience and the lowest possible retail food prices are certainly factors standing in the way, but macroeconomics and politics (especially through industry lobbying) are more dominant constraints. Our headlong drive for more profit through ever-greater crop yields — not just for food, but for use in industry as well — steamrolls every effort toward caution. At least so far. That could change in the decades ahead, if climate disruption and toxic pollution wreak havoc on agriculture. And that scenario is all too likely.

Unlike the myth of Eden, we were not cast out of the Garden. But humanity did abandon the Garden, turning our backs on nature, and modern civilization has been reluctant to recognize the negative results. No cosmic authority is required to punish us for our sins; we're doing that to ourselves. Our systematic defiance of natural balance is not only environmentally toxic, but downright suicidal for our own and other species. Judged in sheer numbers alone, the seemingly spectacular rise of humanity is not proof of our success, but sadly a harbinger of disaster. Despite the good intentions of so many people, the deadly economic juggernaut rolls on inexorably, setting up very bad times ahead.

The question now is: *Do we have the good sense to return to the Garden before we inadvertently destroy it?* The answer seems to be no — not until we are forced to do so.