What Future for the U.S. Reserve Programs?

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Background

There are three primary farmland reserve programs in the United States—the Conservation Reserve Program, the Wetlands Reserve Program, and the Grassland Reserve Program. These three long term land retirement programs combined contain more than 37 million acres, roughly 10% of the total U.S. cropland area.

U.S. long-term farmland diversion programs began in the 1930s to manage agriculture's persistent excess capacity by reducing production to meet demand through the withdrawal of cropland from cultivation. The diversion programs were later expanded to include conservation by compensating producers to move from soil-depleting to soil-building crops. The increasing demand for food during WW II led to the return of most of the previously diverted acres. As agricultural production regained its foothold in the war zones food demand in the United States declined and excess capacity in agriculture became again problematic. A decade after the end of World War II, the Soil Bank was put in place and contained both a 10 year conservation reserve and annual acreage reduction to manage excess capacity as potential production rather than stocks.

Early into the 1970s cropland was being returned to production to fulfill expanding export demand. However, within a decade excess capacity again became a concern. As in the 1956 farm legislation that established the Soil Bank, the Food Security Act of 1985 (FS Act) reauthorized the annual land retirement programs and established the longer term Conservation Reserve Program (CRP).

Today, expansion in production of biofuels, the absence of government managed stocks, and widespread adverse weather conditions, has led to a sharp decline in excess capacity. The reduced excess capacity has led to record high grain prices and both economic incentives and political pressure to return the reserve acres to production. The fate of this acreage in the future will be debated with increasing intensity the longer food commodity prices remain at the current levels.

The Conservation Reserve Program

The Conservation Reserve Program (CRP) is a voluntary long-term cropland diversion program. CRP relies on incentives to induce owners, operators, and tenants to convert highly erodible or otherwise environmentally sensitive cropland with appropriate cropping history into a conserving use.

The CRP's primary objective was to reduce soil erosion. Secondary objectives were to protect the long-term capacity to produce food and fiber (cropland reserve), reduce sedimentation,

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improve water quality, create fish and wildlife habitat, curb surplus production of commodities, and provide income support.

When the CRP was first implemented in 1986, land owners, operators, and tenants who wished to enroll in the program submitted bids for eligible lands with appropriate cropping history to county Farm Service Agency (FSA) offices. Bids less than the maximum acceptable rental rates were accepted. CRP contract holders were paid an annual rental payment over 10 to 15 year contracts in exchange for establishing and maintaining cropland in some conserving use including introduced or native grass and forest covers. Most successful bidders realized returns to land and management from CRP payments that were equal or more than returns would have been under continued crop production. National CRP enrollment by 1990 was 33.9 million acres. The Food, Agriculture, Conservation and Trade Act of 1990 (FACT Act) extended CRP enrollment authority through 1995. Eligible lands were expanded to include cropland devoted to filter strips and other easement practices in state water quality areas, wellhead protection areas, and areas subject to scour erosion. The CRP bid process expanded to two phases. First, the CRP bid had to be less than the county-average cropland rental rate adjusted for the inherent soil productivity of the three most predominate soil types relative to the county average productivity. Second, bids were evaluated to determine their benefits through an Environmental Benefits Index (EBI). The EBI embodied goals for surface and ground water quality and improvement and preservation of soil productivity. The details for both the rental rate maximum and the EBI criteria were not revealed to the public. As a result, for the three sign-ups in 1991 and 1992, many offers from potential program participants from the Great Plains and western states required too-high rental rates and FSA ended up ignoring the EBI criteria, accepting any offer that met the rental rate criteria. National-level enrollment in 1995 was 35 million acres.

The Federal Agriculture Improvement and Reform Act of 1996 (FAIR Act) and the Farm Security and Rural Investment Act of 2002 (FSRI Act) extended CRP enrollment authority to 2002 and 2007, respectively. One change was to allow specific environmentally sensitive lands (e.g., riparian areas) to enroll at any time (continuous) rather than only during specific enrollment periods (periodic). Eligible lands for periodic CRP sign-ups are similar to those under the FACT Act. The two-phase bid procedure was modified. First, the rental rate and EBI criteria were made public. Second, several elements of the EBI were modified to emphasize wildlife benefits. National-level CRP enrollment in 2002 was 34.0 million acres. This enrollment included acres from periodic sign-ups and included acres from continuous sign-ups for cropland determined suitable for practices such as filter strips, shelter belts, and salt tolerant vegetation, Additionally, the enrollment includes acres added under the Conservation Reserve Enhancement Program (CREP), a program to coordinate federal and non-federal funds to improve water quality, erosion control, and wildlife habitat related to agricultural uses of resources in specific geographic areas. National-level enrollment as of February 2008 in CRP is about 34.67 million acres with 30.68 million acres from the periodic sign-ups, 2.73 million acres from continuous sign-ups, 1.08 million acres in CREP and 0.18 million acres in farmable wetlands. Approximately 58% of CRP acreage is located in the 10 Great Plains states, but only 22% of the continuous enrollment and 9% of the CREP enrollment is located in these states.

