



“Crust-Busting” Cultivator Fitted With No-Till Coulters

“You could see the difference in my corn within 24 hours. It had turned from yellow to green,” says Stan Shrock about results he got with a “crust buster” he built by mounting no-till coulters instead of shanks on a row-crop cultivator.

The problem was his Tampico, Ill., farm received heavy rainfall early in the season followed by a hot dry spell, turning his soil hard as a rock.

“You couldn’t get through fields with a conventional cultivator let alone a rotary hoe,” he says. “So I came up with a crust-busting cultivator that gets a few weeds but most importantly breaks up the soil crust to aerate it. I used it on 400 acres of corn that was 6 to 8 in. tall and got a 9 bu. per acre yield increase with just one pass over a round I left uncultivated for a check strip.”

The rig consists of an R 12 Deere cul-

tivator with 4-in. sq. toolbar. He bought twenty-two 21-in. dia. Yetter no-till fluted coulters from an ag supply store. He removed the cultivator’s shovel shanks and clamped the coulters in their place, two per row on outside rows and three per row on inside rows.

“They slid right on because the shanks are basically the same size,” he says. “It was really simple.”

He added 10 Deere tractor suitcase weights to the back of the cultivator to help it penetrate the hard soil.

“It penetrated 2 to 2 1/2 in. deep, shattering soil into fist-size pieces diagonally toward the stalks,” he says. “I pulled it with a Deere 4020 at speeds of up to 10 mph.”

Out-of-pocket expense was \$2,400.

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Giant Silage Wagons Dump In A Minute

“With a capacity of 100 cu. yds. they hold about 30 cu. yds. more than most semi-truck dump boxes,” says Loren Weaver who built a pair of giant forage wagons that dump out the back in less than two minutes.

“We don’t know of a larger dump wagon on the market,” says the Wooster, Ohio, farmer. “We built them this spring to streamline our silo-filling operation. When we were using trucks we needed three or four men. With the wagons, we’re down to a two-man operation. One drives the chopper and one uses our new 185 hp JCB Fastrac to pull the wagons back to our bunk silos which are up to 20 miles away from some fields. The JCB travels at speeds of up to 40 mph fully loaded.”

The home-built wagons are 30 ft. long by 10 ft. wide by 7 ft. high. The boxes are made of 12 ga. steel with the framework made out of 1/4-in. thick steel. They have heavy-duty, triple axles off semi trailers used to transport automobiles. The axles are equipped with air brakes, as is the Fastrac, for fast stops. They’re fitted with

22.5 by 18 in. flotation tires.

Wagons feature self-opening tailgates that open with chains when they’re raised for dumping. They’re equipped with 50-ton hoists and dumping takes 1 1/2 minutes. “Our Deere 610 self-propelled forage chopper equipped with a 375 hp Cummins diesel pulls them easily on flat ground but has its hands full on hills,” Weaver notes.

After building the first wagon in March, the framework of the second wagon was reinforced with a second thickness of 1/4-in. steel, Weaver says. “The framework underneath has to be extremely stable and we didn’t think one thickness was quite adequate,” he says.

Weaver, who puts up 20,000 to 25,000 tons of silage every year, says he would consider building a few wagons for others if there’s interest. They couldn’t be built for less than \$30,000, he says.

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“Auger Flighting” Manure Pit Agitator

A Minnesota hog producer made his own 2-wheeled manure pit agitator using a length of auger flighting from an old feed mixer-wagon.

“It cost less than \$100,” says Jerry Dick, of Millville.

Dick used a torch to cut off a 1-ft. length of 18-in. dia. auger from the bottom of a Gehl mixer-wagon. He slid the auger section over one end of a 2-in. dia., 20-ft. long steel pipe and welded it on. He then welded a pto coupling to the other end of the pipe. The agitator mounts on an axle made out of a length of 2-in. dia. pipe fitted with 15-in. wheels.

“It stirs the pit up good and runs smooth and quiet,” says Dick, who operates a beef and dairy operation. “It isn’t as aggressive as a commercial manure pit agitator but it does the job. Our 150,000-gal. manure pit is 30 ft. wide, 60 ft. long, and 10 ft. deep. The agitator reaches out far enough to agitate most of the manure. I welded lengths of angle iron together to make a 2-ft. long rectangular frame and bolted it onto the pipe just ahead of the flighting in order to help break up large solid pieces.”

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Plastic-Lined Floor Keeps Flex Head From Plugging

A Minnesota farmer mounted an 18-in. wide poly strip along the entire length of the platform on his 20-ft. Gleaner L2 combine’s flex header.

“It keeps short, tangled, down crops feeding evenly into the auger without plugging. Combine operation is a lot smoother since I made the modification,” says Marvin Boike, of Maynard.

He drilled holes along the front edge of the poly and bolted it down under the guard. The back edge of the poly is bolted to short pieces of 2 by 4’s that raise it up about 3 in. to direct the crop into the auger.

“The poly strip lifts the crop closer to the reel so that it can catch short crop material and dump it into the auger,” says Boike. “The problem is that on a flex header the sickle and reel are positioned farther ahead of the auger than they are on a conventional header. As a result short crop material lays on top of the platform behind the reel and has to build up a couple of inches before it’ll feed into the auger. I got the idea when I had trouble harvesting a short wheat crop. It wouldn’t feed in properly unless I cut



about 1 ft. of straw with the grain. This modification also keeps grassy weeds from hanging up on top of the sicklebar. I’ve found that the poly strip also helps on soybeans, navy beans, etc.

“The problem can also be solved by adding a reel enlargement kit that increases the grain head reel size, but they’re a lot more expensive. I paid only \$20 for my poly strip.”

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Heavy I-Beam Bale Fork

Bobby Abernathy, Casa, Ark., built a big bale fork that hauls two bales at a time and mounts on the 3-pt. of his 65 hp Deere 2555 tractor.

He built the fork last year out of a 9-ft. section of I-beam.

He welded four shafts to the beam, making gussets out of 1/4-in. thick flat steel to handle the weight of his 5 by 5 grass hay bales.

He made a 3-pt. quick-tach system out of a 2-ft. length of 3-in. dia. pipe and flat iron.

“We’ve moved 500 bales with it and it really works slick,” Abernathy says. “It’s twice as fast as carrying a single bale on the



front-end loader.”

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