Directions for Using the Crop Insurance Decision Making Tool

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Overview

This crop insurance decision making tool helps users understand how crop insurance can be used to alter their exposure to risk. In section 1, the tool calculates the user's financial exposure to risk. The tool requires that producers enter the acreage of various crops, their expected yields, and expected prices. The tool then produces a table that calculates the impact of various levels of revenue losses. The level of losses reflects losses in revenues due to declines in yields and/or prices.

In section 2, users enter their per acre costs of production for various crops. The per acre cost of crop insurance is highlighted in yellow. This value is entered in section 5 where the user enters the details of their crop insurance policies. The budgets are summarized with an expected profit per acre and total expected profit on lines 43 and 44. The total expected profit for the operation is shown on line 44 column g. This value includes the cost of any crop insurance selected in section 5.

Section 3 produces a table that shows the impact of various loss levels on the expected profit when no insurance is purchased. These levels are obtained by adding the cost of insurance from the crop budget to the expected profit less revenue losses.

Section 4 provides links to information on various crop insurance policies. Users enter details about available crop insurance products in the blue shaded table. These parameters are required to evaluate various insurance products. If you do not wish to consider a product you can simply leave the cell blank. For instance, if users do not wish to consider Indexed Income Protection (IIP) for corn, they can leave the cells related to IIP blank. Additionally, not all policies are available for all crops.

Section 5 allows users to evaluate how a variety of crop insurance tools impact the profitability of their operation. In this section the user selects the crop insurance product that they wish to evaluate on line 90. For instance, wheat growers can choose between APH and CRC insurance. Once the product is selected the range of coverage possible is displayed on line 91. The user then enters their coverage level on line 92.

The per acre premium for the product selected is then entered on line 94. This value is then reflected in the crop budgets above and will be used in the projected profit numbers below. The actual yield that the producer wishes to consider is entered on line 95. This gives the user the ability to see how yield reductions would impact projected profits and insurance indemnities. The actual harvest price that the producer expects to receive is entered on line 96. This allows users to observe how price fluctuations impact projected profits and indemnities. This price is also used to calculate the CRC and IIP harvest prices. This price should correspond to the user's forecast of futures prices at the time of harvest. The IIP Harvest price, GRP payment yield, and GRIP final county revenues are also required to forecast the potential indemnities received from these products. Please note that individual yield variations do not impact indemnities under GRP and GRIP policies.

Users that do not wish to consider GRP, GRIP, or IIP policies can leave these values blank. Once the required information has been entered, the program calculates the per acre income with and without insurance on lines 102 and 103. The net income per acre and total net income with and without crop insurance are show on lines 105, 106, 108 and 109. These values allow users to quickly determine the impact of crop yield and prices losses on their net income.

Directions for Each Section of the Tool

The spreadsheet is divided into a series of sections that should be completed sequentially. Each section is contained in a tab in the spreadsheet. You can move through the tool by clicking on the tabs at the bottom of the spreadsheet.

Section 1 Directions: Enter the acres of corn, wheat, and soybeans that you expect to grow on line 5. You can add up to two additional crops in columns E and F. On line 6 enter the expected yield for each crop (e.g., bushels per acre). On line 7 enter your expected price per unit of yield (e.g., $'s per bushel). The revenue loss table shows the magnitude of various revenue losses.

Section 2 Directions: Use this section to enter the expected per acre costs of production for each crop under consideration. The crop insurance premiums will be automatically adjusted based upon the premiums that you enter in section 5. This information will be useful in determining how crop insurance impacts the expected profitability of your cropping enterprises. The budget shows your projected costs of production per acre and per crop. The expected profits per acre and per crop are shown on lines 22 and 23. These totals include the cost of insurance. The expected profitability with no insurance is shown in section 3. You will be allowed to examine the impact of different insurance products, premiums, and coverage levels in section 5.

Section 3 Directions: This section requires no user inputs. This table shows the impact of various levels of revenue losses on your expected profit if no insurance is purchased. For instance, you can see the impact of a 20% decline in revenue (arising from price and/or yield changes) on line 4.

Section 4 Directions: Links to internet information sources regarding each product are available at the top of the page. The crop insurance parameters on this page should be available before the sales closing dates for insurance. You may wish to contact your crop insurance agent for information on the value of these parameters. Enter the appropriate parameters for your crop insurance policies. For instance, your APH yields for each crop are entered on line 14 and the APH indemnity price is entered on line 15. If you do not wish to consider a particular insurance product you do not need to enter its parameters. For example, if you do not wish to consider GRP insurance for corn you do not need to enter the GRP expected county yield or the GRP maximum protection per acre. Make sure to enter the appropriate price basis for your crop on line 14. The basis is the amount by which your local price varies from futures prices. For

instance, if you local corn price is typically $0.05 higher than the CBOT enter a positive 0.05 in the cell. If your prices are typically lower than the futures market enter a negative number in this cell.

