

# In Gas-Powered World, Ethanol Stirs Complaints

OKLAHOMA CITY — “Why Do You Put Alcohol in Your Tank?” demands a large sign outside one gas station here, which reassures drivers that it sells only “100% Gas.”

“No Corn in Our Gas,” advertises another station nearby.

Along the highways of this sprawling prairie city, and in other pockets of the country, a mutiny is growing against energy policies that heavily support and subsidize the blending of ethyl alcohol, or ethanol, into gasoline.

Many consumers complain that ethanol, which constitutes as much as 10 percent of the fuel they buy in most states, hurts gas mileage and chokes the engines of their boats and motorcycles.

As ethanol has spread around the country, gas station owners and wholesalers are catering to concerns about ethanol that are often exaggerated but not entirely unfounded. High gas prices seem to be helping them plant seeds of doubt in customers’ minds.

“We just think it’s better for the car — we get better mileage,” said Marjorie Olbert, a retired teacher, as she filled her 2002 Toyota with what is sometimes called conventional or “clear” gasoline at a suburban E-Express station. Stickers on the pump urge customers to “Always Demand 100% Real Gasoline.”

Ms. Olbert was unmoved by the slightly lower price of the ethanol blend. “My husband and I just decided that the few cents difference is worth it,” she said.

Though common in the Midwest for at least a decade, ethanol-gas blends — often called gasohol — arrived on the coasts a few years ago. Only recently did ethanol start showing up in many Southern states. The expansion has been driven largely by federal measures requiring that 36 billion gallons of biofuels a year be mixed into the nation’s gasoline supply by 2022.

Last year, 6.5 billion gallons of ethanol were mixed into a supply of 142 billion gallons of gasoline. Ten states effectively mandate ethanol blends, which are now found in two-thirds of the nation’s gas supply. Florida recently passed a requirement that will take effect in 2010.

Ron Lamberty of the American Coalition for Ethanol estimates that about a quarter of all gas stations across the country sell only ethanol blends, a quarter sell only unblended gas, and the other half offer both, or go back and forth depending on price.

Mike Brown, a vice president of Harris Oil, a wholesaler north of Orlando, has stuck to unblended gas, which he shuttles to large businesses like marinas and landscapers, even as many

of his competitors switched to ethanol blends in May, after the changeover of a large supply terminal.

He used to deliver three or four tanker loads a week, but “we’ve added an extra load because of our new customers,” he said. He also has a small fueling station where customers are starting to bring five-gallon gasoline cans or 55-gallon drums to get their hands on ethanol-free gasoline.

The most common blend of ethanol is called E10, which is about 90 percent gasoline and 10 percent ethanol by volume. All modern nondiesel cars are certified to run on a blend of up to 10 percent.

(E85, a much higher ethanol blend of about 85 percent ethanol and 15 percent gasoline, is only for vehicles specifically designated “flex fuel.”)

Gallon for gallon, pure ethanol contains one-third less energy than gasoline, and the ethanol industry acknowledges that E10 reduces mileage by about 2 percent.

Some drivers think the change is notably greater. Chuck Mai, a vice president of AAA Oklahoma, reported that his organization has been getting calls from members blaming E10 for mileage drops of 8 to 20 percent.

Drivers in Tulsa, he said, are complaining to their local service stations, saying, “ ‘I used to get 28 mpg; last time around, I’m getting 25. What’s going on?’ ”

In chat rooms at Edmunds.com and elsewhere, plenty of people are blaming ethanol for substantial mileage drops.

Auto drivers are not the only ones complaining.

Ashley Massey, a spokeswoman for the State Marine Board in Oregon, where an E10 mandate is being enforced this year, said that when E10 first arrived, her agency was flooded by calls.

“What we’re hearing is that the boats are starting, but then they start to sputter” and quit, she said. They are also hard to restart, Ms. Massey said, adding that her own weed trimmer sputtered and died with E10, but revived with conventional gas.

Her agency has posted a list of gas stations that still sell unblended fuel, as permitted by exemptions to Oregon’s mandate, on its Web site. Warnings and tips about using E10 are included as well.

Mechanics for a range of equipment and small vehicles, from boats and motorcycles to lawnmowers, have blamed E10 for engine sputters and shutdowns.

“I don’t see any good point to ethanol,” said Gordon Razee, owner of a shop that sells and repairs motorcycles in Rhode Island. “As far as it pertains to the motorcycle industry, all it has done is create problems, so that we’re constantly working on carburetors.”

In Oklahoma City, Shaun O’Connor, whose family runs a large lawn and garden store, is also getting more calls since E10 spread across Oklahoma.

“We have seen an increase of primarily fuel problems, fuel-related problems — carburetion, fuel lines, fuel pumps,” Mr. O’Connor said, calling it “highly coincidental” that such problems are arising at the same time ethanol was introduced.

He acknowledged, however, that there could be other causes, including Oklahoma’s rainy year.

Most small engines these days are compatible with E10. However John Foster, the manager of product compliance at Stihl, a power-tool manufacturer, said that problems can arise when people leave the fuel sitting around for two months or more, as often happens with boats, lawnmowers, chainsaws and other equipment.

Alcohol has three major properties that can lead to problems, according Mr. Foster: it attracts water; it can evaporate; and it acts as a cleaner. Water that gets into fuel can make an engine hard to start.

If E10 is left in the engine, evaporation can leave varnish and deposits. Finally, when E10 is first run through an engine, alcohol’s tendency to clean out old deposits can cause problems. Mr. Foster advised consumers to follow the instruction manual, and properly store fuel and maintain equipment.

The ethanol industry vigorously defends its product. The Web site of the American Coalition for Ethanol states that “E10 is safe to use in small engines such as motorcycles, lawn mowers, trimmers, boats, personal watercraft, snowmobiles, ATVs, and many others.”

Gregory Shaver, an assistant professor of mechanical engineering at Purdue, said that ethanol can degrade natural rubbers, copper and tin-plated objects. But he added: “I can say with 99.9 percent confidence that E10 should be no problem in a modern vehicle.”

Still, the backlash seems likely to continue. In April, a boater in California filed a class-action suit against nine oil companies, claiming that they had failed to provide warnings about the pitfalls of ethanol. An ethanol blend, the complaint stated, ruined the fiberglass tank on his sport-fishing boat. The suit is pending.

In an attempt to address consumer concerns, 42 states have passed labeling laws, which generally require gas pumps to indicate if ethanol is blended into the product. In many states, this often amounts to a sticker, saying “May contain up to 10% ethanol.”

Mr. Lamberty of the American Coalition for Ethanol likens the labels to cigarette cancer warnings. He would prefer to see the message flipped — something like “Contains the minimum amount of gas allowed by law,” he said.