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CRP Management— Adopting Grazing Practices will Benefit Washington State

The Conservation Reserve Program (CRP) is a voluntary program that provides annual rental payments and cost-share assistance to agricultural landowners or operators. The 1985 Farm Bill authorized CRP. The purpose of CRP is to help agricultural producers safeguard environmentally sensitive lands by planting long-term, resource-conserving covers that control soil erosion, improve water and air quality, and enhance wildlife habitat. Participants enroll in CRP contracts for up to 10-15 years. The Commodity Credit Corporation (CCC) administers the program through the Farm Service Agency (FSA).

Evolution of CRP policy

The CRP program began its true conservation emphasis in 1996. More native vegetation was to be used for restoring previously farmed lands. Also, nesting periods were required for enrolled lands, initially running from April 1 to August 1. In 2002, grazing and haying were incorporated into CRP policies. Grazing could occur one out of every three years, from June 1 to September 30. CRP lands could be hayed from July 1 to September 30. In 2005, the nesting period was changed from April 1 to June 1 and grazing restricted to one out of every four years. Mowing and herbicidal spraying could be used in managing CRP lands from August 1 or July 1, depending on the nesting period.

In October of 2004, The National Wildlife Federation filed a federal lawsuit alleging that the FSA had violated the National Environmental Policy Act (NEPA) of 1985. The lawsuit challenged the frequency allowed for haying and grazing millions of CRP acres in the Great Plains and Interior West (including Washington State) at intervals claimed to be insufficient to sustain healthy levels of the grassland cover required by nesting birds. By court order effective September 26, 2006, the nesting period was changed back to April 1 through August 1, and the haying and grazing period was changed from one out of every four years to one out of every ten years.

Balancing CRP through Managed Grazing

The issue is one of balance: how do we balance conservation, with livestock, with crop production? According to a survey, farmers and ranchers in the Palouse region had three primary concerns: 1) how to encourage children and grandchildren to become farmers and ranchers; 2) how to manage the increasing amount of weeds; and 3) how to remain sustainable without going out of business. To address these mainstream concerns, farm and ranch goals should be oriented towards economic sustainability, resource enhancement and quality of life.

The use of a planned grazing system is a goal-driven approach to forage-livestock management. One of its goals is to enhance existing natural resources, not simply conserve them. While agricultural producers in years past have tried to improve the land and leave it better for the next generation, in modern times, that objective sometimes falls to the wayside in the struggle to simply survive. One reason that young people these days decide against returning to the farm is the perception that farm life is one struggle after another. Farming needn't be that way. To succeed, however, it is important to work smarter, not just harder. Using a well thought-out grazing management plan, a producer can maintain reasonable production, reduce input costs and realize a

positive economic return—all while steadily improving the health of the pasture and achieving a better-balanced agro-ecosystem. This is the key to sustainability of a farm/ranch operation.

While one of the goals of CRP is to protect resources, some would argue that the very nature of the program promotes an unnatural situation. Very few natural grasslands have no grazing animals on hand to recycle nutrients. In several ways, managed grazing is superior to CRP as a conservation practice. Regular removal of grass top growth through grazing promotes healthy plants and soil, controls weeds, creates denser stands and helps maintain legumes in the stand. Hoof action, which breaks compacted soil near the surface, allows greater germination of seeds and encourages regeneration of pasture swards. Well-managed pastures rival CRP for soil erosion control, and require less pesticide and fertilizer inputs.

As now structured, the Conservation Reserve Program severely restricts grazing as a conservation practice and even penalizes its use by assessing a 25% payment reduction on grazed areas. CRP essentially takes land out of production, leaving plants idle. If rested too long, plants become unhealthy and die. Sunlight becomes a wasted energy source when it falls on bare or barren ground. Grazing management that encourages leaf development will also encourage root development and result in more soil organic matter and improved soil. Increased soil organic matter leads to better water infiltration and higher water holding capacity in the soil. A grazing plan enhances the biological decay needed to incorporate plants and animal waste into the soil. Decay, rather than oxidation, is far more efficient in recycling minerals and supports ecosystem health.

CRP strives to provide habitat for wildlife, especially for grassland birds that experienced a decline in numbers when their habitat was converted to farmland many years ago. Providing perennial grassy cover in agricultural settings is one way to help these birds. While CRP can accomplish this, so can managed grazing. Research has shown that pastures with management intensive grazing attract bird populations similar to those observed in CRP fields. From a ground-nesting bird's perspective, the degree of disturbance during nesting determines the survival rate. Studies have shown that pasture systems grouped in paddocks that are set aside as refuges during the nesting season have higher numbers of nesting pairs and nest survival than comparable CRP fields.

