

Lower end of diagonal brace slides freely.

JUST AS STRONG BUT TAKES LESS WORK

Here's A Better Way To Build Fence

Diagonal fence strainers require one less post and only about half the labor to install as conventional horizontal fence strainers, yet provide equal strength and holding power, according to two USDA researchers who've been developing the idea.

Dan McKenzie, San Dimas, Calif., and Bill Currier, who is retired in Albuquerque, New Mexico, are promoting the use of diagonal fence strainers as a way to cut labor and cost without affecting the fence in any way, noting that on high-tensile, smooth-wire fence only one diagonal strainer is needed per corner to replace two horizontal braces.

"Strainers are of even greater importance today because of the necessity of maintaining the complete fence at recommended tension with the use of high-tensile wire," say the researchers, noting that the diagonal design is not new. "It was in use in South Dakota 50 years ago and has been used in eastern Washington state and, to a limited extent, in New Zealand." In using and installing a diagonal brace or strainer, several principles should be kept in mind.

1. Make the diagonal brace as long as possible.

2. Be sure that the end of the diagonal brace in contact with the ground is free to move and is not blocked by a stake or post.

3. The diagonal brace can bear against the corner post in any location from the middle of the post to the top but the best place is to have the brace contact the corner post at the top.

4. The corner post should be set before the diagonal brace is installed. Then, the bottom holding wire should be installed and the fence wires attached and tensioned. This way, the lower brace wire will not have to be twisted to tighten.

5. The diameter of the corner post should be as large as possible.

6. If one diagonal strainer will not hold proper tension, a second diagonal strainer should be installed with each strainer taking half the tension of the fence.

"People have a hard time realizing that the horizontal and vertical braces have the same strength," says McKenzie. "I came up with the idea

INJECTS SHALLOW FOR MAXIMUM CROP BENEFIT

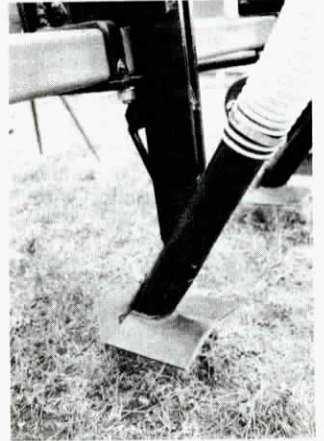
"Duck Foot" Injector For Liquid Manure

"One of the mistakes you can make with liquid manure is to surface apply it without injecting it into the soil. Next worst is to inject it too deep," says engineer Ron Hettinga who has developed a new "duck foot" injector for shallow injection.

Manufactured and marketed by Loyal Equipment, of Guelph, Ont., it's equipped with gauge wheels to maintain a constant depth which is adjustable from 3 to 6 in. "We've discovered that a depth of 4½ in. to 5 in. is ideal for getting maximum crop yield benefit," says Hettinga. "Limited trials indicate we can expect a 10 to 14% boost in corn yields with shallow 4½ in. injection, versus deeper injection of 10 to 12 in."

Loyal Equipment has introduced a 4-shank shallow injector equipped with the new-style "duckfoot" shovels, that fits most gravity or vacuum tanks. It takes a 10 ft. swath, is adjustable for row width, and applies up to 600 gals. (U.S.) per minute at 4½ mph. Requires 5 hp. per shank.

Sells for right at \$4,500 with a hydraulic-driven pump, \$3,000



"Duck foot" injector is ideal for 4 to 5-in. deep injection.

without (Canadian dollars).

For more information, contact: FARM SHOW Followup, Reg Hettinga, Loyal Equipment Ltd., P.O. Box 1616, Guelph, Ont. N1H 6R7 (ph 519 836-9918).

and then discovered it had been used before. But, because it doesn't look as strong, people went to what they thought was a stronger strainer."

McKenzie says it's important to let the lower end of the diagonal strainer "float" freely and not to put a stake or other impediment in front of the end. "If you block the end of the vertical brace in any way it weakens it," he points out. "Also, by making the

diagonal brace and the horizontal strainer as long as possible, the force tending to pull the corner post out of the ground is reduced."

For a copy of a report that details the entire fencing process, contact: FARM SHOW Followup, Dan McKenzie, USDA, San Dimas Equipment Development Center, 444 East Bonita Ave., San Dimas, Calif. 91773 (ph 714 599-1267).

MAKES DITCHES UP TO 3 FT. DEEP

New Ditcher-Terracer Throws A Rain Of Dirt

"There's nothing like it on the market," say the designers of the new 'Hurricane Ditcher' billed as "the affordable way to dig drainage ditches and build terraces using your 100 hp. or larger tractor".

"We developed the Hurricane because we thought there needed to be a better way to dig ditches without requiring all of the heavy equipment that compacts the soil and is costly to operate," says Paul Snyder, Oaktown, Ind., who, along with his partner Bill Maddock, designed the pto-powered ditcher.

"It's great for making shallow and wide ditches to drain wet pockets in fields. You can go through and ditch just about anywhere that you can drive the tractor," says Snyder. "With one pass of the Hurricane, you can

make a ditch 16 in. wide at the bottom, 10 in. deep and 40 in. wide at the top. By going back and forth over the area, you can make the ditch up to 3 ft. deep and as wide as you like."

The Hurricane features a 16-in. wide cutting blade that slices through the soil, cutting it loose. Loose soil is picked up by a spinning 4-ft. dia. impeller with four blades that spit out dirt at the rate of 5 tons per minute. This dirt is thrown out 100 to 150 ft. to the side of the machine. For terracing, an optional shield fits over the discharge so you can direct the dirt where needed.

The four impeller blades throw out smaller rocks, along with the soil. They're equipped with shear bolts for protection against bigger rocks that can't be thrown out.



Ditcher's 16-in. wide blade throws dirt 100 to 150 ft.

The machine can be powered by 540 and 1,000 rpm pto's and can also be equipped with a laser. Sells for right at \$5,000.

For more information, contact:

FARM SHOW Followup, Hurricane Ditcher Co., R.R. 2, Box 133, Oaktown, Ind. 47561 (ph 812 745-5655 or after hours 398-4802).