



Although obviously not recommended as standard practice, Jack Larson walks beside "driverless" tractor to demonstrate Cultiguide guidance system. Tractor is equipped with single rib front tires which ride in grooves, as shown in drawing below.

Photo Courtesy Ann Toner, Agribusiness, New Ulm Journal

## AUTOMATICALLY STEERS YOUR TRACTOR; STANDARDIZES ROWS FOR CORN HEADS

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# "Groovey" New Way To Plant, Cultivate

A "groovey" new guidance system that's unbelievably simple and reasonably priced will automatically steer your tractor with precision accuracy for planting, drilling, cultivating or spraying while you sit back and relax — at least until you get to the end of the field and have to grab the wheel to turn around.

"Interest has been tremendous," says Minnesota farmer John Clair Larson, of Clements, who teamed up with his son Jack to invent and manufacture the new guidance system called the Cultiguide. "It not only steers the tractor but keeps the cultivator shovels the exact same distance from the row at all times for maximum weed control and minimum crop damage."

Here's how it works:

A pair of identical chisel-type attachments are mounted on the rear of the planter. They're mounted the exact distance apart as the front wheels of the tractor to be used for cultivating. During planting, these "groove-makers" each dig a trench 4 to 5 in. deep.

For cultivating, the front wheels of the tractor are equipped with pointed single-rib tires which ride in the grooves to provide automatic steering. As you cultivate, the rear-mounted, groove-making attachments (taken off the planter) ride in the same pair of grooves. You pull the pins on the 3 pt. hitch, allowing the guides to keep the free-swinging cultivator a uniform distance from the plants at all times. The rear-mounted "groove-makers" also make a fresh pair of tracks to set the stage for the same precision accuracy on the next cultivation.

The complete "package" consists



of two groove-making attachments, mounting brackets for both the planter and cultivator, and two single-rib front tires mounted on rims. In addition to all row-crop planters, the groove-making attachments can be mounted on Tye drills used for planting soybeans or other cultivated crops.

Two significant developments were being finalized as this issue of FARM SHOW went to press:

1. The Larsons were negotiating with Lindsay Brothers Co., headquartered in Minneapolis, Minn., to have their Cultiguide guidance system marketed throughout the midwest. Sales to farmers in other areas of the U.S. will be handled through other distributors or factory-direct, according to the Larsons who have set up their own J & J Guide Systems manufacturing plant in Sanborn, Minn.

2. The Larsons have just introduced the Mark-N-Guide System. It's designed for precision planting, whereas the companion Cultiguide system is for precision cultivation. Individual markers for the right and left side of the planter (or drill) are equipped with two disks. They dig a pair of tracks which the tractor, equipped with single-rib front tires, follows to automatically steer itself with precision accuracy when planting.

Here's a closer look at the two gui-

dance systems for planting and cultivating which can be used together or separately:

### The Mark-N-Guide For Precision Planting

"This is a completely new kind of marker. There's nothing else on the market like it," says Merle Ophaug, vice president of merchandising for Lindsay.

"After we got it running last spring, we had 12 farmer friends over to see it work. They all wanted to buy one without even asking the price," John Clair Larson told FARM SHOW.

The new Mark-N-Guide is similar to the Cultiguide in that it runs two special disks alongside the planter (or drill) which are spaced to match the width of the front tractor wheels. The disks dig 2 in. grooves that hold the tractor's single-ribbed front tires on course to produce almost perfectly spaced rows between passes. The same single-ribbed front tractor tires used for the Cultiguide guidance system for cultivating will work for the double-disk planter marking system.

The Larson's note that even with regular front tires on the tractor, the double-disk marker is a big improvement over conventional markers because the two grooves are much easier to follow than a single scratch running between the wheels.

"This marker is especially good for

the farmer who doesn't have a matched planter and corn head," explains Jack Larson. "For example, he might have a 4-row planter and 6-row corn head, or an 8-row planter and a 6-row corn head. The 'guest rows' have to be straight or you'll lose a lot at harvest. Using the new double-disk marker on our own corn planter last spring, we found less than 1 in. difference in width on those connecting rows," Jack points out.

How can grooves only 2 in. deep hold the tractor and planter in line with almost no manual steering?

"When the grooves or ditches are fresh, it doesn't take much to guide the tractor," answers Jack. "The tracks laid down by the disk markers aren't meant to stand up for cultivation. To get automatic steering for cultivating, you simply mount the Cultiguide groove-making units on the planter."

The frame of the new-style marker is made of 2 in. sq. steel tubing. The two cutting disks mounted on each left and right side marker are a special design. "We tried a tooth-type marker but that wouldn't leave a good enough mark. After several months, we finally perfected this disk pattern and it works great," Jack points out.

He and his father manufacture their new-style marker to fit Deere and International corn planters up to 8-row, and have put together a special unit that fits the Tye drill. Markers to fit other planters and regular grain drills are available on special order.

Cost for a set of markers ranges from \$450 for a 4-row planter, to \$730 for markers to fit the largest Tye drill. Cost includes a hydraulic cylinder