120-Ft. Combine Sprayer

"With our 120-ft. combine sprayer and a 120-ft. sprayer we built for our tractor two years ago, we can spray a ½ section of land in under 2 hrs.," says Tom Henry, Westhope, N. Dak., who credits his brother Don with the idea for mounting the king-size sprayer on the combine. It helped them avoid the purchase of another tractor to power the second sprayer, which they needed to get their spraying done quickly on days when winds are quiet.

"Our combine sits idle for 9 mos. so it was a good way to get additional use out of it. Also, we needed a sprayer to spray our winter wheat in May while our tractor was tied up seeding spring crops," says Henry.

The combine sprayer is built around a Bish Deere-to-N7 Gleaner header adapter (built by Harvey Bish, Giltner, Neb. 68841,ph 402 849-2261) and mounts directly to the feederhouse just like a combine header. It's locked into the fully raised position to give about a 29-in. boom height for spraying. The sprayer was built so that it can also be mounted on a tractor 3-pt. by hooking a tractor to the front side.

"We carry 500 gal. of water directly in front of the feederhouse so that the loaded weight of the sprayer is about 7,500 lbs., roughly equivalent to that of a 12-row cornhead. In operation, the center section and the tank are carried by the combine and the wings "float" independently on 15-in. car tires supported by two air shocks. A small tire at either end of the boom is in the air most of the time but supports a breakaway section when going through drainage ditches, to keep nozzles out of the dirt," says Henry.



Revolving Chain Makes Low Cost Tillage Tool

By Vern Anderson

Australian farmers who've tried it are sold on the revolving chain, a homemade tillage tool for killing weeds, leveling land, incorporating chemicals, or for "harrowing" newly cleared land that's strewn with roots and rocks.

Generally, a large chain is towed in a big loop behind a field cultivator or other implement. Some farmers, with big fields to cover, simply run up to 100 yards of revolving chain between two tractors. A special hookup attachment at each end of the chain - made of used car or truck wheel hubs allows it to revolve as it's pulled forward. To get more aggressive revolving action, a 8 to 7 ft. long section of spikes can be welded to the chain in the middle area to make it revolve faster. These spikes

should protrude beyond the link for about 2 in.

One farmer I know uses a long chain between two tractors to level and compact the soil after it is sown. This is in addition to a revolving chain used behind his seeder and harrow.

The type chain used is generally large bar link. Individual links are up to 6 to 7 in. long with a bar across the middle and the solid portion being up to 1.25 in. in dia. The length of chain towed behind an implement is approximately 60 to 70% greater than width of the implement itself. Generally, width overall should not exceed 35 to 40 ft. It is better to divide widths over 40 ft. into two or three separate revolving chain spans than to use a single wide loop.



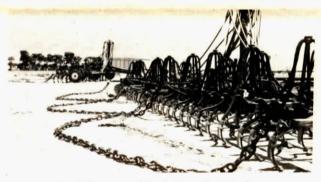
The center sections of the sprayer are built with 5-in. square box wall tubing and the outer 20-ft. of spring-loaded breakaway section from 3-in. square tubing. In transport the inner wings fold back beside the combine and the outer breakaway wings fold back forward for a total road width of 24 ft. The center section is 22 ft. wide and each wing is 49 ft.

The boom sections of the sprayer are controlled from the cab by electric solenoids. Electrically controlled 23-ft. "cheater" nozzles mount on the end of each wing to spray around edges of fields, fences, and high-line poles. The switches to control these along with the controls for the paper marker, are mounted on the hydrostatic control lever so they never have to remove their hand from the lever.

"We also have two 23-ft. cheater nozzles mounted at the ends of the center section. When we pull into a field we can turn these nozzles on, along with the center boom, and spray approximately 60 ft. for opening up the fields where there is only 40 ft. between the roadway and high-line poles," says Henry.

The 110 flat-fan nozzles on the boom are set up on 30-in. spacing. "Visibility from the combine is excellent. We can see all the nozzles except for four directly in the center of the machine. The Gleaner seems to handle the load better than our Deere 4630 tractor, which is equipped with our other 120-ft. sprayer," says Henry.

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Self-Propelled Rock Picker

"I built this self-propelled rock picker in 1982 and so far it has picked about 700 acres with no problems," says David Wanca, Antigo, Wis.

"The picker was built from an assortment of trucks and machines that I had junked. The front third consists of the frontend of a 1962 Chevrolet 2-ton truck and the rear was built with axles off a 1952 International truck. Both axles drive. The rock picking section in the middle was built from parts of a Lockwood potato harvester. All hydraulics were scrapped from a Lockwood binpiler.

"The driveshaft from the front of the machine to the rear works its way around the digger section with a roller chain drive. 'It's geared down so that top speed is about 20 mph. There's no special transmission. I just use the regular 4-speed that was in the Chevrolet truck. The rock elevator raises at the rear to make room for the dump box to dump.

"Total investment, not counting my labor, was under \$400. Most of that was for some special shafts and bearings I needed. It took about a month to build it and it worked the first time out. The only change I made was to put heavier key stock in the drive shaft sprockets. Most of the rocks in my fields are in piles where our potato harvester dumps them at harvest."

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