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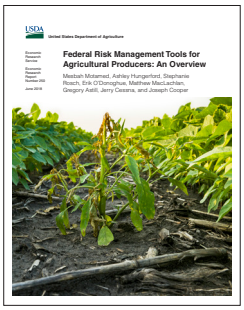

Federal Risk Management Tools for Agricultural Producers: An Overview

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What Is the Issue?

Agricultural producers employ a variety of strategies to manage risk in production and markets, including participation in Federal risk management support programs. These programs, often updated with every new Farm Act, can vary widely in their coverage and mechanics, with market and production conditions potentially affecting producers' decisions and outcomes. This report summarizes the current landscape of Federal risk management programs in agriculture, describes the various triggers and payment formulas, analyzes the interactions among the different programs, and calculates their effects on producers' revenues.

What Did the Study Find?

For decades, Federal risk management programs have offered crop producers the opportunity to reduce their revenue variability and income risk due to bad weather, disease outbreak, fluctuating prices, and other causes. These programs include crop insurance tools to manage revenue and yield risk for producers of covered commodities, as well as disaster assistance payments for noninsurable crops.

- Since the 1990s, agricultural area covered by crop insurance programs has steadily grown, reaching 300 million acres in 2017. The largest program by area and total liabilities is Revenue Protection (RP), which can reduce revenue variability for producers of corn, soybeans, and wheat by one-quarter to one-third, and also raise average per acre revenues. The Yield Exclusion option, introduced in the 2014 Farm Act, allows producers to omit very low yields from their yield history and potentially raise their guaranteed revenue or yield level. Enrollment of eligible acres in the new Yield Exclusion option varied across States, from 44 percent to under 10 percent, while corn garnered the most enrollment relative to other crops.

- The Noninsured Crop Disaster Assistance Program (NAP), which compensates producers for catastrophic losses to certain crops in certain counties (e.g., specialty crops), experienced a doubling of enrollment from 2014 to 2015 thanks to the recent introduction of NAP-Buy Up, which offers producers improved risk reduction and slightly higher average revenues.

- The Supplemental Coverage Option (SCO) and Stacked Income Protection (STAX), shallow-loss programs that were also implemented in the 2014 Farm Act, offer producers an additional layer of coverage on top of traditional crop insurance. But

simulations showing lower expected returns and risk reductions compared to other options may point to why uptake in these programs has been so low.

In addition to crop insurance options, the Federal Government has also long offered producers a variety of support programs that respond to downward swings in prices or revenues. Under the 2014 Farm Act, producers with historical base acres of designated commodities can participate in either the revenue-based Agriculture Risk Coverage (ARC) program or the price-based Price Loss Coverage (PLC) program. Producers' beliefs about future prices and yields can inform their specific program election and, in combination with their chosen crop insurance policy, can ultimately influence their expected revenues and risk exposure.

- Producers enrolled the majority of corn and soybean base acres in Agriculture Risk Coverage, while most rice and peanut base acres moved into Price Loss Coverage. Simulation analyses show that this outcome corresponds with the expected benefits each program paid to different crop base acres.
- In 2014, producers with base acres in corn, soybeans, and winter wheat received higher payments from ARC than PLC. As commodity prices fell in 2016, the gap between ARC and PLC payments to corn and soybean base acres narrowed, while producers with wheat base acres saw payments from PLC exceed ARC.
- Over 2014-16, the majority of ARC payments went to corn base acres, averaging around $3.5 billion annually. Wheat and soybeans payments followed distantly, with a yearly average of around $547 and $539 million, respectively.
- From 2014 to 2016, PLC payments rose from around $774 million to nearly $3.2 billion, mainly due to greater payments to wheat acres.

A variety of Federal programs also compensate dairy and livestock producers for disease, natural disaster, and forage-related herd losses, or dips in margins (output price less input price).

- The Livestock Forage Disaster Program (LFP) is the largest Federal livestock disaster program, with outlays totaling nearly $7 billion over 2008-16. Payments for 2012 alone topped $2.5 billion due to severe drought conditions and higher feed prices. Other Federal programs covering livestock-related losses are the Livestock Risk Protection and the Pasture, Rangeland and Forage programs, the Livestock Indemnity Program, and the Emergency Assistance for Livestock, Honey Bees, and Farm-Raised Fish program.
- The Margin Protection Program for Dairy (MPP-Dairy) is the largest Federal program supporting dairy producers. Approximately 55 percent of dairy producers enrolled in the MPP-Dairy in 2016, accounting for around 87 percent of all milk production in the United States. Due to high national dairy margins, the program distributed very few payments in 2015 and 2016. The Livestock Gross Margin-Dairy, based on futures prices, had a budgetary cap that was lifted under the 2018 Bipartisan Budget Act

How Was the Study Conducted?

The two main components of the report are (1) an examination of enrollment and outlays and (2) simulation analysis of expected payments. Data on enrollment and outlays were collected from USDA's Farm Service Agency and Risk Management Agency. Simulation analysis was conducted using the methodology in O'Donoghue et al. (2016), which used projected prices and volatilities from the Risk Management Agency as well as historic yields and prices from the USDA National Agricultural Statistics Service.