

What's in our fuel is killing us.

GASOLINE
PLUS



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The human health effects of toxic fuel additives.
And how American Ethanol makes our fuel safer.

ALSO IN THIS ISSUE:

- Omaha dangerously close to exceeding EPA clean air standards
- E15: The higher American Ethanol blend for almost everyone
- Good ozone vs. bad ozone
- New flex fuel pumps across Nebraska

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Dozens of new flex fuel pumps coming to Nebraska



CLEANER AIR FOR NEBRASKA

UP to 80 new flex fuel pumps will be installed across Nebraska in the next few months as part of a national effort to expand consumer demand for American Ethanol.

The flex fuel pumps will offer a wide range of higher blends of American Ethanol including E15, E30 and E85. E15 can be used in all vehicles model year 2001 or newer, while all American Ethanol blends can be used in flex fuel vehicles.

The placement of new flex fuel pumps in Nebraska will primarily occur in metro areas and along Interstate 80.

The U.S. Department of Agriculture created the Biofuels Infrastructure Partnership (BIP) which targeted \$100 million toward the expansion of the flex fuel infrastructure across the nation. The award of federal dollars requires a dollar-to-dollar match from states, private industry and other sources. In Nebraska, more than \$6 million has been dedicated to this effort—including contributions from the Nebraska Corn Board, Nebraska Ethanol Board and Chief Ethanol Fuels. The Nebraska Energy Office is serving as the lead administrator of the program.

According to David Bracht, director of the Nebraska Energy Office, sales of mid-level American Ethanol blends have increased 45 to 55 percent at Nebraska stations that have installed flex fuel pumps.

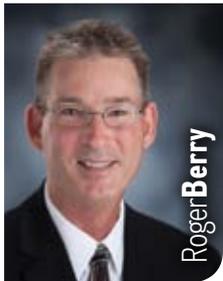


“Building out our flex fuel infrastructure will make it even easier for consumers to take advantage of the many benefits of higher blends of American Ethanol and exercise their freedom to choose from a wide range of fuels.”

David Bracht, director of the Nebraska Energy Office

Raise your voice. Or lose your choice.

Automakers scaling back on FFV production.



RogerBerry

Just at the time the U.S. Department of Agriculture (USDA) is helping America build out a larger infrastructure for flex fuels, U.S. automakers are cutting back on the production of flex fuel vehicles (FFVs) that can use higher blends of American Ethanol.

FFVs are specially designed to run on regular unleaded or any ethanol fuel blend up to 85 percent (E85). Special on-board diagnostics “read” the fuel blend, enabling you to fuel your FFV with E10, E15, E20, E30, E40, E50 or any ethanol blend up to E85, or ordinary unleaded if ethanol-blended fuel is not available.

The automakers say nobody is asking for FFVs, but the truth is that the fuel economy credits automakers receive for manufacturing them are being phased out.

According to *Ethanol Retailer*, Chrysler Corporation, Ford Motor Company, General Motors, Nissan and Toyota all offer flexible fuel engines as standard equipment in certain vehicles — at no additional cost to consumers. Each FFV comes with the same factory warranty as its non-FFV counterpart.

“Losing FFVs means eventually losing the opportunity to purchase higher blends of American Ethanol at the pump,” said Roger Berry, director of market development for the Nebraska Corn Board. “We’ve invested in building the ethanol industry and in expanding the flex fuel infrastructure. We need to make sure that automakers continue to make the vehicles that can use higher levels of clean-burning American Ethanol.”

Tell automakers to keep making FFVs.

Visit FlexMyChoice.com to discover more and follow the prompts to make your voice heard.

The Nebraska Corn Board also has pre-addressed postcards for each of America’s automakers, which consumers can simply fill out and mail.

Call **402.471.2676** for your copy.

Nebraska Governor Pete Ricketts fills up a customer’s car with E85 during a recent promotion at Sapp Bros. in Omaha.



One in seven Nebraskans are driving a Flex Fuel Vehicle. You could be one of them.

