

Conservation Reserve Program: Overview and Discussion¹

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Conservation Reserve Program

The Conservation Reserve Program (CRP) is by far the largest conservation program in terms of scale and budget in the United States (Wu et al. 2013). The main goal of the CRP is to protect the environment through retiring environmentally sensitive cropland from production. Land retirement is achieved by providing landowners with rental payments and other financial incentives. While the CRP has improved the land allocation of primary crop production and provided environmental benefits, it is confronted with government budget cuts and a decreasing willingness by farmers to participate in the program. This article provides an overview of the CRP and discusses relevant issues for Florida.

Overview of the CRP in the United States

The CRP is aimed at providing environmental benefits by retiring environmentally sensitive, less productive cropland. It is an important conservation program, with an ambitious goal of retiring 10% of US cropland from production. This program was established by the Food Security Act of 1985 to protect wildlife habitat and soil and water quality, and to prevent excessive agricultural production (USDA/ERS 2004; Cowan 2010). The USDA's Farm Service Agency (FSA) administers this program, and the Natural Resource Conservation Service (NRCS) provides technical support. Also, state forestry agencies, local soil and water conservation districts, and private sector providers of technical



assistance are involved in this program. In particular, the Commodity Credit Corporation (CCC) makes annual rental payments based on the agriculture rental value of the land and provides cost share payments for up to half of the participant's costs in establishing approved land covers.

Initially, almost 34 million acres were enrolled in the CRP, and the participants received an annual rental payment that averaged roughly US\$50 per acre, as well as half of the land-cover establishment costs (USDA/ERS 2004). In the early stages, when the USDA intended to enroll all the eligible land that participants were willing to offer at or below the maximum rental rate, the number of participants dramatically increased to receive the benefits from the federal financial support (Smith 1995; Plantinga et al. 2001). In the

1. This is EDIS document FE973, a publication of the Food and Resource Economics Department, UF/IFAS Extension, Gainesville, FL. Published November 2015. Please visit the EDIS website at <http://edis.ifas.ufl.edu/>.

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Food, Agriculture, Conservation, and Trade Act of 1990, which capped the CRP at 45 million acres, eligibility was limited to more environmentally sensitive lands. The USDA ranked lands based on the Environmental Benefits Index (EBI), which is a composite score of multiple environmental benefits, including soil erosion. In addition, the USDA added wildlife habitat as a criterion for the program in the Federal Agriculture Improvement and Reform Act of 1996, and the capped acreage was decreased to 36.4 million acres. USDA established the Conservation Reserve Enhancement Program (CREP) in 1997 to implement a joint federal-state partnership intended to stimulate farm conservation practices that meet specific conservation and environmental objectives (Smith 2000). In the 2002 US Farm Bill, the program increased the allowable lands to 39.2 million acres and authorized the Farmable Wetlands Program (FWP), which reserved one million acres for farmable wetlands enrollment. In the Food, Conservation, and Energy Act of 2008, the enrollment cap for CRP acreage was reduced to 32 million acres, and land eligible for the FWP was expanded. In the 2014 US Farm Bill, the acreage cap decreased to 24 million acres for fiscal years (FY) 2017 and 2018.

Table 1 shows the CRP enrollment in the United States as of July 2014. Currently, about 26 million acres are enrolled under 700,000 contracts. The program includes general and continuous sign-ups. For the general sign-up, producers bid for acceptance based on the EBI for their lands. About 19.7 million acres are enrolled in general sign-ups under 262,000 contracts. The continuous sign-ups include Non-CREP, CREP, and FWP. For the Non-CREP, producers enroll without competition for high-priority conservation practices, such as filter strips, riparian buffers, and wetlands, while the CREP is designed to address specific environmental improvement through federal/state partnerships. For the FWP, producers enroll small non-flood plain wetlands under continuous sign-up provisions. For the continuous sign-ups, 5.75 million acres are enrolled under 410,000 contracts.

Figure 1 shows the US counties that were enrolled in the CRP in 2013. This spatial pattern implies relationships between crop prices and CRP enrollment. In the Corn Belt, some suggest that there is a negative correlation between corn prices and CRP enrollment, meaning that if corn prices increase, CRP enrollment will decrease. However, some argue that such a correlation is insignificant.

