been real pleased It's well-built and rugged. Our only problem was with the scrapers that were on the disc cutters when we first got the machine. They were too narrow so the company gave us wider ones," says Curtis Keiser, Alcester, S. Dak. "We buy some replacement bearings from Napa or Big A but recently Deere has become quite competitive in bearings."

John Slater, Olin, Iowa, is happy with his 1990 DMI 30-ft. Tigermate field cultivator with coiltine harrow. "It'll field cultivate standing cornstalks with absolutely no plugging. Leaves a nice level seedbed. The cultivator is a true 5 rank machine with 6-in. spacing yet no two shanks are closer than 24 in. apart. I wouldn't change a thing - it's rugged with an excellent design and ease of adjustment and maintenance."

"We haven't made any purchases lately but we've had good luck for 10 years with our Melroe 911 plow. It's built strong and is easy to work on, leaving a nice level soilbed. We have lots of rocks but this plow has held up well. I added on to the landsides to make them thicker and longer. We don't have any problem with the plow pushing on sidehills or in heavy soil," says Gerard Schwab, Strasburg, N. Dak.

"I like the way our Hesston 2310 chisel plow penetrates the soil even in dry conditions. I think it has to do with the shape of the shanks. It's very sturdy with heavy shanks and down pressure springs. It also has good clearance for trash flow. Can't think of any improvements it needs," says Charles Pearson, Aladdin, Wyo.

"Our IH 45-ft. 5500 chisel, which we bought used at an auction, does a good job cultivating and is easy to fold for transport. One thing they could have done to improve it would have been to beef up the walking beams," says Horace A. White, Goldendale, Wash.

Kenton Schroeder, DeWitt, Neb., owns a Case/IH 4800 Vibra Shank field cultivator. "It performs well and has good trash clearance. Stalks do sometimes bunch up in the

harrow but you can easily remedy that by removing one bar of the harrow."

"I'm pleased with my 1990 Sunflower 1610 finishing tool. It performs well in all types of soil and conditions. It's heavy-builtand we've had no upkeep in two years of use. My only complaint would be that it could be made to firm up the soil a little better," says Steve Muse, Troy, Tenn.

"My best buy in tillage is my DMI disk chisel. It's built tough to go through just about any kind of trash or stalks without plugging, even when it's wet. It doesn't pull that hard for the kind of depth we like to run it at," says Craig McKusker, Ladora, Iowa. "My worst buy is a Deere 235 wing fold disk with straight, 9-in. spaced blades. This disk should be sold to a terrace builders, not farmers, because of the ridges it leaves. It won't go in the ground in the fall and you can't level it in the spring. We always had good luck with Deere disks until we bought this machine. I've talked to the dealer but to no avail."

"Our 1989 Deere 630 30-ft. disk does a nice job, leaves field level. The company recalled it to update wing cylinders and to put extra strength pieces on the front part of frame, things they should have done before sending it out to customers. I put harrow adjusters on the harrow behind disk that let trash go through better," says Melvin Simpson, Satanta, Kan.

Arnold Ross, Webber, Kan., likes his 4100 Krause 26-ft. field cultivator. "It's able to handle a lot of stalks or straw without plugging up. Lets us reduce our use of tandem disk. One modification we made was to put extensions on the shovels where tractor tires run to take out the tracks."

"I'm pleased with my 1991 Case/IH #10 5-shank subsoiler. It has a lot of clearance and rarely plugs. I have the shanks set to go between planted rows. I even ripped between com stalks that had just been harvested and it didn't plug. We build the points up so they last longer," says Paul Jurek, Omer, Mich.



Stadler's home-built tillage tool has a row of discs up front, field cultivator shanks in the middle and packer rollers at the back. A 3-section harrow trails behind.

## DISKS, FIELD CULTIVATES AND CULTIPACKS

## He Built His Own One-Pass Tillage Tool

Michigan farmer Ron Stadler wanted to reduce the number of tillage trips he made over his fields in the spring, but he didn't want to spend the money for a new combination tillage tool.

So he designed and built his own onepass implement that lets him disk, field cultivate, and cultipack all in one pass. The "Landmaster-Miser", as Stadler calls it, is designed to be a once-over finishing tool that saves time and fuel and reduces soil compaction.

"I had been going over our fall-plowed ground in the spring with a Deere 110 disk,

## Have you tried any "no till" or "minimum till" methods on your farm?

"We plant nearly all our crops minimum till. We chisel in the fall and make one pass with our Krause disk in the spring," says Tom Slider, Webberville, Mich.

"We have tried no-tilling beans and corn with excellent results, both in cost savings and conservation," says Walter Pittman, Surry, Va.