Owning a flex fuel vehicle gives you the greatest choice at the pump. With an FFV, you can choose any flex fuel blend of American Ethanol up to E85—in any combination, in any amount. That gives you the freedom to choose your fuel based on price, performance, convenience and availability.

Here’s how to know if you’re driving a flex fuel vehicle:

- You might have an insignia on your trunk lid or tailgate
- Check your owner’s manual
- You might have a yellow fuel cap
- Look for a sticker on the inside of your fuel door



Vehicle Emission Dangers Well Documented

According to the U.S. Environmental Protection Agency (EPA), more than 45 million Americans live within 900 feet of a major road, railroad or airport. The American Lung Association of the Upper Midwest (ALAUM) says that up to 70% of air pollution is caused by mobile sources, i.e. cars, trucks, buses, heavy equipment and other vehicles with combustion engines.

Some recent research clearly outlines the health dangers of vehicle emissions:

- **Almost 16,000 babies arrive early each year due at least in part to air pollution**, according to a recent study led by Dr. Leonardo Trasande, an environmental health researcher at New York University School of Medicine. The research concluded that approximately 3 percent of preterm births in the U.S. can be attributed to air pollution, based on data from the Environmental Protection Agency, the Centers for Disease Control and Prevention and the Institute of Medicine.

A build-up of toxic chemicals in the blood can cause immune system stress that **weakens the placenta** and shortens the amount of time the baby can remain in the womb. (*Reuters, March 29, 2016*)

- A study available from the National Institutes of Health found that urban air with high levels of cancer-causing benzene and ultrafine particulate matter (both found in vehicle emissions) are associated with **DNA damage** in people living near high-traffic areas. <http://www.ncbi.nlm.nih.gov/pubmed/15591089>

- A study by the Environmental Protection Agency found that climate change will likely lead to higher levels of ground-level ozone, which in turn can lead to **increased rates of premature death**, allergic sensitivity, lung cancer, and cardiovascular disease. health2016.globalchange.gov
- A study conducted by Tufts University School of Medicine and Boston University School of Public Health focused on Boston residents who live or spend a significant amount of time near Interstate 93 and the Massachusetts Turnpike. The study, which included blood sample analysis, found that those living within 1,500 feet of a highway have increased chances of suffering a **heart attack or stroke** due to increased exposure to microscopic metals and chemicals spewed from vehicles. <https://www.bostonglobe.com/metro/2016/04/13/new-evidence-dangers-living-near-highways/hVyqTnY4iyn9YRoNSwWtG/story.html>
- According to information from Dr. Michelle Hoffman with the University of Utah Department of Pediatrics, **proximity to traffic** is a key component in the level of danger posed by vehicle emissions. Much higher exposures to traffic-related air pollutants occur within 30 meters compared to greater than 200 meters. Some 11 percent of U.S. households are located within 100 meters of four-lane highways. Near highway pollutants may pose greater health risks than ambient air pollutants. Because of their common source (vehicle emissions) the levels of ultrafine particulate matter, nitrous oxide, carbon monoxide and black carbon (soot) are highly correlated. <http://www.slideshare.net/StateofUtah/near-highway-pollutants>



Angela Tin

The American Lung Association of the Upper Midwest (ALAUM) strongly recommends the use of higher blends of American Ethanol as a way to improve air quality and reduce the human health threats posed by toxic vehicle emissions. "Every time you pull up to the pump, you make a choice. So choosing fuel with American Ethanol is a pretty easy way to help reduce

air pollution—and make the air cleaner and safer for you and your family," said Angela Tin, ALAUM vice president for environmental health. "American Ethanol is clearly the clean air choice."

What's in our fuel is killing us.



