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Base Revenue Protection and Revenue Countercyclical Programs for Soybeans in North Dakota

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Abstract

The National Corn Growers Association Public Policy Team's Base Revenue Projection Program (BRP) and the Revenue Countercyclical Program (RCCP) were analyzed. The analysis was done for soybeans using the BRP-RCCP calculator, as developed by the National Corn Growers Association. Three representative counties (Cass, Stutsman and Benson) were chosen in North Dakota. Historic and projected data were used to analyze 2002 to 2010 crop years. A comparison of the BRP-RCCP programs to the current farm program was done.

From 2002 to 2005, all counties would have received more payments with the BRP-RCCP program than they would have received under the current farm program. Benson County would benefit the most from this program, receiving $58.56 per acre more during the four years, or $14.64 per year. Cass County would receive $33.35 per acre and Stutsman County would receive $16.20 per acre more during this four-year period.

Keywords: farm bill, soybeans, countercyclical payments, revenue

Introduction

At the request of the North Dakota Corn Growers Association, government program revenue for North Dakota soybeans was analyzed. The model and methodology used were developed by the National Corn Growers Association Public Policy Team. The alternative set of programs would replace the current set of farm programs in the 2007 farm bill with four changes: 1) maintenance of the present calculation for direct payments, 2) change the nonrecourse loan program to a recourse program, 3) create a new Base Revenue Protection (BRP) program and 4) modify the current countercyclical payment program into a Revenue Countercyclical Program (RCCP). The BRP-RCCP calculator, as developed by the National Corn Growers Association, was used to generate the results using North Dakota data. Historical 2002 to 2005 comparison was done comparing BRP-RCCP to past programs for representative counties for each crop. Projected 2006 to 2010 comparison also was done comparing the BRP-RCCP program relative to the current programs.

Soybeans were analyzed for 2002 to 2005 historically and 2006 to 2010 projected. Three counties in North Dakota, one with major soybean production, one with majority soybean production and one with marginal soybean production, were studied. Cass County was chosen as

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the major county, ranking first with the largest soybean production in the state. Cass County also has the largest production of soybeans in the nation. In 2005, Cass County had 440,000 acres of soybeans planted, with production of 17,095,000 bushels. A typical crop rotation for Cass County is corn/soybeans. Stutsman County was chosen as the median county. It typically has a soybean/wheat rotation. It ranks fourth in the state in soybean production and 11th in spring wheat production. Benson County was chosen as the marginal county. It is geographically further north with less yield potential. A typical rotation for Benson County would be soybean/wheat, with other acreages planted to barley and sunflowers. It ranks 18th in soybean production and also 18th in wheat production within the state.

Calculating the Base Revenue Protection Payment (BRP)

Tables 1A, 1B and 1C include historical data for farms in Cass, Stutsman and Benson counties, respectively, for 1997 through 2005. Data included in these tables are farm yields, NASS prices, Economic Research Service (ERS) variable costs and BRP net revenue. Farm yields are the county average yield per planted acre. National Agricultural Statistics Service (NASS) prices are the annual average national soybeans price. ERS variable costs are the variable costs reported by the ERS for the Northern Plains region. The BRP values are calculated for each farm by multiplying the actual yield by the NASS price and subtracting the ERS variable costs.

NOTE: Under the BRP program, the farm yield would be the yield for each individual farm, not the county average as used here. Furthermore, it would be the yield averaged over the entire farm operation, not optional units, as is available with multiperil crop insurance.

Table 1A. Soybean Data For Cass County Farm, 1997-2005

Year	Farm Yield	NASS Price	ERS Var Costs	BRP Net Revenue
	(bu/ac)	($/bu)	($/acre)	($/acre)
1997	31.4	6.47	69.85	133.31
1998	34.1	4.93	66.82	101.29
1999	36.7	4.63	66.52	103.40
2000	32.0	4.54	66.18	79.10
2001	34.6	4.38	71.84	79.71
2002	35.3	5.53	64.63	130.58
2003	28.9	7.34	71.65	140.48
2004	24.7	5.74	75.63	66.15
2005	38.9	5.50	83.52	130.43

