

The Conservation Reserve Program: What Comes Next?

An Assessment for Missourians

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College of Agricultural, Food and Natural Resources
University of Missouri - Columbia

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Overview

The Secretary of Agriculture “shall formulate and carry out a conservation acreage reserve program, through contracts to assist owners and operators of highly erodible cropland in conserving and improving the soil and water resources of their farms or ranches.” So reads the legislative language authorizing the Conservation Reserve Program (CRP) in the Food Security Act of 1985 (FSA85).

The CRP was designed to take 40-45 million acres of highly erodible cropland out of production for a 10-15 year period. It was developed with several goals, some of which were later modified under the Food, Agriculture, Conservation and Trade Act of 1990. The goals included: 1) reducing soil erosion; 2) improving water quality; 3) decreasing excess supplies of agricultural commodities (thereby supporting farm income), and; 4) enhancing wildlife habitat. Voluntary in nature, landowners bid acreage into the program during 12 organized sign up periods. Acres accepted in the program received annual rental payments and cost-share assistance for the establishment of approved permanent vegetative covers. Table 1 shows the distribution of acres by type of vegetation.

**Table 1
CRP Acres By Vegetative Cover**

Vegetative Cover	Acres (millions)	Percent of Total
Grass	30	82.4
Trees	2.4	6.6
Other*	4.0	11

*Includes wildlife food plots, ponds and landscape structures such as grassed waterway, filter strips and wind breaks.

Source: Environmental Working Group--
Conservation Reserve Program Report.

A total of 36.4 million acres--almost 10 percent of the nation's cropland--have been enrolled in the CRP since 1986. Due primarily to a lack of funding, (the CRP was shifted to a discretionary program in 1986) the program never reached its goal of idling 40 - 45 million acres. The 36.4 million acres represent approximately 375,000 contracts with an estimated total outlay of \$19.5 billion through 2002. The annual cost of existing CRP contracts is \$1.8 billion. The average annual rental rate for the U.S. is \$56.55/acre--the maximum being \$200/acre and the minimum annual rental rate of \$4/acre. The average erosion rate on CRP land prior to the program was 18.62 tons per acre annually. The average erosion rate with the CRP has fallen to 1.38 tons per acre annually. The total soil saved per year in the U.S. is estimated at between 370 - 700 million tons annually.

Table 2 shows the regional concentration of the CRP with 22 million acres (60 percent) in the Great Plains and Mountain states.

Table 2
Acres Enrolled in the CRP and Rental Payments, by Region

Region	Acres (percent of total CRP acres)	Annual rental payments (percent of total payments) (dollars in millions)	Rental payments per acre
Appalachia	1,158,124 (3)	\$62.5 (3)	\$53.97
Corn Belt	5,603,333 (15)	\$416.1 (23)	\$74.26
Delta	1,248,403 (3)	\$55.3 (3)	\$44.31
Lake States	3,008,337 (8)	\$176.5 (10)	\$58.68
Mountain	6,687,264 (18)	\$265.3 (15)	\$39.67
Northeast	226,411 (1)	\$13.4 (1)	\$59.29
Northern Plains	9,664,110 (27)	\$444.5 (25)	\$46.00
Pacific	1,791,182 (5)	\$88.8 (5)	\$42.71
Southeast	1,692,580 (5)	\$72.3 (4)	\$42.71
Southern Plains	5,342,989 (15)	\$214.7 (12)	\$40.18
Total	36,422,733 (100)	\$1,809.4 (100)	\$49.69

Note: Because of rounding, the percent of total payments figures do not equal 100, and rental payments per acre cannot be precisely calculated using the acre and rental payment information in the table.

Source: USDA's CRP contract data base.

(GAO Report) Approximately 2400 counties have acreage enrolled in the program, yet about 600 counties account for almost 80 percent of total enrollments. (Dicks and Coombs).

Contracts for the first 2 million acres enrolled in the CRP will expire in October 1995. However, the Secretary of Agriculture authorized a one-year extension of these contracts. This will allow these contracts to expire after the drafting of the 1995 farm bill. The majority of CRP contracts--60 percent--will expire in 1996 and 1997. Table 3 illustrates contract expirations by year and annual payment levels for the U.S. and Missouri.

