Scientists Warn ... Gasohol And Small Engines May Not Mix

Now that Gasohol has been appearing in service station pumps and receiving widespread publicity, the handyman naturally asks, can I use Gasohol in my lawn and garden equipment? Should I use it?

Scientists at the Tecumseh Research Laboratory, Ann Arbor, Michigan, have issued a cautionary warning regarding its use in small engines. The lab is operated by Tecumseh Products Co., a firm with sales of \$750 million annually in small engines, air conditioning and refrigeration compressors.

In 1974, the company developed a blend of 10% anhydrous isopropyl alcohol and 90% gasoline (labelled IPA) to stop corrosion caused by tiny fuel residues that remained in every one of its engines after factory-testing.

Use of this mixture successfully cured problems associated with the condition commonly referred to as "sour gas." But, warn the scientists, there's a difference between Tecumsh's test fuels and Gasohol, and a difference between automobile engines and small engines for outdoor power equipment. Anhydrous isopropyl alcohol reacts with the peroxides which develop in fuel because of the water content in the gasoline. it neutralizes them, and in the process gets converted to acetone, which is harmless to engines. However, Gasohol genrally contains grain or methyl alcohols that are not anhydrous. These alcohols react with the water content present in Gasohol and tend to form strong acids which can corrode metal parts, even eat rubber and plastics.

This is particularly evident in cases of off season storage of lawn and garden equipment where the fuel supply is likely to be stored for a long time.



There's also a significant difference between automobile and lawn and garden equipment engines. Except in cold starts, a car does not run with rich fuel/air ratios. Government-required efficiency and emission controls preclude consistent rich operation. However, in small engines the situation is different. They do run rich, and they are stored for long periods. Here, the potential for corrosion is very real, and this corrosion comes from the acid formations.

Tecumseh's scientists advise you to play it safe. Decide for yourself the pros and cons of Gasohol in your automobile. But, save potentially expensive repairs and parts replacement costs by using only unleaded regular gasoline or leaded regular gasoline in your outdoor power equipment.

