Excel Spreadsheet for Grain Trading Exercise

November 23, 2011

Corn Budget—simple corn budget used to calculate estimated breakeven price, vital information for evaluating marketing alternatives.

Sales Ledger—the worksheet we will use during the game to track trades and calculate net farm revenue.

Production—production history of the sample farm used in the game.

Hedging example—a worksheet that compares the returns from various marketing strategies given current market prices and alternative prices at harvest (separate instruction sheet attached).

Revenue Calculator—estimates insurance loss payments for Revenue Protection policies and Revenue Protection, Harvest Price Exclusion.

Hail Insurance—calculator for hail loss policies.

Wheat Budget—simple wheat budget used to calculate estimated breakeven price, vital information for evaluating marketing alternatives.

Ledger (print)—printable version of the Sales Ledger

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Instructions for Hedging Example Spreadsheet

March 14, 2011

1. Select the crop you want to hedge from the worksheet choices at the bottom of the page (corn, rice, or cotton).
2. Enter the number of acres you expect to plant.
3. Enter your expected yield.
4. Enter the proportion of expected production you want to hedge or market pre-harvest (for example, enter 0.5 for 50%).
5. Based on your pre-harvest marketing proportion, the worksheet will calculate the bushels, hundredweight, or pounds to cash forward contract and/or hedge. Also shown are the equivalent number of futures contracts or options that match your pre-harvest hedging or contracting choice.
6. Enter the spring or pre-harvest price and the expected harvest price in the cells at the top of the worksheet. These prices will then be reflected in the marketing strategies below.
7. Enter your expected basis at harvest (local cash price minus futures) in the cell just below the spring and harvest futures prices.
8. Shown across the top of the worksheet is a comparison of per unit returns and net income from the various crop marketing choices: doing nothing, hedge, buying a put, cash forward contract and buy a call, cash forward contract and bull call spread, and a three-way or collar strategy.
9. Hedging with futures contracts
   a. Enter the number of futures contracts you want to hedge (sell).
10. Buying puts
    a. Enter the number of puts you want to buy, the strike price, and the premium (enter negative numbers for premiums paid and positive numbers for premiums received).
11. Cash forward contract and buy a call
    a. Enter the cash forward contract offer and the number of bu, cwt, or lbs to contract.
    b. Enter the number of calls you want to buy (roughly equivalent to amount forward contracted), the strike price, and the premium paid.
12. Cash forward contract and bull call spread
    a. The same as 11 above with the addition of the number of calls to sell, the strike price, and the premium received.
13. Three-way or collar
    a. Enter the number of at-the-money puts to buy, the strike price, and premium paid.
    b. Enter the number of out-of-the-money puts to sell, the strike price, and premium paid.
    c. Enter the number of out-of-the-money calls to sell, the strike price, and premium paid.
14. The ‘at harvest’ options premiums in all the pricing strategies are estimated at expiration and assume time value to be zero. Your actual premium paid or received at offset will vary.
15. Feel free to contact me with any questions related to this spreadsheet or grain marketing.
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