Degeneration Nation: GMOs, Toxic Chemicals and Factory Farms

Source: Dr. Mercola

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Story at-a-glance

- Nearly half of America's cropland is devoted to GMO crops, including over 140 million acres of GE corn, soybeans and cotton; 70 to 80 percent of supermarket, restaurant and school cafeteria processed foods are contaminated with GE corn, soy, canola, high fructose corn syrup and cotton seed/vegetable oil
- Ninety percent of U.S. meat and animal products come from factory farms, where livestock are fed GE animal feed (corn and soy), and routinely given animal drugs and growth promoters
- Unless we can shut down the factory farms, rebuild our soils, restore our watersheds and forests and get rid of the toxins, GMOs and greenhouse gases contaminating our bodies and our environment, mounting evidence suggests we may soon, perhaps in the space of one generation, pass the point of no return
- Industrial, GMO-tainted, pesticide-laden, factory-farmed foods are bad for your health, bad for farm animals, bad for small farmers and farmworkers, bad for the environment and bad for the climate

- Groups including the Organic Consumers Association, Beyond Pesticides and Food & Water Watch, have launched numerous lawsuits, suing companies for fraudulently labeling their products as natural, pasture-raised, ecofriendly or U.S.-made, when they are not

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Commentary by Ronnie Cummins, International Director of Organic Consumers Association

> *"The Nation that destroys its soil destroys itself."*
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> *Franklin D. Roosevelt 1943*[1]

Welcome to Degeneration Nation 2019. The frightening truth is that genetically engineered foods and crops, toxic chemicals and factory farms – the unholy trinity of industrial food and farming – are undermining our very survival. Public health and the health of the living Earth – our soils, forests, wetlands, watersheds, oceans and climate – are rapidly being destroyed, collateral damage arising from the "profit at any cost" ethos of corporate agribusiness, Big Biotech, Big Pharma and Big Food.

Cancer, chronic disease, obesity, loss of fertility, mass depression, learning disabilities and reproductive disorders have now become the norm, along with environmental degradation. The rhythms and cycles of nature – the atmosphere, the soil carbon cycle, the water cycle, biodiversity, the climate and even the integrity of our DNA – are unraveling.

Unless we can turn things around, shut down the factory farms, rebuild our soils, restore our watersheds and forests, and get rid of the toxins, GMOs and greenhouse gases contaminating our bodies and our environment, mounting evidence suggests that we

may soon, perhaps in the space of one generation, pass the point of no return.

Hijacked System Threatens Environment and Health

Despite all of our efforts in terms of public education and mobilization, corrupt government officials, regulatory agencies and international trade bureaucrats have allowed Monsanto/Bayer, Syngenta/ChemChina, Dow/Dupont and a cabal of multinational agribusiness, chemical, seed and GMO corporations, aided and abetted by Madison Avenue, Wall Street and the mass media, to hijack our food and farming system and slowly but surely undermine our health, degrade the soil, pollute the environment and destabilize the climate.

Although Big Food, the Gene Giants and the Factory Farm lobby have managed to derail our efforts so far to ban GMOs, toxic chemicals and factory farms, people in the U.S. and all over the world are starting to wake up.

After several decades of pressure from consumer activists, and a seemingly unending stream of food safety scandals, Big Food Inc. has continued to lose credibility and market share. Backed by corrupt politicians and powerful trade organizations such as the Grocery Manufacturers Association, the majority of large food corporations alienated millions of consumers by fighting against mandatory "country of origin" and GMO labeling of foods.

Watching consumers turn away from their products, large multinational food and beverage corporations such as General Mills, Nestle, Campbell's, Coca-Cola, Cargill, Pepsi, Kellogg's, Danone, Perdue, Unilever and others have been forced to try to shore up their reputations and market share by buying up every sizeable organic brand willing to sell out.[2]

At the same time, giant supermarket chains in North America and across the world, including Walmart, Kroger, Safeway and

Amazon/Whole Foods, have been forced by consumer demand to increase the sales and marketing of their store-brand private-label organic and "natural" products as well.

Even fast food chains such as McDonald's, Burger King and Subway, pressured by sagging sales among millennials and competition from natural/non-GMO food upstarts like Chipotle and Panera, have expanded their menus and put more emphasis on nutrition.

