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## LETS YOU QUICKLY CHANGE COULTER AND SWEEP DEPTH WITHOUT WRENCHES

# New "Quick Adjust" High Residue Cultivator

New "high residue" row crop cultivator from Krause makes it easy to adjust coulters and sweep depth independently without wrenches.

Each row unit of the Krause 4700 cultivator is equipped with a gauge wheel in front followed by double coulters and a sweep at rear. One hand-activated lever is used to adjust sweep depth by moving the gauge wheel and double coulters up or down as a unit. A second lever controls relative position of the coulters and gauge wheel. Pulling back on the handle moves the gauge wheel up and lowers the coulters. Pushing forward on the handle moves the gauge wheel down and raises the coulters.

"Quick adjust controls let you fine tune the cultivator according to field conditions with very little effort," says Pete Lysthaug, district manager. "Our double coulters slice through trash better than a single coulters and they improve soil flow around the cultivator shank."

## "RIDES" ON FRONT AXLE

# New Front 3-Pt. Is "Easy To Use"

There's no modification or bolting required to attach this new front 3-pt. hitch to any small or mid-sized tractor. To mount it, you simply hook up a pair of chains.

"It works great for hauling big bales but can also be used with front-mount blades, cultivators, post hole augers, and any other front-mounted equipment. I originally developed it for use on older, under-used tractors with adequate hydraulics but with weak or non-existent 3-pts. However, it will also fit most new tractor models," says Donald Wedin, farmer-manufacturer who designed and built the new 3-pt.

It slips over the front tractor axle and is held in place by gravity, counter-balanced by two chains that run back to the rear axle. No bolting to frame required. "One person can quickly mount it on the tractor and just as quickly dismount it to free the tractor for

"Another advantage of our design is that it's compact and close-coupled to the toolbar making it easy to lift. A lot of farmers have automatic guidance systems that weigh 500 lbs. and push the toolbar back about 1 ft. so you lose a lot of lifting capacity."

The cultivator is available with a rolling open top shield that lets you cultivate tall corn in heavy trash. Flip-up ridging blades can be mounted behind sweeps and optional "fixed position" disc hillers can be mounted ahead of and to the side of double coulters. The cultivator has sealed bearings and replaceable bushings at all pivot points.

Available in 4, 6, or 8-row rigid and 6, 8, 12, and 16 flat fold models. A basic 6-row narrow rigid model sells for \$6,570 and \$9,390 with all options.

For more information, contact: FARM SHOW Followup, Krause Plow Corp., 305 S. Monroe, Box 2707, Hutchinson, Kan. 67504-2707 (ph 316 663-6161).



Innovative new front 3-pt. attaches to tractor with a pair of chains.

other uses," says Wedin.

The new 3-pt. adapts to either Cat I or II equipment. Wedin has had a lot of interest



Electric fertilizer machine has eight round plastic hoods positioned about 17 in. above crop. Electricity travels through wires to 1 1/2-in. dia. steel brushes in each hood.

## JOLTS CROP WITH BURSTS OF HIGH VOLTAGE

# He Uses Electricity To "Fertilize" Crops

Whenever Willis Tellefson heads out into fields of knee-high corn around Leland, Ill. with his space-age looking machine, cars back up on the road as people stop to watch. No one's ever seen anything like his machine - with its PVC toolbar and plastic hoods - and no one can figure out what it's supposed to do unless he tells them.

Tellefson's explanation is "shocking" - he uses high-voltage jolts of electricity to fertilize crops, eliminating the need for nitrogen, he says, by allowing plants to capture nitrogen that's already in the air.

"I don't know exactly how it works - I just know, based on yield data gathered over the past 20 years, that it does. I've finally got a production-ready machine that I think could revolutionize American agriculture if I could get it on the market," says Tellefson, an 80-year-old inventor (he invented the successful "Kleen-Lay" egg-laying system for chickens in the late 1940's) who got the idea for his electric fertilizer machine from watching lightning. He felt that some lightning seemed to benefit crops by pulling nitrogen out of the air so he set about trying to duplicate nature with a home-built machine.

Tellefson says agronomists who've been consulted about his machine say it won't work. "They say it can't work but they ignore the evidence I've got that it does," he says. No university has yet put Tellefson's ideas through a scientific test.

Tellefson built a hi-boy tractor from scratch to carry the all-plastic toolbar, which is fitted with 8 round plastic hoods mounted on a length of PVC tubing. Electricity travels through wires to 1 1/2 in. dia. steel brushes in each hood, positioned about 17 in. above the crop. Electricity passes from the brushes - which never touch the plants - down into the ground through a metal disc that's positioned in the dirt between the two

rear tires. The disc grounds the electricity, completing the circuit. A wire runs from the disc back to the machine.

The system, which Tellefson has patented, puts out a 30,000 to 40,000 volt charge that's like the charge off the end of a spark plug. If it touched you, you'd get nothing more than a severe jolt, he says. The system runs off 12-volt batteries.

In recent years Tellefson has tested the machine extensively on local farms by working with farmers who leave an unfertilized strip of crop through a normal field. He runs his machine through when the crop is 12 to 36 in. tall. "In corn, our yields don't vary more than 4 bu. from the corn right next to it that has been fertilized normally with nitrogen. In soybeans, we sometimes see yield increases of as much as 15 percent and in wheat we've experienced increases of 10 percent over adjacent crops. We've also had success with the machine in potatoes," says Tellefson, noting that, except for fertilizer, the crops are not handled differently in any way.

The entire self-propelled 4-WD machine weighs about 4,000 lbs. and is hydraulically-driven by a 50 hp. gas engine. Travels at speeds up to 6 mph.

Tellefson, who has no formal training in electronics, started laboratory experiments in 1972 and took his first machine to the field in 1976. "Even though there's no visible change in the crop, I think it somehow changes the structure of the crop so it's able to absorb its own nitrogen. That's the only way I can explain the yields we get."

Cost to operate is minimal and the machine uses all simple electric components.

For more information, contact: FARM SHOW Followup, Willis Tellefson, P.O. Box 175, Leland, Ill. 60531 (ph 815 495-3491).

in it for handling big bales. "You can fit it with pallet forks or a bale spear. Lets you carry a bale on front and one on back, if the rear 3-pt. is built to handle big bales," he says, noting that in many cases, farmers who have a tractor they haven't been able to use on big bales find they can move them

around with ease using the new front hitch, which is fitted with a 3 by 8-in. lift cylinder. Sells for \$1,399.

For more information, contact: FARM SHOW Followup, Tug Hollow Mfg., Inc., Rt. 2, Box 91, Camp Douglas, Wis. 54618 (ph 800 348-2043 or 608 427-6749).