

GRAIN HANDLING AND STORAGE AROUND THE FARM

A SPECIAL FEATURE OF THE WESTERN PRODUCER | E-MAIL: NEWSROOM@PRODUCER.COM | 306-665-3538 | EDITOR: MICHAEL ROBIN

Who controls your crop, you or Ma Nature?

Ten steps to consider when dealing with tough grain

BY RON LYSENG
WINNIPEG BUREAU

It's a short growing season for most producers. To top it off, harvest will be a challenge, with the prospect of large loads of tough grain that will need attention.

Some farmers already know how they're going to handle high-moisture grain this year. The first part of the solution is enough bin capacity to allow strategic blending with different moisture percentages, according to Dave Wall of Wall Grain.

Wall has been in the bin business 40 years and has done thousands of installations across the Prairies. Nearly all this work is compressed into a four-month work window. Years like this are even worse: farmers who want to spend time improving their bin yard infrastructure are busy farming.

"Seeding is the number one priority, of course. Seeding, along with load restrictions prevent gravel being hauled to the worksite. And we sometimes need hundreds and hundreds of yards of gravel," said Wall, in a recent phone interview, adding that spraying is the next necessary time factor that postpones gravel and concrete work.

It's often July before a farmer turns his attention to the new bins he expects to fill with grain in September. Wall said only 20 percent of customers get their gravel and concrete in place in advance. The other 80 percent go on the waiting list.

Customers who made their commitment last year and signed their contracts are realizing a double benefit. Not only are they ahead on the project but the old price is locked in. New projects in 2022 cost 30 to 40 percent more than last year.

"In a year like this with high commodity prices, it's easy for a farmer to pencil out how much money he can lose if high moisture levels impact the quality. In years with high commodity prices, (return on investment) on



With cereals more than \$10 a bushel and canola more than \$20 a bushel, bankers are beginning to see the value in extra bin capacity, even though there's often a lot of air space in the tops of those bins. They may never be full up, but extra space gives the grower the opportunity to turn grain and blend grain. | WALL GRAIN PHOTOS

grain handling systems can be a couple years or even months in some cases. There's a growing awareness of the importance of a good system for drying and handling tough grain.

"And I expect this will be a year with plenty of high-moisture grain. A lot of the crop is late getting into the ground. That means a compressed growing season, so grain will be coming off tough.

Some growers will try to push harvest later and later into the fall to try coax some maturity out of it. But guys, when you do that, you dramatically increase the risk being hit by our typical fall rains,

frost, hail or a blizzard. "Just the opposite of the late harvest strategy, more farmers are trying to reduce those risks

CONTINUED ON NEXT PAGE »

ARE YOU TIRED OF DEALING WITH THE HASSLE OF PRE-CLEANING YOUR GRAIN?

SIMPLE SCREEN
Grain Cleaning Made Simple

How about the endless hours of auger and cleaner setup usually required just to get some pesky weeds out of your crop. The Simple Screen is the solution to a problem that has bothered farmers for decades! Its design fits onto most 10" swing out augers.

Original Simple Screen



This is a Simple Screen transfer auger. It gives you the Simple Screen experience without committing to one specific auger!

www.simplescreengraincleaning.ca | simplescreen@icloud.com | 780-285-2185



» CONTINUED FROM PREVIOUS PAGE

by starting harvest early. Get the grain off the field as quickly as possible to reduce risks. Your grain is not in your control when it's in the hands of Mother Nature. It's not under your control until it's in the bin. Then you're in charge. Always, in any year, combine as soon as possible to avoid falling numbers."

Even with all the bins that have been installed in the past 10 years, most farmers lack capacity to move grain around and manage that crop for peak grade and maximum protection, Wall said. Extra capacity is needed if you practice fast dry. Too many people still think of a grain bin as a place where you store grain. A bin should be thought of as a farm implement much like a combine or a tractor.

Drawing on his 40 years in the bin business, Wall has developed a 10-step strategy that guides a grower in planning and implementing a bin yard to deal with high moisture. He ranks the 10 steps from one to 10, starting with the least costly projects.

Use blending to your advantage. You can over dry with your existing dryer and blend it now or store for a year and blend with next year's crop. Or you may have fusarium in durum. If you have the bin space, you can isolate that crop and blend it next year when you get a better crop. Many growers make a deal with their terminal. They blend the crop on the farm so the terminal manager knows what's coming and how he can use it in putting together a train.

