Tschetter built this low-cost rotary compost sifter by wrapping 1/2-in. hardware cloth onto the mixing drum of an old pull-type concrete mixer.

"Made-It-Myself" Rotary Compost Sifter

"I used the mixing drum on an old pull-type concrete mixer to build a low-cost rotary compost sifter. Works great," says Quinton Tschetter, Oskaloosa, Iowa.

"I store the compost in one of the hoop houses we use to grow flowers and vegetables for sale. It stays dry and is always ready to use when we need it."

He used 1/2-in. rerod to weld together a cylinder-shaped frame and wrapped 1/2-in. hardware cloth around it. Then he bolted a round steel plate over the open end of the mixer drum and attached the frame to it. A long handle is used to tip the drum from sifting to dumping position. The drum is rotated by a 1/2 hp. electric motor mounted on back of the mixer.

"I set the drum at a 45-degree angle over a wheelbarrow and dump the sifted compost into it, or just let the compost pile up on the floor and use my loader to pick it up. Once the wheelbarrow is full, I dump the load into a hoop house or one of the raised garden beds in our back yard," says Tschetter. "I use a garden tractor to move the cement mixer around, although it came equipped with a handle so it also can be moved by hand. I tip the mixer in the opposite direction in order to dump out any chunks of compost that don't get sifted," notes Tschetter.

Contact: FARM SHOW Followup, Quinton Tschetter, 2379 Hwy. 92, Oskaloosa, Iowa 52577 (ph 641 660-9765; Qct1944@gmail.com).

Dennis Willingham makes quality saddle bags and other tack for working goats.

Company Specializes In Tack For Goats

When you buy saddles, panniers and other pack goat tack from Butt-Head Pack Goat Equipment, you can be assured the products have been thoroughly trail-tested. The owner/operators got into the business because of their lifelong love of hiking and camping.

Decades ago, they saw a camper using pack goats and liked the idea of using them to help carry their gear. They already had goats, but began adding bigger goats with strong legs and backs. They tried using dog packs that were already on the market, but they didn't work. After much trial and error, Dennis Willingham finally came up with the right design.

"Our packs have a double cinch," says Carol Moore, Willingham's mother. "When we were out on the trail, the saddle lifted up in the back with a single cinch and that causes rubbing. This holds the saddle with one cinch behind the front legs and another around the stomach area."

Butt-Head Pack Goat Equipment also takes pride in how well their halters fit and the quality of their saddles, which start with an oak and poplar wood frame.

"I use a breathable canvas cover for the attached saddle pads," Willingham explains. "I created pads that can be removed and cleaned. My design also includes padded chest and rump straps. Our goats have never had a saddle sore from my saddles."

Saddle bags are made of Cordura fabric that is water-resistant and durable, and have quick-release buckles and drawstring closures for easy access. They come in seven colors.

The business' most popular products are the Trail Master saddle ($160) and the large saddle bags ($110). Many other items are available on the Butt-Head Pack Goat website. Customers are guided through the process of measuring goats for cinches and other equipment, and Willingham does custom orders.

Using pack goats has become a trend, Moore says, which keeps the family business busy. Bonding and training goats starts when they are young, and when they are full grown at age 3 or 4, a 200-lb. goat can carry 25 percent of its weight, or 50 lbs.

"You'd be surprised how agile they are. They get in areas where pack mules and horses couldn't get in," Moore says.

Contact: FARM SHOW Followup, Butt-Head Pack Goat Equipment, P.O. Box 333, Rough and Ready, Calif. 95975 (ph 530 432-0946; www.buttheadpackgoats.com; bhpackgoats@hotmail.com).

Mower Fitted With "Gopher Hose"

Minnesota farmer Al Hernke spends a lot of time mowing his large yard and road ditches which are frequently invaded by pocket gophers. "They're a darn nuisance, especially when we have alfalfa fields bordering the ditches," he says. "When I was younger I'd trap them, but now I carry a long hose on back of my riding mower to give them a big whiff of carbon monoxide. I put the hose about a foot inside a tunnel and let the engine run just a few minutes for a smaller mound and about 4 to 5 minutes for a larger mound and that seems to give them a permanent nap."

Al Hernke carries a long hose on back of his riding mower to give pocket gophers a big whiff of carbon monoxide.

Top Soil Mapper identifies soil compaction depth on-the-go and tells you how deep to rip. It can be used with an automatic tillage control kit that installs on your cultivator or subsoiler.

Sensor-Controlled Compaction Ripping

You don't have to till an entire field to get rid of compaction. The Top Soil Mapper from Geoprospectors tells the operator how deep to penetrate as it identifies where the compaction zone is on-the-go. At the same time, the front-mounted sensor on the tractor maps fertility and more across the field.

"The technology behind the Top Soil Mapper has been proven in Europe," says Rick Pryor, Geoprospectors. "Compaction zones can appear at different depths in the field. It can start at 8 in. or 16. We find the top of the layer. If it is at 6 in. and the layer is 6 in. thick, you only have to rip 13 in. deep."

Initially introduced to the North American market as the Field Scan, it was limited to data gathering. This past year, the Austrian parent company Geoprospectors added the real-time tillage control.

The contact-free sensing technology uses 4 magnetic induction coils to penetrate the soil to different depths. Each coil produces its own data stream. An algorithm uses the data streams to create a 3D profile of the soil, revealing horizontal and vertical variability. Internal sensors gather temperature and pitch/roll/height above ground to ensure accurate data gathering.

When operated about a foot above the ground surface, the Topsoil Mapper measures the soil to a depth of about 44 in. In addition to compaction and fertility zones, the sensor also detects percent of water content in the soil.

Data gathered by the sensor travels to the automatic tillage control (ATC) kit. The kit can be installed on any cultivator or subsoiler with continuous hydraulic depth control. It can be used in either automatic or manual (operator controlled) mode.

"ATC was developed and patented by Geoprospector," says Pryor. "A PWM (pulse width modulation) valve releases a precise amount of hydraulic fluid to adjust the tillage unit depth."

Pryor notes that the changes in tillage depth in automatic mode can be so subtle as to not be noticed by the operator.

He adds that real time ripping only works with narrow implements and is a full-field effort. However, mapping swathes in the field ahead of tillage or other activities appears to gather sufficient data.

"Our customers and I have tried different width swaths, running the sensor every 25, 30 and 40 ft., and we could find no difference," says Pryor. "A 40-ft. swath appears to be perfect. The variability of the plow pan is not that extreme that you need full-field data."

The Topsoil Mapper comes with a 3-pt. mount, but can also be installed on a variety of equipment such as side-by-sides, tractors and implements.

Site-specific data can be exported to a laptop computer for collection, immediate analysis and mapping output and control with the Topsoil Visualizer and Topsoil Data Analyzer software. Raw data can be displayed as maps within seconds for on-site action.

Data can also automatically load to the cloud for later use or sharing as the data owner desires.

While the Topsoil Mapper with ATC will appeal to some farmers, it will often be available as a mapping service from retailers and crop consultants. Prepared maps can then be used at the farm with an ATC-equipped tractor and implement.

"The Topsoil Mapper is priced at about $25,000 with a software subscription price of about $2,000 a year," says Pryor. "A crop consultant customer tells us his system paid for itself in one year."

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