

Low-Cost Seed Cleaner Has No Moving Parts

"It does the job of a \$10,000 seed cleaner but cost less than \$100 to build," says Robert Lundgren, Elgin, Texas, who built a seed cleaner with no moving parts by using chaffers and sieves from old Deere combines.

Lundgren salvaged parts from Deere 6600, 7700, and 7720 combines, mounting the chaffers and sieves inside an 8-ft. tall, 4-ft. square housing made out of 3/4in. plywood. Three chaffers and a sieve are set at a 65 degree angle, slanting from the rear of the box to the front. The three chaffers are mounted one above the other with about a foot between them. The top and bottom chaffers are covered with hardware cloth. The sieve is mounted 8 in. under the bottom chaffer.

Grain is augered into the top of the seed cleaner. Large and medium-sized trash is caught by the chaffers and drops into two 6-in. wide gutters across the front of the cleaner that deliver trash to the rear of the cleaner. Fines and dust particles fall through the sieve and slide down a chute and into the trash-catcher at rear. Clean grain comes off the bottom of the sieve at the front of the box.

"It's cost-free to operate. The speed of the grain itself provides the cleaning power," says Lundgren, who built the seed cleaner two years ago. "Gravity cleans the crop and also aids in self-cleaning the screens. I use trash and fines for hog feed.

"I got the idea two years ago while oper-

ating my combine. I needed a grain cleaner because the quality of my milo and corn was poor due to drought. I had a chicken feed business and my customers wanted high quality grain.

"My home-built seed cleaner has worked exactly like I thought it would. I've used it on corn, wheat, and ryegrass seed, but it works best on larger grain like corn. Milo flows over the chaffers and sieves so fast that they don't catch as high of a percentage of the trash. I use the same control levers that were on the combine to adjust the angle of the chaffers and sieves so I can vary settings as needed to catch as much trash as possible without losing grain. The hardware cloth across the chaffers slows down the grain for better cleaning action. The 1/2in. hardware cloth on the top chaffer also removes corn cobs while the 3/8-in. cloth on the bottom chaffer catches small stems that fall through the top two chaffers."

Because he bags the clean grain as it comes out, Lundgren built the cleaner relatívely small and he runs it at a rate of only about 100 bu. per hour, which he says is a fraction of its potential capacity. He says it could be built to any size by "ganging" chaffers together or by positioning the screens in a zig-zag design that would increase movement of the grain as it flows through the cleaner.

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Baler Belt Keeps Combine Feederhouse From Plugging Up

When sunflower stalks caused the feederhouse conveyor chain on his combine to plug up, Fred Last, Homewood, Manitoba, solved the problem by replacing the original conveyor chain with a chain that's got a round baler belt attached to it.

"The feederhouse conveyor chain on my 1976 New Holland 1500 self-propelled combine moved so slow that sunflower heads and stalks fell between the slats and wrapped around the feederhouse shaft until it quit driving," says Last. "The only way to unplug the conveyor chain was to remove the header which I had to do every 20 acres or so. The baler belt keeps crop material from falling between the slats. I combined 200 acres with it last fall and never plugged up once. I think it would work in any crop where feederhouse plugging could be a problem."

Last removed the rivets from the conveyor chain slats and bolted them to the top of the 16-ft. long, 52-in. wide belt, putting the chain below the belt. He used finishing bolts, inserting them from the bottom up through the belt, then tightened the nuts down on top of the slats. "There wasn't room for a wrench to tighten the nuts on the last few bolts where the belt ends joined together so I had to weld the bolts to the chain to hold them in place," says Last. "It was a tricky job. I used an old conveyor chain so I could keep the original conveyor chain in top condition for combining small grain because it does a better job of pulling bunched-up grain apart."

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Cross Auger Makes Grain Unloading Easy

A permanently mounted cross auger on the back of a fifth wheel grain wagon makes unloading into auger hoppers easy for Illinois farmer Milo Zehr, who farms near Fisher.

"We've always had a hard time backing our 5th wheel trailer up to the unloading auger by our grain bins, especially since we had to back around a tree.

"I mounted this short cross auger on the back of the trailer so I could just drive alongside the auger hopper to unload. The auger is driven with a hydraulic orbit motor powered by the tractor that drives the grain auger. There are two quick couplers on the cross auger that the hoses from the tractor can quickly hook to. A control valve lets you vary unloading speed.

"The cross auger is designed with a drop down lid directly behind the endgate which folds down forward to cover the auger when we need to unload out the back of the trailer at the elevator. Grain just slides over the top of the auger.

"This idea has really worked out great for me, saving a lot of time and aggravation. I've used it for over three years."

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Fifth Wheel Hay Trailer

Commercial hay producer George Hayes of Schuylerville, N.Y., needed a 5th wheel hay trailer that he could haul over the road to customers but he didn't see anything on the market that he liked or could justify so he decided to build his own.

The entire front end of his home-built rig - including the gooseneck hitch and jack - came off a junked 32-ft. horse trailer. He attached the hitch to a pair of heavy I-beams from an old mobile home. He narrowed the triple axle (also off the mobile home) to 8 ft. to be road legal. "I designed the trailer frame so it would accept an existing 20 by 8-ft. treated wood rack that I already had on a straight truck bed. The trailer holds 250 bales of hay and I can tow it with a 1984 F-350 4-WD Ford diesel pickup. Total cost was just \$500 and I was able to register it with the existing registration and certificate of title from the horse trailer," says Hayes.

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