Having failed to shore up their sagging profits with organic acquisitions alone, the food giants have hired an army of PR firms and political lobbyists to help them fraudulently "greenwash" and market billions of dollars of their conventional (GMO-tainted, chemical and factory-farmed) products as "natural," "all natural" or "ecofriendly."

In response, groups including the Organic Consumers Association (OCA), Beyond Pesticides and Food & Water Watch have launched numerous lawsuits, suing companies for fraudulently labeling their products as natural, pasture-raised, ecofriendly or U.S.-made, when in fact they are not.

Despite all their money and power, Big Food Inc. still finds itself on the defensive, desperately trying to reach out to evermore conscious and savvy consumers, and to counteract what OCA and allied food activists have been telling consumers for 25 years: Industrial, GMO-tainted, pesticide-laden, factory-farmed foods are bad for your health, bad for farm animals, bad for small farmers and farmworkers, bad for the environment, and as more and more people are starting to understand, bad for the climate.

GMOs, Industrial Agriculture and Toxic Chemicals

A growing corps of conscious consumers is starting to understand the dangers of pesticide and drug residues in our food and water, and the threat of toxic chemicals in everyday consumer products, including clothing, body care products,

cosmetics, plastics, laundry and cleaning ingredients, mattresses, bedding, cellphones and computer devices.

America's growing health awareness is a major driver of the growth in the organic, grass fed, natural health and green products sectors. But compounding the industrial and agritoxic pollution of our food, water and environment we have now, over the past several decades, we have been dragged into the Brave New World of Genetic Engineering and Frankenfoods as well.

Genetic engineers, chemical companies and Big Pharma have begun to implement a radical and haphazard reprogramming – with little or no foresight, safeguards or precautions – of the very blueprints of life. They are genetically altering bacteria, viruses, seeds, plants, animals, foods, trees, drugs and now humans.

Almost half of America's cropland is devoted to GMO crops, including over 140 million acres of GE corn, soybeans, and cotton. Seventy to 80 percent of supermarket, restaurant and school cafeteria processed foods are contaminated with genetically engineered corn, soy, canola, high fructose corn syrup and cotton seed/vegetable oil.[3]

Meanwhile, 90 percent of our meat and animal products are coming out of factory farms, where livestock are stuffed with GMO animal feed (corn and soy), and recklessly dosed with Big Pharma animal drugs and growth promoters.

And, of course, it is not just the genetic engineering, foreign DNA, antibiotic marker genes and viral promoters in these everyday (nonorganic) Frankenfoods and crops that we need to worry about.

We also have to contend with the fact that these gene foods and animal feeds have been doused with poisonous pesticides, insecticides and fungicides. After 30 years of force feeding the public a vast array of untested, unlabeled GMOs and low-

grade, nutritionally deficient “commodity” foods and crops laced with pesticides like Roundup, dicamba, 2,4-D, chlorpyrifos, atrazine, malathion, neonicotinoids and Bt, it is no wonder that public health is steadily degenerating.

The impact on the environment of GMOs, chemical-intensive industrial agriculture and factory farms is equally devastating. They are responsible for water pollution, aquatic dead zones, aquifer depletion, degradation of the soil’s ability to absorb and hold water, air pollution, destruction of grasslands and wetlands, loss of biodiversity, killing off wildlife, insects and pollinators, and causing soil erosion and massive climate-disrupting emissions of CO2, methane and nitrous oxide.

Perhaps most dangerous of all is the impact of industrial agriculture on the loss of soil fertility and soil carbon, which has degraded the natural ability of healthy soil, plants, grasses and trees to effectively carry out photosynthesis and drawdown, thus impairing their ability to sequester excess CO2 from our supersaturated atmosphere, into our soils and biota.

Factory Farms, GMO Animal Feed and Pharma Drugs

Ninety percent of the meat, dairy, and poultry consumed by the average (malnourished, supersized) American consumer today comes from crowded, filthy, hellish factory farms and feedlots, euphemistically called CAFOs (concentrated animal feeding operations).

The daily diet of the hapless creatures in these animal prisons typically consists of pesticide-drenched GMO grains, antibiotics, growth promoters and a mind-boggling range of other Big Pharma animal drugs. The meat, dairy and poultry coming out of these animal factories is low in nutrition, routinely contaminated with harmful bacteria, pathogens and animal drugs, and loaded with artery-clogging bad fats (low in

omega-3 and high in omega-6).

