

## **Ethanol and Its Effects on Outdoor Power Equipment**

In today's world of rising gasoline prices, ethanol-blended fuels are increasingly more common. In many states, the standard gasoline available for consumer purchase at the pump already contains 10 percent ethanol (commonly referred to as "E10" fuel), and some areas will soon see the introduction of E15, a gasoline blend that contains 15 percent ethanol. The problem is that E15 fuels pose serious problems for many of the engines that power walk behind lawn mowers, chainsaws, trimmers and other outdoor power equipment.

### **The Problems with E15**

The Outdoor Power Equipment Institute (OPEI) has advocated nationally regarding the damaging effects of ethanol-based fuels on small-engine equipment. These fuels, due to their corrosive nature, can seriously damage fuel systems that are not designed to handle them. E15 fuels burn significantly hotter, and as a result, they can cause a small engine to overheat. In addition, these increased-ethanol fuel blends can absorb a great deal of airborne water (which in humid or damp operating conditions makes the engine very difficult to start) and are hard to ignite within a carburetor during cold weather.

While E10 fuels are approved for use in lawnmowers and other outdoor power equipment, gasoline blends that contain higher levels of ethanol are not. In fact, the use of a fuel with more than 10 percent ethanol can actually void your equipment's warranty. (Check your equipment's owner's manual to find out what fuel is recommended for use.) And in many cases, you may actually see a warning sticker around the gas cap that clearly states that no fuels with a higher percentage of ethanol than 10 percent can be used.

### **Know What You Purchase**

To ensure that you don't inadvertently cause engine or fuel system damage to your outdoor power equipment, check to see what type of gasoline your local service station sells. (All fuel pumps are required to display a label that lets you know the percentage of ethanol, if any, in the gasoline.) Never purchase gasoline with more than 10 percent ethanol for your outdoor power equipment. If you live in a state that mandates ethanol blends (as many states in the Corn Belt do), you can go a step further and purchase what's commonly referred to as "non-oxygenated" fuel. While not as readily available as standard ethanol-blended gasoline, this ethanol-free fuel is approved for use in outdoor power equipment as well as in motorcycles, off-road vehicles, boats and other recreational vehicles.

While the EPA did approve E15 fuels for use in automobiles produced after 2007, additional legislation regarding E15's overall use has been put on hold until additional studies have been conducted on its impact on small engines. Nevertheless, when it comes to fueling outdoor power equipment, consumers should stay alert at the gas pumps and know what they're purchasing.