

Try a harvest timing model

By TOM J. BECHMAN

HOW do you feel about your harvest capacity this fall? Would a bigger combine or other adjustments help you finish before harvest losses mount, or was this just an unusual year?

These are questions only you can

Key Points

- Computer harvest timing model uses your information.
- Too little harvest capacity can cost you big bucks.
- Remember that all crop years aren't alike, expert says.

SIZE UP CAPACITY: How long harvest takes during a "normal" fall might help you decide if you have too little, too much or just the right harvesting capacity.

answer, notes Bruce Erickson, Purdue University Extension ag economist. Erickson coordinates the Purdue Top Farmer Crop Workshop each July.



Recently, he and a co-worker, Luc Valentin, prepared a computer model that lets you plug in your own real numbers to see when it pays to dry corn vs. when it pays to let it field dry.

"The model can only approximate what will happen," he notes. "Each year is different, but results should average out over time."

One key factor driving the model is average temperatures in October through November. "An earlier Indiana study by Purdue corn specialist Bob Nielsen showed that corn averaged losing 0.4 points of moisture per day at daily averages around 55 to 60 degrees F, and 0.7 points per day at 70 to 75 degrees," Erickson observes.

The reality you're trying to gauge is expected harvest losses. Earlier studies estimated field losses at 1% additional loss per week beginning in early October, then at 2% per week in November. If your corn is infested with stalk rot, it could skew those numbers.

Simple example

So how can you judge if you have enough harvest capacity? Suppose you started with 1,500 acres of corn, reaching black layer Sept. 25. Subtracting time for weather delays, bean harvest and other duties, assume there's 36 hours per week for harvest, combining 7 acres per hour. Assume \$5-per-bushel corn and \$2.25-per-gallon propane. The model computed the optimum time to start was Oct. 8 at 23.5% moisture, with finish projected for Nov. 18. Drying costs and field losses added together total \$56,038.

Suppose you harvest 10 acres per hour. With greater capacity, the model started Oct. 13, with corn at 21.4%. You finish Nov. 11, with only \$46,652 in combined energy costs and harvest losses.

If you only harvest 5 acres per hour, then the model started Oct. 1 at 26.8% moisture and finished Nov. 28. Total energy costs and field losses total \$70,702, roughly 25% more than average harvest capacity and 50% more than higher capacity.

"A farmer who can finish in less than a month can usually allow some field dry-down before harvest losses mount on the back side," Erickson says. "But for a farmer pushing harvest capacity beyond six weeks, harvest probably should begin with moisture in the mid-20s."

"It makes sense that higher corn prices and higher expected field losses justify starting earlier," he continues. "If you expect lower field losses, you can let the crop dry longer."

Test your own situation by downloading the Excel spreadsheet model. It's available at www.agecon.purdue.edu/topfarmer/update.asp.

If your Excel version doesn't have a "solver," then see the instructions in the spreadsheet.



Especially when it comes to grain corn yields. That's why we build a lot of muscle into every Mycogen® brand grain corn hybrid. We pile in the yield

performance characteristics that give you the boost you need for a big harvest. And we put our hybrids to the test all across the Corn Belt, so you can count on a hybrid that's fine-tuned for your area. There really is no such thing as too much performance, which is why all our hybrids also are backed by the proven performance of Dow AgroSciences.

Science. Yield. Success.™  Dow AgroSciences

www.mycogen.com 1-800-MYCOGEN ®Mycogen and the Mycogen Logo are trademarks of Mycogen Corporation. "Science. Yield. Success." is a trademark of Dow AgroSciences LLC. ©2008 Mycogen Seeds. Mycogen Seeds is an affiliate of Dow AgroSciences LLC. This promotion and the products featured herein are not endorsed by or affiliated with the Ford Motor Company. S38-701-012 (6/08) BR 010-11990 MYCOCORN016