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bushel. Exact changes in county loan rates vary slightly from county to county.

The second component of the safety net is the Direct Payments, which are 28 cents per bushel for corn and 44 cents per bushel for soybeans for the 2002 through 2007 crops. Direct payments are paid on 85 percent of the FSA (Farm Service Agency) base acreage and historical yields for the respective crops. These payments remain unchanged even at extremely high or extremely low prices for their respective crops.

The third component of the safety net is the Counter-Cyclical Payments (CCPs). CCPs, like LDPs, are price-sensitive. They also are paid on 85 percent of FSA base acreage and yields, but the base and yield may be updated to a recent four-year average. With marketing year average prices moderately above the loan rates, Counter-Cyclical Payments (CCPs) drop to zero.

**Calculating CCPs**

An example of how the corn CCP is determined will help explain the variables involved. First, CCPs are based on a weighted national average marketing year price paid to farmers. For corn and soybeans, the marketing year is from September 1 through August 31. The marketing year average price is calculated by weighting each monthly average price by the portion of the year's total volume of grain sold during that month. These twelve monthly prices are used to compute a weighted average annual price. If CCPs are paid, every farmer receives the same CCP per bushel, regardless of geographic location.

Corn CCPs are computed as the difference between:

1. the national average target price less the direct payment ( $\$2.60 - .28 = \$2.32$ )
2. and the higher of:
  - the national loan rate ( $\$1.98$ ) or
  - the marketing year average price.

As shown in Table 1, the corn CCP for 2002 through 2007 drops to zero when the U.S. marketing year average price reaches \$2.32 per bushel. The soybean CCP for 2002 through 2007 crops declines to zero when the U.S. marketing year average price reaches \$5.36 per bushel.

**Table 2. Corn and Soybean Country-Cyclical Payments.**

	Corn	Soybeans
Target Price	\$2.60	\$5.80
Direct Pymt. Rate	-.28	-.44
Breakeven Price	\$2.32	\$5.36
National Avg. Price	-2.10	-5.10
Counter-Cyclical Pymt.	\$.22	\$.26

If the national average prices are below these levels, say \$2.10 for corn and \$5.10 for soybeans, the CCPs are 22 cents for corn and 26 cents for soybeans as shown in table 2.

**Maximum Counter-Cyclical Payments**

The maximum corn CCP is 34 cents per bushel as shown in Table 3 for the 2002 and 2003 corn crops. It will increase by 6 cents per bushel for the 2004 through 2007 corn crops because of a 3 cent reduction in the loan rate and a 3 cent increase in the target price for those years.

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**Table 3. Maximum Corn and Soybean Counter-Cyclical Payments.**

	Corn	Soybeans
Target Price	\$2.60	\$5.80
Direct Pymt. Rate	-.28	-.44
Breakeven Price	\$2.32	\$5.36
Loan Rate	-1.98	-5.00
Counter-Cyclical Pymt.	\$.34	\$.36

**Table 4. Corn Counter-Cyclical Payments under various Price and Yields.**

U.S. Average Price	Corn Counter-Cyclical Payments	
	2002-03 Crops	2004-07 Crops
\$1.90	\$.34	\$.40
2.00	.32	.35
2.10	.22	.25
2.20	.12	.15
2.30	.02	.05
2.32	0	.03
2.35	0	0

**Table 1. Maximum Corn and Soybean Breakeven Cash Prices (CCP = 0).**

	Corn	Soybeans
Target Price	\$2.60	\$5.80
Direct Pymt. Rate	-.28	-.44
Breakeven Price	\$2.32	\$5.36

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**Table 5. Soybean Counter-Cyclical Payments under various Prices and Yields.**

U.S. Average Price	Soybean Counter-Cyclical Payments, 2002-07 Crops
\$4.90	\$.36
5.00	.36
5.10	.26
5.20	.16
5.30	.06
5.36	0

Soybean CCPs are calculated in the same way as corn, but using the soybean loan rate of \$5.00 per bushel, the direct payment of 44 cents per bushel, and the soybean target price of \$5.80 per bushel. The maximum soybean CCP for the 2002 through 2007 crops is 36 cents per bushel.