"Last year was the first time we've tried minimum till wheat after picking corn. So far, it looks good. We have minimum tilled corn for the past 4 years with good results. In fact, this past year we only moldboard plowed sod fields for corn - all others were minimum tilled. Next year I would like to try minimum till soybeans also. With min-till corn we have had much less soil erosion during heavy rains and much less soil crusting when it rains after planting. We also find the fields are firmer in the fall at harvest. All we do is chisel plow corn and soybean stubble, then disk once before planting," says William D. Hutt, Perkiomenville, Penn.

"I've been experimenting with leaving bean stubble alone until spring rather than chisel-plowing in the fall. I generally chop corn stalks in the fall and then run through with my Deere 714 Mulch Tiller. Then in the spring I make a pass with a Deere 960 field cultivator. Both of these min-till methods are working out very well." says James Ferguson, Canby, Minn.

"I spread fertilizer and wheat together on top of fields and then use my Fuerst harrow to incorporate them," says Ralph Kendall, Hagerstown, Ind.

"I have no-tilled corn in sod and soybean ground using a Deutz-Allis 385 planter, which gets the job done well in either no-till or minimum till ground," says Gerald Claussen, Garwin, Iowa.

"Since we switched to complete no-till four years ago, our soybean and wheat yields have been good. Cost of production has dropped, thanks to fuel and labor savings. Soil quality has improved. Worm population has increased. We have sold off our extra tillage equipment because it's all going well," says Wendell Fisher, Nappanee, Ind.

"I have not tried no-till but I have begun

reducing tillage. For example, I have not plowed corn stalks for 10 years. I diskchisel them in the fall. Last fall I tried diagonal disking them just once, covering about 50 percent of the trash and leaving the field fairly level, which will reduce trips in the spring. I'd like to see manufacturers come up with one planter that would plant small grains, corn and beans. One comment: United Farm Tools has a no-till drill that sells for about \$8,000 less than Deere's drill and does a good job. Local farmers in my area tried to sow wheat into corn stalks last fall with their Deere drills and had trouble covering seed," says Wilbur Knipstein, Fort Wayne, Ind.

"I began ridge-till 5 years ago. It takes less field time but considerably more management. I have found soybean yields are lower due to cyst nematodes. Working ground before planting somehow seems to suppress them," says Jim Juon, Stanhope, Iowa.

"We drill alfalfa and grass seed into stubble and make as few passes as possible to get our crops in," says David Dixon, Clyde Park, Mont.

"We are all no-till in beans and are sold on it. In corn we go through once with our Glencoe Soil Finisher and then plant," says Gary Champlin, Mendota, Ill.

"I broadcast fertilizer on bean stubble, field cultivate once, and then plant corn. Then we use banded post-emergence herbicides, which works very well. I would like to try no-till beans with the new Hiniker cultivator-seeder which was featured in the last issue of FARM SHOW," says Mike Hewitt, Walnut Grove, Minn.

"We ridge-till and are very pleased with the savings in soil, fuel, labor and moisture," says Curtis Keiser, Alcester, S. Dak.

"We minimum till with a DMI Colter Champ chisel with 2-in. straight points in standing comstalks in the fall. In spring, we use our DMI Tigermate 30-ft. field cultivator for one pass, then drill soybeans with a 15-ft. Great Plains drill. We go over soybean stubble with one pass of the DMI Tigermate and then plant corn," says John Slater, Olin, Iowa.

then making a second pass with an Oliver field cultivator equipped with a Brillion cultipacker roller," says Stadler. "However, the multiple trips caused soil compaction and I also had trouble with the cultipacker rollers plugging up in sand.

"One day I got an idea. Why not put all of the tillage components together on one implement? I bought a used Deere 210 14-ft. wide heavy disk and removed all of the gangs. I chose the 210 disk because it has a heavy-duty frame that can carry a heavy load over rough ground.

"I mounted a single row of 18-in. dia. disk blades from the Deere 110 disk in front and mounted three rows of field cultivator shanks behind them bolted to lengths of square tubing that I welded across the disk frame. I took apart an old spring tooth drag and mounted one row of teeth directly behind the cultivator teeth. Then I mounted a 14-in. dia. cultipacker roller on the back and attached a 3-section spring-loaded Midwest harrow which trails behind. The cultipacker is mounted on a 12 ft. long piece of round

steel tubing bolted to the disk frame.

"After testing the implement, I discovered that the cultivator teeth had to be spring loaded and spaced further apart so they wouldn't plug up with trash. Now the teeth are 20 in. apart. I also had to reverse the disk blades so they would throw trash inward instead of outward to cause less ridging. I lined up the field cultivator shanks up with the disc blades. The shanks are equipped with 8-in. wide sweeps that level off the soil. The spring drag teeth do additional leveling and also mix up the soil. The cultipacker rolls the soil, breaking up clods, and the harrow feathers it down.

"The disk frame is equipped with a selfleveling system that lets me raise the implement in soft soil or drop it down in normal soil conditions for maximum performance. I pull it with a 100 hp tractor."

Stadler spent less than \$1,000 to build the implement.

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