



By Larry Reichenberger

# WHEAT'S REVIVAL

Wheat struggles to regain its place in production plans

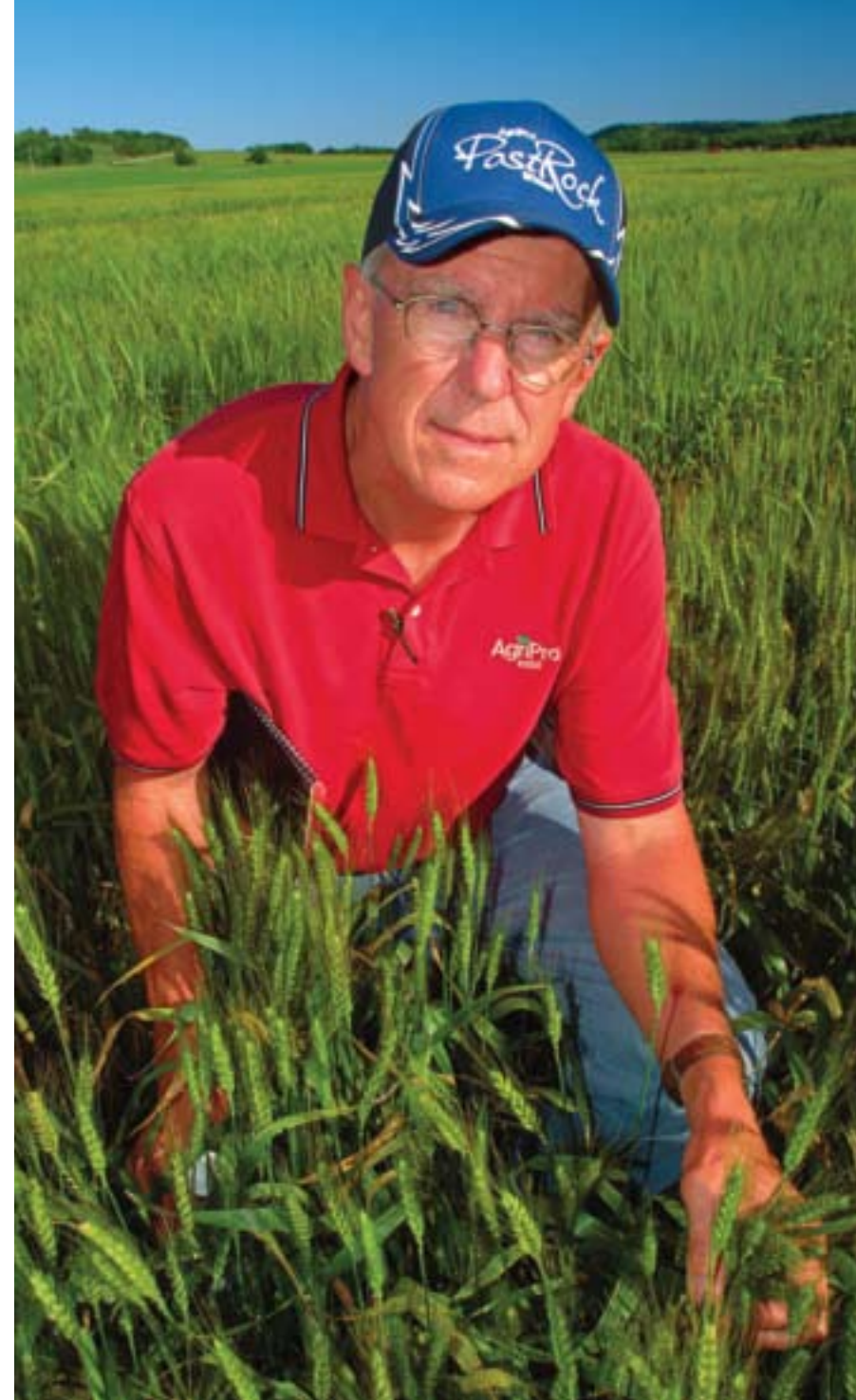
**W**heat may be the staff of life, but it's struggling to survive in the cropping plans of many North American farmers. Plagued by production problems, hampered by limited research efforts, and overshadowed by well-heeled corn and soybean industries, wheat is finding it tough to compete.