### Payment Schedule

Counter-Cyclical Payments are made available to farmers in three stages. In years when a CCP is anticipated, the first installment of the CCP is made available to producers in the fall for the next year's crop. The second payment becomes available in February and the final payment is made in early fall after the market-

**Table 6. Estimated National Average Corn and Soybean Prices (Sept. - Feb.).**

Month	Estimated Corn Price	Estimated Percent Marketed	Soybean Price	Percent Marketed
September	\$2.47	8.0%	\$5.39	8.5%
October	2.34	11.0	5.19	20.9
November	2.27	12.7	5.46	9.4
December	2.32	7.0	5.46	8.1
January	2.27	12.5	5.38	15.5
February (preliminary)	<u>2.35</u>	<u>6.0</u>	<u>5.57</u>	<u>6.6</u>
Simple Avg. Price *	\$2.35	57	5.45	69
Est. Weighted Avg. Pr. *	2.34		5.39	

\* Approximate simple and weighted national average price (Sept. through Feb.)

**Table 7. Possible CCPs for 2002 Crop Corn and Soybeans.**

	Corn	Soybeans
Breakeven Price	\$2.32	\$5.36
Simple Avg Price *	<u>2.35</u>	<u>5.43</u>
Possible CCP	0	0
Est. Weighted Avg. Pr. *	<u>2.34</u>	<u>5.39</u>
Possible CCP	0	\$.00

\* Approximate simple and weighted national average price (Sept.-Feb.)

ing year has ended and the marketing year average price has been determined by USDA. So, the payments for a crop may be spread over two years.

Corn and soybean CCPs under various price levels are shown in Table 4 and 5.

Monthly corn and soybean prices, along with estimates of the percentage of the crop that is marketed each month, is presented in Table 6. Estimates of the simple average and monthly average prices so far this year are shown at the bottom.

For the 2002 corn and soybean crops, USDA price projections through February 2003 indicate that marketing year average prices will be above the level that will generate CCPs as shown in Table 7. There is a chance that prices will decline enough as the season progresses so that CCPs will be made, but as of early March 2003 that appears unlikely. Periodically we will report national average prices for corn and soybeans in this newsletter.



## When a Contract Obligor Becomes an Owner of the Contract \*

by Neil Harl, Charles F. Curtiss Professor in Agriculture, professor of economics, 515-294-6354, harl@iastate.edu

**A** contract for deed or installment contract for the sale of real estate (or other assets) between parent and child is not unusual; a frequent outcome of such transactions is that the obligor under the contract becomes the owner or a

co-owner of the contract after death of the contract seller, which results in often unanticipated income tax consequences.

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When a Contract Obligor Becomes an Owner of the Contract, continued from page 3

**Effect of death of contract seller**

For installment obligations held until death, the fair market value of the obligation is included in the decedent's gross estate for federal estate tax purposes. The value of the installment obligation may not be reduced by the estimated amount of income tax payable on installments remaining to be paid although courts have permitted a discount in valuing corporate stock for potential income tax liability on liquidation even though liquidation is not contemplated. A deduction is permitted to each recipient of income in respect of decedent equal to the federal estate tax attributable to the obligation.

For a beneficiary who is not the obligor, the decedent's estate is not charged with inclusion of the potential income from installment sale obligations as a result of distribution of the obligation that was entered into before the death of the decedent as seller. The income tax basis of the obligation in the hands of the beneficiary is the decedent's basis, adjusted for installments received by the estate (and the decedent) before distribution to the beneficiary. The beneficiary continues to report payments in the same manner as the decedent would have done had the decedent survived.