Historically CRP lands were made available for grazing and haying only under emergency conditions with contract holders assessed a partial reduction in annual payments for such uses. The FSRI Act provided for periodic managed grazing and harvesting of CRP in return for partial reductions in the annual CRP payments. Studies are underway to consider the number of years for a haying or grazing rotation and the economic benefits of managing for game and non-game wildlife.

Recently passed farm legislation extends the CRP for an additional 10 years but reduces the enrollment cap to 32 million acres. However, between 2009 and 2014 the contracts on more than 62% of acres will expire, including 71% of the plains states CRP acreage.

The Wetlands Reserve Program

The Wetland Reserve Program (WRP) was established by the FACT Act. WRP focuses on the restoration of high-risk agricultural land located in or adjacent to flood-prone areas. Protection, restoration, and enhancement of the functions and values of wetland ecosystems to obtain habitat for migratory birds and wetland-dependent wildlife, protection and improvement of water quality, attenuation of water flows due to flooding, recharge of ground water, protection and enhancement of open space and aesthetic quality, protection of native flora and fauna contributing to the Nation's natural heritage, and contribution to education and scholarship are the objectives of the WRP. Landowners may participate in WRP through compensated permanent and 30-year easements and 10-year restoration cost-share agreements.

Enrollment began in 1992 with WRP pilot programs in a few states. WRP expanded in geographic coverage and acres and reached its initial 1 million acre authorization in 2001. The FSRI Act re-authorized WRP and expanded the acreage cap to 2.275 million acres. WRP management strategy changed from a "walk away" strategy of the FACT Act to the current "full restoration" strategy wherein at least 70% of the land area is restored to the original natural condition to the extent practicable. By September 2004 there were 1.6 million acres enrolled in WRP, primarily through permanent easements.

The Grassland Reserve Program

The Grassland Reserve Program (GRP) was authorized in the FSRI Act and first implemented in 2003. The GRP is a voluntary program that assists landowners and operators restore and protect grassland. The objectives of GRP are as follows: preservation of native and natural grasslands and shrublands; support grazing operations; and maintain and improve plant and animal diversity. Emphasis has been placed on the first objective. Only in special cases is GRP used to curb urban encroachment on grasslands, given extreme program costs and availability of other USDA programs to curb urban encroachment.

GRP is implemented through easements and long term contracts. Grazing, haying and harvesting for seed are permitted when such activities are done in a manner to preserve resource viability. Landowners and operators are also allowed to use fire rehabilitation and make resource improvements including watering facilities consistent with maintaining the grassland. Agricultural commodity production that requires disturbance of the soil surface is prohibited.

The FSRI Act provided a 2 million acre cap for GRP and authorized a spending limit of $254 million for the period 2003 through 2007. Currently, 608.2 thousand acres have been enrolled.

Issues

The end of the second decade of the CRP has instigated a debate similar to what occurred at the end of the first decade of the program. The debate centers on what to do with expiring contracts. Embedded in this debate are questions over the continued need for supply control, the need for reserve type programs for resource management, the impact of reserve programs on rural economies and the geographical distribution of acres and benefits.

Excess capacity in U.S. agriculture has persisted at roughly 10-15% since the 1920s with the exception of brief periods such as 1940 to1947 and 1973 to1976. The annual set-aside programs were used from 1950 through 1995 to manage excess capacity, increasing the percent of acreage required to be idled in response to rising levels of stocks and declining prices. From 1988 through 1995 the reserve programs began to substitute for annual set-aside programs and following the FAIR Act of 1996 became the only remaining land retirement program, continuing to hold about 10% of the agricultural cropland productive capacity idle. Failure to renew these programs at current levels may impact crop prices and government commodity program payments and curb improvements in environmental amenities. Non-renewal would save CRP expenditures and may lead to reduced commodity prices, increased economic activity and increased exports.

