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## COMPARISON OF CONTINUOUS CRP TO CREP IN NORTHWEST OHIO

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This fact sheet compares the new Conservation Reserve Enhancement Program (CREP) for Northwest Ohio to the continuous CRP program, and to maintaining land in farm production. Two important results emerge:

- The CREP program provides significant additional economic incentives compared to the continuous CRP for landowners to convert farmland to **grass or riparian forest** filter strips. In some cases, per acre net revenues under CREP are greater than maintaining land in agricultural production.
- Under CREP, the economic benefits (without considering future timber harvests) of riparian forest filter strips are nearly as large as those of grass filter strips.

### Discussion

Table 1 presents the results of financial analysis of three options: (1) continuing to produce crops on land that has a cash rent of \$100 per acre per year; (2) converting that land to a grass filter strip; and (3) converting the land to a riparian forest filter strip. The net present value of the stream of benefits and costs over either a 20 year (grass filter strips) or a 30 year (riparian forest filter strips) period are estimated. The estimates show the effect of each option on a landowner's bottom line. Key economic assumptions used in the analysis are described in table 2. Note that this analysis has ignored the tax consequences of either program. Additional background information on these options is available from the author at:

<http://www-agecon.ag.ohio-state.edu/Faculty/bsohngen/bmp/bmpinfo.htm>

The table shows that farmers can gain financially from the incentive payments for both continuous

CRP and CREP with grass filter strips. Returns under continuous CRP are \$139 above continuing to grow crops, and under CREP they are \$507 more. For riparian forested filter strips, continuous CRP does not provide a large enough incentive payment to outweigh lost opportunities from cropping, and it amounts to \$603 loss relative to cropping. However, the additional incentives from CREP make that program an attractive option relative to cropping – the gains are \$368.

When considering which program to utilize, farmers must consider the contract length. The CREP program requires longer contract periods (20 years for grass filter strips and 30 years for riparian forest filter strips), which may concern some landowners. On the other hand, CREP provides an initial bonus payment (\$200 for grass filter strips and \$500 for riparian forest filter strips) and higher annual cash rental payments (155% of cash rent for grass filter strips and 175% for riparian forest filter strips). These higher bonus payments make up for the fact that the rental payments for the CREP program do not last as long as the contract.

These enhanced payments make CREP a more attractive financial option than the continuous CRP program. In the case of grass filter strips, the overall returns for a landowner using CREP are \$368 above the returns for a landowner using the CRP program. In the case of riparian forest filter strips, CREP provides an additional \$971 in returns above continuous CRP.

As these numbers indicate, the CREP program provides substantial additional incentives for landowners. The gains are the greatest for riparian forest filter strips. In fact, although landowners must commit their land for longer time periods, the returns for the riparian forest filter strip under CREP are the same size as the returns for grass filter strips -- \$1,494 for riparian forests and \$1,489 for grass filter strips.

When these total gains are converted into annual values, the grass filter strips under CREP provide approximately \$152 per acre in annual returns over 20 years, while the riparian forest filter strips provide \$133 in annual returns over 30 years. In annual terms, grass filter strips have some advantage because they require a shorter commitment period, but both of these returns are higher than the \$100 per acre farmers would obtain from continuing to crop the land.

While these results suggest that landowners should strongly consider using the CREP program, there are several additional points to think about. First, these results apply only to a single soil type and a single region. They may not apply everywhere, and farmers should be sure to carefully evaluate the cash flows in the proposal developed for their own land. Spreadsheet templates are available both from The

Ohio State University and from the USDA Natural Resource Conservation Service to help with this analysis.

Second, this analysis assumes that cash rent remains constant over a 20 or 30 year time period. It is possible that cash rent could increase or decrease depending on crop prices, land-use pressures, or other factors. If cash rent rises (decreases) over time, the value of CRP and CREP would decline (increase).

In addition, the OSU Extension Fact Sheet AE-6-99, "The Economics of Vegetative Filter Strips," provides information on other economic considerations important for filter strip applications in Ohio. Farmers should be sure to read this fact sheet to better understand how interest rates, opportunity costs, and other factors may affect the results for their situation.

**Table 1: Financial Impact of Cropping vs. Continuous CRP vs. CREP Grass Filter Strips (20 years)**

	Continue Cropping	Continuous CRP	CREP
	Net present value (\$\$) per acre over 20 years		
Financial Gain (Loss)	\$982	\$1,121	\$1,489
Gain (Loss) Relative to Continuing to Grow Crops	--	\$139	\$507

**Riparian Forested Filter Strips (30 years)**

	Continue Cropping	Continuous CRP	CREP
	Net present value (\$\$) per acre over 30 years		
Financial Gain (Loss)	\$1,126	\$523	\$1,494
Gain (Loss) Relative to Continuing to Grow Crops	--	(\$603)	\$368

**Table 2: Assumptions Used in Analysis**

	Grass Filter Strips		Riparian Forest Filter Strips	
	Continuous CRP	CREP	Continuous CRP	CREP
Interest rate	8%	8%	8%	8%
Years in Program	15	20	30	30
Cash Rent	\$100	\$100	\$100	\$100
Establishment Cost	\$40	\$40	\$450	\$450
Mowing Cost	\$10	\$10	\$25	\$25
Establishment Cost Share	\$20	\$20	\$225	\$225
Sign Up Bonus	\$0	\$200 first year	\$0	\$500 first year
Rental Cost Share	\$120 per year	\$155 per year	\$120 per year	\$175 per year
Maintenance Cost Share	\$5 per year	\$5 per year	\$5 per year	\$5 per year

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