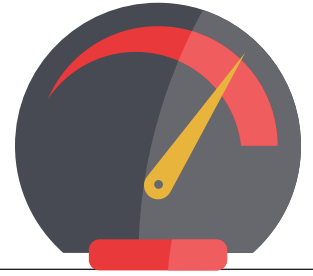


Better Engine Performance



QUICK READ

Ford Motor Company conducted a study estimating that the most fuel-efficient ethanol blend is between [20 to 40 percent ethanol](#).

Ethanol has a naturally high-octane rating – 113 – and improves engine performance while [keeping engines burning cooler](#).

ENGINE PERFORMANCE

Ethanol's naturally high-octane rating (113 octane vs 87 octane for gas without ethanol) provides extra power – meaning that modern engines can achieve a fuel efficiency gain from mid-level blends. Worldwide fuel economy standards for vehicles are increasingly becoming more stringent. Automobile manufacturers are being forced to move toward higher efficiency engines that require high-octane fuels to operate

effectively and lower greenhouse gas emissions. Ethanol continues to be one of the most valuable and competitive sources of octane in the world. Also, because ethanol is [lower in greenhouse gas emissions](#), it provides substantial benefits to automobile manufacturers, consumers, and the environment.

SMALL ENGINE USE

Standard E10 ethanol blends [are safe and approved for use in all engines](#) including boats, motorcycles, and outdoor equipment. Under federal law, some small equipment should not be fueled with higher blends, and that is why all E15 pumps are clearly labeled.

- In June 2017, Growth Energy released a survey showing that U.S. small engine owners are pleased with the performance of their fuel and find it [easy to pick the best option](#).

- A Growth Energy [poll of 500 motorcyclists](#) found that 96 percent of motorcyclists find it easy to figure out the type of gasoline to put in their engine, and 90 percent thought it was important to have choice at the pump. A third survey found that [94 percent](#) of U.S. boat owners find it easy to pick the right fuel and are confident in their selection.

THE FACTS

- Since adopting the E15 in 2011, NASCAR has logged [well over 10 million miles on the fuel blend](#). And American motorists have driven [more than 5 billion miles on E15](#).
- Ethanol is a renewable biofuel produced from grains, plants, and grasses. [It also burns cleaner than oil](#), which is good for our environment.
- The [National Boat Racing Association exclusively uses E10](#) for all its races, and companies like Kawasaki, Mercury Marine, OMC (Johnson/Evinrude), Pleasurecraft, Tigershark (Artco), TRACKER, Honda, and Yamaha all approve the use of E10 in their engines. Top snowmobile manufacturers – including Arctic Cat, Ski-Doo, Yamaha, and Polaris – [also approve the use of E10 in their vehicles](#).