Table 1B. Soybean Data For Stutsman County Farm, 1997-2005

Year	Farm Yield	NASS Price	ERS Var Costs	BRP Net Revenue
	(bu/ac)	($/bu)	($/acre)	($/acre)
1997	20.9	6.47	69.85	65.37
1998	30.9	4.93	66.82	85.52
1999	30.3	4.63	66.52	73.77
2000	30.1	4.54	66.18	70.47
2001	30.8	4.38	71.84	63.06
2002	30.3	5.53	64.63	102.93
2003	23.4	7.34	71.65	100.11
2004	23.9	5.74	75.63	61.56
2005	37.8	5.50	83.52	124.38

Table 1C. Soybean Data For Benson County Farm, 1997-2005

Year	Farm Yield	NASS Price	ERS Var Costs	BRP Net Revenue
	(bu/ac)	($/bu)	($/acre)	($/acre)
1997	19.0	6.47	69.85	53.08
1998	22.7	4.93	66.82	45.09
1999	25.2	4.63	66.52	50.16
2000	26.2	4.54	66.18	52.77
2001	30.5	4.38	71.84	61.75
2002	27.9	5.53	64.63	89.66
2003	26.3	7.34	71.65	121.39
2004	13.8	5.74	75.63	3.58
2005	30.4	5.50	83.52	83.68

This analysis utilized county average yields rather than individual farm yields to better reflect the impact to soybeans producers as a whole. Much of the variability of yields by unit has to do with optional units within whole-farm units. As this program is proposed, a unit would be no smaller than a whole farm.

The historical data from tables 1A, 1B and 1C are used to calculate the BRP guarantee and the BRP payment found in tables 2A, 2B and 2C. The Olympic average figures are derived from the BRP net revenues from the previous five years. For example, in table 2A, the Olympic average for 2002 ($94.80) is calculated from the BRP net revenue figures from 1997 though 2001. The high value from 1997 ($133.31) and the low value from 2000 ($79.10) are dropped and the remaining three values are averaged. The BRP guarantee is calculated by multiplying the Olympic average by 70 percent, which yields $66.36 for 2002.

Table 2A. Cass County
Loss Calculations for BRP through 2005 and Guarantees through 2006

Year	Olympic Average	BRP Guarantee	BRP Net Revenue	Per Acre Payment
	($/acre)	($/acre)	($/acre)	($/acre)
2002	94.80	66.36	130.58	0.00
2003	94.80	66.36	140.48	0.00
2004	104.56	73.19	66.15	7.05
2005	96.46	67.52	130.43	0.00
2006	113.57	79.50		

Table 2B. Stutsman County
Loss Calculations for BRP through 2005 and Guarantees through 2006

Year	Olympic Average	BRP Guarantee	BRP Net Revenue	Per Acre Payment
	($/acre)	($/acre)	($/acre)	($/acre)
2002	69.87	48.91	102.93	0.00
2003	76.59	53.61	100.11	0.00
2004	81.45	57.01	61.56	0.00
2005	77.88	54.52	124.38	0.00
2006	88.70	62.09		

Table 2C. Benson County
Loss Calculations for BRP through 2005 and Guarantees through 2006

Year	Olympic Average	BRP Guarantee	BRP Net Revenue	Per Acre Payment
	($/acre)	($/acre)	($/acre)	($/acre)
2002	52.00	36.40	89.66	0.00
2003	54.89	38.42	121.39	0.00
2004	68.06	47.64	3.58	44.06
2005	68.06	47.64	83.68	0.00
2006	78.36	54.85		

To determine if a BRP payment would have been paid in 2002 on this farm, the BRP net revenue is subtracted from the BRP guarantee. If this calculation is zero or a negative value, no payment is made. For the years 2002 through 2005, no BRP payment would have been made to the Stutsman County farm. The farm in Benson County would have received a BRP payment in 2004. The Benson County farm had net revenue of $3.58 per acre and a BRP guarantee of $47.64, resulting in a payment of $44.06 per acre. The Cass County farm would have received a BRP payment in 2004, as well. This farm had a guarantee of $73.19 and actual revenue of $66.15 per acre. As a result, the BRP payment would have been $7.05 per acre.

The BRP payment per acre may exceed the BRP guarantee if net revenue in any year is negative. This is possible because the BRP payment takes into account negative net revenue values and adds this value to the guarantee.

