

# Impact of Agricultural Safety Net on Water Quality



The Great Depression and the Dust Bowl caused colossal harm to the agriculture sector in the United States. In response to these disasters, Congress passed legislation to provide a safety net for agribusinesses and stem the physical and financial shocks to the agriculture sector through price and income supports.

That was 100 years ago, and much has changed since then. Yet the safety net for farmers and ranchers remains the same. Taxpayers subsidize the incomes of agribusinesses through minimum prices, supply management, and other interventions to the market.

Even worse, these policies negatively impact the nation's water systems by subsidizing a safety net that incentivizes production over risk management. This leads to increased farming on marginal lands and increased fertilizer use to produce more yield. In turn, chemicals in fertilizer then produces runoff into our nation's rivers and lakes. And this increase in runoff has led to algal blooms in the Great Lakes and the southeast as well as hypoxia in the Gulf of Mexico.<sup>i</sup> This unvirtuous cycle of nitrogen fertilizer that runs downriver from midwestern farms to the Gulf of Mexico has caused up to \$2.4 billion in damages to fisheries and marine habitat every year since 1980.<sup>ii</sup> Agriculture contributes about 60 percent of delivered nitrogen and more than 49 percent of delivered phosphorus to the Gulf.<sup>iii</sup> The Chesapeake Bay has also been negatively affected due to runoff, with 38 percent of the Bay's nitrogen loads, 45 percent of its phosphorus, and 60 percent of its sediment loads due to agricultural runoff.<sup>iv</sup>

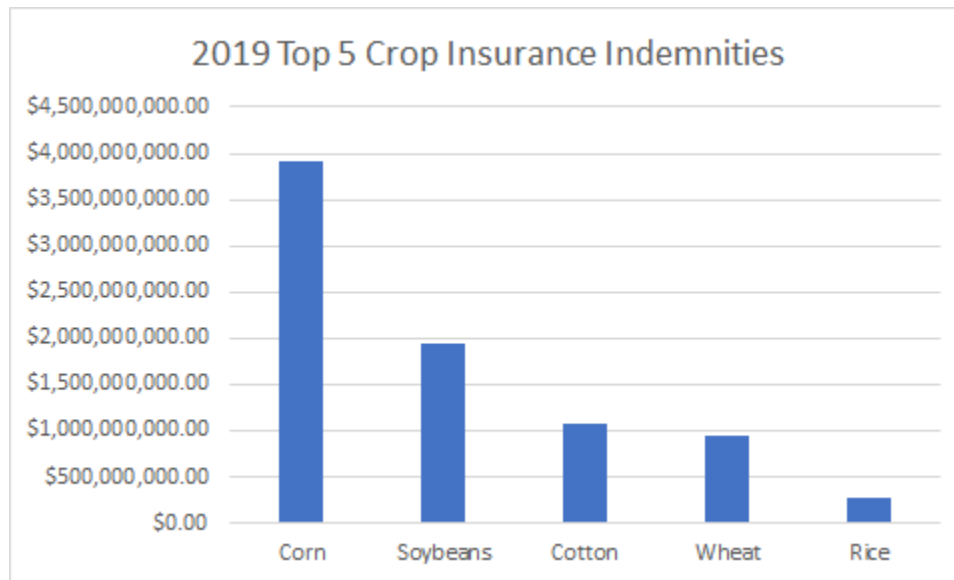
These environmental impacts have costs for both taxpayers and consumers. The government should reform these draconian safety net policies to reduce the environmental impact of agriculture and allow farmers the opportunity to develop more resilient operations.