**Disposition of contract to obligor**

For deaths before October 20, 1980, different theories had been used to determine the income tax treatment of installment obligations passing to the obligor at the death of the contract seller. However, Congress in the Installment Sales Act of 1980, addressed the issue and provided that disposition of an installment obligation to the obligor after October 19, 1980, results in recognition of any unreported gain to the deceased seller's estate. The same treatment applies to installment obligations cancelled at death. In a 1990 private letter ruling, an installment note (the gain from which the decedent had been reporting in installments) from an heir to the decedent was cancelled; IRS ruled that the remainder of the gain on the installment sale was included in income to the decedent's estate. That is the outcome whether the disposition of

the installment obligation is by bequest, devise or inheritance by the obligor or by cancellation by the estate representative. Unless there is some act of cancellation of the obligation, the disposition is considered to have occurred no later than the conclusion of administration of the estate. For obligations held by a person other than the decedent, such as a trust, the cancellation is treated as a transfer immediately after the decedent's death by that person.

Presumably, disposition of an installment obligation to two or more persons, one of whom is the obligor, results in a taxable disposition to the extent of the obligor's interest acquired in the installment obligation. To avoid that result, the decedent could dispose of the installment obligation to the other heirs (who are not obligors under the installment obligation) with other property passing to the obligor.

**Installment sale by the estate**

For installment sale obligations entered into by the administrator or executor on behalf of the estate, distribution of the installment sale obligation from the estate constitutes a taxable disposition by the estate. A statutory provision shields from recognition of gain amounts with respect to property under special use valuation and then only to the extent the fair market value at death or the alternate valuation date exceeds the special use value and then only if the transfer is to a qualified heir. The exception in I.R.C. § 453B(c), for "transmission of installment obligations at death," does not apply to installment obligations entered into by the estate inasmuch as the distribution of installment obligations entered into by an estate would not involve "the transmission of installment obligations at death."

**In conclusion**

The disposition of installment obligations at death deserves careful planning attention before death of the seller under the obligation if deferral of recognition of gain is to be assured under income in respect of decedent rules.

# Livestock Revenue Insurance: How Did It Perform?

by Gary May, 515-294-8930, gmay@iastate.edu, and William Edwards

Two livestock revenue insurance products, Livestock Risk Protection (LRP) and Livestock Gross Margin (LGM), were introduced in Iowa in July 2002. To help producers weigh the merits of these programs, an evaluation was made of how LRP and LGM policies purchased in July to cover hogs marketed from August 2002 to January 2003 would have performed. These outcomes were then compared to similar risk management strategies using options on futures contracts. The comparison assumed 204 head were marketed each month, enough to comprise a lean hog futures contract of 400 hundredweight.

## LRP versus Lean Hog Put Options

LRP protects livestock producers from declining hog prices by guaranteeing a specified live hog price level. Available coverage levels range from 70 to 90 percent of prevailing market prices. Coverage can be purchased any time, and is available for sales 90, 120, 150, and 180 days into the future. Indemnity payments are triggered if the cash price index at the end of the endorsement period falls below the guaranteed price.

Table 1 presents the net payback for an LRP policy purchased on July 15. The maximum coverage levels available were \$40.00, \$38.21, \$38.00, and \$37.90 per cwt. for the marketing months October through January, respectively. The premium totaled \$4,727, or \$5.79 per head. The realized price index at the end of each month ranged from \$1 to \$4 per cwt higher than the guaranteed price. Consequently, no indemnity payments were triggered.

Table 1 also shows the outcome of buying put options to give price protection comparable to

**Table 1. Net cost of Livestock Risk Protection and put options, \$ per head.**

	Oct.	Nov.	Dec.	Jan.	Average
LRP policy	4.15	5.96	6.13	6.94	5.79
Lean hog put options	5.59	6.86	7.70	6.70	6.72

the LRP example. Four put options on lean hog futures were purchased on July 15, at the lowest strike prices available for delivery months corresponding to the LRP endorsement periods. The individual contract premiums were higher than LRP premiums for the October, November, and December delivery months, but lower for January. Without the federal subsidy the cost of the LRP policy would have been nearly identical to the premiums for the options strategy. The options contract exercised in November recouped \$180 of the \$1,580 premium, while the contracts covering October, December, and January marketings expired at virtually no value. Overall, the net cost of price protection was \$5,487, or \$6.72 per head, \$0.93 per head more than for the LRP insurance.

