



RBS Harvest Seeder mounted on soybean head.

## One Pass Cover Crop Seeding And Harvesting

Get one-pass precision cover crop seed distribution while harvesting with the Harvest Seeder from Red Barn Solutions. The combine-mounted Montag Gen II 2108 air seeder distributes seed evenly under the corn snout or across the soybean head ahead of crop residue. The company's system was the result of a neighbor's request.

"Our neighbor wanted to seed his cover crops while combining but didn't want to go the spreader route and distribute seed out the back," says Dan Puck, Red Barn Solutions. "We considered the Stauffer unit and Montag. We went with Montag, but our mount could handle either one."

Puck explains that they felt the Montag was more horsepower-efficient, and the metering augers were more consistent than Stauffer's venturi style.

"The Montag Gen II 2108 holds about 60 bushels," says Puck. "That would seed about 50 lbs. per acre and cover about 50 acres between fills. At a quarter or half a bushel per acre, it would do a lot more."

Red Barn's first unit was installed on the neighbor's soybean header for the fall of 2022. A second one was completed for a Montag dealer that year and a third was completed for field testing by the Missouri Soybean Association this fall. All are

compatible with Deere S Series combines with corn and bean heads.

Mounting the Montag to the combine was the biggest challenge Puck faced. An ISO plug was added to accommodate a Raven rate controller. A mounting post was bolted to the axle. This required the passenger step to be rebuilt.

"The Montag Harvest Seeder post mount allows it to be pulled away from the combine for needed repair or servicing," says Puck. "We considered using combine hydraulics to power the Montag, but there wasn't a good point to draw oil from, and we wanted to avoid possible warranty problems."

Instead, he machined a new pulley for the combine to power a fully enclosed hydraulic system. It has a flow rate of 18 to 20 gpm at 2000 to 2,500 rpm's. Puck notes that the system uses about 10 hp.

For the neighbor's unit, Puck ran hoses from the Harvest Seeder to the soybean header using quick disconnect couplers. He used stainless steel splitters under the head with one hose to each of four drops. Deflector shields or pans under the header, including under the center lift cylinder, scatter the seed for even distribution.

"It takes two guys about a day to mount the system and the same to install the deflector shields on the back of the combine header," says Puck. "The more elaborate the head, the

more time it takes."

Mounting the Harvest Seeder to a corn head is more involved. Steel tubing runs under each snout, so seed is dropped before the snapping rolls drop stalk residue.

"We're shooting for the best soil/seed contact before the trash settles," says Puck. "Our Iowa testing included a cover crop mix of oats, turnips, and radishes following soybeans."

He's now working with other applications, including installing the system on a Deggelman header. Puck would also consider putting a unit on a tillage tool.

Red Barn Solutions is displaying the system at various farm shows throughout the off-season. Distribution to date has been limited, but Puck hopes to market the system through the Montag dealer network.

"The base unit for most heads costs about \$10,000," says Puck. "The price for the entire system is around \$75,000 to \$80,000, depending on options."

Contact: FARM SHOW Followup, Red Barn Solutions, 1130 100th St., Manning, Iowa 51455 (ph 712-790-9587; danpuck@red-barn.com; www.harvestseeder.com) or Montag Manufacturing, 3816 461st Ave., Emmetsburg, Iowa 50536 (ph 712-517-2775; info@montagmfg.com; www.montagmfg.com).

AIE developed the EconoDri cabinet that blends the VAL6 heat with ambient air, reducing humidity in the air by as much as 50 percent before it's pulled into the bin by the bin fan.



## Using Radiant Heat To Dry Grain

The EconoDri Grain Transition/VAL6 combo uses radiant heat to dry grain. The dry air is gentle on the grain, producing a higher quality feed grain, suggests Jim Zoucha, Ag & Industrial Equipment (AIE). It also turns aeration bins into more effective grain driers.

"We've sold VAL 6 radiant space heaters for almost 15 years and have experimented with them, due to how clean they operate," says Zoucha.

Experiments included using radiant heat instead of propane combustion heat to dry grain. "A high percentage of grain in this country is dried with propane burner rings," says Zoucha. "Very few people realize how much water is in the propane. People get in the bin, and their glasses fog up. They think it's moisture from the grain, but it's the moisture from the propane."

He explains that high humidity propane heat sweats the moisture out of grain, carrying with it nutrients and oils. By contrast, low humidity radiant heat, when passed through the grain, pulls out moisture, leaving the nutrients and oils behind.

"People who dry grain this way say it has better feed quality," says Zoucha. "They tell us consumption and rate of gain go up."

He notes that aeration bins with their high-

power fans, work well during the dry air part of the day. However, that's countered as humidity rises and earlier drying is undone.

What was needed was a way to safely direct the dry radiant heat produced by the diesel-fueled combustion burner into the bin to extend the drying day. His company developed the EconoDri cabinet that blends the VAL6 heat with ambient air, reducing humidity in the air by as much as 50 percent before it's pulled into the bin by the bin fan.

While three models of the VAL6 are designed to run on diesel, AIE also sells a propane-fueled radiant heater. Zoucha suggests the radiant panel scorches the moisture out of the propane-fueled heat.

The EconoDri cabinet comes in multiple models, allowing the use of one, two, or three VAL6 radiant heaters. Base prices for EconoDri/VAL6 combos start at \$1,895.

"When not drying grain, simply remove the VAL6 and use it for other types of radiant heating," says Zoucha.

Contact: FARM SHOW Followup, Ag & Industrial Equipment, P.O. Box 318, Orchard, Neb. 68764 (ph 402-893-4745; toll-free 800-846-5157; aiequipment@hotmail.com; www.agueaters.com).



"The chopper placement lets it chop the stalk as it comes through the corn header. The stalk is sucked to the top of the rolls without beating the kernels off the cob," says Moran.

## Corn Header Reduces Shelling And Wear

Fantini corn header choppers shut off fast. Make a quarter-turn on one bolt per gearbox, and the chopper is on or off.

"It only takes 5 to 10 min. for the entire header with just one wrench," says Lee Moran, Fantini North America. "A lot of corn header choppers have to be taken apart. Ours require less maintenance and run easier. They take less horsepower and less fuel."

Moran describes a field trial with a Fantini corn header and a competitive brand. "We ran a mile an hour faster," he says.

According to Moran, chopper shut-off is only one of the features that makes Fantini stand out. He points to the ability to adjust stripper plates for the stalk size from the cab. Another is reduced kernel loss.

"You won't see hardly any kernels in the auger," says Moran. "The chopper placement lets it chop the stalk as it comes through the corn header. The stalk is sucked to the top of the rolls without beating the kernels off the cob."

Kernel loss is also reduced due to the ability to time the corn header gearbox to the

combine. Shelling occurs when over speeding slams the cob into the deck plate, and kernels drop through the row units.

"This is a feature other corn header makers don't offer," says Moran. "It greatly reduces shelling and excessive wear."

Timing the gearbox eliminates over speeding and butt shelling of the cob and the need for added brushes or other devices to retain kernels.

"Timing virtually eliminates the problem," says Moran.

Moran points to the 4-year warranty on gearboxes and drivelines as another unique feature of Fantini.

Fantini 8-row corn headers are priced at \$114,900 with choppers. An adapter plate for use on a second combine make is available for \$2,500. Fantini also makes headers for sunflowers and milo.

Contact: FARM SHOW Followup, Fantini North America, 15526 90th St. NE, Drayton, N.D. 58225 (ph 800-454-3875; fantinina@hamiltonsystemsinc.com; www.fantini-na.com).