The programs and policies to manage excess capacity may be limited by international trade considerations. Negotiations at the World Trade Organization to limit subsidies that distort trade will also restrict the United States' ability to use subsidies to induce supply management as in the past. Reserve programs are not considered to be trade distorting and thus offer an avenue for indirect supply management and income transfer. These "green box" payments however, may come under increasing scrutiny in the current WTO Doha round of trade negotiations.

The dual goals of supply and resource management that gave birth to the acreage goals and targeting efforts for the current reserve programs continue today. There are still 20-25 million acres of fragile croplands that cannot be continuously farmed, even under the best management practices available without an annual net soil loss and associated environmental damages. There are still millions of acres of riparian areas, wildlife habitats, and wetlands that would benefit from removal from annual cropping practices. The use of an Environmental Benefits Index to enroll the most fragile of lands with limited funds nationwide has led to a pattern of enrollment that is concentrated in the Great Plains, Corn Belt and Palouse.

In some instances the concentration of enrollment in specific regions of the country has been tied to an exacerbation of the economic crises in rural America. The effect of the CRP on rural communities has been its most controversial aspect. A recent study by USDA's Economic Research Service concluded that there is no strong evidence that the CRP has been a leading factor in the decline in vitality of rural communities, although there are cases where it may contribute to economic stress. Previous studies demonstrated various levels of economic consequences on rural communities from the CRP. The extent of the economic consequences depends on concentration of CRP acres enrolled, the structure of agriculture before and after CRP enrollment, the established cover, and the economic activities associated with that cover (e.g., hunting, tourism, forestry) and the level of rural economic stress in the community prior to CRP enrollment.

While the CRP contains a provision that no more than 25% of a county's cropland may be enrolled in the CRP, there is no provision as to the dispersion of those acres throughout a

county or the impact of the enrollment on rural communities. Indeed, in many Great Plains counties enrollment is heavily concentrated in specific parts of a county and has had severe impacts on small rural economies within those areas much the same as if a major employer such as a military instillation or manufacturing plant were closed. However, ameliorating the negative impact resulting from reduced cropping activities, the abundance of wildlife attributed to the CRP has led to the enhancement of outdoor recreational opportunities, especially hunting, which has brought income and jobs into many rural communities. And, in the South moving from crop production to timber production has often provided a net increase in economic activity over the long run. In addition, the CRP has yielded improvements in the rural environment such as reduced particulate matter in the air (Sullivan et al. 2004).

There is also no link between the percent of cropland in a county that may be enrolled in combination with the other reserve programs. In western portions of the Great Plains states GRP participation may be viewed as an option when CRP enrollment has been maximized. With the reserve programs implemented independent of one another the potential exists for the three reserve programs to enroll cropland in a county beyond the 25% limit imposed by the CRP.

The concentration of the nearly $2 billion of annual payments for the reserve programs in specific areas of the country has not gone unnoticed by representatives and senators of the more populated coastal areas. Until the expansion of the Environmental Quality Incentives Program (EQIP) began in 2002, expenditures on the reserve programs comprised nearly 90% of conservation dollars spent through USDA programs. The FSRI Act of 2002 included funding allocations for GRP and other conservation programs (e.g., Wildlife Habitat Incentives Program, Farm and Ranchland Protection Program, and EQIP) to address these distributional inequities. The 2002 Act required that states receive a minimum of $12 million in conservation funding from the four conservation programs. The mandated spending pattern benefited several smaller and more densely populated northeastern states, and some coastal states such as South Carolina, Alaska, and Hawaii. Collectively, these four programs with mandated spending levels provided over $1.1 billion in conservation funding in fiscal years 2004 and 2005. Even as EQIP reaches full funding levels in 2006, the reserve programs will still constitute nearly 60% of the total conservation expenditures. The geographic distribution of the conservation expenditures will be a point for discussion in the next farm bill debate, and likely involve a retooling of the bid selection criteria.

Policy Alternatives and Consequences

Re-authorize Reserve Programs under Current Rules–the Status Quo

For two decades the CRP has been an important program for conservation and supply management. During this period the CRP has been under constant change. As new information and methods of analysis combine with program experience the program has been modified to increase social benefits and reduce costs.

