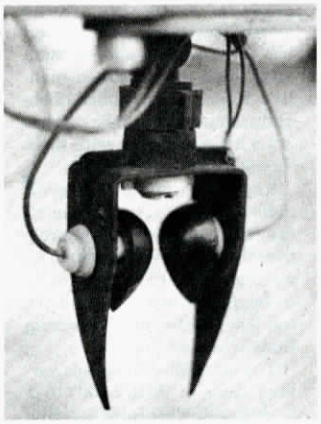
ELECTRICALLY-CHARGED CHEMICALS "STICK" TO CROPS

Add-On Electrostatic Sprayer Zaps Chemicals

A new electrostatic sprayer that zaps crop chemicals with an electrical charge increases crop coverage as much as 250%, reduces drift by nearly 100% and cuts chemical use by 75%, according to tests conducted by a British company which developed the new add-on electric-powered nozzle.

Spraycare Application Systems, Lincolnshire, England, says the nozzle is the first commercially available electrostatic spray nozzle. "FMC developed an electrostatic spray system several years ago but it was too complicated, using blowers to keep charged chemicals from sticking to the nozzles," says Chris Pay, sales manager, noting that the new nozzle system uses high voltage and a drip-off design to solve the same problem. "It's simple to maintain and takes very little power."

The new spray head bolts in place of existing nozzles on any boomsprayer. Brass-plated electrodes that drop down on either side of the spray nozzle are fed by two wires that run to a control box in the tractor cab. As the spray comes out of the nozzle, it's zapped by a 4,000-volt charge. The charged spray is then attracted by the plants below, which act as a "ground". The chemical attaches itself to the tops and bottoms of leaves, a fact the company demonstrated at a recent farm show by having passersby hold their hands up to the sprayer with palms pointed away from the spray nozzle. Spray clouded around the "grounded" hand, coating both sides with spray.



Wires feed electricity to add-on nozzle.

"Because the charged particles provide even coating of the plant, better penetration is obtained with less chemical. And spray drift, which is usually a problem for small droplet sprayers has been nearly eliminated," says Pay.

Spraycare hopes to be in full production with the new electrostatic spray head by February 1985. Pay says several chemical companies in the U.S. are already testing the new sprayer. The Spraycare sprayer refit kit will sell for a $1,400 for 24 nozzles and the control unit, which runs off the tractor's 12-V battery.

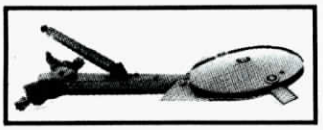
For more information, contact: FARM SHOW Followup, Spraycare Application Systems Ltd., 8-12 Albany Road, Woodhall Spa, Lincolnshire, England LN10 6TS (ph 0526 53671).

FLOATING DISCS EASIER TO SERVICE

"New Generation" Of Rotary Disc Mowers

"It's the most advanced rotary disc mower yet. We think it sets the standard for everyone else to follow," says Jeremy Coleclough, managing director of Opico Ltd., manufacturer of a new rotary disc mower that mounts discs on individually floating arms, each of which has its own drive components and separate shock absorber.

Most rotary disc mowers mount discs in a row on a solid bar that contains a long row of drive gears. "When one of the gears breaks down, the entire cutterbar must be disassembled. Since each module is individually-mounted on our machine, service and maintenance can be carried out in the field with a minimum of effort," says Coleclough.



Cutting discs mount on individual arms.

Each cutting arm contains an enclosed drive shaft that is powered by a central shaft that runs through the base of all units. A shock absorber on each unit allows them to float over uneven ground or obstacles in the field.

Above and behind the two-bladed cutting heads is a large conditioning roller fitted with pairs of reversible tines that gently pick up and condition the crop. More tines can be added in crops where a greater degree of conditioning is required.

Coleclough says the new mower design requires about 30% more horsepower than conventional disc mowers. The 12-ft. mower sells for about $14,000 and 7½-ft. and 9-ft. versions are also available.

For more information, contact: FARM SHOW Followup, Jeremy Coleclough, Opico Ltd., South Road, Bourne, Lincs, England PE10 9LG (ph 0778 421111).

Amazing new German skid-steer loader features sideways movement, plus side-opening cab and one-arm loader.

CAB-EQUIPPED GERMAN MACHINE MOVES 180° SIDEWAYS

First-Of-Its-Kind Skid Steer Loader

"It's the machine all other skid steer loaders will be compared against," says Franz Hernold, export representative for Kramer Allrad, manufacturer of a new skid steer loader that can move in a straight line from side to side and is fitted with an easy-access cab, thanks to a unique one-arm loader design.

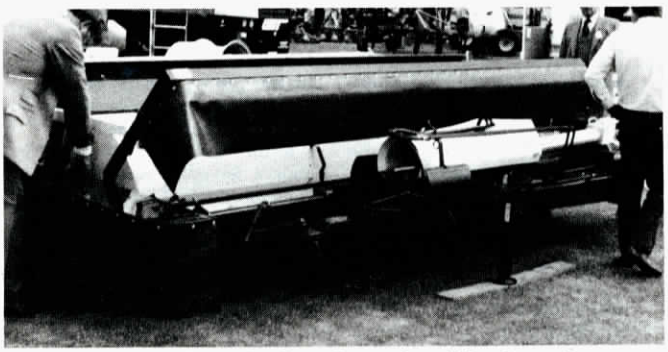
The company unveiled the machine at the recent Royal Show in England to huge crowds of showgoers who gathered around to watch the compact loader go through its paces. They found the loader is specially designed for on-farm use.

"It has much higher ground clearance than other loaders its size," points out Hernold. "It's also equipped with a unique one-arm loader which is built strong enough to do as good a job or better than a 2-arm loader and takes up less room so we were able to equip this machine with a cab. Because it's got a cab, it's cleaner to operate and there's a side-mount door so you don't have to climb out the front."

The most unique feature of the new loader is its steering system. "So far as we know, it's the first skid steer loader that can travel 180° sideways," says Hernold, noting that the loader will also make a perfect circle within its 7-ft., 8-in. turning radius, measuring to the outer edge of the bucket. The front and rear wheels follow in each other's tracks when circling and the loader can also move diagonally.

The loader, which is scheduled to go into production by the end of the year, is powered by a Deutz air-cooled 35-hp. diesel engine and moves at speeds from 0 to 15 mph. It features mechanical hydraulic drive on each of the four wheels, which Hernold says is tougher and more reliable than conventional hydraulic drive. The loader has a pto shaft and measures 4 ft., 8 in. size.

For more information, contact the company's U.S. distributor: FARM SHOW Followup, AIS Construction Equipment Corp., 3600 N. Grand River Ave., Lansing, Mich. 48906 (ph 517 321-8000).



Each disc floats independently in front of conditioning rollers.