For the FSA to offer the CRP contracts, all eligible offers by farmers are compared and ranked by the magnitude of the EBI factors. In exchange for land retirement under the CRP contract, the participants receive an annual rental payment,

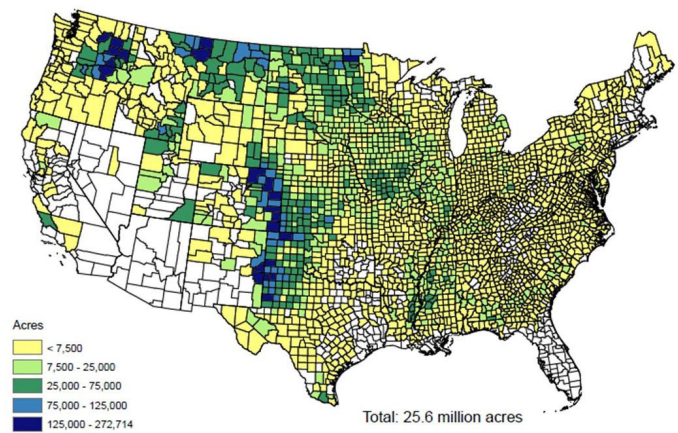


Figure 1. Map of CRP enrollment in US counties, November 2013
[Source: USDA (2014)]

certain incentive payments, and cost-share assistance. The FSA computes rental rates based on the relative productivity of the soils and the average dry-land cash rent. Since the maximum CRP rental rate is announced before the enrollment, producers can bid at that rate or lower to be accepted into the program. Also, participants for continuous sign-up can receive maintenance incentive payments, an additional amount up to US\$5 per acre annually to cover the maintenance obligations (USDA/ERS 2004). Additionally, the FSA provides the participants who had an approved cover on eligible cropland with cost-share assistance and additional financial incentives of up to 20% of the annual rental payment for continuous sign-up practices (USDA/ERS 2004).

In the 2014 US Farm Bill, the opportunity for an “early-out” from CRP contracts was made available in FY 2015. Under this US Farm Bill, the rental payment of the Grassland Reserve Program enrollment is merged into the CRP. In addition, the Transition Incentive Program (TIP) allows for the release of the CRP contract to a beginning or socially disadvantaged farmer or rancher so that the land can be returned to grazing or crop production.

The CRP in Florida

Currently, 43,120 acres of land in Florida are enrolled in the CRP program under 1,087 contracts. Most enrollments are general sign-ups (Table 2). Specifically, CRP enrollments are mainly in north Florida counties, while other regions are mainly participating in the Wetland Reserve Program (WRP). The CRP acreage in Florida has been decreasing. Figure 2 presents the changes in the CRP enrollment from 2007 to 2013 in Florida, showing that large reductions in CRP acreage occurred in Jackson, Holmes, Madison, Jefferson, Walton, and Washington Counties in the Florida Panhandle.

Florida's CRP enrollment is relatively low compared to other regions because of the types of crops grown and the climatic conditions in the state. However, the USDA FSA encourages CRP participation with the CRP Longleaf Pine Initiative throughout the southeastern area because longleaf pine forest lands have decreased over the past 100 years.

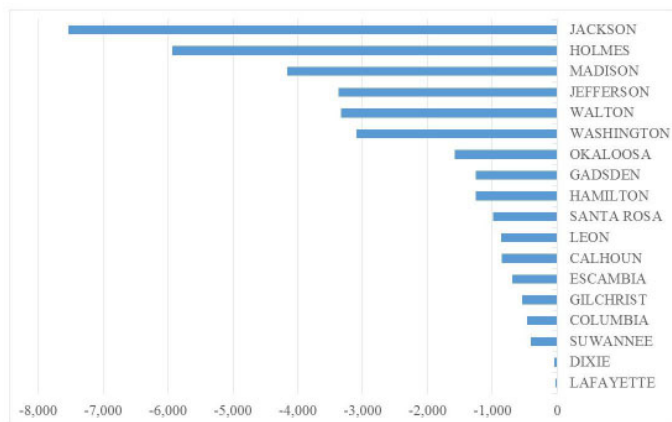


Figure 2. Acreage changes in CRP enrollment in Florida, 2007–2013
[Source: USDA (2014)]

Issues Related to the CRP

Farming practices may cause various environmental problems such as soil erosion and water-quality impairment because of nutrient and pesticide runoff associated with agricultural production. In Florida, water quality in the Everglades area has been a major environmental concern due to intensive agricultural activities. The FSA estimated that the CRP has reduced erosion by more than 454 million tons per year on the 34.6 million acres enrolled in the program (Cowan 2010). It also has sequestered 50 million tons of CO₂ per year (USDA/FSA 2007). In addition, the program has contributed to the landscape-scale wildlife habitat changes (Wu and Weber 2012).

However, some authors also reported drawbacks of the CRP contracting system because the program may not reflect all environmentally sensitive lands for retirement. In particular, the bidding system for the CRP contract based on the EBI cannot guarantee full efficiency because of differences in landowners' production practices and costs involved (Cason and Gangadharan 2004). Some also believe that retiring land from productive agricultural usage is detrimental because the CRP can have substantial negative economic effects on agricultural production and rural communities; enrolling in the CRP can reduce the job opportunities in the agricultural sector and reduce economic vitality in these communities (USDA/ERS 2004; Wu and Weber 2012). Some even suggest that the government overpaid for less productive land enrolled (Daniels

1988; Cooper and Osborn 1998). It is noteworthy that the CRP acreage has considerably decreased since 2007 as agricultural commodity prices have risen.