The Olympic average needed to calculate the BRP guarantee is similar to actual production history (APH) with multiperil crop insurance in that this value increases and decreases based on actual farm yields. A significant difference is that APH is an average of only yields, while BRP is an average of net revenue. BRP takes into account yields, the national average market price and regional variable costs of production. Consecutive years of high or low net revenues can cause an increase or decrease in the BRP guarantee or safety net. For the Benson and Stutsman County farms, the BRP guarantee increased significantly from 2002 to 2005. The BRP guarantee for the Cass County farm remained stable through the first four years but increased significantly for 2006.

Tables 3A, 3B and 3C include the data needed to calculate the BRP net revenue for years 2004 through 2008 and the BRP guarantee for 2009. The National Corn Growers Association proposes including existing farm program payments from marketing loan benefits and the countercyclical

payment program in the transition to the BRP-RCCP program. To illustrate this, the BRP net revenue for 2004 and 2005 includes LDP payments. Soybean producers did not receive any countercyclical payments for 2004 or 2005, consequently no countercyclical payments are included. The average loan deficiency payment rate (LDP) was obtained from the Farm Service Agency (FSA) and applied to total production on each farm for 2004 and 2005.

Table 3A. Cass County
Calculation of BRP Net Revenue from 2004 - 2008 and 2009 BRP Guarantee

Year	Farm Yield	NASS Price	ERS Var Costs	LDP	CCP	BRP Net Revenue
	(bu/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)
2004	24.7	5.74	75.63	4.20	0.00	70.35
2005	38.9	5.50	83.52	1.95	0.00	132.38
2006	33.6	5.66	89.46			100.72
2007	34.0	6.38	91.70			125.22
2008	34.4	6.70	89.88			140.60
2009 BRP Guarantee			83.61			

Table 3B. Stutsman County
Calculation of BRP Net Revenue from 2004 - 2008 and 2009 BRP Guarantee

Year	Farm Yield	NASS Price	ERS Var Costs	LDP	CCP	BRP Net Revenue
	(bu/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)
2004	23.9	5.74	75.63	4.78	0.00	66.34
2005	37.8	5.50	83.52	1.89	0.00	126.27
2006	31.5	5.66	89.46			88.83
2007	32.2	6.38	91.70			113.74
2008	32.9	6.70	89.88			130.55
2009 BRP Guarantee			76.73			

Table 3C. Benson County
Calculation of BRP Net Revenue from 2004 - 2008 and 2009 BRP Guarantee

Year	Farm Yield	NASS Price	ERS Var. Costs	LDP	CCP	BRP Net Revenue
	(bu/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)
2004	13.8	5.74	75.63	2.62	0.00	6.20
2005	30.4	5.50	83.52	1.52	0.00	85.20
2006	28.5	5.66	89.46			71.85
2007	29.5	6.38	91.70			96.51
2008	30.5	6.70	89.88			114.47
2009 BRP Guarantee			59.16			

The data for years 2006 through 2008 were estimated using the BRP-RCCP calculator. The farm yields equal the county trend yields. The prices used for 2006 through 2008 are from the Food and Agricultural Policy Institute (FAPRI) projections released in November 2006. Low yields in 2004 in all counties contributed to low net revenue that year, but in subsequent years, net

revenue was stable at a higher level. The BRP guarantee for 2009 was calculated from the actual net revenue for 2004 and 2005 and the net revenue projections for 2006 through 2008.

Revenue Countercyclical Program (RCCP)

Revenue Countercyclical Program (RCCP) payments are intended to replace countercyclical payments received with the 2002 farm program. These countercyclical payments are triggered by a low national average price only. No recognition of yield was used in calculating these payments. The RCCP payments are based on a shortfall of total revenue calculated by multiplying yield times price. RCCP payments are not impacted by the yield or price an individual farmer receives. Rather, these payments are triggered when the county revenue per acre for soybeans is below the RCCP trigger revenue. The payment is determined by subtracting the product of the county average yield and the NASS price from the product of the county trend yield and the effective target price. The effective target price is the current target price minus the direct-payment rate. The RCCP payment is capped at 30 percent of the trigger revenue, reflecting the 70 percent coverage level provided by the BRP program.

If an RCCP payment is triggered in a county, all soybeans producers in that county will receive the same payment per acre multiplied by the planted acres on each farm. This is similar to the multiperil group risk insurance programs.