The WRP and GRP are small programs in comparison to the CRP[2], but the WRP has played a major role in restoring wetland habitat and the GRP, a new program, has the potential to have similar impacts on grassland habitat. A continuation of the three reserve programs under

[2] http://www.ers.usda.gov/publications/arei/ah722/arei6_2/DBGen.htm.

current rules will likely continue to improve these programs' ability to obtain greater conservation and wildlife benefits and implementation efficiency, maintain excess capacity as idled acreage rather than commodity stocks, provide an important program for income transfer that is compliant with WTO rules and provide a constant source of income for many rural communities that are dependent on agriculture. However, the reserve programs will likely continue to target roughly $2 billion to the areas with highest yield variability (and the lowest average yields) and contracts on 22 million of these CRP acres will expire in the first two years of a reauthorized program.

In addition, tenants and other non-owner operators in high enrollment areas will continue to face cropland rental markets where rental rates have increased due to reductions in available cropland and the existing CRP rules for rental rate determination that allows for the disparity in rental rates between most and least productive soils to be three fold.

In the face of higher food and feed prices and the current situation where land economically substitutes for fertilizer in forage production, increasing pressure on the status quo CRP has led to the opening of the acreage to haying and grazing (without adjustment to rental rates) by the Secretary and a change in the new farm legislation to return cropland base on CRP acres upon contract expiration. When CRP was extended under the FAIR Act in 1996 new contracts explicitly removed base from expiring acreage. This would provide a disincentive to return the acreage to crop production upon future contract expiration.

Discontinue Current Programs

The new farm legislation, Food, Conservation, and Energy Act of 2008 (FCEA), has continued the program with a lower ceiling of 32 million acres. However, the returning of base acreage on expiring contracts coupled with the new revenue assurance (ACRE) and permanent disaster (SURE) programs may lead to a reduction in CRP acreage through contract attrition. From a budgetary standpoint a reduction in funds expended for the selection or servicing of new contracts and easements or for cost-share assistance in cover establishment or restoration would occur, but there would be a continuous reduction in budgetary exposure for contracts and easements in place. Annual contract payments will be made and costs incurred for the monitoring of easements for adherence to terms.

During the current farm legislation cycle (2008-2012), landowners/operators on roughly 22 million acres will have to decide whether to return these lands to annual crop production or retain the land in a conserving use for grazing, haying, or wildlife habitat, etc. Prior to the 2007/2008 farm bill debate, surveys indicate that for CRP contract holders who are/were primarily crop producers, a high percentage of the acres would return to annually planted cropland. For those who were primarily livestock producers or those with integrated operations, a substantial portion of the CRP acreage would be used for grazing or haying. Planting grass crops for cellulosic ethanol cannot be considered an option until processing plants are constructed within close proximity. Crops produced on land returned to cropland will be eligible for commodity program benefits, especially marketing assistance loans. Production from these lands would likely increase crop supplies, reduce prices and increase future commodity program payments. In some areas the average annual rental payment exceeds the long run average annual income support from the direct and counter-cyclical payments while in other areas the reverse is true. How the rental rate compares to future revenue from cropping activities will like change as a result of the new commodity programs.

In the Plains States the patchwork of CRP acres has reduced wind erosion and dust storms are now very rare. Water quality and wildlife gains have also been made. Reduction of CRP acres would certainly reduce these environmental gains.

For the WRP most of the environmental benefits would continue as most of the enrolled acres are under permanent easements. While existing renovation contracts would be fulfilled no new acres would be enrolled. For the GRP the consequences vary with the type of contract. Most of the acres are contracted under permanent and long term easements and thus benefits of the program would be retained.

Re-authorize Reserve Programs with Changes

While the FCEA provides an extension of two distinctly different set of conservation programs, dividing nearly $4 billion per year between programs that remove land from production and programs that obtain environmental benefits through the management of lands remaining in annual crop production. The funding levels and eligibility requirements for the reserve and conservation programs are set at the national level by Congress. However, Farm Service Agency (FSA) selects acreage based upon the Environmental Benefits Index and rental rates and both can be changed within the jurisdiction of the FSA. With the new cap at 32 million acres and roughly 22 million acres able to return to crop production there is considerable room for a spatial reallocation of CRP acres. The program could enable more targeted state and local conservation priorities rather than federal priorities. Local communities might more efficiently allocate financial resources to deal with specific local conservation issues that would provide the greatest social benefits. For instance, in the western areas of the Great Plains, grasslands are highly fragmented, adversely impacting critical species habitat, crop and livestock production costs, and land rental rates, and in some cases may adversely impact the economic viability of the local economies. As a 10 year program the CRP may assist in transitioning landowners to grassland production but may not provide sufficient duration or flexibility to restore the grassland or enable development of a sustainable grassland habitat as does the GRP. Relative to the CRP, the easement option available in GRP is limited both in area and spending levels. A reorganized set of reserve programs may reallocate funds from CRP to GRP or add GRP conservation practices to CRP. This would allow for the expansion of contiguous grassland areas to aid native wildlife populations, expand buffers in riparian areas and increase economic activity.

