REDUCES CROP DAMAGE

Sprayer's "Steerable Hitch" Follows Tractor Tracks

The wheels on this new "steerable hitch" sprayer follow in the tractor tracks at the end of the field, greatly reducing crop damage, says Service Systems Engineering, Jackson, Minn.

The 2-wheeled rig is designed to be pulled behind a planter, cultivator, or toolbar and is equipped with a 1,000-gal. tank and a short gooseneck hitch on front. The back end of the hitch connects to a mechanical linkage that connects to a steering rod. As the tractor pulling the sprayer starts turning at the end of the field, the sprayer wheels turn in the opposite direction and follow right in the tractor tracks instead of cutting to the inside and running over the crop. The steering angle of the wheels can be adjusted at the front end of the tongue by changing the position of a ball inside a slot.

"It knocks down a lot less crop at the end of the field than conventional sprayers," says James Grantz. "The steering system allows it to be used with a much shorter gooseneck tongue than can be used on conventional spray carts. Spray carts equipped with long goosenecks can't be used on hillsides because they 'crab' down the hill and knock down the crop. The short tongue solves that problem.

Note how wheels pivot on "steerable" hitch.

"It works great when used behind a toolbar to sidedress 28% liquid nitrogen. The tank can be replaced with a dry fertilizer box and blower."

Sells for about $5,000.

Contact: FARM SHOW Followup, Service Systems Engineering, Rt. 1, Box 66, Jackson, Minn. 56143 (ph 800 487-9153 or 507 847-2878).

Blower places an 8 to 10-in. layer of straw over lagoon, reducing odor by up to 95 percent.

THROWS CHOPPED STRAW OUT 100 FT. TO FORM A MAT ON TOP OF LAGOON

Bale "Chopper-Blower" Controls Lagoon Odors

"It's the most effective method discovered yet to control odors in lagoons," says Phil Reddekopp, Highline Mfg., about his company's new round straw bale "chopper-blower". It chops and then blows straw up to 100 ft. out onto the surface of lagoons, leaving an 8 to 10-in. layer on top that reduces odors by up to 95 percent.

The "Bale Pro 6800" is a conventional pto-operated round bale processor with a 5-ft. dia. blower bolted to its side. The blower directs chopped material through a directional spout that swivels 320 degrees horizontally and also up and down. Hydraulic-operated bale forks mounted on the side of the rig load the bale into the processor, eliminating the need for a second tractor.

"The Prairie Agricultural Machinery Institute commissioned us to build the unit. Test results were so positive that we decided to put it on the market," says Reddekopp. "The giant blower operates at 1,000 rpm's and requires a 130 hp or larger tractor. When it's operating it sounds like a jet airplane. A 10-in. thick layer of processed straw on top of a lagoon will control odor for up to three months, eliminating the cost of any other odor treatment. After about six weeks you may have to recover parts of the lagoon, depending on what type of straw you're using. We've found that barley is most effective because it has an oily skin that keeps the straw from getting water-logged and sinking. Eventually the straw settles to the bottom of the lagoon, decomposes, and adds nutrient value to the slurry. Tests show lagoon agitators and pumps equipped with straw choppers can easily pump out the slurry.

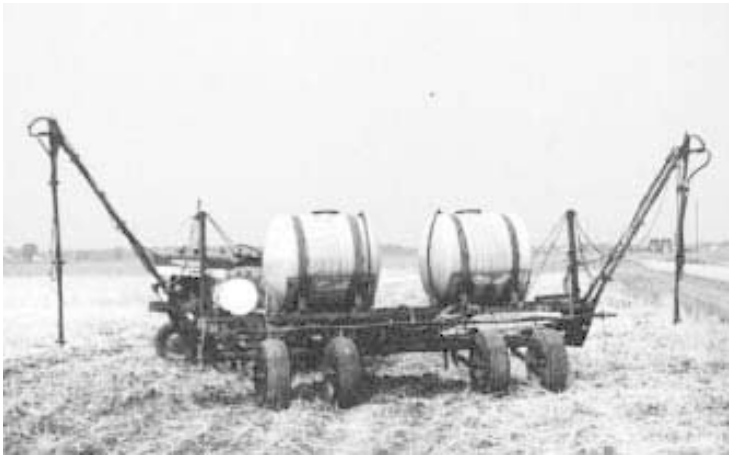
Unit chops and blows straw up to 100 ft. out onto surface of lagoon.

"The machine handles bales up to 6 ft. in diameter. It takes about 5 minutes to chop a bale. A 175 by 600-ft. lagoon requires 80 to 100 bales to create a 10-in. layer of straw so you can cover a large lagoon in one day.

"By unbolting the blower and spout you can use the machine as a conventional bale processor."

Sells for $20,800 U.S.

Contact: FARM SHOW Followup, Highline Mfg. Inc., Box 307, Vonda, Sask., Canada S0K 4N0 (ph 306 258-2233; fax 2010).



Marker arms were converted to spray booms on the home-built rig.

Sprayer Built From Pull-Type IH Planter

Using the frame of an old IH 400 Cyclo pull-type planter and a pair of 30-ft. hydraulic fold markers off an 8-row 36-in. planter, Duane Baker built his own low-cost 45-ft. sprayer.

The planter's 15-ft. frame serves as the center section of the sprayer and the markers serve as the booms.

Baker stripped the 1970s 6-row double frame planter down to the frame and welded a 15-ft. long steel bar behind the frame to hold spray hose and nozzles. The add-on bar mounts behind the planter's four lift assist wheels to keep them from interfering with the spray pattern. To make the folding booms, he removed the discs from the marker arms. He also removed the 3-ft. long round steel rods that supported the discs and replaced them with sq. steel tubing, allowing the full width of the markers to be equipped with nozzles. He clamped the marker arms onto the frame high enough so they're at the same level as the center boom.

A 4-ft. high steel upright, made from 2 by 3-in. tubing, was welded onto each end of the planter frame to support the booms in field position. Steel rods extend from the top of the upright to the planter frame, and lengths of steel cable extend to both booms. A set of 200-gal. saddle tanks was mounted on the planter frame and plumbed to a pto-driven sprayer pump that's mounted directly on the tractor pto shaft. A small rinse tank sits next to one of the tanks.

"It works good and saved me a lot of money," says Baker. "I use my International 340, 30 hp tractor to pull it. I bought new hoses, nozzles, mounting brackets, and a sprayer pump. My total cost was about $1,000. A commercial sprayer of similar capacity would cost $9,000 to $10,000. The key is that I was able to use the existing marker system instead of having to build new booms. I can shut the booms off electronically.

Baker built his sprayer out of a 1970's 6-row double frame Cyclo planter.

"I use the planter's original hydraulic cylinders to raise or lower the sprayer and two more cylinders to raise or lower the markers. I can raise the boom only about 20 in. high compared to about 3 ft. for conventional sprayers. However, the low boom height reduces drift.

"My sprayer causes far less crop damage on my farm than commercial self-propelled flotation sprayers because it follows the wheel tracks made by my 6-row 30 planter and my 15-ft. grain drill. Also, it has narrower tires and is pulled by a small, lightweight tractor."

Contact: FARM SHOW Followup, Duane Baker, Willow Bluff Farms, 1469 E. 1600th Ave., Oblong, Ill. 62449 (ph 618 592-3349).