

legal

## Certified seed

**A question in economics: certified  
seed could earn you higher profits**

**a**s illustrated by the economic model designed by economists at Kansas State, the profit potential between certified and saved seed was \$9.95 per acre. This analysis takes into consideration the cost of a bag of certified seed. There are many reasons why the Kansas Crop Improvement Association promotes certified seed, one of which is that it is a good farming practice and business decision.

Take some time to understand certified seed as a risk management tool, especially since it has a tested germination rate and requires less seed for the same acreage. Check out the Kansas State economic spreadsheet free of charge at <http://www.agmanager.info/crops/prodecon/production/default.asp>. FYI invites you to see for yourself how your own operation could benefit from planting certified seed. FYI has used data from the 2006 harvest, provided in the footnote and the end of the article.<sup>1</sup>

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{ For your information }

## Farmers

## Yield Initiative

is a coalition of public and private partners with the common goal of protecting the public and the grain industry by supporting plant variety improvement through research, education, certification, and PVP enforcement for your benefit.

story continued from cover

Several years ago, the Georgia Crop Improvement Association's Small Grain-Drill Box Survey found that certified wheat seed had a yield premium of 3 bushels per acre over bin-run seed. This translates to a \$6.75 per acre return over the purchase price of

reveals a benefit of \$9.25 per acre return.

The value of certified seed goes far beyond purchase price. Many producers do not recognize the hidden costs associated with saved seed. They may be damaging their seed

In a federal government study using 1987 data for the Plains States, producers enjoyed a gain in yield of 3.5 bushels per acre when using purchased seed instead of bin-run seed. The value of this additional yield, based on a very low harvest price of \$2.17 per bushel, translates into a \$7.60-per-acre gain. Under this federal study, no cost was assigned to cleaning or treating the bin-run seed, whereas the K-State model does factor in storage and cleaning costs. The federal study further revealed that for the Pacific Northwest, the use of purchased seed resulted in a net profit gain of \$11.59 per acre.<sup>2</sup>

certified seed. Even more meaningful is that the study found that of the bin-run samples randomly collected, sixty-two percent had severe seed damage and varietal purity problems. When adjusted to today's wheat pricing, the study

through improper handling and storage, and there are also costs for cleaning, treating, and storing saved seed. Planting saved seed may necessitate higher seeding rates, so producers use more seed per acre to achieve desired wheat stands.



As illustrated by the economic model designed by economists at Kansas State, using information from the 2006 harvest, the profit potential between certified and saved seed was \$9.95 per acre. This means that the profit to the producer was \$9.95 per acre more for using certified seed rather than saved seed. This analysis takes into consideration that the cost of a bag of certified seed was higher than saving seed at market price. Keep in mind that this price difference uses a three-bushel-yield difference. If the difference in yield per acre were increased to four bushels, then the profit would increase to \$13.90 per acre. Many producers who already use certified seed can attest to the increase in yield in addition to the convenience and time savings.

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“When compared to all the input costs for producing a wheat crop, the additional cost of using certified seed is pretty minor. Unfortunately for many farmers, it's the first thing they cut, thereby limiting the efficiency of all their other inputs,” says Daryl Strouts, KCIA executive director. “Using poor quality seed has farmers literally leaving money in the field when commodity prices are as strong as they are now.” “Long-term, lower proven farm yields mean lower insurance value and lower government payments.”

Perhaps you should consider the benefits of using the economic spreadsheet prepared by K-State. It may lead you to consider using certified seed for your entire operation, every year. **fyi**

<sup>1</sup> Cost Certified Seed (\$9); Harvest Price (\$4.25); Storage Cost (\$.03); Storage Days (100); Interest (8.5%); Cleaning Cost (\$.85); Percent Cleaned (85%); Treating Cost (\$.85); Percent Treated (45%); Labor Cost (\$.20); Cleanout Value (\$2.125); Percent Cleanout (10%); Seeding Rate Certified (70 lbs/ac); Seeding Rate Saved (85 lbs/ac); Expected Yield Certified (40 bu/ac); Expected Yield Saved (37 bu/ac); Expected Harvest Price (\$4.25).