Avenues for Change

Cost effectiveness, in an era of limited budgets, and local flexibility are two concerns facing the reserve programs. Program changes that minimize adverse impacts on rural communities, obtain greater environmental benefits per dollar cost, or assist in allocating acres more uniformly throughout the country may be considered.

On the cost side, for reserve program participants who are landlords, the opportunity cost for program participation is the cropland rental rate. CRP rental rates based on soil rental rates above prevailing cropland rental rates result in excess taxpayer costs and no increases in environmental benefits. Commodity program payments above rental rates also may result in excess taxpayer costs.

If USDA and Congress are willing to consider more comprehensive changes in program implementation, program costs could be reduced through bidding mechanisms that encourage

lower bids from any landowners whose reservation price (for offering land into the CRP) is less then the soil rental rate. For example, landowners could submit several rental rate bids in a competitive bidding process (e.g., open auction). This occurred in the first five sign-ups as eligible participants with rejected bids re-bid at lower rates in the following sign-ups. Additionally, using cost-benefit ratios on offered land, rather then including cost as a separate factor, could increase the per-dollar environmental impacts. Whether the positive impacts of these kinds of cost-conscious changes are worth the extra burden on both farmers and program administrators, is an open question.

For national programs, local flexibility is a complex issue. On one hand, national programs are a means of meeting national goals. These may entail modest improvements to concerns that have broad appeal to the entire citizenry. On the other hand, national programs could assist localities in addressing their concerns. Though such concerns may matter just to the population of the region, addressing such concerns could lead to more significant resource and environmental improvements.

To date, the reserve programs, especially the CRP, have incorporated a limited amount of information on local concerns. Granting states and communities the flexibility to address wetlands, grasslands, water quality, air quality, or other environmental goals based on local priorities might lead to more efficient use of available resources. That is, local targeting of federal funds across all resource concerns may provide greater benefits than a national allocation by program.

CRP goals to limit soil erosion and improve water quality may not be met in the predominant wind erosion regions. Soils with lower CRP rental rates are often left in crop production because returns to land from crop production exceed the CRP rental rates.

An extension of this flexibility would be merging the several programs into a single reserve program. A single reserve program could provide the flexibility to use limited fiscal resources for short term amelioration of environmental problems or permanent easements to protect unique environmental features in a landscape (e.g., wetlands, wildlife habitat, riparian areas, old growth forests). A single reserve program could provide the cost-share assistance needed to re-establish non-industrial private forests (replacing the Forest Incentives Program) or replace some of the commodity program income transfer and assist farmers in moving from the production of annually-planted crops to conserving uses such as grasslands and forest.

For example, a single reserve program could offer three different enrollment options: 1) permanent easements on the most fragile of land resources; 2) 10-15 year contracts on cropland managed with limited/prescribed use; and 3) 10-15 year contracts on cropland with unlimited use excluding the production of annually planted crops.

Some of the cropland now in the CRP has been enrolled for nearly 20 years and may elect to re-enroll. This landowner/operator has certainly indicated the desire to maintain the land in permanent cover. A permanent easement coupled with prescribed management would allow an economic use of the land with environmental benefits. Wetlands and grassland restoration as well as riparian area and habitat protection would fit well under this option. The grassland patchwork in the Great Plains resulting from the CRP and the more recent GRP has minimized wind erosion and the associated dust storms common to the region. The idling of cropland for 10-15 years provides soil productivity restoration and wildlife nesting areas. On many farms, the acres in enrolled in the CRP changed at the end of the first contract so that the “rested”

acres were returned to production while the "tired" acres were enrolled in the CRP. The second option (which is the current CRP program) would allow for a continuation of this effort. In light of record high fertilizer price, this resting rotation could also be used to use legumes to load the rested soils with nutrients. After the implementation of the FAIR Act income supports became decoupled from production and large areas of cropland were converted to forage covers. The third management option for the single reserve program would enable farmers to continue this practice under the reserve and thus transfer payments from blue box to green box for WTO negotiations.

