



ERS *Report Summary*

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The Influence of Rising Commodity Prices on the Conservation Reserve Program

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What Is the Issue?

The Conservation Reserve Program (CRP) is a voluntary program that enables farmers to retire farmland for conservation in exchange for rental payments. After a period of relative stability, the CRP is now facing a number of changes. The 2008 Farm Act reduced the CRP's maximum enrollment to 32 million acres—4.6 million acres less than the program's peak acreage in 2007. Moreover, higher commodity prices since 2006 are likely to lead to increases in cropland rental rates and inflate CRP program costs. If high prices become the norm, landowner interest in CRP may wane as they weigh the expected returns to farming against the CRP payment, particularly if CRP rental rates do not keep up with market rental rates. This could lead to fewer acres being offered to the program, with a commensurate drop in ecosystem services.

What Did the Study Find?

Using a computer simulation, the authors of this report demonstrate that, in an era of elevated crop prices, maintaining the CRP's acreage, and the environmental benefits it provides, will require higher program payments.

- If commodity prices and CRP rental rates prevalent in 2007 were maintained over the long term (commodity prices that are higher than when most CRP contracts enrolled) the quantity and quality of land offered to the program would decline. An increase in these 2007 rental rates by 60-percent would largely offset the long-term impact of the higher prices, albeit with a corresponding increase in program costs.
- Given the established interest in the program and its longstanding popularity with landowners, if USDA's policy of using prevailing rental rates were altered it might be possible to meet acreage goals with moderate increases in payment rates. But this would mean accepting offers providing fewer environmental benefits, as landowners with environmentally sensitive, but increasingly profitable, lands choose to withhold their land from the program.
- Any additional impacts caused by an increase in crop-based ethanol production from 6.5 to 15 billion gallons per year would be relatively minor. For example, given a 60% increase in CRP rental rates, the model predicts 2 million fewer acres (about 5 percent of the current total) offered to the program over the long term and a 2-percent reduction in environmental benefits.

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(as measured by the CRP's Environmental Benefit Index). When considering currently enrolled CRP acres, this expansion in ethanol production leads to about 200,000 acres leaving the program.

- Using the unusually high crop prices seen in summer 2008, the model shows a large response by CRP participants. Maintaining the CRP payments at their current level results in fewer acres offered to the program, making it unlikely that the program could reach its goal of 32 million acres. Over the long term, to enroll acreage that would maintain the environmental benefits currently provided by the program would require roughly doubling CRP rental rates.
- If a robust carbon market permitted all CRP enrollees to also sell carbon offsets from their retired land, the impacts of increased commodity prices on the costs of CRP could be substantially reduced.

How Was the Study Conducted?

We use two modeling strategies. A *likely-to-bid* model predicts what the CRP would look like if the program were to start from scratch and enroll the entire acreage in one hypothetical signup—it is a steady-state model that starts with postulated prices, which are assumed to stay constant, and predicts what the CRP will look like over the long term. An *opt-out* model treats current acreage as a given, and predicts which acres would be withdrawn and convert to which crops under different price and rental payment levels.

Each model has inherent strengths and limitations that are partially compensated for in the other approach.

- The Economic Research Service's *likely-to-bid* model (LTB) is a simulation model that predicts how representative parcels of land will respond to a CRP program under varying circumstances. As part of the methodology, the LTB predicts factor scores for the Environmental Benefits Index (EBI).
- Contract data on all currently enrolled CRP acreage is the basis of the *opt-out* model. Contract data contain for each contract the actual value of CRP payments, the maximum payment permitted, and the EBI factors.

Several scenarios that illustrate possible market and program situations are constructed. The scenarios incorporate moderate and high price increases over historical trends. For scenarios that consider the impacts of increasing ethanol production to 15 billion gallons per year, the Regional Agriculture and Environment Programming model (REAP) was used to determine prices and crop shares. The mitigating effects of increasing CRP rental payments are included as another factor in the scenarios. Offered and accepted acres, average environmental benefits index scores; forgone agricultural revenue, average rental payments, and regional distribution of CRP acreage are computed for each scenario.