Last spring's run-up in the wheat market, when the price of a bushel of hard red spring wheat topped \$24, highlighted the problems facing wheat production. Planted acreage has declined steadily for decades, falling by 30% since 1980. Meanwhile, world wheat consumption has exceeded production seven of the last eight years. These opposing trends collided last winter as U.S. stocks fell to a 60-year low and wheat prices exploded.

**No go.** "The most alarming part of the skyrocketing wheat price was what followed at planting time—my neighbors did not plant more wheat," says Valley City, N.D. farmer Al Skogen. "That tells you something is wrong—people just aren't excited about growing wheat these days."

Daren Coppock, CEO of the National Association of Wheat Growers (NAWG), says major improvements in corn and soybean production have helped those crops in stealing away wheat acres. "Average corn yields have been increasing four times faster than

►Photo: Corn yields have increased four times faster than wheat yields in recent years, and scientists say that gap may widen.



►Left: Syngenta wheat breeder Rollie Sears says higher wheat prices justify increased management, which will result in higher yields.

at North Dakota State University. "In 1996, when Roundup Ready soybeans were introduced, there were almost no soybeans grown in the state of North Dakota, but now the two largest soybean producing counties in the nation are here. Meanwhile, wheat has been pushed to more marginal production areas further west."

"There is so much added value in biotech corn and soybeans that relative wheat prices will have to increase drastically to win back growers," he continues. "And, new developments taking place in those other crops will make the opportunity cost for wheat growers even higher."

Wilson explains that the newly introduced second generation of Monsanto's Roundup Ready soybeans are expected to increase yields 7% to 11% over their predecessors. "This means that wheat prices will have to increase \$1.50 per bushel to keep pace. Similarly, the advent of drought-tolerant corn is projected to create an opportunity cost of 60 cents per bushel," he says.

**New attitude.** Unlike earlier this decade, when many growers opposed Monsanto's seven-year effort to introduce GMO wheat, most are now holding the door wide open for the technology. The NAWG is depending on biotech to achieve the aggressive goal they recently set of increasing national average wheat yields by 20% in the next decade.

"There are a lot of things we're doing to reach that goal, but we'll have to have the benefits provided by biotechnology to get there," says Coppock.

As chairman of a joint biotechnology committee formed recently by members of NAWG and U.S. Wheat Associates, Joe Kejr is among those luring biotech providers back into wheat. "We're going door-to-door to meet with major trait developers and other value chain stakeholders. We're beginning to see some positive interest," says this Belleville, Kan., farmer.

Coppock says Monsanto and other

average wheat yields and major technological changes have occurred in the production of soybeans and other crops," he says. "Farmers will produce the crops that allow them to make the most money with the lowest risk, and lately, that hasn't been wheat."

Coppock says private investment in wheat research pales in comparison to corn and soybeans, and is a major reason for wheat's lagging popularity. Much of that investment faded with the 2004 decision by Monsanto to terminate development of Roundup

Ready wheat, a move that effectively shelved most of the GMO (genetically modified organism) technology that has forged ahead in other crops. Now, there's a growing realization that misplaced concerns about consumer attitudes towards GMOs have contributed to a near crisis in wheat production—last year world stocks dwindled to a four-day supply.

"By adding value to other crops, biotechnology has caused growers to divert their wheat acres to other uses," says Bill Wilson, ag economist



► **Large photo:** Wheat's fall from prominence was little noticed when prices were low, but dwindling supplies sparked a crisis this year. ► **Right:** Kansas wheat grower Joe Kejr says biotechnology has had a favorable impact on other crops at the expense of wheat.



► **Left:** Potential biotech traits for wheat include improved tolerance to drought and fusarium head blight. ► **Chart:** Wheat acreage has fallen by 30% since a peak in 1980, as growers have shifted production to more profitable biotech crops including corn and soybeans.

biotech companies want to see three things from wheat growers: a durable commitment to the technology, industry-wide acceptance of the technology, and a solution to the "saved seed" problem so their investment can be recouped. "Growers know from producing other biotech crops that they'll have to make a commitment if they want this technology. Part of that will be buying new seed annually, rather than saving their own seed," he says.