## **Safety Net Programs Focus on Production**

The safety net programs for agriculture incentivizes producers to concentrate on short-term profits at the expense of long-term productivity. This leads agribusinesses to focus on planting crops that have the highest rate of subsidy, like corn, as well as producing it on the most acres as possible, including those on marginal lands. Corn also requires a high amount of nutrient use, which leads to increased agricultural runoff into our rivers and streams. The purchase of fertilizer represents a substantial portion of agricultural operation costs.<sup>v</sup>

The federal crop insurance program also incentives production over risk management. Crop insurance is a taxpayer subsidized program that provides production and revenue relief for over 100 crops when disaster strikes. 70 percent of federal crop insurance policies are revenue policies, protecting farm businesses from dips in anticipated revenue, rather than from crop loss due to unexpected weather or disease. This means that crop insurance ensures an expected level of income for producers every year, regardless if they experience an actual loss of crops. In 2019, \$10 billion in indemnities were distributed to agribusinesses. 81 percent of indemnities went to producers of five crops – corn, soybeans, wheat, rice, and cotton. Because federally subsidized crop insurance is tied to planted acreage, agribusinesses can expand their eligibility for federal payments if they plant more acres to these farm program-favored crops.

# Impact of Agricultural Safety Net on Water Quality



Shallow loss income programs also focus on production over risk management. The Agriculture Risk Coverage (ARC) program provides payments to producers when revenue of a commodity is less than the five-year average revenue. The Price Loss Coverage (PLC) program issues payments to producers when the price of a commodity is less than the reference price for that commodity in the farm bill. Covered commodities include corn, soybeans, wheat, rice, and 19 others. Shallow loss income programs were established in the 2014 farm bill to replace the infamous direct payments to farmers and move toward a risk management system.

The 2014 farm bill allowed for a one-time election of ARC or PLC for the 2014 through 2018 crop years. The majority of producers chose ARC over PLC based on the expected payout. For three of the five years, the producers who chose ARC gambled and won, yet the 2017 and 2018 crop years experienced low prices with little payments to ARC producers. In reaction to this, the 2018 farm bill allowed producers to make an election every year for each crop year in order to receive the biggest payout. Like crop insurance, growers of corn, soybeans, wheat, and rice received the most in shallow loss income subsidies.

## Ad-Hoc Programs

Disaster programs for farmers and ranchers have also negatively affected the water quality in the United States. Congress appropriated a total of \$5.4 billion in ad-hoc aid in response to active hurricane seasons and other natural disasters in 2017, 2018, and 2019 to compensate farming and ranching businesses for economic losses.<sup>vi</sup> A crop insurance indemnity went to producers affected by the disasters even though they made the decision to not purchase it on their own. A bonus payment also went to producers when they did choose to purchase crop insurance.

# Impact of Agricultural Safety Net on Water Quality



Flood damage in the Midwest during the spring of 2019 was exacerbated by the lack of soil health. Dr. Bianca Moebius-Clune, Soil Health Division Director with the Natural Resources Conservation Service (NRCS) stated land managers *can* manage their land to increase the soil's ability to take in, or infiltrate and drain, rainwater.<sup>vii</sup>

Trade aid has also increased the environmental impact of agriculture. In response to the Trump Administration imposing tariffs on a range of products, other countries reciprocated and targeted American agricultural exports. The USDA assisted American farmers and ranchers with \$23 billion in market facilitation payments, the majority of which went to nutrient-intensive commodities like corn and soybeans.

## What We Can Do to Improve Water Quality

The best thing we can do as taxpayers and stewards of the land is focus the agricultural safety net on true risk management. This includes making conservation a tool for increasing financial and physical resilience. An increasing body of evidence shows that adopting conservation practices can make farmers and ranchers more physically and financially resilient to production and price risk, increasing their profitability.

Lawmakers should focus on removing barriers to education, collaboration, and innovation with conservation. Federal policy should invest in programs with measurable outcomes, invest in data sharing within USDA, universities, and other stakeholders, as well as increase accountability for results by prioritizing what works best.

We must provide the USDA with statutory authority to measure, evaluate, and report on conservation program outcomes.<sup>viii</sup> This includes increased involvement of USDA in reporting the success of conservation programs to agribusinesses, including decreasing the cost of production and increasing soil health which leads to less runoff.<sup>ix</sup> As well as leverage available taxpayer-funded program performance data to help identify how increased adoption of conservation can enable farmers and ranchers to increase their profitability.<sup>x</sup> We must also eliminate subsidies for producers with an AGI over \$250,000 as well as limiting to \$40,000 the amount of premium subsidies an individual can receive per year.<sup>xi</sup> Lastly, we must stop setting up farmers with bad federal policies and then bailing them out.