Table 3
Expiration Schedule as Contracts Lapse

Fiscal Year	U.S.		Missouri	
	Acres	Annual Payments	Acres	Annual Payments
1996	2,043,038	\$88,075,307	103,123	\$5,474,741
1997	13,669,640	\$684,286,694	779,827	\$48,969,265
1998	8,756,467	\$414,909,249	392,979	\$25,267,650
1999	5,354,615	\$267,543,967	155,043	\$9,990,373
2000	4,097,482	\$204,968,147	73,438	\$4,734,359
2001	453,216	\$24,237,576	31,740	\$1,979,225
2002	942,249	\$55,814,913	82,311	\$5,364,068
2003	971,120	\$61,098,299	97,960	\$6,831,203
2004	0	\$0	0	\$0
2005	0	\$0	0	\$0
2006	21,963	\$1,261,976	1,126	\$73,878
2007	55,962	\$3,449,728	5,680	\$394,644
2008	56,322	\$3,606,794	3,602	\$267,946
Total	36,422,078	\$1,809,252,652	1,726,835	\$109,367,537

Source: Environmental Working Group—Conservation Reserve Program Report

CRP Benefits

United States

The CRP has resulted in environmental and economic benefits of approximately \$13.4 billion, according to Paul Johnson, Chief of the Natural Resources Conservation Service. Of this amount, \$8.6 billion is attributed to fish and wildlife, \$3.1 billion to water quality, \$1.3 billion in soil productivity and \$400 million to wind erosion. Estimates of actual soil erosion reduction vary from about 370 to 700 million tons annually. Federal outlays for the CRP are not totally additive in that they offset payments for commodity price supports and the implementation of conservation structures such as terraces.

Missouri

The CRP has a significant presence in Missouri with approximately 23,000 contracts on 1.7 million acres—6 percent of total farmland and 13 percent of harvested cropland. Land enrolled in the CRP can be found in 103 Missouri counties with annual payments in excess of \$107 million. The average rental rate in Missouri is \$63.05 per acre and the average contract size is 75 acres. The average erosion rate on enrolled acres has dropped from 19 tons per acre prior to the CRP to 1.2 tons per acre with CRP. The total soil saved per year on CRP land exceeds 32 million tons.

What Comes Next?

Both Congress and the Administration are carefully considering the fate of the CRP as existing contracts begin to expire. The program has been deemed a success in many respects, but changes are being examined by Congress to make the CRP more cost-effective and efficient. Also, continued fiscal constraints and expanding goals have fueled calls for a more targeted approach to land retirement. At a recent hearing on conservation and wetlands, Senate Agriculture Committee Chairman Richard Lugar stated, “The committee hopes to begin formulating the most cost-effective strategy for ensuring the environmental sustainability of U.S. agricultural production.” He went on to promise a balance of resource conservation with budget realities and more regulatory freedom to farmers in the productive use of their land.

In December, 1994, Secretary of Agriculture Mike Espy indicated that, subject to some caveats, all existing CRP participants would be given the opportunity to modify or extend their contracts. The regulations to implement this announcement are still being drafted and should be completed by the summer of 1995.

Despite the Secretary’s announcement, the Congressional Budget Office (CBO), did not include full funding for the CRP in its most recent budget projections. The CBO assumed funding for roughly one-half of the current CRP acreage. This is noteworthy because funding above CBO’s level will require an offset—a like reduction in spending from another program.

Finally, many issues surround acreage that comes out of the CRP. How many acres will return to crop production? How many acres will be planted outside federal farm programs where conservation compliance is not in effect? What will the impact be on crop and livestock prices?

What Can Missouri Expect?

In November 1994, researchers from the University of Missouri met to discuss the future of the CRP and possible implications for Missouri. The College of Agriculture, Food, and Natural Resources and University Extension have several research projects underway that focus on various agronomic, wildlife, and economic issues that relate to the expiration, or future management, of the CRP. A brief summary of some of the projects is included in Appendix II.

In December, the working group was expanded to include an in-depth review of the options currently being considered by Congress. In addition to University of Missouri researchers, a working group comprised of representatives of state and federal agencies, and several farm, commodity and conservation organizations was formed to address the options from many different perspectives. Representatives of the University of Missouri's Food and Agricultural Policy Research Institute (FAPRI) served as facilitators throughout the project.