Tables 4A, 4B and 4C detail the per-acre RCCP trigger revenues and payments for farms in Cass, Stutsman and Benson counties for 2002 through 2010, respectively. The county trend yields were obtained from the BRP calculator. The actual yields used for 2002 through 2005 are the yield per planted acre reported by NASS. For 2006 through 2010, the yields used for actual yields are the county trend yields. Actual marketing year average prices are used for 2002 through 2005. Prices for 2006 through 2010 were obtained from FAPRI. An RCCP payment would have been triggered in 2004 in all counties. The payment for Benson County would have been capped at the maximum level, which is 30 percent of the trigger level.

Table 4A. RCCP Trigger Revenues and Payments from 2002 to 2010, Cass County

Year	Trend Yield	Trigger Revenue	Actual Yield*	NASS Price	Actual Revenue	RCCP Payment	Maximum Payment
	(bu/acre)	($/acre)	(bu/acre)	($/bu)	($/acre)	($/acre)	($/acre)
2002	32.1	172.06	35.3	5.53	195.21	0.00	51.62
2003	32.5	174.20	28.9	7.34	212.13	0.00	52.26
2004	32.9	176.34	24.7	5.74	141.78	34.57	52.90
2005	33.3	178.49	38.9	5.50	213.95	0.00	53.55
2006	33.6	180.10	33.6	5.66	190.18	0.00	54.03
2007	34.0	182.24	34.0	6.38	216.92	0.00	54.67
2008	34.4	184.38	34.4	6.70	230.48	0.00	55.32
2009	34.8	186.53	34.8	6.69	232.81	0.00	55.96
2010	35.2	188.48	35.2	6.64	233.73	0.00	56.54

* Actual yields are used for 2002 -2005 and trend yields are used for 2006 -2010.

Table 4B. RCCP Trigger Revenues and Payments from 2002 to 2010, Stutsman County

Year	Trend Yield	Trigger Revenue	Actual Yield*	NASS Price	Actual Revenue	RCCP Payment	Maximum Payment
	(bu/acre)	($/acre)	(bu/acre)	($/bu)	($/acre)	($/acre)	($/acre)
2002	28.8	154.37	30.3	5.53	167.56	0.00	46.31
2003	29.5	158.12	23.4	7.34	171.76	0.00	47.44
2004	30.2	161.87	23.9	5.74	137.19	24.69	48.56
2005	30.9	165.62	37.8	5.50	207.90	0.00	49.69
2006	31.5	168.84	31.5	5.66	178.29	0.00	50.65
2007	32.2	172.59	32.2	6.38	205.44	0.00	51.78
2008	32.9	176.34	32.9	6.70	220.43	0.00	52.90
2009	33.6	180.10	33.6	6.69	224.78	0.00	54.03
2010	34.3	183.85	34.3	6.64	227.75	0.00	55.15

* Actual yields are used for 2002 -2005 and trend yields are used for 2006 -2010.

Table 4C. RCCP Trigger Revenues and Payments from 2002 to 2010, Benson County

Year	Trend Yield	Trigger Revenue	Actual Yield*	NASS Price	Actual Revenue	RCCP Payment	Maximum Payment
	(bu/acre)	($/acre)	(bu/acre)	($/bu)	($/acre)	($/acre)	($/acre)
2002	24.5	131.32	27.9	5.53	154.29	0.00	39.40
2003	25.5	136.68	26.3	7.34	193.04	0.00	41.00
2004	26.5	142.04	13.8	5.74	79.21	42.61	42.61
2005	27.5	147.40	30.4	5.50	167.20	0.00	44.22
2006	28.5	152.76	28.5	5.66	161.31	0.00	45.83
2007	29.5	158.12	29.5	6.38	188.21	0.00	47.44
2008	30.5	163.48	30.5	6.70	204.35	0.00	49.04
2009	31.5	168.84	31.5	6.69	210.74	0.00	50.65
2010	32.5	174.20	32.5	6.64	215.80	0.00	52.26

* Actual yields are used for 2002 -2005 and trend yields are used for 2006 -2010.

Representative Farms

Table 5 summarizes the CCP program payment yields for each county, as well as the LDP rates, actual yields and net crop insurance payments for the years 2002 through 2005. Crop insurance payments were based on APH policies at the 70 percent coverage level. The county average yield in 2004 for Benson County would have triggered an insurance indemnity payment. LDP payments were available in all counties in all years except 2003.

