Developing a 'feel' for 4WD tractors

DES MOINES, Ia. - Making the switch from a two-wheel-drive to four-wheel-drive tractor can be quite a change. Sheer size, special convenience and adjustment features, and articulated steering all give a 4WD tractor a different "feel" from the operator's seat.

So before you take your first 4wheel drive, consider these tips from Jim Lacina, Massey-Ferguson tractor specialist.

(1.) Be conscious of engine warm-up. "When you first start the tractor, let it idle for two to four minutes," Lacina suggests. "This warm-up allows bearing surfaces to become adequately lubricated and oil to fully circulate throughout engine passageways."

(2.) Learn how to handle articulated steering. Lacina says this feature is standard on all MF 200hp-and-above 4WD tractors, as well as many other 4WD units now on the market. When turning an articulated steering model, the

tractor bends in its middle on a pivot joint. That moves the front and rear of the tractor at the same time, occasionally creating a tendency for an attached implement to swing while turning.

"It's really not a problem," Lacina says. "But you should be aware of it and watch the implement behind you until you become more familiar with the tractor and implement."

(3.) Keep an eye on gauges. "Modern 4WD tractors are equipped with very quiet cabs," Lacina says. "So you must closely watch gauges to monitor tractor operations.'

(4.) Understand electronic draft control. This feature was recently introduced in the American marketplace as an optional feature on MF's 4000 series 4WD tractors. 'Essentially, the draft sensing load is transmitted by electronic signals instead of mechanical linkage," the MF expert explains.

"So the amount of elasticity, warpage and slack in the linkage is significantly reduced, providing a greater degree of implement control. This helps increase fuel efficiency."

(5.) Don't waste the tractor's power. "When you look at costs of running the tractor - including fixed equipment cost and all operating costs - by far the largest expense is the fixed cost," Lacina says. "Therefore, to make best use of your investment, equip and operate the tractor to take advantage of its available horsepower. Best fuel efficiency also is realized that way."

(6.) Be cautious with the turbo charger. Lacina warns that while a turbocharged engine can stand intermittent overloads to pull you through tough spots, you shouldn't continually run any tractor in an overload condition. Overloading increases tractor wear, and can cause turbocharger damage by

overspeeding. Most manufacturers install an exhaust gas pyrometer to warn when this condition approaches.

Turbocharger problems can also occur if the tractor is immediately shut down in a full-load condition. When that happens, the charger will continue to run for an additional minute or two. Because the engine oil pump has stopped. you'll quickly lose all lubrication to then turn it off.

the turbocharger and cause damage to its bearings.

Also, Lacina says a full-load shut-off can create a rapid decrease in engine exhaust temperature. "This abrupt change can warp the blades in the turbocharger, leading to expensive repairs," he explains.

Recommended practice for shutdown is to stop the tractor, idle the engine for one to three minutes,

Cereal crops highlight field day

UNIVERSITY PARK - The center for cereals research at Penn State University announces a field day to be held on Wednesday, July 1, from 9:30 to 4 p.m. at the Agronomy Farm, Rock Springs Research Center on route 45, west of Pine Grove Mills.

The topics that will be discussed include: new varieties of wheat and oats, spring wheat and barley management, and seed and fungicide trials.

The discussions will be lead by researchers from the center for cereals research

In addition, there will be a

herbicide tour conducted on July 2. Discussions will center on new weed control chemicals for both corn and alfalfa.

There is a steak cookout scheduled for Wednesday evening following the cereal tour. The participants will include members of the herbicide tour and agronomy faculty. This meal will be free.

For more information on the tour or to sign up for the steak dinner contact Dr. O. Elwood Hatley, Extension Agronomist, Agronomy Extension, 106 Agriculture Administration Building, University Park, Pa. 16802, by June 25.

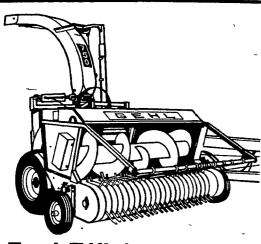
Pollution

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mercury concentrations that contaminated fish in a lake that straddles Utah and Arizona. Measurements at the bottom of Lake Powell in the early 1970s revealed levels that exceeded the EPA standards.

"The natural weathering of

hundreds of square miles of barren sandstone and shale in areas upstream from the lake has sent unusually high concentrations of the heavy metal down the drain," Graf said. With a grant from the National Geographic Society, he is tracing the source and movement of the mercury.



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