## Conclusion

Agriculture is a significant factor in deteriorating water quality. As the Environmental Protection Agency states, there are solutions to this problem that can have positive effects for farmers and ranchers as well as the environment.<sup>xii</sup> This includes year-round ground cover, field buffers, conservation tillage, and watershed efforts. Engaging in these conservation activities, and many others, while moving away from the current agricultural safety net will be a benefit for the ag sector, the environment, and taxpayers.

***For more information contact, Joshua Sewell, 202.546.8500 x116  
josh@taxpayer.net***

# Impact of Agricultural Safety Net on Water Quality



- 
- <sup>i</sup> U.S. Environmental Protection Agency (EPA) and Environment and Climate Change Canada. State of the Great Lakes 2019 Highlight Report. 6/3/2020. <https://binational.net/wp-content/uploads/2020/05/May-4.2020-2019-SOGL-FINAL.pdf>
- <sup>ii</sup> Union of Concerned Scientists. Reviving the Dead Zone. 6/1/2020. <https://www.ucsusa.org/sites/default/files/2020-05/reviving-the-dead-zone.pdf>
- <sup>iii</sup> *Reducing Nutrient Losses From Cropland in the Mississippi/Atchafalaya River Basin: Cost Efficiency and Regional Distribution*, by Elizabeth Marshall, Marcel Aillery, Marc Ribaud, Nigel Key, Stacy Sneeringer, LeRoy Hansen, Scott Malcolm, and Anne Riddle, ERS, September 2018
- <sup>iv</sup> *An Economic Assessment of Policy Options To Reduce Agricultural Pollutants in the Chesapeake Bay*, by Marc Ribaud, Jeff Savage, and Marcel Aillery, USDA, Economic Research Service, June 2014
- <sup>v</sup> Nigatu, Getachew, Flavius Badau, Ralph Seeley, James Hansen. 2020. Factors Contributing to Changes in Agricultural Commodity Prices, ERR-272, U.S. Department of Agriculture, Economic Research Service.
- <sup>vi</sup> Taxpayers for Common Sense. Whipping Up Agricultural Disaster Spending Since 2017. 4/22/20. <https://www.taxpayer.net/agriculture/whipping-up-agricultural-disaster-spending-since-2017/>
- <sup>vii</sup> Creech, Elizabeth. Natural Resources Conservation Service. Soil Health Practices for Mitigating Natural Disasters. 2/28/18. <https://www.usda.gov/media/blog/2018/02/28/soil-health-practices-mitigating-natural-disasters>
- <sup>viii</sup> Taxpayers for Common Sense. Common Sense Legislation to Improve Agricultural Conservation Programs. 3/11/20. <https://www.taxpayer.net/agriculture/common-sense-legislation-to-improve-agricultural-conservation-programs/>
- <sup>ix</sup> Taxpayers for Common Sense. Agricultural Conservation: A Common Sense Tool for Fiscal Sustainability. 11/26/19. <https://www.taxpayer.net/agriculture/agricultural-conservation-a-common-sense-tool-for-fiscal-sustainability/>
- <sup>x</sup> Taxpayers for Common Sense. Agricultural Conservation and COVID-19 Assistance. 5/28/20. <https://www.taxpayer.net/agriculture/agricultural-conservation-and-covid-19-assistance/>
- <sup>xi</sup> Taxpayers for Common Sense. Support Bipartisan Crop Insurance Reform Legislation. 2/24/20. <https://www.taxpayer.net/agriculture/support-bipartisan-crop-insurance-reform-legislation-2/>
- <sup>xii</sup> Environmental Protection Agency. Nutrient Pollution. <https://www.epa.gov/nutrientpollution/sources-and-solutions-agriculture>