The working group met in December, January, February and March with the goal of determining areas of interest or concern which could be forwarded as a resource document to members of the Missouri Congressional delegation. The discussions ranged over several different CRP topics, many of which became more complicated than anticipated. For example, how were enrollment bids evaluated in the first 12 signups and should this process be modified to address new priorities? Specifically, the group addressed the various issues in the context of modifications which improve upon what is believed to be a solid foundation.

At the same time, the group recognized that any future CRP may be smaller than the current program from a national perspective.

This report does not make specific recommendations and is not endorsed by the organizations which were involved in the working group. The report is intended to highlight areas of interest and concern that represent a broad array of views.

Areas of Interest

The CRP Should be Continued—The program has achieved significant success in reducing soil erosion, improving water quality and enhancing wildlife habitat. The concept of voluntary longer-term land retirement programs is sound.

Soil Erosion Should Remain the Primary Focus of the CRP—Excessive soil erosion could threaten the long-term productivity of agricultural land and the quality of surface and ground water. The CRP has been an effective tool in placing millions of acres of highly erodible cropland into an approved cover crop.

The CRP has changed from its inception to focus more on factors such as water quality. The working group did not disagree with the focus of the CRP, but did express reservations about further modifying the eligibility criteria in a manner which eliminates the existing highly erodible requirement. The group recognized that soil erosion is often a primary source of surface water contamination.

Current CRP Participants Should Have Priority For Enrollment Under Any New Program Guidelines—It appears likely that there will be changes in existing program parameters such as annual rental rates and enrollment indices. As these changes occur, participants with existing contracts should be given the first opportunity to extend or modify their contracts under a new

program. Signups for new enrollments should occur only when funds are available in excess of those needed to extend existing contracts.

Tree Plantings Should Remain A Cover Option But Only in Areas Deemed Biologically Suitable- The FSA85 stated that “to the extent practicable”, not less than one eighth of the number of acres of land enrolled in the CRP should be devoted to trees. After 12 signup periods, a total of 2.3 million acres (6.3 percent) have been planted to trees. However, the tree planting goal should not be pursued in a manner that permits trees to be planted in areas in which they are not suited for biological or other reasons.

States Should Retain the Authority to Offer Additional Incentives—States should retain the authority to complement federal dollars to expand acreage enrolled in the CRP or provide additional cost-share for certain vegetative covers and a dedicated tax for fish, forest and wildlife.

Block Grants For State Administration Warrant Further Review—The concept of greater state control over the CRP has merit, however many important issues need to be addressed:

- * What agency would administer the program at the state level?
- * Would a technical committee be formed to develop statewide priorities?
- * Would existing contracts be handled differently than new contracts?
- * How would dollars and acres be allocated at the national level?

The working group expressed interest in a block grant pilot program, perhaps in Missouri. This would allow the concept to be evaluated on a small-scale basis prior to major modifications in the existing administrative process.

The Environmental Benefits Index (EBI) Should Include Wildlife—Since the tenth sign-up period, acreage has been enrolled based on the EBI—an index composed of seven separate items of environmental importance. The EBI consists of surface water quality, ground water quality, soil productivity, tree planting, hydrologic unit area demonstration project design, conservation priority area designation, and the cost of enrolling the acreage in the program. Given the significant benefits to wildlife of the CRP, there is interest in including a specific wildlife factor in EBI calculations.

Priority Practices Should Not Include A Useful Life Requirement—Under the current enrollment process, “priority practices” (filter strips, windbreaks and wellhead protection) do not have to meet the highly erodible criteria and are not subject to evaluation under the EBI. However, these items must pass the existing ownership rules and the bid screen.

Under existing regulations, CRP acres cannot be devoted to these practices unless the contractee agrees to maintain the practice for its entire useful life. In some cases, the useful life significantly exceeds the contract period. This has proven to be a disincentive to implementing these practices.

Up to 20 Percent of Acreage For Each Signup Allocated to States For Priority Areas--Under the existing program, certain geographic areas are eligible for the CRP without meeting the highly erodible or EBI criteria. These "priority areas" are eligible for enrollment based on factors such as water quality or other factors such as wildlife.

Each state has unique environmental concerns in which the CRP could be an important tool. At a state's request, up to 20 percent of its acreage allocation for each signup could be designated a priority area. This would allow the states greater flexibility in addressing more localized environmental concerns. The priority areas would be determined by a technical committee comprised of representatives of state and federal agencies, and the agricultural and conservation communities.