Study after study links the nation's deteriorating health, including the chronic health epidemic of our children, to the increasing amounts of toxic chemicals and GMOs (essentially pesticide delivery systems) dumped into our environment and laced into our food.

Although approximately 12 percent of American consumers today, according to the latest surveys, are trying to protect ourselves and our families by always buying organic foods, and 47 percent occasionally do so, most of us are exposed day after day to a barrage of toxic, carcinogenic, hormone-disruptive chemicals and GMOs.

The average American diet, as Mercola.com and others have pointed out, is now mainly composed of highly processed junk foods (70 percent) and beverages, along with factory-farmed meat and animal products – in other words, the types of foods you can purchase at your local gas station, fast food restaurant or convenience store.

What are some of the health consequences of this toxic assault? A recent Rand Corporation study[4] found that 60 percent of Americans suffer from at least one chronic health condition such as heart disease, cancer, diabetes, obesity and arthritis; and 42 percent have two or more of these illnesses.

Chronic diseases now account for more than 40 percent of the $3.5 trillion that people are handing over to Big Pharma and the medical industrial complex. Scientific studies indicate that the overwhelming majority of these chronic diseases are caused by environmental and dietary toxins, rather than hereditary factors.

Half of all Americans are now expected to come down with cancer at least once in their lifetime. According to recent research, U.S. men born in 1960 have a lifetime cancer risk of

53.5 percent. For or women it's 47.5 percent.[5] Seventy percent of U.S. drinking water is now contaminated with Monsanto's toxic herbicide, Roundup,[6] while 93 percent of consumers now have traces of Monsanto's poison (active ingredient glyphosate) in our urine.[7]

Today, 1 in 13 U.S. children has serious food allergies; 6 to 24 percent have serious intestinal problems; 20 percent are obese; 60 percent have chronic headaches and 20 percent suffer from mental disorders and depression. One in every 41 boys and 1 in every 68 girls is now diagnosed with autism.[8]

Deteriorating public health is not just a problem in the U.S. It's also a global crisis. Of the toxic stew of GMOs and chemicals dumped into the environment or laced into food or other consumer products, 99 percent or more have never been individually tested for their toxicity on animals or other living organisms, much less in combination with other synthetic chemicals, which is how most humans and animals ingest or come in contact with them.[9]

As a result, the overwhelming majority of us are exposed every day to literally hundreds of different toxins, whether we're talking about our food, water, air, home and work environment, medical drugs, or everyday consumer products. As longtime Australian organic farm leader and pesticide expert Andrew Leu points out:[10]

> *"Regulatory authorities are ignoring a large body of peer-reviewed science showing the harm caused by pesticides and they are making decisions on data-free assumptions … A study by the U.S. Centers for Disease Control found a cocktail of many toxic chemicals in the blood and urine of most Americans."*

Soil Degeneration

Genetically engineered (GE) crops, toxic agrichemicals, industrial monocultures and factory farms are steadily degenerating not just our health and our air and water, but our soils as well. Erosion, compaction, loss of nutrients and salinization are now widespread.

Healthy soils, rich in carbon organic matter and microorganisms, and the plants, trees, and animals that depend upon a carbon rich soils, are the key to human health and nutrition. Our soils are the foundation for global biodiversity. They are also the most important factor in maintaining a climate-stabilizing balance between the amount of CO2 in our atmosphere and oceans, and the amount of carbon in our soils and biota.

Soils also regulate the flow of water from rainfall or snowmelt, and filter or reduce toxic pollutants, whether from industrial, agricultural or municipal sources. GMOs and industrial commodity crops cannot grow without the massive use of pesticides and chemical fertilizers.

In fact, GMO seeds are explicitly designed and patented by corporations such as Monsanto in order to maximize sales of their proprietary pesticides such as Roundup. Unfortunately, spraying pesticides and dumping enormous amounts of chemical fertilizers on farmland kills the soil, eliminating soil organic matter and the microorganisms that give rise to soil fertility and nutritious food.