Managed grazing of CRP lands has many additional benefits:

- Reduces fire danger and promotes growth of brushy plants
- Reduces pesticide and fertilizer contamination of water resources
- Reduces the vegetative thatch layer built up over many years of rest
- Increases CO₂ uptake in roots and above-ground biomass
- Benefits wildlife by opening vegetation and allowing new plant growth
- Increases instream flows and decreases water temperature
- Offers short- and long-term economic benefits to the producer and the community

A research and demonstration study conducted in Corning, Iowa, focused on earning “production generated” income from highly erodible lands enrolled in 10-year CRP. The study involved intensive rotational grazing of cow-calf pairs on warm season grass/legume components. An average of thirty days total rest was allowed before the rotational paddock was regrazed. To minimize erosion, the livestock were allowed to graze no more than fifty percent of the standing forage in each paddock. The rotational grazing systems realized a net return of \$6 - \$14/A per year greater than the CRP enrollment option.

From 1992 to 1997, a North Dakota extension center researched the effects of grazing CRP lands in North Dakota. The study focused on the production and utilization of CRP vegetation under both season-long and rotational grazing systems. The study also addressed the economic returns from cattle grazing the CRP lands. The pastures contained a mixture of cool season grasses, legumes and other forbs. Over the seven-year study, the following data was compiled when comparing non-grazed, season-long and pasture rotation:

AVERAGE FORAGE PRODUCTION AND USE (1992-1997)

Treatment	Legume Yield (lbs/Acre)	Forb Yield (lbs/Acre)	Grass Yield (lbs/Acre)	Total Yield (lbs/Acre)	% Use
Non-grazed	608	23	2485	3116	
Season-long	385	85	2210	2681	44
Pasture rotation	803	27	2272	3102	51

Cow and calf gains were compared under both rotational and continuous grazing systems. The seven-year average daily gains and the gains per acre for cows and calves were similar under the season-long and rotational grazing systems, as illustrated by the following table:

Treatment	-----Cows-----		-----Calves-----	
	Gains/Acre (lb)	ADG (lb)	Gains/Acre (lb)	ADG (lb)
7-Yr Average Season-long	1.58	45.49	2.93	84.74
7-Yr Average Rotation	1.43	40.70	2.87	82.21

Means followed by no letter are not significantly different (P 0.05).

The seven-year study suggests that managed grazing of highly erodible land can be a valuable source of economic potential, while preserving the resource. The benefits of the different grazing systems can be evaluated by examining vegetative shifts over time.

CHANGES IN PLANT SPECIES COMPOSITION (1992-1997)

Increased in Nongrazed:	blue lettuce and smooth brome
Decreased in Nongrazed:	intermediate wheatgrass, quackgrass, wild buckwheat and yellow sweetclover
Increased in Season-Long:	bare ground, common dandelion, blue lettuce, yellow sweetclover, tall wheatgrass and Kentucky bluegrass
Decreased in Season-Long:	total plant basal cover, intermediate wheatgrass, quackgrass, alfalfa, and wild buckwheat
Increased in Rotation:	common dandelion, total plant basal cover, yellow sweetclover and smooth brome
Decreased in Rotation:	wild buckwheat, wormwood and horse-weed

Over the past two years, Whitman County Extension has been conducting a multi-species grazing study on continuous CRP. Permanent plots were established to monitor the vegetation within four rotational pastures. Vegetation changes occurred at several of the plots. Multi-species grazing positively impacted the weed population throughout the rotational pastures. Sampled areas containing 100 % weed cover increased an average of 18-48 % in grass cover. Spring inflows increased, while water temperature decreased (2 degrees Fahrenheit), within the managed rotational grazing system. The following pictures illustrate some of the benefits of rotational grazing on weed control.



If state and federal government were to reduce grazing restrictions in Eastern Washington to one out of every two or three years, then landowners could work towards properly managing CRP lands. The maintenance payments of \$6.00/A for mowing and \$5.00/A herbicide application (built into land lease) could be used as an incentive to properly manage CRP lands through grazing.

Initiatives

- 1) Separate haying from grazing within the CRP guidelines.
- 2) Use rotational grazing as a management tool. The typical cost share of \$5.00 per acre for maintenance (weed control) and \$6.00 per acre for mowing could be used to encourage livestock managers to perform managed grazing on CRP lands (i.e., temporary fencing, water tanks).
- 3) CRP contract holders: If managed grazing were to be allowed on CRP lands, the livestock producer would enter into an agreement to manage the land and continue to keep the land in grass for the same number of years as the CRP contract, following expiration of the CRP contract.

Example:

Year 1	2	3	4	5	6	7	8	9	10
Under contract: CRP payments, managed grazing					No contract, no payment; remain in sod and continue management				

- 4) Allow dormant season grazing on CRP lands any time.

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WHITMAN COUNTY EXTENSION

Washington State University Extension helps people develop leadership skills and use research-based knowledge to improve their economic status and quality of life.

A handwritten signature in black ink that reads "Stephen Van Vleet". The signature is written in a cursive style with a long, sweeping horizontal stroke at the end.

Stephen Van Vleet
WSU Extension Educator

Helping You Put Knowledge To Work

The Unintended Results of CRP to Whitman County's Economy

All Federal programs start with good intentions. The unintended results are the actions that we have to keep adjusting. CRP was enacted to stop the bank failures similar to the Savings and Loan crises. Encouraging conservation was used to make it acceptable to the public. We saw the results like less dust storms, less road closings, and cleaner water in our creeks, and we liked what we saw. It then became painfully obvious that our small town coops and fertilizer companies were closing because there was not enough revenue staying in the counties to support them. These unintended results of CRP were not what we desired. We now have an opportunity to make adjustments that could help this problem.

