

# Global Warming, “Grass” Farming and a Planned Economy

As the Global Climate Strike date (Sept. 20) approaches, the question that will be on the minds of millions will be: “Is there a possible way to avoid a disaster that could threaten the existence of life on earth?” Michael Pollan’s book *The Omnivore’s Dilemma* helps provide an answer, and that answer is “yes,” but with some qualifications. Here’s why:

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Then there's the evolution aspect. Corn has evolved to be completely reliant on human beings. That's because its seeds (kernels) are tightly encased in leaves and cannot be released on their own. Also, because the corn seeds grow half way up the plant, they absorb more of the plant's energy, meaning that the growth of the plant, itself, takes up less energy related to the production of the corn seeds (the kernels) than in other annuals (wheat, barley, etc. all of which die at the end of their growing season).

These features (plus a few more) made early societies like the Aztecs dependent on corn. As Pollan puts it, "corn has succeeded in domesticating us." And because of its complex pollination system, corn proved easy to hybridize. The Native Americans hybridized thousands of different species of corn, adapted to different soils and climates. Also, corn is an easy crop to store for long periods of time.

### **US Agricultural policy and corn monoculture**

Under FDR, US agricultural policy was to keep the small farmers in business by in effect paying them not to grow too much in order to keep prices higher. Under Reagan, that changed to direct price subsidies. No matter how much a farmer grew, a certain price was guaranteed and if they got a lower price, the federal government paid the farmer the difference. This induces the farmer to grow ever more. Economies of scale means that growing massive amounts of a single crop creates more profits. Corn is a natural for monoculture because of the amount it produces from a single kernel. The fact that it depletes nitrates from the soil at a higher rate than other



crops is not a deterrent because of the development of modern chemistry; chemical fertilizers take care of that (to a point). And if monoculture attracts pests, then modern pesticides can take care of that too. The resulting soil depletion (also due to plowing the soil) are compensated for by ever

increasing doses of chemicals. These facts lead to a policy that rewards the huge growers.

“So the plague of cheap corn goes on, impoverishing the farmers (both here and in the countries to which we export it), degrading the land, polluting the water, and bleeding the federal treasury, which now spends up to \$5 billion a year subsidizing cheap corn,” writes Pollan. In 1970, the US produced 4 billion bushels of corn. By 2005, that was 10 billion, according to Pollan. (By 2013-14 it had increased to [13 billion bushels](#).)

As for what to do with all the surplus corn, again modern chemistry takes care of that, partly through breaking down the corn into such products as high fructose corn syrup, which is added to huge numbers of processed foods. But the single greatest user of corn and corn by-products is the beef industry; 60% of the corn produced in the US goes to feed cattle on the feed lots, known as “Concentrated Animal Feeding Operations” or CAFO’s.

Here, the cattle are concentrated by the thousands in huge, open air pens and fed a mixture of products, most of which cows did not evolve to eat. Corn and corn by products are the major ingredient. Because cows (which are ruminants) evolved to eat grass, not corn, they do not digest the corn easily and are subject to infection and disease as a result. That’s partly why they have to be fed antibiotics on their way to their date at the slaughter house.

These methods not only produce unhealthy meat, they also deplete the soil by killing off the bacteria and insects that maintain soil fertility and health. By plowing the earth, they help increase erosion. There is also the run-off of nitrates and pesticides which damage the environment, including causing algae bloom in oceans.

Not directly mentioned in Pollan's book, but of significance here, it is [estimated](#) that 9% of global greenhouse gas emissions comes from agriculture. We will see the relevance below.

## Organic farming

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Pollan also says that it has been shown that organic vegetables are, in fact, higher in nutritional value. That may be because the plants are forced to produce their own defenses against pests – defenses which translate into nutrition for us. Another possible reason might be that the soil is healthier and provides more nutrients.

It does little or nothing for the issue of global warming, however. That's because, according to Pollan 80% of the fuel used for agriculture is used to bring food to the market. According to the [US Department of Agriculture](#), 30% by weight of all hauling by rail, roadways and waterways is so used. The transport sector is the single [largest emitter](#) of greenhouse gas (at 29% of the total). But these figures are misleading; they underestimate how a transformation in agricultural practices can be a huge step away from global climate disaster.

### **“Grass farming”**

No, we're not talking about growing and smoking pot! We're referring to what is also known as *regenerative farming*. To understand this, we have to return to the beginning.

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### **Joel Salatin**

Enter Joel Salatin, about whom Pollan spends a major portion of his book. Although he calls himself a “grass farmer”, Salatin raises not only beef, but hogs, chicken (both broilers and egg layers), turkeys, rabbits and vegetables. Salatin mimics nature by how he raises his animals through “managed grazing”. He divides his pastures into small “paddocks” enclosed with mobile electric fences and moves the cattle from one paddock to another every few days.

How does all this relate to the issue of greenhouse gas emissions and global climate disaster? Let’s get back to the roots, literally – the roots and the dirt they grow in.

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**Joel Salatin with his contented cattle**

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Salatin explains to Pollan that grass grows in phases – slowly at first, then a sudden spurt and then another slow stage where it becomes “woody” and less sweet. He explains that it’s vital to have the cows graze at the peak of the first growth phase, after it’s started to grow but before the growth levels off. This accomplishes a couple of things: It allows the lower-to-earth grasses such as clover to grow. A legume, clover fixes nitrogen to the soil with its roots. This rotational grazing also stimulates the just grazed grass to grow again. In doing so, the grass puts most of its energy into growing above the soil, shedding much of its roots, which then decay below ground, enriching the soil.