Section 5 Directions: On this page you can evaluate how a variety of crop insurance products impact the income and net income for each crop. Select the insurance policy that you wish to consider on line 4. For instance, for corn you can choose from APH, CRC, IIP, GRP, or GRIP policies. Next, enter the coverage level that you wish to consider on line 6. The cost of the insurance on a per acre basis is entered on line 8. It is critical that you enter accurate premiums and that all of the parameters for the product were supplied in section 4 and on this page. For example, if you wish to consider CRC make sure that you have entered the APH yield and the CRC base price in section 4. This tool uses your harvest price estimate and your basis estimate to produce the CRC and IIP harvest price estimates. Be aware that changes in your basis will impact the accuracy of this forecast. Additionally, the actual harvest price is designed to be a forecast of the average local prices at harvest time. If you engage in hedging or forward contracting activities your results may vary substantially from the projections of this model. For users wishing to examine the GRP and/or GRIP products you must enter a forecast of the GRP payment yield and/or the GRIP final county revenue.

Once you have entered the appropriate parameters you can investigate impact of yields and prices that differ from your budget by changing the level of yield and price on lines 9 and 10. Line 15 projects the per acre insurance indemnity associated with the product under consideration. Lines 16 and 17 show the incomes per acre with and without crop insurance. The net income per acre for each crop with and without insurance is shown on lines 19 and 20. The total net income for each crop and the combination of these crops is shown with and without insurance on lines 22 and 23. These values are derived from the crop budgets that you entered in section 2. If you did not enter budgets, the net income values will not be useful.

OTHER A.E.M. EXTENSION BULLETINS

EB No	Title	Fee (if applicable)	Author(s)
2008-23	Dairy Farm Business Summary, New York Dairy Farm Renters, 2007	($16.00)	Knoblauch, W. and L. Putnam
2008-22	Dairy Farm Business Summary, Intensive Grazing Farms, New York, 2007	($16.00)	Conneman, G., Karszes, J., Murray, D., Grace, J., Degni, J., Staehr, A., Benson, A., Murray, P., Glazier, N. and L. Putnam
2008-21	2008 Federal Reference Manual for Regional Schools, Income Tax Management and Reporting for Small Businesses and Farms	($25.00)	Bouchard, G. and J. Bennett
2008-20	2008 New York State Reference Manual for Regional Schools, Income Tax Management and Reporting for Small Businesses and Farms	($25.00)	Bennett, J. and K. Bennett
2008-19	Fruit Farm Business Summary: Lake Ontario Region New York 2007		White, G., DeMarree, A., and J. Neyhard
2008-18	Dairy Farm Business Summary, Northern New York Region, 2007	($12.00)	Koblauch, W., Putnam, L., Karszes, J., Murray, P., Vokey, F., Ames, M., Deming, A., Prosper, J. and R. Moag
2008-17	Dairy Farm Business Summary, Central Valleys Region, 2007	($12.00)	Knoblauch, W., Putnam, L., Karszes, J., Murray, D., Radick, C., Wickswat, C., Manning, J., Collins, B., Balbian, D., Allhusen, G., Buxton, S. and R. Moag
2008-16	Dairy Replacement Programs: Costs & Analysis December 2007		Karszes, J., Wickswat. C. and F. Vokey
2008-15	Implications of Growing Biofuels Demands on Northeast Livestock Feed Costs – Understanding the Technical Relationships between Ingredient Prices and Feed Costs		Schmit, T., Verteramo, L. and W. Tomek
2008-14	Dairy Farm Business Summary, Southeastern New York Region, 2007	($12.00)	Knoblauch, W., Putnam, L., Kiraly, M., Walsh, J., Hulle, L. and C. Wickswat
2008-13	Dairy Farm Business Summary, Western and Central Plateau Region, 2007	($12.00)	Knoblauch, W., Putnam, L., Karszes, J., Grace, J., Munsee, D., Petzen, J. and L. O'Brien
2008-12	Dairy Farm Business Summary, New York Small Herd Farms, 80 Cows or Fewer, 2007	($16.00)	Knoblauch, W., Putnam, L., Kiraly, M. and J. Karszes