- Benzene, toluene and xylene (BTX) are added to gasoline to boost octane
- These are known or suspected carcinogens
- What doesn't burn in your engine leaves the exhaust as fine and ultrafine particles
- These particles enter our lungs and bloodstream
- BTX has been linked to asthma, lung and brain cancer, and heart disease
- Toxic particles are especially harmful to infants, young children, the elderly and people with respiratory or cardiopulmonary disease



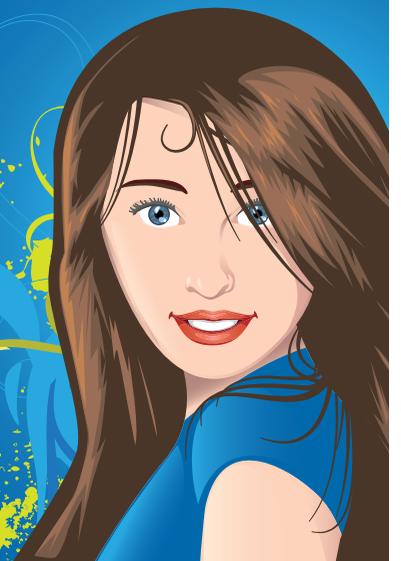
Ethanol adds oxygen to gasoline, burning more of the toxic compounds in fuel before they leave the tailpipe. It's like fanning a dying fire. You add oxygen and the fire keeps burning!

American Ethanol reduces the dangers of vehicle emissions.

- A clean, renewable and non-toxic source of octane
- Adds oxygen to the fuel, which helps fuel burn more completely
- Fewer toxic tailpipe emissions and reduced greenhouse gas emissions
- The more American Ethanol in fuel, the lower the level of toxic compounds in the fuel—and in the air we all breathe



CLEANER AIR FOR NEBRASKA



Omaha-Council Bluffs Area Dangerously Close to Air Quality Consequences

The air in Omaha is not as clean as you might think.



The Omaha-Council Bluffs metro area has an average ozone level of **67 parts per billion (ppb)**, very close to the recently-tightened **70 ppb** limit set by the Environmental Protection Agency (EPA). If the region exceeds this limit, it will go into “non-attainment”, an extremely punitive EPA designation that has long-term consequences on a region’s ability to grow and prosper.

Ground-level ozone is particularly problematic during summer months. *(See sidebar on page 7)* That’s why the Metropolitan Area Planning Agency (MAPA) conducts an annual consumer information campaign during the summer to help citizens make choices that can keep Omaha’s air clean.

Included in MAPA’s Little Steps Big Impact campaign is a recommendation to choose cleaner-burning renewable biofuels such as ethanol and biodiesel. “Beginning last year, we really started highlighting the benefits of cleaner-burning biofuels such as American Ethanol as one of the little steps people can take,” said Greg Youell, MAPA executive director. “In some other metro areas, we’ve seen a correlation between the

increased adoption of biofuels and a reduction of ground-level ozone levels. So we're urging people to take the little step of choosing biofuels at the pump that will yield big impacts that help all of us have cleaner air to breathe and enjoy every day."

Other Little Steps Big Impact recommendations include carpooling, use of public transit and walking or biking to work.

Youell said it's paramount that the Omaha region avoid exceeding EPA air quality standards. "If a region goes into non-attainment, it is very difficult to get out of it," Youell added. "Once you're designated, it can take up to 20 years to get out even if your air quality improves and you don't have any more violations."

Youell said that going into non-attainment has serious consequences on a community. "It would have a dramatic effect on industry and growth in the Omaha metro area. Any industry that has emissions would not be able to expand—and any new industry coming to town would be prevented from doing so without going through a permitting process that requires them to identify how their emissions will be offset," he said. "Non-attainment really hinders economic development, and that has a ripple effect through the area in terms of job growth, tax revenue and economic vitality."

"We are dedicated to being proactive in order to maintain our clean air quality status and we strongly believe that increasing the use of biofuels such as American Ethanol is a sensible and simple strategy to help us do just that," Youell said.

“Once you’re designated, it can take up to 20 years to get out even if your air quality improves and you don’t have any more violations.”

Greg Youell, MAPA executive director

Ozone an asthma trigger in kids.



Kara Eastman

High levels of ozone are especially a problem for children with asthma. Reducing asthma triggers inside the home is a key focus of Omaha Healthy Kids Alliance, a non-profit organization focused on helping families improve the health of the in-home environment for children.