In each of these management options a lease-back provision could be included in the easement or the contract providing conditions that may enable a producer to return the land to crop production or intensive haying or grazing during the contract/easement period. The lease back provision has become more interesting in light of tighter crop supplies and higher prices.

While a single reserve program, by increasing flexibility and enhancing coordination, offers the chance at greater efficiency, it does introduce an element of risk. In particular, use of several programs guarantees that the goals of each program are met on some minimal level. In a single program, it is more likely that in some localities, certain goals (say, wetland preservation) will receive no attention. To the extent that attaining these goals have a broad national appeal, creating a single program with strong local input might actually diminish the delivery of improvements that the bulk of the U.S. population cares about.

Conclusions

The CRP has been the cornerstone of USDA's conservation efforts for nearly two decades. During this time the program has gone through numerous legislative and rule changes. Both the WRP and GRP have added to the conservation effort through targeting of more specific problems.

At the beginning, the CRP's main goal was erosion reduction but now includes other environmental goals. The ability to obtain various environmental amenities through targeting has increased at a steady rate as new science and data have become available. USDA continues to develop better data and methods and in the near future will be able to better target problems related to land use of specific fields within the landscape and determine the land use change necessary to improve the overall landscape. Flexibility in the implementation of the programs will be increasingly important to capture the efficiencies.

Payments for reserve program participation are considered green box under the WTO guidelines and thus are not subject to challenge by other countries. The reserve programs provide environmental benefits to the general society and income support to participants. But, the reserve programs remove land from economic use and may adversely impact some agribusinesses and rural communities. The reserve programs induce land use changes that are not market driven and have varying impacts on land prices. Program benefits have generally been received mostly in mid-America and thus lack support from the two coasts.

A single reserve program with local flexibility in contract length, payment rates, easements, and land use and environmental objectives has strong potential. A single reserve program could reduce implementation costs, encourage a more even distribution of program expenditures, and

increase the ability of communities to target specific environmental concerns. However, poor or narrowly defined implementation could reduce several net benefits to the entire nation.

References

Broomhall, D.E. and Thomas Johnson (1990). The Impact of the Conservation Reserve Program on a Region in Rural East Georgia. *Review of Regional Studies* 20(2) Spring: 66-75.

Hyberg, B.T., M.R. Dicks and T. Hebert (1991). Economic Impacts of the Conservation Reserve Program on Rural Economies. *Review of Regional Studies* 21(2) Spring: 91-105.

Johnson, James B., C, Robert Taylor, Richard T. Clark, Stephen H. Amosson, and H. Arlen Smith (1994). The Conservation Reserve Policy. In: *1995 Farm Bill Policy Options and Consequences.* Texas Agricultural Extension Service.

Johnson, James B., and Richard T. Clark (2001). Conservation Reserve Program. In: *Farm Bill: Options and Consequences*. Farm Foundation and Agricultural and Food Policy Center, Texas A&M University.

Johnson, James B. (1996). The Soil Rental Rate Approach to Setting CRP Payment Limits. Unpublished paper submitted to the Farm Service Agency.

Martin, M., H. Radtke, B. Eleveld, and S.D. Nofziger (1988). The Impacts of the Conservation Reserve Program on Rural Communities: The Case of Three Oregon Counties. *Western Journal of Agricultural Economics* 13(2): 225-32.

Mortensen, Timothy L., F. Larry Leistritz, Jay A. Leitch, Randal C. Coon, and Brenda L. Ekstrom (1990). Socioeconomic Impact of the Conservation Reserve Program in North Dakota. *Society and Natural Resources* Vol 3: 53-61.

Seigel, Paul B. and Thomas Johnson (1991). Conservation Reserve Program May Be Good for the Environment, Farms and Rural Communities. *Rural Development Perspectives* 8(3) Spring: 25-31

Sullivan, Patrick, Daniel Hellerstein, Leroy Hansen, Robert Johansson, Steven Koenig, Ruben Lubowski, William McBride, David McGranahan, Michael Roberts, Stephen Vogel, and Shawn Bucholtz (2004). *The Conservation Reserve Program: Economic Implications for Rural America*. USDA/ERS Agricultural Economic Report No. 834 (AER834) 112 pp.