



The culti-mulcher was originally equipped with two rollers spaced 7 ft. apart with field cultivator shanks in the middle. Ryan removed the shanks and hitch, then moved the rollers in so they're 8 in. apart. Alfalfa seed is delivered between the rollers.

**"LETS ME SEED UP TO 40 ACRES WITHOUT REFILLING"**

## One-Pass Alfalfa Seeder

A 12-ft. gooseneck bridge hitch lets Michael Ryan, Ryan, Iowa, pull a Gandy air seeder behind his 13-ft. grain drill to seed oats and alfalfa in one pass and apply starter fertilizer at the same time.

"It does a super job," says Ryan, who built the machine with the help of brothers John and Pat. "I do a lot of custom seeding of alfalfa and had been using the drill - a 1990 model 450 Deere - to seed both oats and alfalfa. The problem was that the Deere grass seed box is a 40-year-old design that doesn't hold much seed and is not easy or accurate to set. The Gandy air seeder holds 500 lbs. of alfalfa which lets me seed up to 40 acres without refilling with alfalfa. It's easy to calibrate and extremely accurate so I get a better stand. I pull a pair of field rollers from a Dunham Lear culti-mulcher right under the air seeder to help ensure a good stand. The front roller firms the seedbed while the rear roller rolls seed into the soil. Broadcasting the seed instead of drilling it in rows helps control erosion.

"The machine is very easy to maneuver. I use one hydraulic cylinder to raise and lower the rollers and another cylinder to raise and lower the drill. An electric clutch on the air seeder's metering device lets me

shut off seed without having to raise the drive wheel when I turn at the end of the field. I flip a toggle switch in the cab to operate the clutch," says Ryan.

Ryan built the gooseneck hitch from 6-in. channel iron. The air seeder mounts on an angle iron framework above the culti-mulcher rollers and is powered by a hydraulic-driven blower. It delivers alfalfa seed between the rollers through eight hoses spaced 20 in. apart. A flat steel plate at the bottom of each hose scatters the seed. Two 100-gal. tanks mounted over the rollers deliver starter fertilizer to double disc openers on the up-front grain drill. The fertilizer pump and air seeder metering device are operated by a ground-driven wheel.

The bridge hitch arms are attached to a pivot point on the two rollers that allows the rollers to float up and down over rocks. The original dual wheels were mounted on the rear.

Ryan paid \$3,200 for the Gandy air seeder (model 6212) and \$1,000 for the culti-mulcher. Total cost (not counting drill) was less than \$5,000.

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**SHREDS LEAVES, STRAW, STALKS AND OTHER DEBRIS**

## Mower Converted Into Garden Shredder

When a friend of his needed a shredder to chew up garden waste, George Hunt, Westlock, Alberta, turned an old discarded lawn mower into a mulching machine that "worked so well it amazed us all".

"I mounted the mower on its side on a wooden platform with the discharge chute coming out the front. I covered the bottom of the mower with a piece of 12-ga. tin and partially plugged the discharge opening with a 2-in. piece of wood, leaving about a 2-in. opening. I fitted an intake hopper to the bottom of mower so that it enters the mower-shredder just beneath the discharge chute.

"I had to fit a new motor to the mower since the old one was shot. I used the bearings in the old engine block by making a 1-in. shaft to fit through the main bearings on the old block. I made a hub for one end that holds two mower blades, and put a keyway in the other end for a drive pulley. To oil the bearings, I put two old piston rings on the shaft. I filled the engine block



Hunt mounted the mower on its side and fitted an intake hopper to the bottom.

with oil, almost up to the shaft. Rings turning on shaft bring up oil for bearings.

"It shreds very fine with the 2 blades. I believe it would do almost as good a job with just one blade. We've used it for corn and sunflower stalks, and straw and leaves."

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Steinacker fills the cart with the bucket on his Case tractor. He closed in the open front of the bucket, installing a 1-ft. trap door at the bottom that opens by pulling a rope.

**"LETS ME PLANT UP TO 45 ACRES AT A TIME WITHOUT REFILLING"**

## Fertilizer Cart Loads Planter On-The-Go

By Bill Gergen,  
Associate Editor

"It lets me plant up to 45 acres at a time at 250 lbs. per acre without refilling," says Jeff Steinacker, Hortonville, Wis., who loads his 12-row Deere planter "on-the-go" with a 3-ton fertilizer cart he tows behind the planter with a 12-ft. long bridge hitch.

The cart is built on an axle taken from an old Fordson Major tractor. He widened the tractor axle by cutting it in half and then welded in a 10-in. dia., 20-in. length of steel tubing. The tubing is flanged and sealed to hold oil that lubricates the original bearings in the axle.

The bridge hitch supports a pair of 6-in. dia. augers that run from the cart up to the planter.

One auger runs across the top of the bridge hitch and the other runs diagonally down to the bottom of the fertilizer cart. A pair of cross augers are mounted on the planter, one for the left side and one for the right side. Each of the four augers is driven by its own hydraulic motor. To reload the planter with fertilizer, Steinacker simply flips a single hydraulic lever in the tractor cab.

"All four auger motors start up at the same time when I flip the hydraulic lever in the cab. It takes only three minutes to fill the planter with fertilizer. I mounted a two-way spout on the end of the auger running up to the planter. I use an electric controlled

diverter plate mounted inside the spout to direct fertilizer to either side of the planter. When one side of the planter gets full, I flip a two-way switch in the cab to change the position of the diverter. An electric-operated cylinder opens and closes the opening at the bottom of the hopper to control the flow of fertilizer.

"I used 6-in. dia., 1/2-in. thick well casing to build the auger tube and lengths of angle iron to build a truss under the hitch to support the bridge hitch. The bridge hitch is connected solidly to the planter by a big ball hitch. The planter swings under the bridge hitch when I turn at the end of the field."

Steinacker fills the cart with the bucket on his Case 580-B tractor. It holds about 3/4 ton of fertilizer. He closed in the open front of the bucket, installing a 1-ft. trap door at the bottom that opens by pulling a rope. Steinacker fills the bucket from a truck at the end of the field.

He used diamond plate steel salvaged from an old gravel hopper to form the cart's hopper. The axles, tires and wheels were bought from a salvage yard. "The planter and cart are now in their sixth year of use, at about 2,500 acres per year. This year we'll plant about 3,000 acres," notes Steinacker.

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A pair of augers mount on the bridge hitch which runs from the cart up to the planter. Photo shows planter "jackknifed" back under the hitch.