

Sire summaries out

UNIVERSITY PARK - The 1977 USDA Sire summaries have been released, announces Larry Specht, Extension Man, The Penn-

sylvania State University. Each dairyman or A. I. unit who owns one or more bulls should have received the summary data within the last few weeks.

A survey of the latest information shows that there are now 136 Holstein sires owned by AI units with a predicted difference for milk value of plus 1000 pounds or more. This is almost a 25 per cent increase over the number available last Winter. About one-half of the sires have repeatability values of 70 per cent or more. This is the mark of a reliable sire proof, says Specht. Such a figure lends considerable confidence to a sire's predicted difference value. It indicates that the summary was made by 40 to 60 daughters scattered in a number of herds and that the PD milk value is likely to remain at, or near, the level presently reported for the sire.

It is worth noting that 13 of the 14 plus 1000 pounds PD sires owned by Pennsylvania A. I. units have repeatability values of 70 per cent or higher. High repeatability values are largely a consequence of well-run progeny test programs. Pennsylvania studs are doing a good job of testing young sires, concludes Specht.

Cold-flow ammonia technique saves time and energy in field work

UNIVERSITY PARK - Farmers using anhydrous ammonia as nitrogen fertilizer have a new process for applying ammonia into the soil. Known as cold-flow ammonia, the process was developed and patented by agricultural engineers at Penn State University.

The process converts high-pressure anhydrous ammonia into a stable cold liquid and vapor. High-pressure ammonia is metered through a conventional flow regulator into a conversion chamber. Here rapid expansion produces cooling and releases pent-up energy.

Output from the converter, about 85 per cent liquid and 15 per cent vapor, flows into the soil through tubes connected behind shanks or blades of chisel plows, field cultivators, or disks. Pressure in the distribution system is minimal - near atmospheric pressure. The liquid ammonia is exceptionally free-flowing and moves by gravity into channels cut into the soil by tillage tools.

Paul M. Anderson and William L. Kjelgaard, Penn State agricultural engineers who developed the process, said the system works very well with chisel plows and field cultivators. Research is continuing to apply the technique to disk tools.

The big saving is in time and energy, they reported. Cold-flow ammonia can be applied at a depth of four to five inches during chisel



Agricultural engineers Paul Anderson, left, and William Kjelgaard, right, with the new cold flow ammonia application system as installed on a heavy disk for testing at the Rock Springs Research Center of Penn State's Agricultural Experiment Station.

plowing or cultivating, eliminating one field operation. The demand for power is less, as well as the wear on machinery, because of easier soil trapping of cold-flow ammonia.

High-pressure anhydrous ammonia, on the other hand, must be placed six to eight inches into the soil using special applicators.

Research and develop-

ment of the cold-flow ammonia process was made possible through partial funding from the USS Agricultural division of U. S. Steel, which has licensed the process.

Ammonia for cold-flow application systems, the Penn State engineers point out, must be handled with the same safety precautions needed for conventional

application systems.

New vehicle code

[Continued from Page 1]

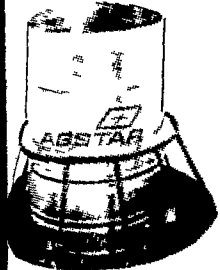
temporary. "There were too many amendments to be taken care of before the July 1 deadline," Lammb told Lancaster Farming. "This will hopefully give us some time to work up practical regulations," he added.

Farmers may continue to operate their farm implements as they have been, said Lammb, explaining that implements up to 14½ feet in width can still be taken on the road without a permit. Self-propelled combines require a permit, however, if they're travelling on the road. Limits for the operation of a farm truck remain unchanged.

Changes in the motor vehicle code which apply to farmers will be acted upon at unannounced future dates.

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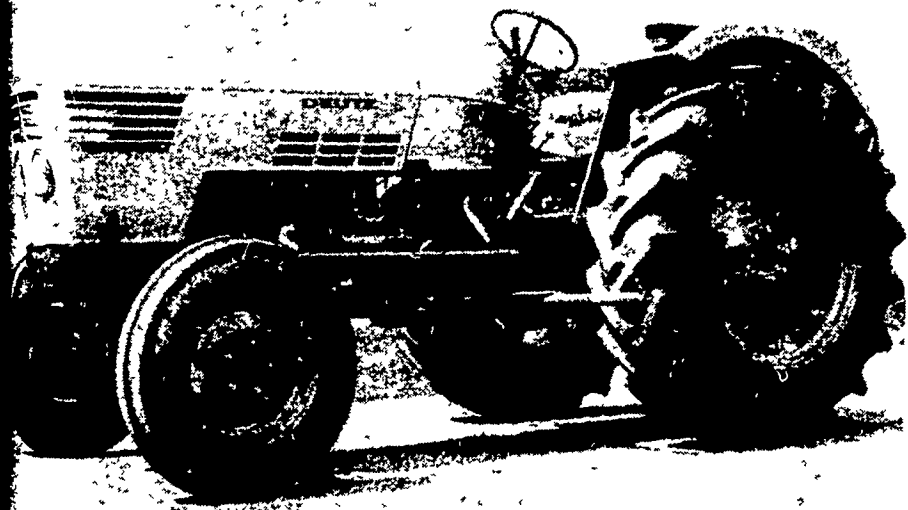
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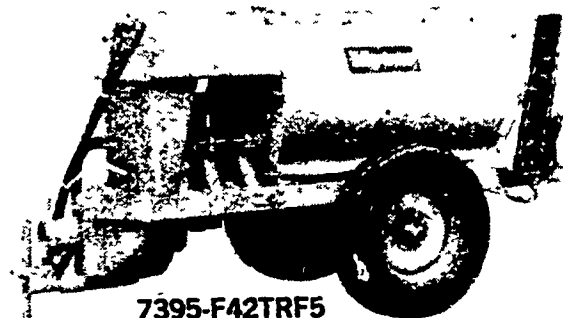
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