

Don Golden needed to smooth out excavation ruts after building a lake on his property, so he built this 13 by 26-ft. drag out of rectangular steel tubing.



Drag is angled in the front somewhat like a sled. "With four cross pieces it does a good job of leveling," says Golden.

## **Steel Tube Drag Leaves Field Smooth**

Back in 1957, Don Golden watched a West Texas rancher level irrigated land with a homemade drag made out of 14-in. wood beams. This year, he remembered the technique when he needed to find a way to smooth out excavation ruts after building a lake on his Meridian, Texas, property. He built his drag out of steel with 6 by 8-in.

rectangular tubing that had been given to him. He welded the sections together to create a 13-ft. wide by 26-ft. long drag.

"I angled it in the front to make it like a sled," Golden says. With 4 cross pieces it does a good job of leveling land, which is important to Golden and his son, who raise and cut hay.

While it's good at shaving off humps, the drag didn't work so well on sandy ground with a lot of trash, he notes. The debris balled up. The nearly 2-ton drag requires a good size tractor. Golden uses a 125 hp tractor and pulls it with chains from the front two corners hitched to the drag bar.

"This worked like a charm to level land

around the lake," he says. "It makes a wonderful road grader, too,'

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## Pto "Turning Tool" Helps Make Repairs

A Tennessee man says his "turning tool" lets him safely turn the pto on machines without the need for a tractor.

Albert Patterson is a 21-year-old mechanical engineering student at the University of Alabama in Huntsville. He lives on a farm in Taft, Tenn., and works on farm machinery in his spare time.

"Often, when I'm working with machinery like hay balers and haybines with a lot of moving parts, I need just a small bit of movement so I can inspect or adjust something. I have to hook up a tractor or find a helper to turn the machine's flywheel for me while I work. I tried using a crowbar in the joints of the pto shaft but that can cause damage.

"The tool I made allows one person to move any baler, haybine, mower or bush hog requiring up to 50 hp. Almost anyone with basic shop tools can make it for very little money."

The tool attaches to a breaker bar that's about 20 in. long with a 1/2-in. or larger drive, or to a large ratchet socket. It uses the male 540 rpm pto shaft - one that's 6 in. or longer - off a tractor. Patterson inserts the shaft into the socket after grinding down the shaft as needed to fit. Then he welds it in place.

To operate, he inserts the male end of the shaft into the machine's female pto drive until it clicks and then inserts the breaker bar/ ratchet into the socket. "In most cases I can turn the machine's pto with a single hand."

Patterson says he thinks the tool would also help when shopping for farm equipment. "The prospective buyer could see the machine move without needing a tractor,"



"Turning tool" allows one person to turn machine's flywheel without the need for a tractor.

he notes. 38488 (ph 931 425-6535; mechengineeral@ Contact: FARM SHOW Followup, Albert aol.com). Patterson, 1309 Ardmore Hwy., Taft, Tenn,

## **One-Pass Tillage Rig** For Wildlife Food Plots

Lamar Reynolds, Hogansville, Ga., combined

an old 3-pt. mounted, 9-shank chisel plow with a 3-pt. mounted, 8-disc harrow to come up with a one-pass tillage rig. "I use it for planting wildlife food plots.

Even with dry conditions this year, it did a great job," says Reynolds.

The plow was originally 7 ft. wide and the harrow 5 ft. wide. Reynolds removed the 3-pt. hitch from the harrow and bolted it on the back of the plow.

The plow was originally equipped with 5 short shanks in the middle, with 2 longer shanks on each side. Reynolds unbolted the short shanks and moved them up front, then moved the 2 long shanks back on each side of the harrow. Then he used lengths of angle iron to build a brace that extends up to the plow's 3-pt. hitch and welded it between the

two rigs.

"It leaves the ground ready to plant and is a real time saver," says Reynolds. "In the past I always had to plow the ground first and then follow up with a harrow. Now I can plow and harrow at the same time. Since the photos were taken, I mounted a 150-lb. drag bar on back of the rig, which leaves the ground totally smooth. Another advantage is that the two shanks on each side of the harrow eliminate the need to make an overlap on the next pass, which I'd normally have to do with a conventional harrow.

"It didn't cost much to build, either. I paid \$400 apiece for the plow and harrow."

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Lamar Reynolds says his 16-year-old son Michael, shown here. was a lot of help in building this one pass tillage rig. To build the tillage rig Reynolds combined a 3-pt., 9-shank chisel plow with a 3-pt., 8-disc harrow