With more than 40 years experience in designing grain handling systems across the Prairies, Dave Wall still takes a hands-on approach to dealing with customers. He has developed a 10-point outline to guide farmers in their efforts to manage tough grain. Step No. 1 is the least costly method. At the other end, No. 10 is the most costly, but it gives the grower the best odds of risk reduction in dealing with tough grain.

Your grain is not in your control when it's in the hands of Mother Nature. It's not under your control until it's in the bin. Then you're in charge.

DAVE WALL
WALL GRAIN

Lots of extra bin capacity sounds logical, but many farm operations have trouble paying for the minimum number of bins they need just to store crop. Borrowing to add extra bins beyond that is often seen as unaffordable.

But it may be time to change that thinking.

"Bankers are slowly coming around to see the logic," Wall said. "If a farmer has a 30,000-bushel bin of canola, that's three-quarters of a million dollars that needs to be protected. I don't think bankers have caught on yet to the value of grain we have in storage nowadays. Some of this grain is worth two or three times what they were three years ago."

Store grain in bins with air. Wall advised growers to combine and bin the crop regardless of condition. Harvest at 18 percent as quickly as possible. He said we now have the technology to safely store wet grain. We can automate it or keep track of it manually ourselves.

"People don't comprehend how long they can hold 18 percent cereals or 13 percent canola," he said. "You need flat bins with good air. We have all

the technology in our smart phones to safely store canola at 13 percent. If you cool it down to 5 C you can store it five months. But it's risky in a hopper bin. A hopper bin will have pockets of canola that remain 13 percent because they don't get air. So, you need to core those hoppers.

"But even with big bins, producers reduce the odds of isolated pockets by coring. They take out four or five semi loads and put it in another bin. Or sometimes we have to sacrifice a little on price if we don't have enough bin capacity to manage all the crop. If we're all jammed up, we may have to ship some to the terminal."

Dryeration works. Use it. The warmer you take grain off the field; the more moisture points you remove as it cools. Canola taken off at 25 C and nine percent moisture often gets shipped out at six or seven percent. Cooling grain removes moisture.

Taking grain hot out of the dryer then immediately cooling it in the bin is also a form of dryeration. This may create condensation in cooling bins so make sure you have adequate roof vents or roof fans to reduce dripping.

"Sometimes a grower has a dryer that's too small, in which case he can increase the heat and take grain out hot at 16 percent," Wall said. "He then cools it and subsequently takes out two points with dryeration. This also lowers the fuel cost. Temperature has to be brought down in a cooling bin. He can also over dry and then blend the grain.

CONTINUED ON NEXT PAGE »

1.800.661.2851

Sales@Foremost.ca

TOUGH STORAGE

FOREMOST

AGRICULTURE

FOR EVERY SEASON

FULLY CONSTRUCTED OF HEAVY 10 & 12 GAUGE STEEL

7" SIGHT GLASSES LARGEST IN THE INDUSTRY

FORCEAIR 360

PATENTED AERATION SYSTEM

✓ **GRAIN**

✓ **FERTILIZER**

✓ **HYBRID**

PATENTED HOPPERS WITHOUT RADIAL BARS IN YOUR WAY

Find your local Foremost dealer today at **WWW.AGBINS.CA**

» CONTINUED FROM PREVIOUS PAGE

"As you cool the grain, it has a longer storage time. I've had guys cool it down to 2 to 3 C then they ship it next spring."

Natural air drying simply uses bins with fans but no burners or trips through the dryer. You may have to build more bins to store tough grain. You may also need to upgrade existing fans or double them. On large bins with flat floors, Wall often installs a second fan. The second fan is placed opposite the unload U-trough on the other side of the bin.

Bag it. Wall said you can put 18 percent grain in a bag and because it's sealed, it won't go bad for three months. Some producers are running so many combines, that bagging in the field is the only option. Bin storage costs \$2.50 a bushel. Bag storage costs 30 to 40 cents a bushel. There are thousands of bags on the Prairies every year, especially in western Saskatchewan.

"I've had guys leave it in the bag until spring but that's not advisable," Wall said. "You've got vandalism, birds, mice, rats — all kinds of wildlife wanting to eat that grain. The worst ones can be quads and snowmobile guys. They'll ride along the length of a bag with a knife or something and rip the whole bag open end to end. The longer you leave the bag, the more likely to have a problem."

One other negative aspect of bagging is the temperature can be -38C when it comes time to unload. It's tempting to stay in the shop in those conditions.

If your existing dryer isn't adequate to handle a large volume of tough crop, your grain terminal typically has excess capacity and some farming operations have enough extra capacity for custom drying. Wall said cost depends on the situation. Expect to pay 20 cents per bushel if the grain isn't too tough, up 80 cents if there's a lot of water to be removed. He pointed out that even 40 to 80 cents per bushel is a smart expenditure if cereals are selling at more than \$10 a bushel and canola more than \$22.

