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Farm Subsidies Are Harm Subsidies

By J. Bishop Grewell

Agriculture is one of the most interfered-with industries on earth. Across the world, government subsidies wreak havoc with farm economies. Though we haven't made much progress in eliminating the payments, this concept is increasingly understood by Americans. What's less appreciated is that subsidies also cause environmental problems. By encouraging the cultivation of unneeded marginal land, overuse of scarce environmental resources, and increased use of chemicals, farm subsidies harm the ecosystem as well as consumers and even farmers.

Thanks to U.S. price supports, agricultural economist Del Gardner notes, "land has been cultivated . . . that would have remained in rangeland and forests, especially in the southern region and in the semi-arid and arid regions of the Great Plains and Rocky Mountains." "Aided by government farm programs," writes John Hosemann, retired chief economist of the American Farm Bureau, "farmers clearcut and drained large tracts of forestland, particularly in the Mississippi River delta region but also in the mid-Atlantic states." In the Florida Everglades, over half a million acres of swamplands have been converted to sugar fields to take advantage of government subsidies.

Subsidies also lead to increased use of chemical inputs. In a study of six farming states, Jonathan Tolman found that eliminating subsidies would reduce fertilizer use by 29 percent. In the North Carolina coastal plain, elimination of subsidies could reduce water pollution from nitrogen leaching by 46 percent, according to re-searchers Kathleen Painter and Douglas Young.

Even when subsidies are tailored for supposed environmental benefits, they often end up doing more ecological harm than good. Consider two of the main “Green” endeavors paid for by the U.S. government--ethanol production and the Conservation Reserve Program. Both demonstrate how the unintended consequences of market manipulations can do damage despite the best of intentions.

Ethanol

One of the most egregious agricultural subsidies in the U.S. today underwrites the production of ethanol--a gasoline substitute made from corn. While purporting to help the environment, it actually has the opposite effect.

The ethanol program provides a bonanza for corn-producing states such as Iowa and South Dakota. Powerful senators and Iowa’s importance to Presidential nominations have garnered these regions a subsidy equivalent to 54 cents per gallon of ethanol produced. The vast majority of the money goes to one agribusiness: Archer Daniels Midland, which produces 60 percent of the nation’s ethanol and receives in excess of \$400 million per year from the federal treasury in doing so.

One might overlook these costs if ethanol actually did what its proponents claim (reducing air pollution while providing domestically produced energy). But ethanol is no boon. Cornell researchers David and Marcia Pimentel report that ethanol is actually an environmental nuisance when all aspects of its production are taken into account: “Ethanol produced from corn causes environmental degradation from increased soil erosion and aquifer mining, from soil, water, and air pollution, and from increased emissions of global-warming gases.” But according to the General Accounting Office, “little change in air quality or global environmental quality” would result if ethanol subsidies were ended.

The Environmental Protection Agency and the California Air Resources Board made similar claims after conducting studies on a possible exemption for California from 1990 Clean Air Act requirements that oxygenates be added to gasoline in regions that failed to meet the federal air quality standards for smog. (Ethanol had become the only oxygenate choice after groundwater was polluted from use of its lone competitor, MTBE. But other researchers found that ethanol actually increases the evaporation rate of gasoline, which leads to pollutants that increase smog. And 14 of the EPA’s 18 own most realistic models showed smog would decline if California was freed from the ethanol requirement. Smog and its components, the EPA has reported, pose a greater threat to humans than the one thing ethanol does reduce: carbon monoxide. Though quite dangerous without ventilation, carbon monoxide is relatively benign outdoors.

The most perverse aspect of subsidized ethanol production was uncovered by David Pimentel. He calculates that it actually consumes more energy to produce a gallon of ethanol than the ethanol itself provides. While a 2002 report from the Department of Agriculture claims that increased corn yields have converted ethanol from a net energy waste to a net energy gain, Pimentel’s 2003 study maintains that ethanol uses 29 percent

more energy than it creates due to tractor fuel, irrigation pumps, and other inputs. According to Pimentel, 99,119 BTUs of energy are expended to create the 77,000 BTUs in a gallon of ethanol. In other words, the government is keeping farmers busy by paying them to waste energy.

The ethanol support program was started with good intentions. It does reduce carbon monoxide emissions, and the problems with evaporation were not known when the country first started ethanol subsidies in the late 1970s. But with our current knowledge, it would be best if the program went the way of the dodo.

The Conservation Reserve Program

The CRP is another agricultural subsidy that both wastes money and creates environmental harm. Implemented in 1985, the CRP pays farmers to take cropland out of production. The primary goal was to protect lands prone to erosion by setting them aside and not plowing them. Additional goals--improved water quality, better wildlife habitat, and the return of native grasses--were later added to build support for the program among environmentalists and hunters.

CRP payments are made on a per-acre basis. In 1996, farmers were paid about \$50 per acre not to farm. Total payments that year reached \$1.8 billion, and 36 million acres were removed from production, an area the size of Michigan. Annual costs have held at about that level since then.

The problem with CRP is that it does not accomplish anything. Farmers have kept food production at about the same level as before the program. They've done this in two ways:

First, previously uncropped land is brought into production to counterbalance the retired acres. A University of Minnesota geographer conducted a five-year study on CRP's progress in removing land from production on the Great Plains during the early 1990s and found that while farmers received payments to remove 17 million acres from production, total cultivated land in the region fell by only 2 million acres. The geographer concluded that "for every eroding acre a farmer idles, another farmer--or sometimes the same one--simply plows up nearly as much additional erosion-prone land."

Second, farming is intensified on the lands already in production. Additional fertilizer and pesticides are heaped upon crops to get a higher yield to make up for the land lost to CRP. Whether the net result is more or less overall chemical use is hard to say, but it is clear that the concentration of chemicals increases on land remaining in production, which is probably a greater threat to human and animal health.

A popular argument in defense of farm subsidies is that they make agricultural products more affordable for consumers. But do they? Keep in mind that if subsidies were eliminated, the average consumer would have more money in his or her pocket with which to buy food in the first place. In the year 2000, taxpayers made \$20 billion in direct

payments to farmers; that's \$80 for every man, woman, and child in the country. It's hardly evident that prices would rise by more than that without subsidies.

In the short run, a removal of subsidies would cause producers to produce less, and prices would rise. But, over the longer term, there are several reasons to think prices would return to current levels rather rapidly. For one thing, subsidies are often implemented in the form of price floors. The government buys up excess output to keep prices for certain products from falling below agreed levels. By definition, these particular subsidies prevent lower prices.

Second, today's agricultural subsidies create an entry barrier for new farmers or ranchers who might be able to do the job better. Most subsidies go only to those who are already in the farming game, because they are based on previous years' production. By keeping newcomers out, and less efficient producers limping along, subsidies prevent competition. In addition, the future value of subsidy flows gets "capitalized" in higher land prices. The General Accounting Office reports that younger people wishing to enter agriculture today are frequently discouraged by high prices for farmland due to subsidies.

Finally, agricultural subsidies are a major obstacle to reducing trade barriers (the trimming of which could lower a plethora of agricultural prices). U.S. subsidies lead other countries to close their doors to our exports, and to keep their own inefficient producers in business in a subsidized state. This increases food prices not only for U.S. consumers but also for consumers in other countries. Worse, because farm protectionism opens the door to protectionism generally, countless other goods become more expensive as well.

Farm subsidies thus turn out to be something rather perverse: not good for the environment, not good for farmers, and not good for consumers.

Adapted from J. Bishop Grewell's new book Ecological Agrarian, cowritten with Clay Landry. It was researched at PERC, the Center for Free Market Environmentalism.



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