Table 5. Representative Farms Data

	Year	Cass County	Stutsman County	Benson County
	(bushels per acre)			
CCP base		32	25	19
LDP rate			($ per bushel)	
	2002	0.06	0.06	0.06
	2003	0.00	0.00	0.00
	2004	0.17	0.20	0.19
	2005	0.05	0.05	0.05
Farm Yield	(bushels per acre)			
	2002	35.3	30.3	27.9
	2003	28.9	23.4	26.3
	2004	24.7	23.9	13.8
	2005	38.9	37.8	30.4
Net Crop Insurance Payments			($ per acre)	
	2002	0.00	0.00	0.00
	2003	0.00	0.00	0.00
	2004	0.00	0.00	22.29
	2005	0.00	0.00	0.00

Additional data for representative farms are included in Table 6. Farm yields for 1997 to 2001 are provided here. Variable costs from ERS and market prices from NASS are included for 1997 to 2005. Trend yields for 2001 to 2005 are included in this table.

Table 6. Additional Data for Representative Farms

	Year	Cass County	Stutsman County	Benson County
Farm Yield	(bushels per acre)			
	1997	31.4	20.9	19.0
	1998	34.1	30.9	22.7
	1999	36.7	30.3	25.2
	2000	32.0	30.1	26.2
	2001	34.6	30.8	30.5
Variable Costs	($ per acre)			
	1997	69.85	69.85	69.85
	1998	66.82	66.82	66.82
	1999	66.52	66.52	66.52
	2000	66.18	66.18	66.18
	2001	71.84	71.84	71.84
	2002	64.63	64.63	64.63
	2003	71.65	71.65	71.65
	2004	75.63	75.63	75.63
	2005	83.52	83.52	83.52
Market Price	($ per bushel)			
	1997	6.47	6.47	6.47
	1998	4.93	4.93	4.93
	1999	4.63	4.63	4.63
	2000	4.54	4.54	4.54
	2001	4.38	4.38	4.38
	2002	5.53	5.53	5.53
	2003	7.34	7.34	7.34
	2004	5.74	5.74	5.74
	2005	5.50	5.50	5.50
Trend Yield	(bushels per acre)			
	2002	32.1	28.8	24.5
	2003	32.5	29.5	25.5
	2004	32.9	30.2	26.5
	2005	33.3	30.9	27.5

Table 7 summarizes the BRP revenues, BRP guarantees and BRP payments for each farm. BRP revenue is shown from 1997 to 2005. BRP guarantees are shown for 2002 to 2006. BRP payments for 2002 to 2005 are shown. The only BRP payments that would have been made are for Cass and Benson counties for 2004. The growing season during 2004 was characterized by a cooler than normal summer with a lack of growing degree days and an early killing frost in northeastern North Dakota. Benson County soybean production was impacted significantly by these weather conditions.

Table 7.
Calculated BRP Revenues, Guarantees and Payments for Example Farms

	Year	Cass County	Stutsman County	Benson County
BRP Revenue		($ per acre)		
	1997	133.31	65.37	53.08
	1998	101.29	85.52	45.09
	1999	103.40	73.77	50.16
	2000	79.10	70.47	52.77
	2001	79.71	63.06	61.75
	2002	130.58	102.93	89.66
	2003	140.48	100.11	121.39
	2004	66.15	61.56	3.58
	2005	130.43	124.38	83.68
BRP Guarantee (70% of 5-Year Olympic Average of past BRP Revenues)				
	2002	66.36	48.91	36.40
	2003	66.36	53.61	38.42
	2004	73.19	57.01	47.64
	2005	67.52	54.52	47.64
	2006	79.50	62.09	54.85
BRP Payment (BRP Guarantee minus BRP Revenue)				
	2002	0.00	0.00	0.00
	2003	0.00	0.00	0.00
	2004	7.05	0.00	44.06
	2005	0.00	0.00	0.00

A summary of RCCP trigger revenues, actual RCCP revenues and RCCP payments are included in Table 8. All values are included for 2002 to 2005. RCCP payments would have been made in all counties in 2004. The calculated payment for Benson County for 2004 was above the maximum payment and therefore reduced to the maximum amount.

