American Society of Agronomy • Crop Science Society of America • Soil Science Society of America
5585 Guilford Road, Madison WI 53711-5801 • Tel. 608-273-8080 • Fax 608-273-2021
www.agronomy.org • www.crops.org • www.soils.org

March 17, 2022

Re: Conservation Reserve Program Enrollment Flexibility for 2022 Growing Season

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) represent more than 8,000 scientists in academia, industry, and government, over 13,000 Certified Crop Advisers (CCA), and 620 Certified Professional Soil Scientists (CPSS). We are the largest coalition of professionals dedicated to the agronomy, crop, and soil science disciplines in the United States. USDA researchers and USDA supported graduate students and postdoctoral scholars are among the members of ASA, CSSA, and SSSA.

The following information was gathered from members of the ASA, CSSA, and SSSA science policy committees and the International CCA policy committee. Members of these committees have policy expertise and interest and represent the breadth of society membership, including early career and graduate student representatives.

On March 8, 2022, Senator Boozman sent a letter to U.S. Agriculture Secretary Tom Vilsack requesting flexibility in Conservation Reserve Program (CRP) for the 2022 growing season to counter market disruptions in global crop markets caused by Russia's invasion of Ukraine. These comments were assembled in response to a request from Senator Boozman regarding this topic while meeting with ASA, CSSA, and SSSA members.

Key Considerations from Agronomy, Crops, and Soil Science Researchers and Practitioners

In 2021, approximately 315,000 U.S. producers received CRP payments, accounting for roughly 22 million acres enrolled in the CRP program or 8.7% of U.S. cropland.[1] Texas, Colorado, Kansas, South Dakota, Iowa, and Nebraska have the greatest acreage of land in CRP, with each state exceeding 1.5 million acres enrolled.

Ukraine is a top producer a few common commodity crops, such as oilseed sunflower, barley, wheat, and corn.[2] Because of the latitude of Ukraine, few of the common major commodity crops grown in Ukraine are grown in large quantities in the U.S. except for winter wheat, a distant third behind corn and soybeans in the U.S. Thus, the regions of the U.S. that would be most suitable for replacing these Ukrainian crops are the states along the U.S.-Canada border, primarily North and South Dakota, Montana, and Minnesota.

The following considerations address a potential shift in land use out of conservation and into crop production, as well as make suggestions for other possible solutions to this global food supply challenge.

[1] https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/Conservation/PDF/Summary%20December%202021%20CRP%20Monthly.pdf
[2] https://www.trade.gov/country-commercial-guides/ukraine-agricultural-machinery#:~:text=With%2041.5%20million%20hectares%20of,generated%20approximately%209.3%25%20of%20GDP.

In addition, we have developed a task force of researchers and practitioners to address this and other urgent challenges facing the agricultural sector at this time, and we will be prepared to offer more information and recommendations upon request. Contact Rachel Owen (contact information at the end of this document) for more information.

Producer Implementation Considerations

The spring 2022 planting season has already begun in parts of the country and will soon begin in all regions. At this point, it would be nearly impossible for producers to plant additional acres than planned to a crop this spring due to several factors, including lack of time, limited seed, fertilizer, and pesticide availability, high input prices, and water limitations in parts of the country. Additionally, if land were to be converted from CRP to cropland, yields would likely be lower than average in the first growing season and due to marginal productivity of many CRP acres, causing economic challenges for producers. For these reasons, producers may be hesitant to convert CRP to cropland in particular if they are not at the end of their 10-to-15-year contract with the U.S. Department of Agriculture.

Most agronomic decisions for the upcoming growing season were decided last year and producers have little flexibility to make changes so close to planting. In addition to the lack of time before planting begins, the process to convert CRP acres to cropland would require several passes over the field between now and planting to grow a successful crop. For many acres, producers would need to terminate the CRP vegetation, intensively till the soil to create a favorable seed bed and apply pre-emergent herbicides and fertilizers before planting a crop. Very few producers will be able to accomplish all of these steps prior to planting spring wheat, corn, soybeans, or small grains across the country.

In the first year after converting CRP or fallow ground to cropland, producers face a number of challenges. Weed and pest pressure are greatest in the first year post-CRP, ample fertilizer is needed to account for the lack of fertilizer applied while the ground is in CRP, and soil microbes can inhibit growth of grass crops (e.g., corn, wheat). Soybeans for oil may be the most practical crop to plant after converting land out of CRP and could potentially replace oil from sunflowers. Soybeans can also be more successfully planted without tilling the soil, so less time would be needed up front and soybeans can be planted later in the growing season (May to June). In regions where sunflowers can grow successfully, they may have similar considerations to soybeans.

Planting cereal grains, such as corn, wheat, and barley, would not be feasible across much of the country for the spring 2022 planting season, but could be more feasible for the fall 2023 winter wheat planting season and spring 2023 planting season. For winter wheat, CRP ground would likely be terminated this spring and prepared for a fall planting. Appropriate cover crops should be required (cowpeas, buckwheat, etc.) to hold the soil while the CRP crop decomposes. Conservation tillage should be used only sparingly as needed.

As most of the crops discussed are dryland, there are special considerations for CRP in water limited areas, namely that establishment of perennial grasslands in these areas can be challenging. In the southern High Plains, where rainfall is low, converting CRP ground to cropland is not feasible (southwest Kansas, southeast Colorado, NE New Mexico, Oklahoma Panhandle, and Texas High Plains (Amarillo & Lubbock regions). Additionally, much of this land went into CRP because the soils are highly erodible and not very productive. The land is not readily converted back to cropping, especially if there is a heavy grass thatch and root system. Furthermore, it is difficult to no-till into these systems with a row-crop planter and it would be challenging to drill small grains like wheat (in contrast to using a planter).

