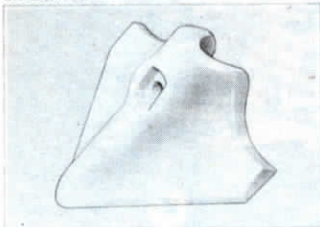


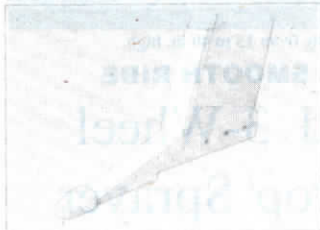
Eradication tines



Precision drill coulters



Subsoiler shins



Mole expanders



Look What They're Doing With Long-Wear Ceramics

First it was ceramic sprayer nozzles. Now comes a fast-growing line of "tillage tools" made of highly wear-resistant ceramics.

"It'll outwear hardened steel four to nine times, yet only costs slightly more," says Mark Donsworth, sales manager for Agricultural Ceramics, a British firm that's moving into "ceramics for agriculture" in a big way. Donsworth predicts that most major equipment manufacturers will be offering ceramic soil-wearing components as standard equipment on chisels, plows, cultivators, drills and planters in three to five years.

Agricultural Ceramics, which was first on the market with ceramic spray nozzles,

currently markets "all ceramic" tine points, drill coulters and subsoiler shins, and glue-on ceramic strips for the cutting edges of cultivator sweeps and shovels. All-ceramic components are laced with a special additive so they'll absorb the shock of hitting a rock and spring back without cracking or breaking. Donsworth notes that ceramics is "at least as good if not better" than steel in scouring ability. His company is looking for a North American distributor for its line of ceramic components.

Contact: FARM SHOW Followup, Agricultural Ceramics, Blue House Lane, Medlesham, Stowmarket, Suffolk, England IP145NH (ph 0449 767757).

On-Farm Plant "Scrubs" Chemicals Out Of Water

How do you safely and legally dispose of leftover spray material or wash water without contaminating soil and underground water?

In the not-too-distant future, stricter disposal regulations will most likely mandate that you run the spray material through a filtering system, allowing the cleaned leftover water to be safely returned to the soil.

ICI Americas, headquartered in England, has developed a small-scale plant, called the Sentinel, that some farmers, chemical dealers and custom operators are already using to "scrub" chemicals out of leftover crop spraying liquids, and certain other agricultural chemicals, such as livestock dip. Five of the units have been shipped to the U.S. and are being tested and evaluated at scattered locations, reports Gerald Quinn, marketing director for ICI Americas in the U.S.

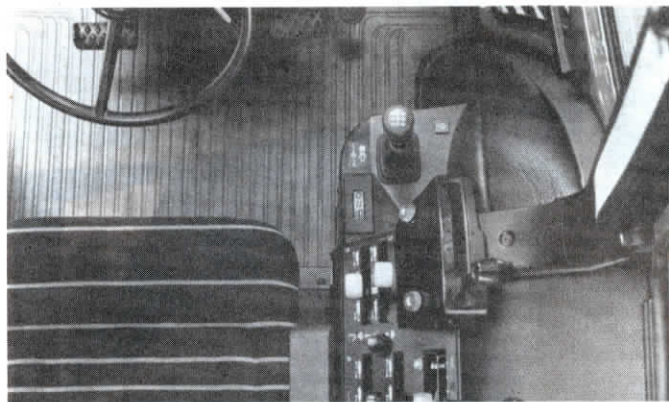
The Sentinel filtering plant treats leftover spray material in batches of about 265 gal. Material is poured into a holding tank, then treated when the tank is full. It gravity flows through a sand filter and two carbon filters. Cleaned water can be returned to the ground via an approved soil "soak away," leaving only 6 to 8 pounds of sludge to be taken to an approved disposal facility.

Quinn says retail cost of the Sentinel treatment plant (portable or stationary) will probably be about \$10,000.

Contact: FARM SHOW Followup, ICI Americas, Gerald Quinn, Marketing Director, Wilmington, Del. 19897 (ph 1 800 759-4500).



