KANSAS FARM MANAGEMENT & MARKETING HANDBOOK

KSU Farm Management Guide MF-907

Multiple Peril Crop Insurance

Department of Agricultural Economics Manhattan, Kansas

G.A. (Art) Barnaby, Jr.
Extension Agricultural Economist
Farm Management

The goal of the Crop Insurance Act of 1980 was to make Multiple Peril Crop Insurance (MPCI) available to growers of major crops as a replacement for the USDA's low-yield disaster program. Crop insurance is marketed by local private crop insurance agents who, in most cases, sell crop insurance along with other lines of insurance.

The reform legislation that is now expected to be signed into law will provide catastrophic coverage at the 50 percent level with 60 percent of the market price. The coverages is "free" but will require the grower to pay a $50 processing fee. Growers who participate in the farm program must also participate in the catastrophic coverage of purchase MPCI. The reform will increase the subsidy on MPCI.

The focus of this worksheet is to provide a method for farmers to evaluate MPCI and catastrophic coverage. This worksheet does not cover private hail/fire crop insurance.

MPCI insurable losses include: Drought, excessive moisture, hail, wind, frost/freeze, tornado, lightning, flood, insect infestation, plant disease, excessive temperature during pollination, wildlife damage, fire, and earthquakes.

MPCI does not cover losses resulting from poor farming practices, low commodity prices (e.g., crop was not harvested because it was not worth harvesting), theft, and specified perils which are excluded in a limited number of policies.

Crops insurable: The crops that are insurable (may vary by county) include barley, soybeans, corn, grain sorghum, and wheat. Other crops are covered only in selected counties.

Premium rates: *Premium percentage rates decline as the grower's insurance yield increases.* A grower with a top yield average for the county typically pays a premium rate of about one-third of the premium rate paid by a grower with a yield history well below county average. The premium rates also change to reflect the difference in crop production risk across the state of Kansas.

Coverage: Coverage is set at 35, 50, 65, or 75 percent of the individual grower's yield history. If the grower has less than four years of records, then adjusted ASCS yields are used for the missing year's records (this approach ended using county average yields to set the coverage for individuals).

Price election: Farmers may select any price election within a minimum and maximum price range set by FCIC.

Table 1. Example: Premium for Wheat in McPherson County (1994)

	Example	Yours
Average Yield for Insurance	40 bu.	
× Coverage Level (35%, 50%, 65%, 75%)	65%	
= Bushels per Acre Yield Guarantee	26 bu.	
× Wheat Price Election ($1.07, up to $3.55)	$ 3.55	
= Liability	$ 92.30	
× Rate*	2.5%	
= Dollar Premium per Acre	$ 2.31	

*Crop insurance reform legislation is expected to lower the premium rate.

Table 2. Example: Indemnity Payment for Wheat in McPherson County (1994)

	Example	Yours
Average Yield for Insurance	40 bu.	
× Coverage Level (35%, 50%, 65%, 75%)	65%	
= Bushels per Acre Yield Guarantee	26 bu.	
- Less Current Year's Crop Production (bu.)	10 bu.	
= Bushel Loss per Acre	16 bu.	
× Price Election ($1.07, up to $3.55)	$ 3.55	
= Indemnity Payment per Acre	$ 56.80	
- Less Premium	$ 2.31	
= Net Indemnity Payment per Acre	$ 54.49	

MPCI WORKSHEET

Analysis of Per Acre Net Cash Flow

Crop:_____

Situation:_____

	Disaster Year Ex. McPherson Co. With Insurance	Disaster Year Ex. McPherson Co. Without Insurance	Typical Year With Insurance	Typical Year Without Insurance	Disaster Year With Insurance	Disaster Year Without Insurance
Projected Crop Sales and Other Cash Inflows:						
1. Enter Yield per Planted Acre	10 bu.	10 bu.				
2. Enter Expected Market Price	$ 3.55	$ 3.55	$	$	$	$
3. Expected Sales: Line 1 × Line 2	$ 35.50	$ 35.50	$	$	$	$
4. Enter Other Receipts (deficiency payments,[1] straw, etc.)	$ 14.54	$ 14.54	$	$	$	$
5. Total Receipts: Line 3 + Line 4	$ 50.04	$ 50.04	$	$	$	$
MPCI Premium:						
6. Enter Insurance Yield	40 bu.	XXX		XXX		XXX
7. Enter Level of Coverage (0.35, 0.50, 0.65, or 0.75)	65%	XXX		XXX		XXX
8. Enter Crop Price Election[3]	$ 3.55	XXX	$	XXX	$	XXX
9. Liability: Line 6 × Line 7 × Line 8	$ 92.30	XXX	$	XXX	$	XXX
10. Enter Premium Rate for the Desired Level of Coverage[2]	2.5%	XXX		XXX		XXX
11. Insurance Premium: Line 9 × Line 10	$ 2.31	XXX	$	XXX	$	XXX
Projected Crop Cash Requirements:						
12. Enter Preharvest Cash Operating Expense[4]	$ 48.99	$ 48.99	$	$	$	$
13. Enter Harvest Cash Expense per Acre	$ 10.35	$ 10.35	$	$	$	$
14. Enter Expenses/Bushel ($0.24 × Yield)[5]	$ 2.40	$ 2.40	$	$	$	$
15. Enter Debt Service, Family Living, and Other Fixed Cash Requirements[6]	$ 75.91	$ 75.91	$	$	$	$
16. Total Cash Requirements: Line 12 + Line 13 + Line 14 + Line 15	$ 137.65	$ 137.65	$	$	$	$
Projected MPCI Payment Received:						
17. Enter Line 6 × Line 7	26 bu.	XXX		XXX		XXX
18. Enter Line 17 – Line 1 (enter zero if answer is a negative number)	16 bu.	XXX		XXX		XXX
19. Net Insurance Payment Received: (Line 18 × Line 8) – Line 11	$ 54.49	XXX		XXX		XXX
NET CASH FLOW:						
Line 5 – Line 11 – Line 16 + Line 19[7]	$ -35.43	$ -87.61	$	$	$	$

[1]Assumes a deficiency payment of $0.45 times a program yield of 38 bushels times 85% of planted acres for a total of $14.54 per acre.[2]Premium rates for a specific farm and proven yield can be obtained from MPCI insurance agents. 3 Price elections for crop insurance are crop-specified and farmers must select a price between the minimum and maximum price. Price elections are available from local MPCI insurance agents.[4]Obtain crop expense estimates from your records or KSU crop budget guides. Use only cash expenses because this is a cash flow analysis.[5]Cash expenses in the KSU crop budget guide are based on a yield of 35 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 averaged $143,000, which would require 1,192 acres of 40 bushels of wheat per acre. Average family living costs are $29,367 divided by 1,192 acres = $24.64. Total fixed cash $51.27 (KSU guides or records) + family living of $24.64. Debt load, off farm income and/or livestock enterprises will affect cash requirements.[7]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. Crop insurance reform would also provide some additional cash to the "insurance" grower.

KSU KANSAS STATE UNIVERSITY

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