In addition to the likely low yields and high costs of crops produced on converted CRP land, USDA should also consider the cost to bring that land back to CRP that is high quality and produces effective environmental services. Any flexibility in CRP enrollment in the short term should be met with strategies to convert acres back to CRP in the future.

Supply Chain Considerations

Current global supply chain challenges add additional complexity in a producer's ability to convert CRP acres to cropland in 2022There are very real shortages in crop protection products that would be needed to terminate CRP vegetation, thus, farmers would likely need to use tillage. Additionally, fertilizer prices are at record highs. Nitrogen demands of producing a crop like corn on CRP ground would be challenging due to limited supplies and high prices of nitrogen fertilizer right now.

Overall, the cost increase on all inputs for the 2022 crop season would require average or above average production on these acres to meet most growers break even cost of production. An effort to ensure adequate supply of inputs on the highly productive land already set for a 2022 crop production might be a more realistic approach to increase supply this year.

Environmental Implications

Even if all resources were available to convert CRP acres to cropland in this or future growing seasons, in most cases, we do not recommend that this conversion take place. Land is enrolled in CRP mostly based in environmental concerns and converting land out of CRP negates the need to manage highly erodible land (HEL). We are only just now starting to take comprehensive stock of the ecosystem services of CRP lands, and we should not ignore the economic societal value of these services (water quality, pollinators, soil carbon).

Tilling CRP ground will lead to nutrient and sediment loading in surface waters, loss of wildlife and pollinator habitat, loss of native vegetation, and degradation of soil health. If crops are drilled into CRP ground without tillage, these impacts may be reduced. Society would pay for decreased water quality, increased dredging costs, possibly reduced pollination of some crops, and possible loss of secondary income from hunting leases. Additionally, converting CRP ground to row crop production would likely reduce net carbon sequestration.

Aside from immediate concerns that converting perennial vegetation to cropland will destroy habitat, increase the potential for erosion and nutrient loss, release greenhouse gases, and lead to potential compliance issues (Food Security Act), etc., USDA has not done a lot of work to understand what happens when you pull the systems out of conservation.

Other Comments

Any efforts to adjust U.S. commodity crop supply should be coordinated on a global scale through USDA and USAID trade professionals. Producers will respond to market prices by adjusting their fall 2022 and spring 2023 production plans to include more crops if prices remain high and CCAs will assist growers with agronomic considerations. As we approach the next growing season, USDA may consider supporting production on other land uses, not only land currently enrolled in CRP. For instance, residential and commercial encroachment reduces cropland acres each year and producers near urban areas could be supported to keep these acres in production.

Finally, many CRP production contracts are held by absentee landowners that appreciate the stability of the predictable income from CRP payments. These landowners may not want to be back in the crop business, and they might have trouble finding farmers willing to rent the CRP land and try to convert it back to cropland.

We thank you for the opportunity to submit comments on behalf of ASA, CSSA, SSSA, and the ICCA program. If you have additional questions about CRP conversion or other approaches to address crop supply shortages that may occur due to the Russian invasion of Ukraine, please do not hesitate to reach out.

Contact for more information:
Rachel K. Owen, PhD
Science Policy Manager
rowen@sciencesocieties.org | 573-507-0141

Suggested Experts on Conservation Reserve Program Management

We recommend that Congress seek feedback from Technical Service Providers recognized by the USDA Natural Resources Conservation Service (NRCS) who work directly with producers to implement CRP. USDA-NRCS has processes and expertise in place if Congress decides to act and will be prepared to help producers navigate updated guidance from Congress.

Additionally, the following individuals are considered research and conservation experts and will be able to inform policy decisions upon request.

Certified Crop Advisers (Practitioners)
Betsy Bower: Ceres Solutions Cooperative – Lafayette, IN
Ryan Heiniger: Pheasants Forever – St. Paul, MN
Larry Kawanabe: USDA-NRCS – Blanca, CO

Matt Repking: Wisconsin Land and Water – Marathon County, WI
Todd Schaumberg: Tilth Agronomy – Appleton, WI
Ben Wicker: Indiana Agriculture Nutrient Alliance – Milroy, IN
Mike Wilson: Wabash Valley FS – Allendale, IL
Isaac Wolford: USDA-NRCS – Alderson, WV

Researchers
Shalamar Armstrong: Purdue University Department of Agronomy – West Lafayette, IN
Chris Baxter: University of Wisconsin-Platteville Department of Soil and Crop Science – Platteville, WI
Jourdan Bell: Texas A&M AgriLife Research and Extension Center – Amarillo, TX
Laura Good: University of Wisconsin-Madison Department of Soil Science – Madison, WI
Steven Green: Arkansas State University Department of Soil and Water Conservation – Jonesboro, AR
Katie Lewis: Texas A&M Department of Soil and Crop Sciences – Lubbock, TX
Matt Liebman: Iowa State University Department of Agronomy – Ames, IA
Lisa Schulte Moore: Iowa State University Department of Natural Resources – Ames, IA
Paul Mitchell: University of Wisconsin-Madison Agriculture and Applied Economics – Madison, WI
Cristine Morgan: Soil Health Institute – Morrisville, NC
Matt O'Neal: Iowa State University Department of Entomology – Ames, IA
Joe Outlaw: Texas A&M Department of Agricultural Economics – College Station, TX
Dick Wolkowski: University of Wisconsin-Madison Department of Soil Science – Madison, WI

Additional Resources

- NRCS Converting CRP to Cropland
- Missouri Extension
- How to Convert CRP to Cropland
- Nebraska Extension
- Texas A&M Extension
- MOSES Organic
- North Dakota State University