TORO RESIDENTIAL PRODUCTS
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How to Minimize Fuel System Problems

Purchase only the amount of fuel that will be used within 30 days – Fuel deteriorates over time. Deterioration begins with the most volatile compounds evaporating. Once evaporation reaches a certain point it will be hard/impossible to start the machine. As more compounds evaporate, the fuel will form brown gummy deposits in the system. Given enough time the gummy deposits will become a hard varnish. Gummy deposits and varnish can plug passages in the carburetor preventing the engine from running or causing the engine to run poorly (surging, lack of power, stalls, etc.). Deposits can also cause the carburetor to leak fuel if they prevent the float needle from sealing properly.

Add fuel stabilizer to the fuel the day you buy it – Most fuel stabilizers form a layer over the top of the gasoline and greatly reduce the rate the fuel's volatile compounds evaporate. They also prevent the absorption of moisture by the fuel. If fuel stabilizer is added to gasoline the day the gasoline is purchased, the fuel will stay fresh longer (up to 90 days).

Purchase a name brand fuel – Name brand fuel producers and their stations are more likely to follow a rigid quality control program to ensure their fuel is clean, fresh and has the correct additive package. They also tend to be busy, further ensuring customers receive only the freshest fuel.

Purchase "Regular" grade gasoline – Unleaded regular gasoline with an octane rating of at least 87 ((R+M)/2 rating method) is the recommended fuel grade for all gasoline engines in Toro products.

Gasoline with up to 10% ethanol (E10) or 15% MTBE by volume is acceptable – BUT, keep in mind that ethanol fuel blends will absorb water from the atmosphere and can cause corrosion of fuel system components. Since most carburetors and the gas tank are vented to the atmosphere in some manner there is nothing to prevent fuel from absorbing moisture over time. Using fresh fuel (less than 30 days old) will help prevent water absorption from becoming a problem.

Do not use gasoline with more than 10% ethanol by volume – Engines produced to date for use in outdoor power equipment are not designed for gasoline with more than 10% ethanol (such as E15 and E85); using higher ethanol fuel blends may lead to engine damage and/or performance issues.

Consider using gasoline without any ethanol (E0) - Gasoline with no ethanol will greatly reduce the amount of moisture the gasoline can absorb from the atmosphere. Many areas of the country have ethanol-free gas available, and finding it is easy. Search for "ethanol free gasoline" on the Internet.

Do not use gasoline containing methanol.