Areas of Concern

Economic Use of CRP Acres Results in Inequities--Existing regulations prohibit economic use of CRP acres, except by authority of the Secretary of Agriculture in the case of an emergency. For example, the Secretary has authorized emergency haying and grazing as a result of a natural disaster such as a drought. In these cases, annual rental payments have been reduced to account for the limited economic use.

Despite the precedent of reducing annual rental payments, economic use is a concern to several organizations in that it can distort markets and result in economic inequities. For example, allowing limited haying or grazing can affect non-participants by reducing local hay prices or pasture rental rates. There is concern that this would impact cattle prices in the short and long-term. Also, there are questions about how the rental rate reductions would be calculated for different economic uses and whether or not the reductions would truly represent the value of the economic use.

Long-Term or Permanent Easements Should Not Replace 10 Year Contracts--There was no consensus on adding long-term or permanent easements as a CRP option, but there was little support for eliminating the current 10-15 year contracts. In addition, the working group feels that increases in contract length should only be made in exchange for increased payments.

Conclusion

Soil erosion is a global issue which warrants federal involvement. According to a recent article in Science magazine, each year 75 billion metric tons of soil are removed globally from the land by wind and water erosion--most from agricultural land. Total off and on-site costs of soil erosion from agriculture is estimated at \$44 billion annually in the U.S..

The CRP has succeeded in its primary mission--to reduce soil erosion by taking highly erodible cropland out of production. Can changes be made which improve the program's cost-effectiveness and efficiency? Perhaps. Should the program be better targeted to specific goals?

Maybe. But, the CRP has proven its worth and should continue as an environmental tool to help preserve the long-term viability of U.S. agriculture.

APPENDIX

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Participating Organizations

University of Missouri

- College of Agriculture, Food and Natural Resources**
- Extension**

Missouri Department of Agriculture

Missouri Department of Conservation

Missouri Department of Natural Resources

Natural Resources Conservation Service

Consolidated Farm Service Agency

Missouri Soybean Association

Missouri Farm Bureau

Missouri Cattlemen's Association

Missouri Corn Growers Association

Nature Conservancy

II.

The Conservation Reserve Program in Missouri: A Review of Current Research December 1994

The Conservation Reserve Program (CRP) was authorized under the Food Security Act of 1985 to take 40-45 million acres of highly erodible cropland out of production for a minimum of ten years. It was designed to address multiple objectives such as: reducing soil erosion, improving water quality, and controlling the supply of agricultural commodities. The U.S. Department of Agriculture (USDA) estimates the average erosion reduction is 19 million tons per year.

In Missouri, approximately 1.7 million acres in 101 counties are participating in the program. When the contracts expire, absent another program, an estimated 730,000 acres of Missouri land currently in the CRP are expected to return to crop production. This raises some important issues for the state of Missouri. Will this land be eligible for cost-share assistance for installing terraces and other conservation devices? Will the state need to take other action to limit erosion from these areas? Should state funding be used to keep some acres out of production? What will happen to wildlife habitat and populations?

The future of the CRP will be considered during debate over the 1995 farm bill. Missourians have considerable interest in this issue and efforts are underway to review and analyze the various effects of policy options.

On November 22, researchers from the University of Missouri and representatives of state and federal agencies met to discuss ongoing projects related to the CRP in Missouri. Each of the participants gave a short presentation on their project(s). The following is a summary of the various projects. This document is intended as a compilation of research activities and should serve as a guide to obtain further information on any specific project.

Dr. Robert Young-FAPRI-101 S. Fifth St., Columbia, MO 65201, (314) 882-3576

The Food and Agricultural Policy Research Institute is involved in two projects. A federal project is underway to analyze the impacts of various programmatic options of CRP on the national commodity baseline and the potential interactions with the recently approved GATT agreement.

At the state level, the Soil and Water Conservation Commission has funded a project to analyze the impacts of various federal program options on Missouri and to analyze options that the state may wish to consider. A statewide CRP conference is being planned for the Spring of 1995.

Steve Taylor-Soil and Water Commission-Missouri Department of Natural Resources-
P.O. Box 176, Jefferson City, MO 65102, (314) 751-4932

FAPRI project/CRP conference

The Soil and Water Commission has funded projects in the past including economic analysis done by Dr. Mike Monson and currently underway with FAPRI.