<sup>2</sup> Knudson and Handon, Intellectual Property Rights and the Private Seed Industry. Resources and Technology Division, Economic Research Service, U.S. Dept. of Agriculture. Agricultural Economic Report No. 654.

yield

# The genetic advantage

Through the use of superior research tools, scientists at both public and private breeding programs have been able to increase yields, resistance to pests and diseases.

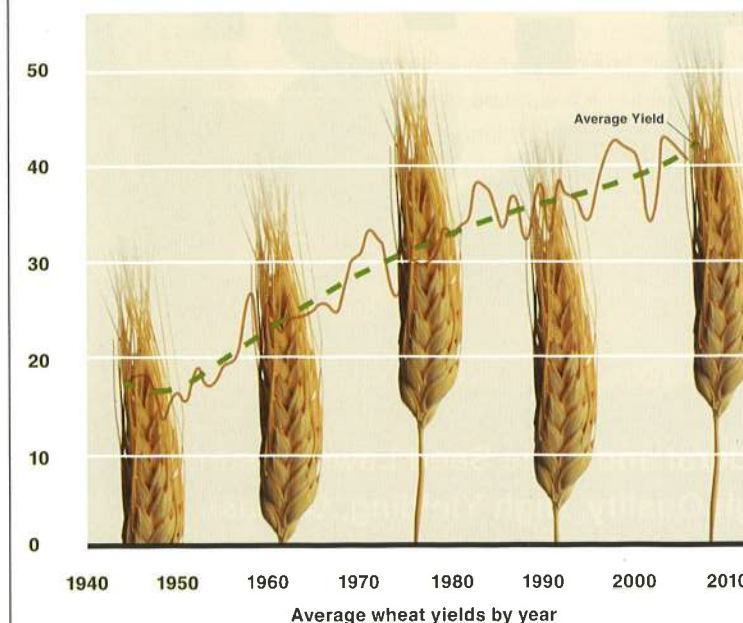
Advances in wheat genetics are important for the continued development of wheat varieties with enhanced yield potential, resistance to pests and diseases, and tolerance of changing environmental conditions. Wheat is a very complex plant, having a large amount of DNA in its nucleus. Several different researchers are working to develop a full genetic map of the wheat chromosomes and to use that mapping to then be used as templates for the construction of the different chromosomes. Scientists often work collectively in order to share their information in what is known as the project database (WheatDB) which is accessible at <http://wheatdb.ucdavis.edu:8080/wheatdb/index.jsp>. This public database will be the initial repository of physical mapping information, which provides the tools for easy access, display, and analysis of the genetic data. Project data can also be integrated into GrainGenes (<http://wheat.pw.usda.gov/GG2/index.shtml>) and Gramene (<http://www.gramene.org/>), both curated public websites.

GrainGenes provides a compilation of molecular and phenotypic information on wheat and other cereals. Gramene is an open-source, data resource for comparative genome analysis in the grasses.

“The use of cutting-edge technology goes beyond the laboratory and helps your farming profits.”

With this information fully established, scientists can understand the genetic reasons for higher yielding, better performing, and stronger varieties. **fyi**

## Yields



New crop varieties are available every year with greater hardiness, drought tolerance and insect and disease resistance. They are the direct results of investments made by public and private breeders, geneticists and scientists. Their expertise, which is insured by the Plant Variety

Protection Act, brings you valuable results. Thanks to these investments, you now have the benefit of increased yield, improvements in protein, quality and other agronomic traits of value.\*

\*Data from USDA's electronic NASS Agricultural Statistics Database, all wheat, 1946-2006, at [http://www.nass.usda.gov/Data\\_and\\_Statistics/Quick\\_Stats/index.asp](http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp).