KANSAS FARM MANAGEMENT & MARKETING HANDBOOK

KSU Farm Management Guide MF-2100

Revenue Insurance

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The introduction of Revenue Insurance contracts began with crop year 1996 to 1997 for wheat only. The two contracts offered were Income Protection (IP) in selected counties and Crop Revenue Coverage (CRC) that was offered statewide.

Both contracts are alternatives to the traditional MPCI contracts and growers receive all of the MPCI subsidies if they buy either IP or CRC. However, growers do not receive any additional subsidies and growers must pay the cost of the unsubsidized additional coverage.

Premiums are higher for CRC than MPCI and in most cases IP premiums are less (Table 1). The lower IP premiums are caused by no units and lower indemnity payments when market prices increase (Table 2).

Market Price: Price used to set the minimum revenue guarantee is based on 95 percent of the average August 1996 closing prices for Kansas City Board of Trade (KCBOT) July 1997 wheat contract. CRC harvest price is based on 95 percent of the average June 1997 closing prices for KCBOT July 1997 wheat contract. If the harvest price is higher, then CRC coverage is automatically increased and the revenue to count is subtracted from the higher guarantee to determine indemnity payments.

IP uses 100 percent of the August 15 to September 14, 1996, closing prices for Chicago Board of Trade (CBOT) July 1997 wheat contract. The harvest price is 100 percent of the June average closing prices for July 1997 CBOT wheat contract. If harvest prices increase under IP, it will require a larger yield loss to trigger any payments. For example, a $6.00 futures price on a 65 percent IP contract would require a 55 percent yield loss to trigger a payment, while MPCI and CRC would require a 35 percent yield loss (Table 2).

Coverage: Coverage is set at 50, 65, or 75 percent of the individual grower's projected revenue based on yield history and expected market price.

No Price Guarantee: Neither IP or CRC guarantee price. It is possible to have a price decline and still meet the revenue guarantee because of higher yields.

Table 1. Example: Premium and Indemnity Payment for Wheat in Sumner County (1996)

	MPCI	CRC High Price	CRC Low Price	IP High Price	IP Low Price
Average Yield for Insurance	40	40		40	
× Coverage Level	65%	65%		65%	
= Bushels per Acre Yield Guarantee	26				
× Wheat Price Election	$3.85				
Projected Market Price		$3.98		$3.96	
Minimum Revenue Guarantee		$103.48		$102.96	
= Liability (Total Coverage)	$100.10	$155.48		$102.96	
Effective Rate per $100	2.98%	3.38%		1.01%	
Gross Premium per Acre	$5.11	$7.39		$1.34	
Subsidy per Acre	$2.13	$2.13		$0.30	
Farmer Paid Premium	$2.98	$5.26		$1.04	
Indemnity Payment					
– Less Current Year's Crop (bu)	15	15	15	15	15
= Bushel Loss per Acre (bu.)	11				
× Price Election	$3.85				
Harvest Market Price		$5.80	$3.00	$6.04[1]	$3.09
Final Revenue Guarantee		$150.80	$103.48	$102.96	$102.96
Less Revenue to Count		$87.00	$45.00	$90.62	$46.41
= Indemnity Payment per Acre	$42.35	$63.80	$58.48	$12.34	$56.55
– Less Premium	$2.98	$5.26	$5.26	$1.04	$1.04
= Net Indemnity Payment per Ac	$39.37	$58.54	$53.22	$11.30	$55.51

[1] *The CBOT averaged 6.4 cents less then KCBOT and IP uses 100% of the CBOT average price during June.*

Table 2. (right) Percent Wheat Yield Loss below the Average Yield (APH) Required to Trigger Payments under MPCI, CRC, and IP with Different June 1997 Futures Prices

CBOT	Coverage KCBOT / CASH	MPCI 65%	CRC 65%	IP 65%	MPCI 70%	CRC 70%	IP 70%	MPCI 75%	CRC 75%	IP 75%
6.00	6.00 /5.700	35%	35%	55%	30%	30%	51%	25%	25%	48%
5.60	5.60 /5.320	35%	35%	51%	30%	30%	48%	25%	25%	44%
5.20	5.20 /4.940	35%	35%	48%	30%	30%	44%	25%	25%	40%
4.60	4.60 /4.370	35%	35%	41%	30%	30%	36%	25%	25%	32%
4.19	4.19 /3.980	35%	35%	35%	30%	30%	30%	25%	25%	25%
3.50	3.50 /3.325	35%	22%	22%	30%	16%	16%	25%	10%	10%
3.20	3.20 /3.040	35%	15%	15%	30%	8%	8%	25%	2%	2%

