



Corn Replanting Decision Tool Released as Part of FAST

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A "Corn Replanting Decision Tool" has been released as part of the FAST series of Microsoft Excel spreadsheets. Mathematical functions in this tool estimate yields from the original and replanted stands. Estimated yields, along with cost and crop insurance information, then are used to calculate net income from replanting. This tool is part of the Planting Decision Model, which can be accessed from the [FAST section of farmdoc](#). A direct link to the model download page model is available [here](#).

A screenshot of the tool is shown in the graphic below. Inputs into the tool are divided into five categories:

1. Normal yield and price exceptions.
2. Original planting information – inputs on the original planting date and actual stand from initial planting are used to estimate a yield from the original planting.
3. Replant information -inputs on the replant date and seeding rate are used to estimate yield if the field is replanted.
4. Replant costs – inputs on seed price and other costs are used to estimate replant costs.
5. Crop insurance replant payment – farm-level crop insurance provides a per acre replant payment under certain circumstances.

Functions provided by Emerson Nafziger, professor in Crop Sciences at the University of Illinois, are used to estimate yields from the original and replanted stands.

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CORN REPLANTING DECISION TOOL

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Normal Yield and Price Expectations

Expected Normal Yield (bu/ac)	200
Expected Market Price (\$/bu)	\$6.05 / bu.

Original Planting Information

Original Plant Date	4/5/2011
Actual Stand from Initial Planting	20,000 /acre
Yield Potential of Damaged Field	81%
Estimated Expected Yield of Damaged Field	162 /acre

Replanting Information

Expected Replant Date	5/15/2011
Replant Seeding Rate (seeds/ac)	35,000
Estimated Yield of Replanted Field	89%
Estimated Expected Yield of Replanted Field	178 /acre

Replant Costs

Seed Price per Unit	\$150.00 / unit
Seed Cost	\$65.63 /acre
Equipment Cost (incl. fuel & labor)	\$12.00 /acre
Additional Herbicide Cost	\$20.00 /acre
Additional Insecticide Cost	\$0.00 /acre
Other Replant Costs (interest, drying, etc)	\$10.00 /acre
	\$107.63

Crop Insurance Replant Payment

Was a farm-level insurance purchased (e.g., RP, RPwExcl, or YP)	Yes
Crop insurance replant payment	\$48.08 /acre

This is the maximum replant payment. Criteria must be met before a payment is received including:
1) corn was planted after the earliest planting dates (April 6 in Illinois), 2) the lower of 20 acres or 20% of acres need to be replanted, 3) the original stand will not produce 90% of the guarantee, 4) replanting must be judged as practical. Discuss these issues with a crop insurance agent before replanting.

Estimated Return to Replanting

Yield Gain from Replanting (%)	8%
Yield Gain from Replanting (bu/ac)	17
Estimated Gross Income from Replanting (\$/ac)	\$100.31 /acre
Estimated Net Income from Replanting (\$/ac)	\$40.77 /acre

The end result of inputs is “Estimated Net Income from Replanting”, the last line on the nearby graphic. A positive value indicates that replanting is projected to be more profitable than leaving the original stand. A negative value indicates that replanting will be less profitable than leaving the original stand. The example has a \$40.77 estimated net income from replanting, indicating that net income increases by \$40.77 with replanting.

Current high corn prices cause more situations in which replanting looks favorable. The above \$40.77 net income was generated using a \$6.05 price. The \$40.77 income reduced to \$23.36 net income if a \$5.00 corn price is used. Hence, more farmers this year may find replanting economical than in a typical year.