### **First cows, then chickens**

After the cattle, Salatin brings in the chickens who, among other things, eat the fly larvae growing in the cow manure. Scratching and clawing at the manure to get at the larvae, they also help spread it. Also, by eating the larvae, they eliminate a huge mass of flies, thereby eliminating the need for Salatin to bathe his cattle in pesticides. They, too, leave their nitrogen-rich droppings in the paddock as they happily run about doing what chickens were born to do.

### **Carbon “sequestration” (removal)**

Here’s *where the issue of carbon emissions and sequestration (removal of carbon from the atmosphere) comes in.* According to Pollan “if the sixteen million acres now being used to grow corn to feed cows in the United States became well-managed pasture, that would remove fourteen billion pounds of carbon



from the atmosphere each year, the equivalent of taking four million cars off the road.” Given that there are about [270 million](#) cars in the US, that is just a drop in the bucket. But it shows how “grass farming” could be a major step in the right direction, if combined with other fundamental economic and political changes.

These changes include one that Salatin insists on: Selling locally only. Since as Pollan explains, 80% of the fuel used in bringing food to the market is used by processing and transporting the food, consuming locally grown foods would be another important step.

### **Up to individual consumers?**

Simply leaving it up to individual consumers to “consume locally” is a non-starter. It might make a few people feel morally just doing so, but it won’t counter all the pressures that agribusiness and their allies bring to bear. In addition, businesses from Cargill to Dow Chemical have too much influence to ever allow such methods to become generalized. From imposing all kinds of “health” requirements on slaughterhouses that enable only the biggest to survive, to socializing the real costs (in terms of environmental degradation, human health, etc.) thereby enabling them to sell cheap, industrial agriculture will remain the order of the day under capitalism. But Salatin’s “grass farming” (he actually backtracks and says he’s not even farming grass; he’s farming solar power!) shows what’s scientifically possible.

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# TOP 10 LARGEST U.S. FARM SUBSIDIES RECIPIENTS (2008-2017)

NAME	CITY	STATE	ZIPCODE	AMOUNT
CONCORDIA ALLIED PRODUCERS LLC	ASHBURN	GA	31714	\$23,787,621.00
SCOTT FARMS G P	BRINSON	GA	39825	\$21,988,168.00
HEARD FAMILY FARM	BRINSON	GA	39825	\$20,874,304.00
HADER FARMS PARTNERSHIP	ZUMBROTA	MN	55992	\$19,946,024.00
CROSSROAD FARMS	WILLIAMSPORT	IN	47993	\$18,603,265.00
AMERICAN PEANUT MARKETING ASSOC.	LEARY	GA	39862	\$17,907,523.00
JENKS FAMILY FARMS	MONMOUTH	IL	61462	\$17,363,798.00
MICHAEL STAMER FARMS GENERAL PART	WILLMAR	MN	56201	\$14,191,190.00
P G C FARMS	BRINSON	GA	39825	\$14,164,396.00
DELINE FARMS PARTNERSHIP	CHARLESTON	MO	63834	\$14,053,570.00

SOURCE: Department of Agriculture data released via FOIA.



The largest recipients of farm subsidies. It's big business.

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As for the smaller farmer, like a drug addict hooked on meth, once she or he is hooked on government subsidies to raise corn, it's nearly impossible to get off. That's because after just a few years the soil has become so depleted (and also compacted by the use of heavy equipment) that it would take years to recover. Meanwhile, the mortgage and other debts have to be repaid. And big farm or small, the over [90 million acres](#) of farmland devoted to raising corn involve massive investment in that particular crop.

According to Pollan, just two companies – Cargill and ADM – buy one-third of all the corn produced in the US. They control the corn-growing process from start to finish. All this means that there are powerful investments in keeping US agriculture as it is.

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Corn is also essential to the food processing industry, as Pollan explains. He also explains the profits involved. Whereas 40% of the retail price of an egg (= unprocessed food) goes to the farmer whose chickens laid the egg, only 4% of the price of the ubiquitous corn sweeteners go to the corn farmer. (This also proves the labor theory of value!) As Pollan quotes farmers, “there’s money to be made in food, unless you’re trying to grow it!”

According to the capitalists – including Bill Gates, who [salutes](#) the chemical fertilizer industry – all these methods are necessary in order to provide inexpensive food. But is it really so cheap? The reality is that they have once again privatized the profits while socializing many of the





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Then there's another issue: This writer, who grew up in New York City, worked for a couple of summers on dairy farms as a teenager. My experience tells me how enormously healthy, both physically and mentally, such work is, especially for young people. Yes, "getting back to nature" should be part of a planned economy!

Another part would have to be preserving wilderness areas. Three quarters of Polyfarm is actually forest. And Salatin explains how the forest areas are necessary for soil and general environmental health of the rest of the farm.

All of this and more would have to be considered in planning an economy.

As shown by the failure of the Soviet Union and similar governments, such a plan can only succeed if it is managed and controlled by the workers themselves, including such farmers as Joel Salatin. In other words, through a workers' state.

And how we get there is a whole other topic!

### **Further reading**

If you found this article interesting, you would be interested in the following:

David Walters has written further on the topic of regenerative agriculture. See [\*Developing a Marxist approach to global agriculture: A primer on the role of animals in maintaining soil health.\*](#)

Also relevant is the article [Can the green new deal save the planet?](#)

In [The Environmentalist Manifesto](#) we expose the role of the non profits and the union bureaucracy in tying the environmental movement to the Democratic Party and to big business, thereby watering down that movement.

Finally, for a Marxist approach to how a workers state can develop, see our pamphlet [What is Revolution?](#)

*Originally posted at [Oaklandsocialist.com](#).*