Help Engines Start Easier In Cold Weather

Hard to start trucks or tractors. can be a real aggravation during winter months. There are several things you can do, though, to prevent this irritation, and doing them early in winter can make the next few months a lot more pleasant.

Three main problems cause winter starting problems with gasoline engines, according to Sam Huber, extension agricultural engineer at Ohio State University. Fuel doesn't vaporize as readily at low temperatures, making it more difficult to obtain a mixture of air and fuel that will burn. Electric spark at the spark plugs may not be intense enough to ignite the air-fuel mixture, because of lower output of the battery at low temperatures. Cold oil in the crankcase causes the engine to crank harder, thus requiring more battery power.

Huber's suggestions for overcoming starting difficulties with gasoline engines includes having each engine tuned up by installing new spark plugs, breaker points and condenser,



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and by checking wiring, the air cleaner, and operation of the choke.

Have batteries tested to be sure they are fully charged. Battery capacity drops from 100 percent at 80 degrees to 68 percent at 32 degrees, 46 percent at 0 degrees, and 30 percent at -20 degrees. The power required for cranking an engine increases from 100 percent at 80 degrees to 165 percent at 32, 250 percent at 0, and to 350 percent at -20, Huber points out.

With diesel engines, it's difficult to raise the temperature of the compressed air to the required ignition temperature of the fuel. To remedy this, the engineer suggests checking the batteries, using electric heating built-in starting aids, using ether starting fluid, and using a higher octane number fuel if necessary.

National Arbor Day Support Sought **By Harry Banker**

The executive secretary of the National Arbor Day Committee has urged members of the International Shade Tree Conference and more than 35 state chairmen of the Nat. Arbor Day committee to seek legislative support of the day.

Harry J. Banker has solicited help from the Green Industry to urge legislators to suport passage of the National Arbor Day bills, S.J. Res. 162 and H.J. Res. 789. The legislation, introduced by Sen. Harrison A. Williams (Dem-N.J.) and Con. Joseph G. Minish (Dem-N.J.), would authorize the President to proclaim the last Friday in April 1974 as National Arbor Day.

Many trees are still disappearing at an alarming rate due to the continued expansion of highway systems as well as the industrial and commercial building growth in our spreading suburban sprawl, says Banker. This decimation of our trees, coupled with additional heavy losses inflicted by gypsy moths, various diseases, forest fires, etc. runs our annual tree losses into the millions. Only fractional amounts of replacements are taking place.

Banker says the passage of the National Arbor Day measures provide a much needed method for awakening the nation to these alarming statistics. It could precipitate the appropriation of necessary funds and it would also encourage private citizens to gain a better appreciation of trees on their properties, he believes.

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