"It's hard enough to control the in-home environment let alone what happens outdoors," said president and CEO Kara Eastman. "But choosing the right fuel is a pretty simple action everyone can take to reduce ozone in our city. It's especially easy to make that choice since fuel with American Ethanol is typically the lower priced choice at the pump."



OZONE is a compound that occurs naturally in Earth's atmosphere but is also formed by human activities. In the stratosphere, ozone prevents harmful solar ultraviolet radiation from reaching the Earth's surface. That's the "good" ozone.

Near the surface, however, ozone is pollution that's harmful to people, pets and plants. More than half of ground-level ozone comes from common daily activities, especially driving. This "bad" ozone has significant human health implications including asthma and chronic obstructive pulmonary disease (COPD).

Renewable fuels such as American Ethanol reduce ground-level ozone levels and reduce the amount of particulate matter in vehicle emissions.



E15: The higher American Ethanol blend that almost anyone can use.

The Environmental Protection Agency (EPA) has approved the use of E15 in all passenger vehicles model year 2001 or newer. In fact, **more than 70%** of new (2016) models are explicitly approved for the use of E15 by automakers.

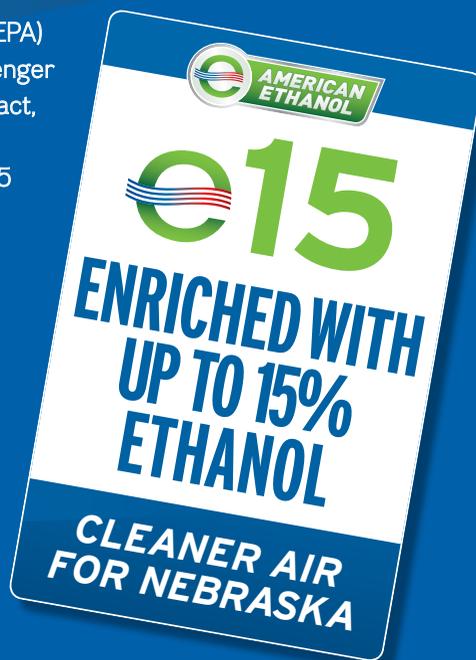
E15 is a blend of 15% ethanol and 85% gasoline. It is the **most widely tested fuel to ever be offered** for sale in the United States. Since ethanol is cleaner and has a higher octane content than gasoline, E15 reduces the number of pollutants in fuel and produces less carbon emissions than regular gasoline. In addition, E15 is typically less expensive than E10 or ordinary unleaded gasoline.

EPA approval means that E15 is authorized for use in 239 million cars on the road in the U.S. today, including all the autos manufactured in the last decade **(equal to more than 80 percent of all the vehicles on the road today).**

A full move to E15 creates a bigger market for American Ethanol that could help create as many as 136,000 new jobs in the United States and eliminate as much as **8 million metric tons of greenhouse gas (GHG) emissions** from the air in a year — the equivalent of taking 1.35 million vehicles off the road.



E15 is consistently making its way to pumps across the nation. **Kum & Go**, a regional retailer with several locations in Omaha, will be introducing E15 at its stations over the next several months. "We have a strong tradition in our company to implement sustainability within our business and at our locations. E15 was a natural addition to our fuel offering," said Jim Pirolli, vice president of fuels for Kum & Go. "Having E15 in our portfolio allows Kum & Go to offer our customers a quality product at a great value."



District 1
Dave Bruntz
Friend, NE



District 6
Dennis Gengenbach
Smithfield, NE



District 2
John Greer
Edgar, NE



District 7
David Merrell
St. Edward, NE



District 3
Brandon Hunnicutt
Giltner, NE



District 8
Jon Holzfaster
Paxton, NE



District 4
Debbie Borg
Allen, NE



At-large
Alan Tiemann
Seward, NE



District 5
Tim Scheer
St. Paul, NE



Nebraska Corn Board members represent the eight districts indicated on the map and are appointed by the Governor. One at-large member is elected by the other Board members.

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