

**Wheels:** An e-mail from Gary of Dayton says, “I saw E-85 for sale at a gas station for \$2.75 which is \$0.45/gallon less than what 87 octane sells for. What gives? I thought E-85 would be higher than standard 87 octane gas.”

**Halderman:** Many people are confused about E-85 which is becoming more available in the area. E-85 is 85% ethanol (also called ethyl or grain alcohol) and 15% gasoline. The resulting combination of alcohol and gasoline creates a fuel with a high anti-knock index with a pump octane of about 100. However, the heat energy is about 25% less. This reduced heat production reduces fuel economy about 20% to 30%.

For example, a Chevrolet Silverado pickup truck equipped with a 5.3 liter V-8 engine is rated by the EPA with a fuel economy of 15 mpg city and 20 mpg highway. If E-85 is used, the fuel economy will drop to 11 mpg city and 15 mpg highway. Therefore, even with a cost reduction, the cost of using E-85 is greater than using gasoline. However, if E-85 is used, at least the ethanol in the E-85 is a renewable resource. E-85 should only be used in vehicles designed to use it and are usually labeled as being flex-fuel vehicles.