The CRP now faces the possibility of financial cuts and budget constraints. Some opponents of this policy believe the United States should cut the budget for this program because of its shortcomings and to decrease the federal budget deficit. Because increases in commodity prices in the last decade have decreased the total acres of land in the CRP, the US Congress reduced the CRP acreage cap in the 2014 US Farm Bill. According to the Senate Agriculture Committee, it was estimated that the CRP cap would be reduced to 26.5 million acres in 2015, then to 25.5 million acres in 2016. The acreage cap has been set at 24 million acres for fiscal years 2017 and 2018. Also, the Congressional Budget Office (CBO) estimated that mandatory spending on conservation programs would decrease by US\$200 million between 2014 and 2018.

Some studies in the literature argue that it is inevitable that the CRP will be "right-sized" and reformed when it is worth returning high-quality land to production (Knight 2012) and suggest that a penalty-free early-out for CRP contract holders be considered, which could reduce enrollment of quality land. Since CRP participants consider land prices as well as commodity prices to determine whether they will continue to participate in the CRP (Wu and Weber 2012), it is difficult for the government to forecast and adjust the size of the CRP. Under the budget deficit situation, for optimal enrollment of the program, the CRP initiative may need to assess its economic effects on agricultural production and rural employment as well as its environmental benefits.

References

- Cason, T.N., and L. Gangadharan. 2004. Auction design for voluntary conservation programs. *American Journal of Agricultural Economics* 86:1211–1217.
- Cooper, J.C., and C.T. Osborn. 1998. The effect of rental rates on the extension of Conservation Reserve Program contracts. *American Journal of Agricultural Economics* 80(1):184–194.
- Cowan, T. 2010. *Conservation Reserve Program: Status and Current Issues*. CRS Report for Congress, Congressional Research Service, Washington, DC.
- Daniels, T. L. 1988. America's Conservation Reserve Program: Rural planning or just another subsidy? *Journal of Rural Studies* 4(4): 405–411.

Knight, B. 2012. *Regaining Ground: A Conservation Reserve Program Right-Sized for the Times*. Report to National Grain and Feed Foundation by Strategic Conservation Solutions, LLC.

Plantinga, A., R. Alig, and H. Cheng. 2001. The supply of land for conservation uses: Evidence from the Conservation Reserve Program. *Resources Conservation and Recycling* 31:199–215.

Smith, R. 1995. The Conservation Reserve Program as a least-cost land retirement mechanism. *American Journal of Agricultural Economics* 77(1):93–105.

Smith, M.E. 2000. *Conservation Reserve Enhancement Program: Early Results from a Federal–State Partnership*. U.S. Department of Agriculture, Economic Research Service, Washington, DC.

United States Department of Agriculture, Economic Research Service (USDA/ERS). 2004. *The Conservation Reserve Program: Economic Implications for Rural America*. United States Department of Agriculture, Economic Research Service, Washington, DC.

United States Department of Agriculture (USDA). 2014. *Conservation Reserve Program Enrollment Activity and News*. United States Department of Agriculture, Washington, DC

Wu, F., Z. Guan, F. Yu, and R.J. Myers. 2013. The spillover effects of biofuel policy on participation in the Conservation Reserve Program. *Journal of Economic Dynamics and Control* 37:1755–1770.

Wu, J., and B. Weber. 2012. *The Conservation Crossroads in Agriculture: Implications of a Reduced Conservation Reserve Program*. [http://www.cfare.org/UserFiles/file/publications/Wu-Weber_8.21\[1\].pdf](http://www.cfare.org/UserFiles/file/publications/Wu-Weber_8.21[1].pdf)

Table 1. CRP enrollment in the United States

Sign-up Type	Contracts	Farms	Acres	Annual Rental (\$Million)	Payments (\$/Acre)
General	262,417	177,983	19,735,983	1,008	51.09
Continuous	409,713	239,033	5,750,957	614	106.75
Non-CREP	320,996	192,855	4,150,135	404	97.25
CREP	73,198	48,431	1,261,149	172	136.70
Farmable Wetland	15,549	12,071	339,673	38	111.70
Total CRP	672,130	376,544	25,486,382	1,622	63.65
Source: USDA (2014).					

Table 2. CRP enrollment in Florida

Sign-up Type	Contracts	Farms	Acres	Annual Rental (\$Million)	Payments (\$/Acre)
General	1,050	857	42,147	1,895	44.97
Continuous*	37	30	973	52	53.37
Non-CREP	37	30	973	52	53.37
CREP	0	0	0	—	—
Total CRP	1,087	883	43,120	1,947	45.16
* Includes Farmable Wetland enrollment. Source: USDA (2014).					