"Items five and six on my list are what I call my Band Aid solutions," he said. "They're not the best way to deal with tough grain, but you do what you can to save the day."

"One to five are very cost-effective ways to handle tough grain. When we do items seven to 10, that's when we're making real progress in protecting your grain. That's where you need a long-term investment to dry grain. You don't want to trust Mother Nature with your crop, do you?"

Add burners and bigger fans to existing flat floor bins. Flat bins with full floor aeration can dry grain six times faster if proper fans and burners are installed. He called this process fast dry. Wall said 80 percent of large acre farms already have flat floor bins. He adds that hopper bins are not as effective as flat bins.

"If you have a bin with \$2 million worth of canola, you don't want to skimp on fans. That's when a guy realizes he better put on a second fan and maybe make both of them oversized just to be safe."

He said they usually put the second fan on the opposite side of the

bin, opposite the unload port so air enters from both sides of the U-trough and any concerns about structural integrity caused by the extra hole in the side disappeared 20 years ago. The engineering that goes into modern bins is evolved, plus bins now have stiffeners that carry the load around the new hole. About 60-80 percent of farmers now order bins with stiffeners.

Add wet hopper or flat bins to your existing dryer setup.

Build more bins to do a combination of some of the above methods.

Build a dryer. "Farmers have had dryers for 30 years and some of them still use their 30-year-old dryer," Wall said. "But those old dryers are too small. They're too slow. Every farm has an existing plan in place that they've been adding to for years. So, our challenge is to design a dryer that fits into their existing setup and accounts for future expansion."

"When you install a dryer, you're going to be moving a lot of grain. Move it into the wet bin and move it away from the dryer. There are many ways to do that. But now we're getting into grain handling systems."

Augers and trucks aren't enough for this job

A new dryer won't necessarily fit in close to your lineup of bins. Moving all that product around the yard with augers and semis just isn't practical. It's labour intensive. A handling system becomes a necessity. Wall said more than half the farmers who upgrade opt for a Walinga pneumatic grain-moving system.

"You can bring in a new dryer for \$100,000 to \$150,000. It'll dry 500 to 1,000 bushels per hour. Put a Walinga blower behind it for \$100,000 and you can blow grain 400 to 500 feet. But as you go past 400 feet you reduce the volume of grain it can blow."

"Most dryers today drop straight into the blower system. Our smart technology can slow down and speed up according to the load, so you're not wasting power or causing excess wear on the components. The blower only runs as fast as it needs to get the job done. On any new system, all controls are automated. It's like a cookie cutter the way it all fits together."

Wall said in most cases the dryer may not be fully operational until after harvest because plumbers, electricians and contractors are busy installing other farmer's new bins. The closer you are to the top of the list, the better your odds of getting your work done before winter.

"Supply and demand also applies to the supply chain feeding our industry. Most dryers today, like everything else, rely on chips. Without the chip, controls won't function. If any of these obstacles get in your way, you may have to revert back to a combination of items one through six," Wall said.

"By the end of August, I know I'll be deluged with calls about fans, burners, dryers, and endless questions about how they can get through the harvest. I hope it will turn sunny and dry come harvest time."

ron.lyseng@producer.com

Consider power demands when system expands

BY RON LYSENG
WINNIPEG BUREAU

Single phase power won't do much to power a modern grain-handling system but the cost to bring three-phase to the bin yard ranges from \$200,000 to \$1 million.

It might make sense to buy a used three-phase genset from the oilpatch. The most common is a 440-volt three-phase unit delivering 100 kW up to 300 kW. A low-hour genset sells for about \$30,000. Some equipment dealers across all three prairie provinces buy them to keep in stock for farmers who might need one in a hurry.

A common scenario sees a grower expand his grain-handling system with

CONTINUED ON NEXT PAGE »

BRENT

BRENT EQUIP.COM

AVALANCHE

GRAIN HANDLING PRODUCTS

Bigger. Faster. Better.

Built to handle the largest farming operations, the **Brent® Avalanche® 96-Series** dual-auger grain carts are our most powerful yet, and feature our trademark pivoting unloading auger and a directional downspout to discharge grain straight down during the unloading process. The result is a bigger, faster grain cart designed to handle your harvest with maximum efficiency.

Visit BrentEquip.com or see your nearest dealer for more information.

UNVERFERTH MANUFACTURING CO., INC. | P.O. Box 357 • Kalida, OH 45853 • unverferth.com