Dr. Richard Joost-Agronomy Department-UMC-214 Waters Hall-(314) 882-2002

Several demonstration projects are underway on CRP land to improve forage quality and to prepare the land for row crop production. Demonstration sites are located in Perry, Knox, Vernon, Linn and Jasper counties. These forage projects are aimed at fertilizer treatments and mulch accumulation. These projects are expected to continue through the 1995 -96 growing season.

Eric Kurzejeski-Missouri Department of Conservation-Fish and Wildlife Research Center, 110 S. College Ave., Columbia, MO 65201. (314) 882-9880

The Missouri Department of Conservation is involved in several CRP research projects:

- 1) Measuring vegetative structure on 150 contracts in N. Missouri with different conservation practices. The project focuses on habitat suitability for bobwhite quail-which are indicative of other species.
Results: Wildlife habitat value important for different species dependent on management practices. Initiated in 1988, this is a joint project between the University of Missouri School of Natural Resources, Agricultural Experiment Station and the Missouri Department of Conservation.
- 2) Analyzing effects of disking and different disking practices on weed production. Does disking produce results such as lower insect populations? The project will continue for another couple of years and has resulted in new guidelines for disking.
- 3) Conducting a landowner attitude survey with Dr. Mike Monson. Questions were included to determine the importance of wildlife and wildlife habitat on CRP acres. According to the survey, 49% said wildlife had some importance in their decision, 50% did not know about the availability of cost-share assistance.

Dr. Mark Ryan - UMC - Fisheries & Wildlife-108 Stephens Hall, (314) 882-9425

Several projects are underway in conjunction with the Missouri Department of Conservation:

- 1) Non-game bird communities on CRP land. Using a block study design, species richness is being analyzed. The third year of data (1994) will soon be analyzed.
- 2) The value of CRP as winter risk cover. Insulative values assist winter survival rates for quail. The project has implications for managing in areas with difficult winters. Also looking at thermal value, which helps with wintering of quail. Research results indicate that spatial distribution is important and one large field is better than several smaller fields for wildlife.

Gerald Hirdina - Farm Service Agency-Parkade Plaza, Suite 225, 601 Business Loop 70 W., Columbia, MO 65203, (314) 876-0925

ASCS involved in the approval of research projects on land currently enrolled in the CRP.

Randy Freedland - Natural Resources Conservation Service-Parkade Plaza, Suite 250, 601 Business Loop 70 W., Columbia, MO 65203, (314) 876-0900

The agency is able to pass research results through staff to field offices and producers. Interested in the effects of rotational grazing.

Dr. Sandy Monson-UMC-Ag Econ

Dr. Monson is currently assessing progress in the State's "T by 2000" campaign. Research shows large improvements in soil erosion. Research utilizes Natural Resource Inventory data to estimate soil erosion as contracts expire and land is returned to crop production.

Bob Pierce-UMC-Fisheries & Wildlife-Extension-1-31 Agriculture Bldg., (314) 82-4337

Cooperates in the development of extension educational programs on managing CRP land for wildlife benefits and potential wildlife damage control in fields returning to row crop production.

Dr. Gene Munson-UMC-Entomology- 1-87 Agriculture Bldg., (314) 882-3748

A research project in New Franklin is looking at different management strategies for alfalfa as well as cool and warm season grasses. A forage quality project is planned for 1995. Videotapes are being made available to landowners on no-till renovation and warm season grasses.

Ray Evans-Missouri Department of Conservation-2901 W. Truman Blvd., Jefferson City, MO 65109, (314) 751-4115

The Missouri Department of Conservation is involved in a new state program designed to extend CRP contracts to encourage tree production.

Dr. Mike Monson/Dr. Kevin Smith-UMC-Ag Econ-213A Mumford Hall, (314) 882-0153

Past research indicated that many landowners who intended to plant trees on CRP acres were not carrying out these plans. Dr. Monson is currently working with Dr. Kevin Smith to examine the interaction of base acres and commodity programs when existing contracts expire. Using NRI data and USDA's CRP contract data base, the project is focused on identifying tracts of land which might be targeted for the next generation CRP. Dr. Monson is also interested in the conservation compliance benefits of CRP since cross compliance is present. Dr. Monson, Dr. Young and Dr. Smith are members of a regional research committee in which national CRP options are being examined. The committee is looking at the net cost of the CRP, including disaster and deficiency payments, offsetting compliance, and wildlife habitat.