

Tester Makes Forage Analysis Easy

"It's the most accurate crop tester on the market," says the manufacturer of the Koster Crop Tester that's been around for 50 years but is not known to some forage growers.

It lets you know precisely when to bale hay for best quality or put up corn silage with the right moisture content for best quality. It's also used to test forage for DHI and Feedlot Programming and to test grain for combining.

Operating on 110-volt AC, the tester uses forced air to heat samples. It has a scale with a percentage readout that eliminates the need for extra calculations. It holds a large, 4-oz. sample that, along with the readout, gives a better overall average of samples taken.

To use, mix a sample of forage or high moisture feedstuff. Place the empty sample container on the scale. Adjust the scale pointer to the black 100/0 red scale (12 o'clock) using the thumbscrew adjustment. (Black markings on scale are for percent moisture; red for percent dry matter). Fill the sample container until the scale pointer reaches the 9 o'clock position on the 0 black/100 red mark. Place the sample container on the drying unit and plug unit in for suggested



Crop tester holds a large, 4-oz. sample.

drying time listed in directions. When dry, place the sample container back on the scale. Read the scale using the markings to determine percent dry matter.

Sells for \$258 plus S&H.

Contact: FARM SHOW Followup, Koster Crop Tester Inc., 13477 Prospect Road, Suite 103 C, Strongsville, Ohio 44136-3867 (ph 440 572-5615; fax 5671).



Handke mounted a 550-bu. Killbros gravity wagon on back of an International 1850 truck equipped with 466-cu. in. diesel engine.

SP Grain "Cart" Makes Harvest Go Smoother

Glenn Handke says hauling grain is a lot easier since he built a self-propelled grain cart out of the frame of a 1978 International truck.

The Raymond, S. Dak., farmer bought a Killbros 550-bu. gravity wagon with center dump for the project. He cut the box off the frame and running gear and bolted it on back of the 1978 International 1850 truck equipped with a 466 cu. in. diesel engine he also bought for the project.

He mounted the box near the center of the truck frame, which lowered the center dump's ground clearance by about 6 in. compared with its original placement on the wagon.

For maneuverability and steering, Handke mounted a heavy duty tag axle off an old Dodge truck just in front of the center dump, halfway between the front and rear axles.

"I mounted a pivot point ahead of the push axle and connected the two up with a long tie rod," Handke says. "There's half as much travel on the tag axle as there is on the front axle so it trails straight. I also mounted a stabilizer cylinder, like a shock absorber, on the tie rod at the push axle to keep the rig from shimmying when driving down the highway."

"It'll haul over 500 bushels and I can pull a second 550-bu. Killbros gravity wagon behind it."

Out-of-pocket expense was under \$10,000, including \$2,700 for the gravity wagon and \$6,500 for the truck.

Contact: FARM SHOW Followup, Glenn Handke, HC1, Box 15, Raymond, S. Dak. 57258 (ph 605 532-3406).



Four hoppers empty into a horizontal auger that carries seed to an 18-ft. drill-fill.

Seed Handler With Auger Unloading System

"My new four-hopper bulk seed system lets you handle four different seed varieties at the same time using an auger unloading system that makes using bulk seed easy and practical," says inventor Gary Adam of Fairfield, Iowa.

The unit mounts on a wagon, trailer or flatbed truck. The four hoppers empty into a horizontal auger that carries seed to an 18-ft. long drill-fill auger. The auger has a 3-stage spout that telescopes from 7 to 17 ft. The auger pivots 90 degrees while the spout rotates 360 degrees.

Side access gates allow you to open the bags without having to get underneath them. Slide gates under each hopper control the flow of seed. A large platform on one side (optional) provides space to transport smaller bags of seed, seed treatment and other items you need in the field at planting.

"It's versatile because it allows you to take four 2,500-lb. bags of seed in one trip, and it's safer and faster than using a loader or forklift to maneuver heavy bags over the side of a gravity wagon," says Adam. "You never have to put any part of your body under a bulk bag. You can load more than one type of hybrid or variety and avoid having to make additional trips to the seed dealer or your storage building. The auger is powered hydrau-

lically from the tractor or by an 8 hp gas engine, and is operated by an electronic on/off switch or by an optional wireless remote control. Only one hand is needed to switch the auger and pivot arm from transport to operating position. Because the auger pivots and telescopes you never have to reposition equipment, even to fill 12-row planters and wide drills.

"The slide gates under each hopper make it easy to use partial bags. Just close the gate under the partially-used bag to stop the flow of seed. When you're ready to use the unit in another field or farm, simply slide the gate open again. If you want to switch to another variety in the meantime, simply open the gate under the bag you want to plant. A clean-out door on the discharge auger lets you completely clean out the auger whenever you change hybrids or seed types."

The basic Seed Shuttle sells for \$5,200. The side platform sells for \$500 and the gas engine power unit for \$1,125. Also optional is a roll tarp that sells for \$925, steel core bristle flighting that sells for \$270, and an electronic scale (customer-installed) that sells for \$1,695.

Contact: FARM SHOW Followup, Adam Industries, Inc., 2335 Salina Road, Fairfield, Iowa 52556 (ph 515 472-9220).

Heat Exchanger Warms Up Vehicles Fast

If it seems like it takes forever for the heater in your pickup, car or minivan to warm on cold days, you'll want to check out Easton Bennett's new heat exchanger that'll cut the process down to a few minutes.

It's such a hot idea, Bennett has received interest from the Chrysler Corp.

"It can be used on any engine," says Bennett of Edmonton, Alberta. "The engine coolant goes into the heat exchanger, then into the heater core, rather than directly to the heater core. The heat exchanger uses hot exhaust gases, which reach several hundred degrees right after ignition, to heat the coolant. The result is that it cuts warm-up times by up to 60 percent on even a 20-degree below zero day."

The heat exchanger kit consists of a section of exhaust pipe with stainless steel tubing wrapped tightly around it.

Tests conducted by the Alberta Research Council and Ottawa's National Research Council indicate that the device significantly reduces harmful emissions. On a dynamometer at 20 below C, it reduced carbon monoxide by 8 percent, oxides of nitrogen 12 percent, and hydrocarbons 2.74 percent.

The exchanger will also likely improve fuel efficiency since engines use more gas when they're cold than when they're hot, he says.

Five units are now installed on vehicles and Bennett is gearing up for full production.

Sells for \$80 (Canadian).



The heat exchanger uses hot exhaust gases to heat engine coolant for faster warm-ups in cold weather.

Contact: FARM SHOW Followup, Easton Bennett, 293 Grand Meadow Cr., Edmonton, Alberta, Canada T6L 1W9 (ph 403 468-2080; fax 468-6117).