

The 18-in. blade on this home-built sawmill is belt-driven off the same shaft that drives WheelHorse's belly-mounted mower.

## "Made It Myself" Wheel Horse Implements

"Back in 1974 my dad bought a new WheelHorse 120 12 hp. garden tractor, which for years served as the main tractor on our 30-acre farm. To save money, he cut down several old farm implements to use with the tractor. I'm still using some of those implements today, as is my friend Mike Grubb who owns a couple of smaller 8 hp. WheelHorse tractors," says James Byrn, Georgetown, Ind.

Some of the implements include a 3-ft. tandem disk, a single lift hitch combination rake-cultivator, a home-built sawmill, a fifth wheel-mounted wagon, and a single-bottom moldboard plow.

"At the time, WheelHorse made some commercial implements for its tractors. However, whenever my dad needed something he'd build it, even if it cost twice as much to build as the commercial product," says Byrn.

The 18-in. sawmill blade is belt-driven off the same shaft that drives the tractor's belly-mounted mower. "When we were kids, my brother and I helped our dad use the saw to make firewood. My dad and brother fed logs into the saw, and I threw the firewood into a trailer made from an old pickup. We could fill it in 15 min.," says Byrn. "Now Grubb uses the sawmill on his WheeHHorse. The mill's original mounting brackets didn't fit his tractor, so he used 2 by 4's to make a



This 3-ft.tandem disk has a universal joint in the middle, allowing disk's rear gang to follow directly behind front gang on turns.

platform that extends several feet out in front of the tractor and mounted the blade on it. He cuts the wood into 6-in. pieces.

"Dad cut down the disk and installed a universal joint in the middle with wooden bushings, which allows the disk's rear gang to follow directly behind the front gang on turns. He also mounted steel weights on front and back of the disk for better ground penetration."

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## Danish Hogs Thrive On Clover Protein

Experiments at Denmark's Aarhus University have demonstrated that green protein extracted from clover grass and pelletized is an excellent feed product for pigs, improving their health, rate of growth and meat quality. Up to 15 percent clover protein replaced traditional soy-based protein in the trials. Other ingredients included barley, wheat, soya cakes, peas and broad beans.

Dr. Lene Stodkilde of the Animal Science department says clover protein offers huge potential because it secures a protein supply from local farmers to help raise organic pigs. On the environmental side, clover production helps reduce nitrogen leaching and pesticide use.

Stokkilde says that test groups fed 15 percent clover grass protein had a significantly higher meat percentage than the 5 and 10 percent feeding groups. He suggested that's because grass protein has a slightly higher digestibility and a more optimal amino acid composition than soy protein. Meat quality also improved with tests showing a higher level of omega-3 fatty acid content when clover protein was used.

Three companies that comprise BioRefine



Pigs fed a diet that includes protein made from clover grass have done well in tests by Aarhus University.

Denmark produce the clover protein at a drying plant near Varde, Denmark. Raw materials will be supplied by 60 or more producers within a 30 mile radius of the plant. Protein production will begin in 2021.

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Cut-apart grain drill mounts on back of Forde's 8-row, 20-in. CIH Cyclo planter. He uses the setup to seed oats in rows alongside corn and soybeans.

## He Mounted A Grain Drill On Back Of A Corn Planter

Curt Forde, an inventor and innovative thinking Western Wisconsin organic crop farmer, cut apart and modified a Deere grain drill, then mounted the two sections on back of his 8-row, 20-in. CIH 950 Cyclo Planter. He uses the setup to seed oats in rows alongside soybeans and corn, which helps shade growing weeds, controls erosion and provides green manure when it's covered or cultivated under.

To configure his seeding rig for the new planting concept, Forde removed the seed discs, mounting arms, springs and seed tubes from the drill, but left the seed box, meters, end drives and seed drive chains in place. He cut the 10-ft. box in half so he'd have two 5-ft. sections over 4 rows on each half of the planter.

Forde welded two 7-ft. long 2 by 4-in. steel beams to each half of the main planter frame to carry the drill sections. The beams extend above and over the top of the planter row units. Forde mounted the drill boxes facing backwards on the beams with the drive wheels extending down. When he lowers the planter into the ground its wheels press against the grain drill tires to drive the meters. When he raises the planter, the drill meters turn off.

"It works really well," Forde says, adding that "I mounted the drill sections backwards so when the drill tires contact the planter wheels the drill meters are turning in the right direction." He set the grain drill meters at 1 bu. per acre, which seeded about 2/3 bu. per acre as he planted rows of oats on both sides of 8 20-in. rows of corn and soybeans. The lower seeding rate was achieved because he didn't use all the seed tubes on the original drill.

Forde says, "The oats and corn or beans emerge and grow sooner and faster than



When Forde lowers planter to the ground, its wheels press against grain drill tires to drive the seed meters.

the weed seedlings, so they quickly gain a canopy advantage over small weeds. I rotary hoe the corn and beans, preferably two times before and two times after emergence, with the second post-emergence pass when corn and beans are about 4 in. tall."

His first cultivating pass is when the crop is about 5 to 8 in. tall. A second cultivating pass when the crop is slightly taller covers the oats or knocks it down so it's utilized as green manure for the corn and beans. He says another option is to not cover the oats with the second culivation, leaving it to mature and fall down so it creates mulch that conserves soil moisture.

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## **Post Driver Works Without Removing Fence Wire Clips**

LeRoy Momper of Fredonia, Wis., built a simple, time-saving post driver that lets him pound steel fence posts without having to remove the wire clips.

"I came up with the idea because I had about 50 posts that frost had lifted out of the ground," says Momper. "Most commercial post drivers are designed to slide down over the post, which requires removing the wire clips. And even then, the wire is still in the way."

He welded a 2 by 10-in. long solid steel shaft to the upper end of a 32-in. long, 2-in. angle iron that's 1/4 in. thick. He also welded on a 2 1/2-in. half-round piece of pipe just below the shaft. Two lengths of 1/2-in. dia. steel rod were welded onto the angle iron to form handles.

"I guide the post inside the angle iron until it strikes the solid shaft. The half-round piece of pipe welded on below the shaft prevents the post driver from slipping off the post when pounding," says Momper.

He says his post driver works so well that gn



Ron Lanser is shown using Momper's post driver. Top of post slides up and down inside the angle iron, driven by the solid steel shaft at the top.

several other people have asked to use it on their farms, including his friend Ron Lanser.

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