As the rule is now FSA pays to mow CRP but only allows grazing once every ten years. When allowed, FSA charges to graze. I am going to show you that dormant season grazing is better for CRP than mowing it.

Grazing dormant CRP will improve longevity of grass and legumes by hoof action.

Hoof action will improve the mineral and water cycle.

Hoof action will reseed more grass.

Hoof action and manure will improve the soil biology.

Hoof action will increase organic matter thereby storing more carbon in the ground.

Hoof action will improve the grasses' ability to compete with weeds.

Hoof action will improve infiltration.

Hoof action will extend the growing season; thus the grass will convert more CO₂ into oxygen.

Grazing CRP is much less invasive than mowing. For example, mowing will kill young pine trees and shrubs--grazing will not.

The longer the cows are on CRP, the fewer days there is a chance of causing AFO

CAFO (confined animal feeding operation) problems. It would encourage the feeding of cows on other open areas such as stubble.

By making livestock more profitable, we will encourage more wetland and hilltop hay plantings.

We are providing pictures of 60,40, and 20 years of dormant season grazing compared to 8 year-old CRP. These pictures prove that dormant season grazing improves grass stand, plant diversity, and tree and shrub growth.

If 54 cows grazing dormant CRP will equal the value to Whitman Co. of one big mower what would 10,000 cows do for Whitman Co.

We are providing pictures of 60+,40 and 20 years of dormant grazing along with two of 50 years of no grazing.

I will compare this to any pictures of 8 year old CRP and feel confident it proves our point.

IF YOUR GOAL IS TO HAVE THE MOST POSITIVE USE OF THE LAND, THE MOST IMPROVMENT IN SOIL,AIR AND WATER QUALITY AND THE MOST INCOME TO STAY IN WHITMAN COUNTY, WE SHOULD BE PAYING PRODUCERS TO GRAZE DORMANT CRP AT THE SAME RATE AS MOWING CRP.

The local committee should do what is best for our local county.

This is an opportunity for USDA show it's support for soil, air and water quality in a way that will help the local community just like it has shown its support for big business

- A Reserve wheat from the Emerson Trust had to be sold by Ritzville but Cargill Didn't have to sell there's.
- B Not enforcing country of origin labeling as passed by the Legislators.
- C Not following the World Health organization and letting BSE into the US. We have already found 3or4 over aged cows from Canada in less than one month I wonder how many they did not find?

By allowing dormant grazing of CRP we will increase the sodded acres in Whitman Co. The positive unintended result will be the hay ground acres that you do not pay for and more income back into Whitman Co.

As representatives of Whitman County we should do what is best for the farmers of Whitman county. USDA has shown it will take care of the Cargills of the world .

Where Does the Soil Go?

**Dennis Roe
Conservationist
May 2007**

The maps of the soils in central Whitman County shows 7216 acres of Palouse silt loam has lost its surface topsoil from erosion in the past. Research by hydrologists has shown that 60% of the soil that is loosened in the erosion process in a Palouse field stays in the field. Much of that is sediment that drops in the flat places in the lower part of the field. There are also slopes where the soil settles and covers productive dark topsoil.

Once all the topsoil leaves a productive Palouse slope, the crop production potential drops to one-half of the yield potential of the productive slope. Once the dark topsoil covers the dark topsoil to a depth of six inches, that slope, too, performs like the slope that has lost the dark topsoil. Once the soil is covered with clay, it then performs like clay.

According to the Palouse River Basin Study based on Palouse soils, erosion over the Palouse Basin has dropped the yield potential of the Basin by 9 bushels per acre over 1.6 million acres. At today's recent wheat prices, that is a significant loss to the industry, and to our communities.

Most natural and least invasive way to recharge the Palouse Basin aquifer.

The Washington side of the WRIA 34 is 127,500 acres. *1

The total use for Moscow , U of I ,Pullman and WSU is 8923 acre feet of water a year. *2

No-till farming will save 3 inches more water per acre than conventional farming.*3

For every four acres of no-till, you would infiltrate one acrefoot more water.

It would take 35,692 acres of no-till to replace the total water use of Pullman, Moscow,
U of I, and WSU.

If 1/3 of the Washington side of the WRIA 34 was no-tilled, it would replace all the
water used by Pullman ,Moscow U of I and WSU (according to 2003 figures).

In a study set up by Steve King, PE Hydrologist, on 11.6 acres on Four Mile creek, the
infiltration rate was 5960 gallons of water per acre per day.*4

Of course, we don't have to replace all the water used the area, but guess what the water
that doesn't go into the deep aquifer does? It will come out in springs and creek
banks a later date, at a cooler temp, and improve late summer flows ,
" our next hill to climb."

*1 Soil Conservation Service

*2 Figures for gallons provided by Palouse Clearwater Environmental.

*3 According to Dennis Roe, NRCS.

*4 Steve King's McIntosh Angus Spring Flow Inventory