## LGM versus Puts and Calls

LGM was designed to protect producers from both declining hog prices and rising feed prices, so it is not directly comparable to LRP protection. The program divides the year into two insurance periods, February through July and August through January. An LGM policy guarantees the gross margin per head (revenue minus feed cost) for each marketing month within the insurance period. The gross margin guarantee levels are determined by lean hog, corn, and soybean meal futures prices prevailing when the policy is purchased, and are available at 85, 90, 95, and 100 percent coverage. The first signup period was July 16 to 31. The producer designates the type of operation, farrow-to-finish or finish only, and the number of head to be marketed during each month of the insurance period.

Table 2 shows the outcome of the LGM policy. Unlike LRP, LGM coverage was available for the August and September marketing months. Premiums were \$5.94 and \$5.89 per head at 100 percent coverage for the farrow-to-finish and finish only alternatives, respectively. As the marketing period

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unfolded, insurance losses accrued during August and September, when hog prices crashed and feed prices were rising. The December lean hog contract, however, rallied after the September Quarterly Hogs and Pigs

Report eased fears of a fourth quarter price meltdown. Consequently, the cumulative losses were eliminated by the end of the insurance period, and there were no indemnity payments made to offset the premiums. Note that producers could have purchased coverage for individual months, only, though the premiums may have been higher.

Table 3 shows the outcome of a strategy of buying put options on lean hog contracts, and buying call options on corn and soybean meal contracts (to protect against rising prices). The premiums paid on the six lean hog put options totaled \$9,908, but the combined exercise value was \$5,321. Consequently, the net cost of the put options was \$4,587, or \$3.75 per head. The call options on the feed costs offered a small positive net return, as corn prices surged in August and September amid drought concerns in the Corn Belt and downward revisions in USDA corn harvest estimates. This reduced the total cost per head of the put and call strategy to \$2.67 for farrow-to-finish and \$2.93 for finish only.

### Conclusions

- Insurance premiums were substantially lower than the initial premiums for the corresponding options strategies. However, the options did offer the chance to recoup some of their initial cost by the time they expired.
- None of the products and strategies offered a positive net return, but all of them protected producers against even larger losses that could have been incurred if hog prices had trended even lower.

**Table 2. Monthly indemnities from Livestock Gross Margin insurance, \$ per head.\***

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Premium
Farrow-finish	6.08	1.07	-3.81	-1.21	.64	- 6.50	5.94
Finish only	5.77	.91	-.56	.65	-3.37	-10.95	5.89

\*Indemnity payments for the six-month period were zero.

- These results apply only to the marketing Livestock Revenue Insurance: How Did It Perform? strategies and time periods covered in the analysis, and will not necessarily occur in the future.

The insurance products considered in this study offer some advantages that were not quantified in the analysis. For example, LRP and LGM are better suited to smaller producers whose marketings are insufficient to fill a futures contract. Insurance coverage is available for any number of hogs marketed. Conversely, a lean hog contract is standardized at 40,000 pounds. Using futures to protect marketing groups smaller than this adds a speculative element and may increase rather than reduce price risk exposure.

One feature distinguishing LRP from the other alternatives considered in this analysis is that indemnity payments are based on a cash price index rather than futures prices, thereby covering basis risk. LGM indemnity payments are based on futures prices, leaving LGM policyholders fully exposed to basis risk.

A more complete summary of this research is available at: <http://www.econ.iastate.edu/outreach/agriculture/livestock/LivestockInsurance.pdf>

**Table 3. Net cost of put and call options, \$ per head.**

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Average
Farrow-finish	-3.69	-9.26	5.17	4.07	7.98	11.73	2.67
Finish only	-3.69	-9.26	5.62	4.83	8.26	11.82	2.93

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