Table 8.
RCCP Trigger Revenue, Actual County Revenue, and RCCP Payments

	Year	Cass County	Stutsman County	Benson County
RCCP Trigger Revenue		($ per acre)		
	2002	172.06	154.37	131.32
	2003	174.20	158.12	136.68
	2004	176.34	161.87	142.04
	2005	178.49	165.62	147.40
RCCP Actual Revenue				
	2002	195.21	167.56	154.29
	2003	212.13	171.76	193.04
	2004	141.78	137.19	79.21
	2005	213.95	207.90	167.20
RCCP Payment (RCCP trigger revenue minus RCCP actual revenue)				
	2002	0.00	0.00	0.00
	2003	0.00	0.00	0.00
	2004	34.57	24.69	**42.61**
	2005	0.00	0.00	0.00

Numbers in bold indicate maximum RCCP payment

Program Comparisons

Table 9 summarizes the LDP and CCP payments that would be earned under the current farm program for 2002 to 2005. LDP payments were available in all counties in every year except 2003. CCP payments were not made for soybeans anytime during this four-year period.

Table 9.
LDP and CCP Payments for Example Farms

		Cass County	Stutsman County	Benson County
LDP Payment		($ per acre)		
	2002	2.12	1.82	1.67
	2003	0.00	0.00	0.00
	2004	4.20	4.78	2.62
	2005	1.95	1.89	1.52
CCP Payment				
	2002	0.00	0.00	0.00
	2003	0.00	0.00	0.00
	2004	0.00	0.00	0.00
	2005	0.00	0.00	0.00

Table 10 summarizes the payments that would have been earned from 2002 to 2005 under the current farm program and under the BRP-RCCP program. The current program includes income from LDP and CCP payments, as well as crop insurance indemnity payments. The proposed program includes BRP payments based on individual farm yields and RCCP payments based on county yields.

Table 10.
Payment Comparison by Year and Total for Example Farms

	Year	Cass County	Stutsman County	Benson County
LDP + CCP + CI		($ per acre)		
	2002	2.12	1.82	1.67
	2003	0.00	0.00	0.00
	2004	4.20	4.78	24.91
	2005	1.95	1.89	1.52
Total		8.26	8.49	28.11
RCCP + BRP				
	2002	0.00	0.00	0.00
	2003	0.00	0.00	0.00
	2004	41.61	24.69	86.67
	2005	0.00	0.00	0.00
Total		41.61	24.69	86.67

All counties would have received more payments with the BRP-RCCP program than they would have received under the current farm program. Benson County would benefit the most from this program, receiving $58.56 per acre more during the four years, or $14.64 per year. Cass County would receive $33.35 per acre and Stutsman County would receive $16.20 per acre more during this four-year period.

Limitations

The BRP-RCCP programs have possible limitations. First, the ERS cost of production value is a regional number and may not be reflective of North Dakota. The program calculation depends of the accuracy of these values. Table 11 shows a comparison of ERS values to North Dakota Farm Business Management Records data. North Dakota costs are higher in all years from 2002 to 2005 with $7.89 greater costs in 2002. Secondly, the National Agricultural Statistics Service prices also are very critical to the program calculations. The national average price for soybeans differs considerably from the state average price for North Dakota. The North Dakota soybean price has averaged 94 percent of the national price during the last 10 years. Therefore, this contributes to a lower safety net for North Dakota producers. The third limitation is that, with the volatile climate and yield variability in North Dakota, two low yield years in a row would dramatically lower the BRP guarantee. This is illustrated in tables 12A, 12B and 12C. The fourth limitation is the issue of whether the BRP-RCCP program will replace the crop insurance program or enhance it. If crop insurance is retained, this would be a duplication of coverage. Would producers have double coverage or be able to buy up coverage only over the BRP-RCCP protection? Finally, does the current relatively high price of soybeans affect the results. There is an issue of whether volatile prices would make this program an adequate safety net.

Table 11.
Cost Comparison by Year to ND
Farm Business Management Records

Year	NDFBM Records	ERS Var Costs	Difference
	($/acre)	($/acre)	($/acre)
2002	72.52	64.63	7.89
2003	74.55	71.65	2.90
2004	75.86	75.63	0.23
2005	85.24	83.52	1.72

Table 12A. Cass County
Calculation of BRP Net Revenue, BRP Guarantee, BRP Payment, 2004 - 2010