REVENUE INSURANCE WORKSHEET
Analysis of Per Acre Net Cash Flow

Crop: ____________________
Situation: ________________

	Disaster Year Sumner County High Prices MPCI Insurance	CRC Insurance	IP Insurance	Your Farm MPCI Insurance	CRC Insurance	IP Insurance
Projected Crop Sales and Other Cash Inflows:						
1. Enter Yield per Planted Acre	15 bu	15 bu	15 bu			
2. Enter Expected Market Price	$ 5.80	$ 5.80	$ 5.80	$	$	$
3. Expected Sales: Line 1 × Line 2	$ 87.00	$ 87.00	$ 87.00	$	$	$
4. Enter Other Receipts (FAIR payments,[1] straw, etc.)	$ 14.54	$ 14.54	$ 14.54	$	$	$
5. Total Receipts: Line 3 + Line 4	$ 101.54	$ 101.54	$ 101.54	$	$	$
MCPI Premium:						
6. Enter Insurance Yield	40 bu.	40 bu.	40 bu.			
7. Enter Level of Coverage (0.50, 0.65, or 0.75)	65%	65%	65%			
8. Price Election/Harvest Price[2]	$ 3.85	$ 5.80	$ 3.96		$	
9. Coverage: Line 6 × Line 7 × Line 8	$ 101.10	$ 150.80	$ 102.96		$	
10. Effective Premium[3]	2.98%	3.49%	1.01%			
11. Insurance Premium: Line 9 × Line 10	$ 2.98	$ 5.26	$ 1.04		$	
Projected Crop Cash Requirements:						
12. Enter Preharvest Cash Operating Expense[4]	$ 56.56	$ 56.56	$ 56.56	$	$	$
13. Enter Harvest Cash Expense per Acre	$ 13.60	$ 13.60	$ 13.60	$	$	$
14. Enter Expenses/Bushel ($0.24 × Yield)[5]	$ 3.60	$ 3.60	$ 3.60	$	$	$
15. Enter Debt Service, Family Living, and Other Fixed Cash Requirements[6]	$ 72.42	$ 72.42	$ 72.42	$	$	$
16. Total Cash Requirements: Line 12 + Line 13 + Line 14 + Line 15	$ 146.18	$ 146.18	$ 146.18	$	$	$
Projected MPCI Payment Received:						
17. Enter Bushel Guarantee or Harvest Price[7]	26 bu.	$ 5.80	$ 6.04			
18. Enter Lost bu./Revenue to Count Line 17 - Line 1 / Line 17 × Line 1	11 bu.	$ 87.00	$ 90.60			
19. Net Insurance Payment Received: (Line 18 × Line 8) - Line 11 Or Line 9 - Line 18 - Line 11	$ 39.37	$ 58.54	$ 11.32			
Net Cash Flow: Line 5 - Line 16 + Line 19[8]	$ –5.27	$ 13.90	$ –33.32	$	$	$

[1]FAIR payment not subject to price or yield risk. [2]Price elections for crop insurance are crop-specified and farmers must select a price between the minimum and maximum price. IP revenue prices are based on 100% of CBOT and CRC is based on 95% of KCBOT price. KCBOT averaged 6.4¢ higher than CBOT. [3]Effective premium rate is adjusted for coverage. [4]Obtain crop expense estimates from your records or KSU crop budget guides. Use only cash expense because this is a cash flow and analysis. [5]Cash expenses in the KSU crop budget guide are based on a yield of 40 bushels; with a low yield some harvest costs, such as trucking and storage, decline. [6]KSU guides do not include cash flow for family living. Dryland crop farmers' gross sales average $156,000, which would require 1,100 acres of 40 bushels of wheat per acre. Average family living costs are $29,322 divided by 1,100 acres = $27.06. Total fixed cash $45.36 (KSU guides or records) + family living of $27.06. Debt load, off farm income and/or livestock enterprises will affect cash requirements. [7]Revenue to count is based on the individual farmer's yield and the CBOT or KCBOT price depending on the contract. Revenue Insurance does not guarantee price. [8]Net cash flow was used for the analysis because normally a farm will not be profitable when a crop disaster occurs. The farmer's short-term strategy is to cover cash flow requirements.

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