Leftover spray material gravity flows from 265 gal. holding tank, through sand filter and through two carbon filters, leaving only a few pounds of sludge to be taken to an approved disposal facility.



The single gear shift lever sits close to the driver's right hand, adjacent to the hydraulic control console. Note new "inching" pedal to left of the two brake pedals.

"A GIANT STEP AHEAD OF THE COMPETITION"

Ford Introduces "18 x 9"

Powershift Transmission

FARM SHOW'S vote for the most exciting new development in tractors at the 1989 Smithfield Show, held last month in London, England, goes to Ford New Holland for its revolutionary "18 x 9" Powershift transmission.

"We think it's the best in the industry — a giant step ahead of what Deere, Case-IH, and all other tractor manufacturers currently offer," a Ford spokesman told FARM SHOW.

The engineering "breakthrough," slated for introduction to U.S. Ford New Holland dealers in early February, will be on the market in Europe next March as standard equipment on three new 30 series models — the 8630 @ 132 hp, 8730 @ 154 hp, and the 8830 @ 186 hp.

Ford engineers estimate that the new Powershift transmission — which provides clutchless gear shifting, full power reversing and the ability to pre-select gears — can increase overall farm productivity "by up to 15% on jobs ranging from plowing to baling."

Here, as described by Ford engineers, are the key features:

Microprocessor control: Gears are selected by a single lever and, since there is no mechanical linkage, lever movement is free and easy. Moving it forward selects forward speed; moving it backward puts the tractor into reverse. The lever is moved to the right to shift up through the gears, and left to shift down again.

There is a Liquid Crystal Display (LCD) next to the shift lever to show which gear has been selected.

Ford's new Powershift is controlled by a microprocessor mounted inside the cab. It constantly monitors gear selection and, in certain circumstances, prevents gears being selected that might result in the transmission and engine being overloaded.

Clutchless operation: Instead of a conventional clutch, the Powershift can be disengaged with an "inching" foot pedal. It gives precise transmission control when inching forward or back to attach implements, or to maneuver in tight places.

The operator has two choices for "taking off" from standstill—either by moving the shift lever in the desired direction or, for smooth starts with heavy loads, by pre-selecting a gear while the lever is still in neutral.

Full-power reversing: Shuttling between forward and reverse—even under full power

— is as simple as moving the shift lever. This can be done at any speed and without using the inching pedal. Automatic feathering provides smooth directional changes even under full power and transmission load.

Pre-selected gears: Gears are pre-selected by moving the shift lever to the right or left while it is still in the neutral position, until the desired speed between one and 12 is displayed on the LCD. If a gear is not pre-selected and the lever moved straight ahead into the forward position, the transmission will automatically shift into 5th gear. Similarly, if the lever is moved directly into reverse without first pre-selecting a gear, the slowest reverse speed (4th gear) will automatically be selected.

Smooth operation: Once on the move, changing gears through all 18 forward and 9 reverse speeds is easy. The operator simply moves the shift lever right or left as the occasion demands. Since there is no need to use the inching pedal, there is no loss of momentum, even under heavy load, allowing the operator to maintain optimum ground speed at all times to suit soil type and conditions.

Forward ground speeds increase by 17% with each gear change. The operator can make multiple changes by holding the shift lever either to the right or left as required. The transmission then quickly shifts up or down sequentially through the gears.

Safe engine braking: To slow down when traveling at high speed on the road (gears 17 or 18) the operator simply moves the shift lever left until the required lower gear has been selected. Alternatively, when traveling in gears 12 to 18, if the operator momentarily hits the inching pedal and decelerates, the transmission will automatically match ground speed to engine speed.

Improved weight distribution: Weight of the new Powershift transmission adds an additional 880 lbs. to the tractor. This extra weight is well forward of the rear axle and is distributed evenly between it and the front axle, reducing the need for rear wheel weights.

Also new for Ford tractors from 5610 through 8210 is a shiftable two-speed pto. It operates at a shaft speed of 540 or 1,000 rpm. Speed is selected from within the cab simply by moving a lever. Available with 6 or 21 spline shaft.

For more information, see your nearest Ford New Holland dealer.