Under the impact of degenerative food, farming and land-use practices, which include deforestation, heavy plowing, monocropping (growing the same crop every year) and the heavy use of pesticides and synthetic fertilizers, most agricultural soils have lost 30 to 75 percent of their original soil organic carbon.[11]

Seventy-five billion tons of topsoil, with a market value of $400 billion are lost every year to wind and water erosion,

mainly from farms and ranches utilizing chemical-intensive, soil-degenerating farming methods.[12]

Before carbon-sequestering forests, mixed traditional cropping and grasslands were ravaged by chemical-intensive and now GMO and factory-farmed industrial agriculture (and industrial forestry), global soil organic matter generally comprised 6 to 10 percent of the soil volume – three to six times the 1 to 3 percent levels typical of today's industrial agriculture soils.

In other words, taxpayer-subsidized, chemical-based industrial agriculture, factory farms and unrestricted grazing (along with industrial forestry) have turned the earth's soil (which still contains three times as much carbon as the entire amount of CO2 in the atmosphere) from being a major climate-stabilizing carbon sink into a massive and dangerous source of greenhouse gas emissions and global warming.

Forty percent of the world's agricultural soil is now classified as degraded or seriously degraded. That means that up to 70 percent of the topsoil is gone.[13]

Unless soils are regenerated and forests and wetlands are restored, billions of small farmers and rural villagers will lose their livelihoods and be driven off the land. In the meantime, billions of urban consumers will suffer the consequences of eating nutrient-deficient, chemical- and GMO-contaminated foods.

Healthy soil is also a key factor in determining whether the world's three billion farmers and rural villagers can make a living off the land, or whether they are forced to migrate to large cities or foreign countries in search of a job and a decent standard of living. According to the United Nations Convention to Combat Desertification:[14]

> *"The Earth is the fundamental pillar of civilization … The*

> *erosion of soil, desertification and the shortage of water contribute to the stress and rupture of society. In this sense, the degradation of the soil can be considered as a 'threat amplifier,' especially because it gradually reduces the capacity of people to utilize the land for the production of food, the procurement of water and other vital ecosystem services."*

The destruction of soil carbon (and soil fertility), via degenerative farming, grazing and improper land use, is disturbing given that the top 3 feet of the world's soil holds three times as much carbon as the entire atmosphere.[15] This makes the soil a major repository for carbon (along with forests and oceans) and therefore a major factor in maintaining climate stability.

Deforestation and destructive agricultural practices over the past 10,000 years have released 320 billion tons of carbon into the atmosphere. Burning fossil fuels has released another 292 billion tons.[16] Over time, this steady loss of soil carbon (and soil biodiversity and fertility) released into the atmosphere has not only changed the climate, but has also affected the quality of our foods.

Today's nonorganic foods have lost 25 to 75 percent of the essential nutrients and trace minerals compared with 50 years ago.

As the journal Scientific American points out, "… fruits and vegetables grown decades ago were much richer in vitamins and minerals than the varieties most of us get today. The main culprit in this disturbing nutritional trend is soil depletion: Modern intensive agricultural methods have stripped increasing amounts of nutrients from the soil in which the food we eat grows."[17]

Massive soil degradation has taken place in every nation, not

just the U.S. In a recent news report,[18] scientists point out that that the U.K. appears to be 30 to 40 years away from the "eradication of soil fertility."

From Degeneration to Regeneration: Five Steps

OK. Enough of the bad news. What do we do about all this? How do we move from degeneration to regeneration? How do we defeat Bayer/Monsanto, Big Food and Big Pharma? How do we take back control of our health and our diets, clean up the environment, and join in the global effort to reestablish a stable climate?

Fortunately, millions of us are already rejecting GMOs, pesticides and factory farms, and embracing organic food and natural health practices and lifestyles. Here are some things all of us can do:

1. Stay informed and spread the message of organic, biodynamic and regenerative food, farming and natural health among your family, friends and neighbors. Some of the best newsletters, websites, social media and sources of information include Mercola.com, OrganicConsumers.org and RegenerationInternational.org.
2. Boycott GMOs, toxic pesticides and factory-farmed meat, dairy and poultry – today and every day.
3. Buy organic, biodynamic, 100 percent grass fed, pasture-raised and other regenerative foods and consumer products.
4. Get involved with other natural health activists and regenerators in changing public policy at the local, state and national levels. Become a grassroots citizen lobbyist with the Organic Consumers Association or OCA's grassroots lobbying arm, the Citizens Regeneration Lobby.
5. Make a tax-deductible donation to the Organic Consumers Association or Regeneration International to support our ongoing campaigns against Monsanto, GMOs and factory farms.