



Ways to lay the groundwork to score a bin-building win

THE function of most grain-storage facilities is more than just storage. You need a setup that gets your commodity in and out of containers in a smooth, efficient way.

Before you build, consider visiting several other systems and ask owners what they like about their facility and what they would do differently.

Here are four more pointers as you plan a new or renovated grain-handling facility.

1. Plan for tomorrow.

Before you build, consider both your immediate needs and your long-term needs. If you plop bins here and there without thought, you create significant problems.

Lack of planning is the most common mistake seen by Gene Wiseman in his 28 years with GSI.

2. Plan for good traffic flow.

Allow for large vehicles to move through the facility without backing up. Semitrailers need a turning radius of about 55 feet.

3. Take a look at your site.

Consider any limitations, such as inadequate space, drainage

Key Points

- Lack of planning is the most common mistake in building.
- It pays to plan for immediate and long-term needs.
- Test soils and bore samples before building a big bin.

problems, distance from a good road, poor utility service, etc. Then, ask yourself: Does it make sense to improve my existing facility, or would I be

better off with a new site?

4. Know your soil conditions.

As handling systems grow and larger capacity bins are added, they require more sophisticated foundations to withstand Mother Nature's wrath, says Wiseman. Especially for big bins, you need to understand soil conditions to alleviate settling problems.

Wiseman recommends hiring a company to take boring samples to determine if the soil

conditions can handle the bin you have in mind.

In the past, to prepare a bin site you'd skim the sod off the ground, run a trencher 6 to 8 inches wide and 20 inches deep, pour concrete, and have a floating pad that moves with frost and weather, he says. But when you exceed certain heights, you face differential settlements. You may want to go 90 plus feet sidewall height, but soil conditions will not allow it.



MORE TO STORE: Measuring 132 feet by 400 feet, Akron Services' new Brimfield hoop structure will store a million bushels of corn this fall.

duction capacity for a couple of days. Corn is primarily stored with farmers within a 50-mile radius of the plant.

Other factors exacerbating the need for more storage include a significant boost in corn yields over the past decade due to plant breeding advancements, and identity-preserved markets that create a need to separate grain, says Shuler.

Storage trends

The trend is for grain-handling facilities to keep getting bigger, points out Shuler. While Illinois is seeing little change in the number of facilities to store grain, existing facilities are becoming larger and larger.

Farmers are also moving bins and adding rings to existing bins. But Shuler cautions that these modifications usually don't come with a warranty. "When you take an old tank and modify it or its use, it may add new stresses to the bin, foundation, door, etc.," says Shuler.

Illinois has enough storage capacity for almost 2.5 billion bushels of grain, according to Mike Clark, with the USDA National Agricultural Statistics Service Illinois field office. About half the state's grain-storage capacity is in commercial facilities and half is in farm facilities.

Noting that the state's 2004 record corn crop was 2.1 billion bushels, Clark points out that Illinois has enough storage capacity "to store all the corn we produce." However, that leaves little room for Illinois' 50 billion-bushel annual soybean crop.

Steel yourself for serious sticker-price shock

IF you are in the market for a new grain bin and haven't bought one for a while, get ready for sticker shock. A grain bin costs 30% more than it did a year ago.

Steel prices heavily impact the price of bins, accounting for 80% of the actual cost of producing a bin, says Burl Shuler, general manager of the grain bin division at GSI.

Steel prices went through the roof in 2004, leveled off in 2005, and are on the rise again this year. Breakneck economic development in China and India is putting tremendous pressure on scrap metal and raw material prices.

Prairie City farmer Aaron Blout has experienced the steep hit on steel bin prices. Since 2001, he's put up four 35,000-bushel bins. He just finished the last one. "All are exactly the same," he notes. "The first bin we gave \$27,000 for the metal. The second bin was \$25,000. The new one was \$37,000."

The cost of a 100,000-bushel bin runs from \$1.30 to \$2 per bushel depending on features, according to GSI's Gene Wiseman. In general, the bigger the bin is, the lower the cost per bushel.

Many farmers who tried to buy bins in August met with an unpleasant surprise when they visited their dealer. Demand was so strong this summer that orders on farm bins were backlogged a month or longer.

"It used to take two to three weeks to get a bin," explains Wiseman. "Now it takes four to six weeks."

It won't help you figure out where to put this year's crops, but one of the best times historically to remodel or plan an expansion to your grain-handling systems is right after harvest, says Shuler. Manufacturers have typically offered winter discounts that can range from 6% to 12%.



"A good time to check for price is November through January," adds Shuler.

"I've been here 30 years. That's new ground," he says.

Bigger tanks also lead to larger grain-handling and dryer equipment, along with more chain conveyors and elevator legs to speed up the system. The end result is that farmers get grain in and out much faster, and the equipment treats the commodity much kinder, says Wiseman.

■ Read more about Aaron Blout's bin-building experience on Page 17.

UP, UP AND AWAY: Despite a 30% hike in steel prices, new storage will still pay this year for farmers like Aaron Blout, Prairie City.

Why storage is supersized

JUST as Illinois farms keep getting bigger, so do the structures needed to store those mountains of grain.

Bins are getting bigger, both at commercial elevators and the farm level. The reason is a simple one: economics. Big tanks typically give more bang for the buck, says GSI's Burl Shuler. "Our biggest tank made is a 750,000-bushel vessel. We've had more of those purchased than ever before."

"Some of those larger tanks are going on farms," says Shuler.

Adds GSI's Gene Wiseman: "It used to be a 50,000-bushel bin was big. It's not unusual for farmers today to put up 100,000- to 250,000-bushel bins." Shuler has seen a few farms add bins in the 400,000- to 500,000-bushel range.

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