The amount of certified seed (seed purchased every year) is increasing, but convincing farmers to replace seed annually remains a challenge in some areas, according to Rob Bruns, general manager of AgriPro. "In the Pacific Northwest, only 10% of acres are planted with saved seed while that's

about 30% in the East. In the Plains states, farmers still plant saved seed on about 75% of the acres, but that's down from a decade ago," he says.

Skogen, who heads up the grassroots group Growers for Biotechnology, says there are many biotechnology traits that could help wheat growers, processors and consumers.

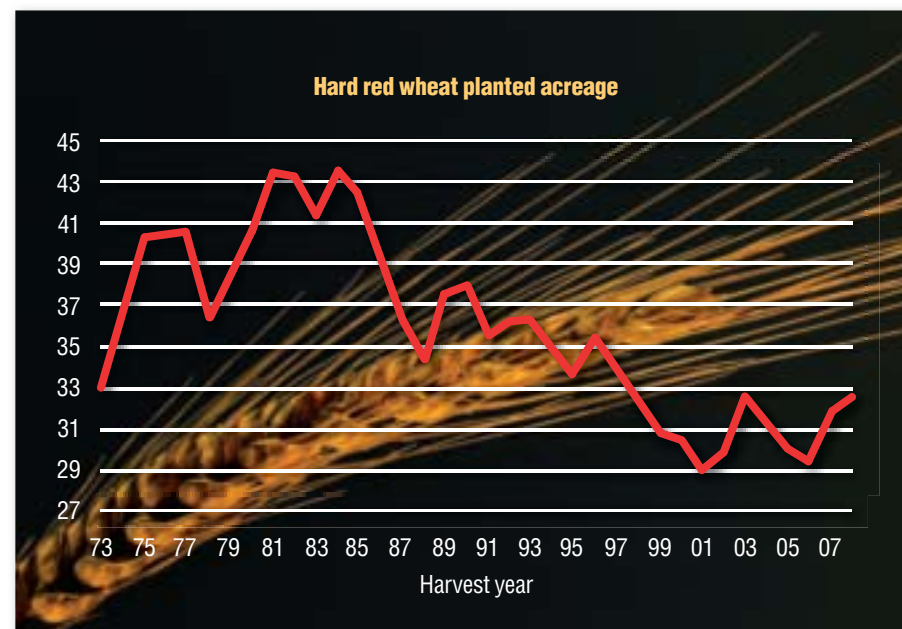
**T**here's potential to develop wheat that's tolerant to drought, high-salt soils, herbicides, and harmful insects and disease," Skogen points out. "And, consumer health traits could enhance the food supply for the world's undernourished."

One trait waiting in the wings is Syngenta's fusarium tolerance, which would provide protection from head

scab, a disease that has caused \$1 billion a year in damage in the U.S. and Canada. Also, researchers in Australia are now in the second year of testing a drought-tolerant biotech wheat that has shown a 20% yield benefit with limited rainfall. With market acceptance, both these traits could be in farmers' hands in five to 10 years.

Syngenta wheat breeder Rollie Sears says wheat growers don't have to wait a decade to improve their lot. "There are several things growers can do right now to make wheat more competitive, and it begins with adjusting their attitude," he says.

"For many, wheat has been a low input crop that didn't receive much attention, but at the prices we've seen recently there are real profit opportu-



nities in proper wheat management," Sears continues. "The true genetic potential of wheat in the Great Plains is 140 bushels per acre, but many farmers get only 40 and even the best get less than 60 bushels. With good management and favorable weather we could be reaching 90 bushel yields."

Sears recommends farmers follow a plan to improve wheat yields that includes regular soil testing and related fertilizer application, careful variety selection, and establishing a yield goal. "Use certified seed and seed treatments, control weeds, and apply nitrogen at a rate of 1.7 pounds per bushel. Avoid planting early and consider using fungicides—an input more likely to provide an economic benefit at today's prices," he adds. ■