

# ETHANOL AND SMALL ENGINES

## **Can ethanol-blended gasoline be used in small engines such as lawnmowers, snow blowers, leaf-blowers and chainsaws?**

Most manufacturers of small engines allow for the use of up to 10% cent ethanol-blended fuel in their products. Ethanol can also be used in certain older small engines. Individuals should consult their owners' manuals for information on the use of ethanol-blended fuel in small engines.

## **Can ethanol-ethanol blended fuel be used in an ATV, snowmobile or motorcycle?**

Most manufacturers of ATVs, snowmobiles and motorcycles allow for the use of up to 10% ethanol-blended fuel in their products. Individuals should consult their owners' manuals for information on the use of ethanol-blended fuel in such engines.

## **Can ethanol-blended gasoline be used in outboard motors?**

Most manufacturers of outboard motors allow the use of up to 10% ethanol-blended fuel. Individuals should consult their owners' manuals for information on the use of ethanol-blended fuels and follow the manufacturer's recommendations when selecting appropriate fuels.

## **What is phase separation?**

When a 10% ethanol blend is contaminated with over 5% water, the ethanol and water mixture will separate from the gasoline and fall to the bottom of the gas tank. This is an inconvenience, because the fuel system must then be drained and new fuel added. Before using ethanol-blended fuel for the first time in an older small engine, it is recommended that all water be removed from the tank. Since many outboard motor carburetor problems result from water in the fuel system, continuous use of an ethanol blend can prevent water accumulation and unnecessary maintenance.

## **Will two-cycle oil separate from an ethanol-blended gasoline?**

No. Once properly mixed, all approved two-cycle oils will remain in solution with ethanol-blended gasoline.

## **Does ethanol make gasoline go bad in storage?**

No. Storage problems are primarily caused by the storage conditions and the chemical composition of the gasoline itself. Whether you use ethanol blends or not, avoid carrying gasoline over from one season to the next. Don't fill a storage tank at the end of the season. Try to run the tank dry in your seasonal equipment before it is time for storage.

## **Can ethanol-blended fuel be used in small aircraft engines?**

No. Ethanol-blended fuel should not be used in small aircraft engines. Most small aircraft engines manufactured in North America are designed to run on aviation gasoline (avgas). It is not safe to use ethanol-blended gasoline in aircraft engines. Manitoba's ethanol regulations exclude aviation gasoline from the ethanol requirements.