Year	Farm Yield	NASS Price	ERS Var Costs	LDP	CCP	BRP Net Revenue	BRP Guarantee	BRP Payment
	(bu/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)
1999	36.7	4.63	66.52			103.40		
2000	32.0	4.54	66.18			79.10		
2001	34.6	4.38	71.84			79.71		
2002	35.3	5.53	64.63			130.58		
2003	28.9	7.34	71.65			140.48		
2004	24.7	5.74	75.63	4.20	0.00	70.35	73.19	2.85
2005	38.9	5.50	83.52	1.95	0.00	132.38	67.52	0.00
2006	33.6	5.66	89.46			100.72	79.96	0.00
2007	**23.8**	6.38	91.70			60.14	84.86	24.71
2008	**24.1**	6.70	89.88			71.59	70.80	0.00
2009	34.8	6.69	90.23			142.58	56.62	0.00
2010	35.2	6.64	90.84			142.89	71.09	0.00

Bold values in 2007 and 2008 are 70% of expected farm yield

Table 12B. Stutsman County
Calculation of BRP Net Revenue, BRP Guarantee, BRP Payment, 2004 - 2010

Year	Farm Yield	NASS Price	ERS Var Costs	LDP	CCP	BRP Net Revenue	BRP Guarantee	BRP Payment
	(bu/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)
1999	30.3	4.63	66.52			73.77		
2000	30.1	4.54	66.18			70.47		
2001	30.8	4.38	71.84			63.06		
2002	30.3	5.53	64.63			102.93		
2003	23.4	7.34	71.65			100.11		
2004	23.9	5.74	75.63	4.78	0.00	66.34	57.01	0.00
2005	37.8	5.50	83.52	1.89	0.00	126.27	55.28	0.00
2006	31.5	5.66	89.46			88.83	62.85	0.00
2007	**22.5**	6.38	91.70			51.85	68.10	16.25
2008	**23.0**	6.70	89.88			64.22	59.56	0.00
2009	33.6	6.69	90.23			134.55	51.19	0.00
2010	34.3	6.64	90.84			136.91	65.17	0.00

Bold values in 2007 and 2008 are 70% of expected farm yield

Table 12C. Benson County
Calculation of BRP Net Revenue, BRP Guarantee and BRP Payment, 2004 - 2010

Year	Farm Yield	NASS Price	ERS Var Costs	LDP	CCP	BRP Net Revenue	BRP Guarantee	BRP Payment
	(bu/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)	($/acre)
1999	25.2	4.63	66.52			50.16		
2000	26.2	4.54	66.18			52.77		
2001	30.5	4.38	71.84			61.75		
2002	27.9	5.53	64.63			89.66		
2003	26.3	7.34	71.65			121.39		
2004	13.8	5.74	75.63	2.62	0.00	6.20	47.64	41.44
2005	30.4	5.50	83.52	1.52	0.00	85.20	47.64	0.00
2006	28.5	5.66	89.46			71.85	55.21	0.00
2007	**20.7**	6.38	91.70			40.37	57.56	17.20
2008	**21.4**	6.70	89.88			53.50	46.06	0.00
2009	31.5	6.69	90.23			120.51	38.67	0.00
2010	32.5	6.64	90.84			124.96	49.13	0.00

Bold values in 2007 and 2008 are 70% of expected farm yield

This impact is illustrated by reducing the farm yield for both 2007 and 2008 to 70 percent of the expected or trend yield. For the Cass County farm, the BRP guarantee would be $84.86 for 2007, then it declines to $70.80 in 2008 and to $56.62 in 2009. The decline from 2007 to 2009 would be a reduction in the safety net level of 33 percent. With a trend line yield in 2009, the BRP guarantee increases by $14.47 for 2010. Similar results are shown for the Stutsman and Benson County farms. The BRP guarantee for the Stutsman County farm drops from $68.10 in 2007 to $$59.56 in 2008 and to $51.19 in 2009. The guarantee recovers substantially to $65.17 in 2010. The BRP guarantee for the Benson County farm declines from $57.56 in 2007 to $46.06 in 2008 and to $38.67 in 2009, then increases to $49.13 in 2010.

Conclusions

The BRP-RCCP program is innovative in that it targets both yield and price, thus combining the yield guarantee of the crop insurance program and the price guarantee of the current government program.

The soybean analysis shows that the BRP-RCCP programs would pay more benefits to farmers than the current farm programs. The BRP-RCCP programs show promise in providing a safety net for farmers. A national study needs to be done for all program crops to further evaluate the program.

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