

SETTING THE RECORD STRAIGHT: THE E15 EMERGENCY WAIVER



BACKGROUND

On April 12, President Biden visited Growth Energy member plant POET-Menlo and announced that the Environmental Protection Agency (EPA) would issue an emergency waiver to lift outdated and unnecessary restrictions on E15, a fuel blended with 15 percent ethanol, for the 2022 summer driving season.

While E15 is a cleaner fuel blend, it is restricted in the summertime by outdated federal fuel regulations which apply to a measure of fuel vapor pressure known as “Reid Vapor Pressure” or RVP. The higher the vapor pressure, the more easily a fuel can evaporate, especially in higher temperatures.

E15 has a lower vapor pressure than the standard E10 blends consumers normally buy year-round, but because the RVP law was written more than 30 years ago – before E15 existed – consumers in some parts of the country are unable to access the lower-cost, lower-emissions blend during summer months because the law specifies 10 percent ethanol, which was the standard ethanol fuel in 1990.

President Biden’s waiver for E15 represented a win for American drivers seeking lower-cost options at the pump, but critics continue to work to limit access to higher blends of biofuels nationwide by spreading misinformation about the benefits of E15.

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Q: Why did the president grant an emergency waiver?

A: With fuel supply challenges causing gas prices to reach record highs this spring, President Biden announced that his administration would lift outdated and unnecessary restrictions on E15, a fuel with a fifteen percent ethanol blend, for the 2022 summer driving season. The change offers American drivers with uninterrupted access to a lower-cost fuel.

The emergency waiver, which eliminates the disparity between fuel volatility standards for E15 and E10, will help increase fuel supplies and give consumers more choice at the pump. Available at over 2,600 stations in 31 states, E15 offers relief when working families need it the most. In fact, drivers can save an average of 10 cents per gallon compared to E10, and many stores sell E15 at an even greater discount. If E15 were available nationwide, drivers would save an estimated \$12.2 billion annually in fuel costs. Additionally, increasing the homegrown biofuels in our fuel mix also reduces dependency on foreign oil, helping shield Americans from volatility in foreign oil markets and move our nation towards greater energy independence.

We are grateful to President Biden, Secretary Vilsack, and all our lawmaker champions who have helped promote American biofuels as a solution to rising prices, and we know their support will continue to be critical as we look beyond this summer. President Biden's emergency waiver for E15 applies from June to September this year, but we need a permanent fix to protect access to E15 next summer and beyond.

Q: Why is E15 restricted during the summer?

A: E15 is restricted because of outdated fuel vapor pressure regulations on evaporative emissions that were crafted before E15 existed. These regulations do not reflect the current fuel marketplace – or the emissions improvements that E15 provides. EPA has recognized these improvements and attempted to update these regulations to reflect the reality of E15's evaporative emissions benefits, but the agency's rule was shot down in 2021 after a successful lawsuit by the oil industry.

Fuel evaporates more quickly during the warmer months. Summertime regulations, therefore, are intended to reduce fuel volatility – a measure of how easily a fuel can evaporate – and as a result, reduce certain emissions that could contribute to the formation of smog.

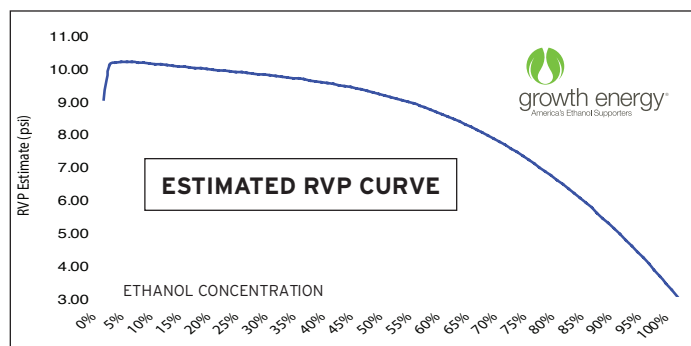
Historically, EPA had extended a special summertime vapor pressure “waiver” to E10, allowing it to meet a slightly higher vapor pressure standard, in recognition of the environmental benefits offered by ethanol blends. Over time, E10 became the standard fuel in the United States, available to consumers year-round.

Fuel blends containing more than 10 percent ethanol, such as E15, have a lower vapor pressure than E10. They reduce overall evaporative emissions as the concentration of ethanol increases.

Given this profile, E15 should easily qualify for same regulatory treatment as E10. However, when the regulations were written 30 years ago, biofuels blending beyond E10 had yet to be envisioned. As a result, EPA regulations limited the summertime fuel vapor waiver only to E10.

More recent efforts by EPA to update the rules to reflect the air quality benefits of E15 were shot down as a result of oil industry litigation, and E15 is now subject to a more stringent summertime vapor pressure standard than regular E10 gasoline – despite being a cleaner fuel with lower evaporative emissions.

This makes no sense. That's why a permanent fix to create parity between E10 and E15 summertime standards is so important. We can't let outdated regulations stand in the way of a clean energy future and a lower-cost, lower-emission fuel.



GRAPH SOURCE: “A Model for Estimating Vapor Pressures of Commingled Ethanol Fuels”, October 29-November 1, 2007; General Motors Research and Development Center – Dr. Sam R. Reddy



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Q: Does E15 contribute to an increase in smog?

A: No. E15 actually reduces the emission of these pollutants more than regular gasoline. This question was settled a decade ago when Department of Energy (DOE)/National Renewable Energy Laboratory tested 86 cars on E15 and E20 blends, and found [no statistical increase in smog-forming emissions](#) for either blend.

Increased ethanol content means less pollution and healthier communities. A study by the University of California Riverside found that ethanol blends reduce toxic emissions, including smog and ultra-fine particulates. Clean-burning biofuels also help lower other tailpipe emissions – including carbon monoxide and toxic chemicals – resulting in cleaner air and a healthier environment.

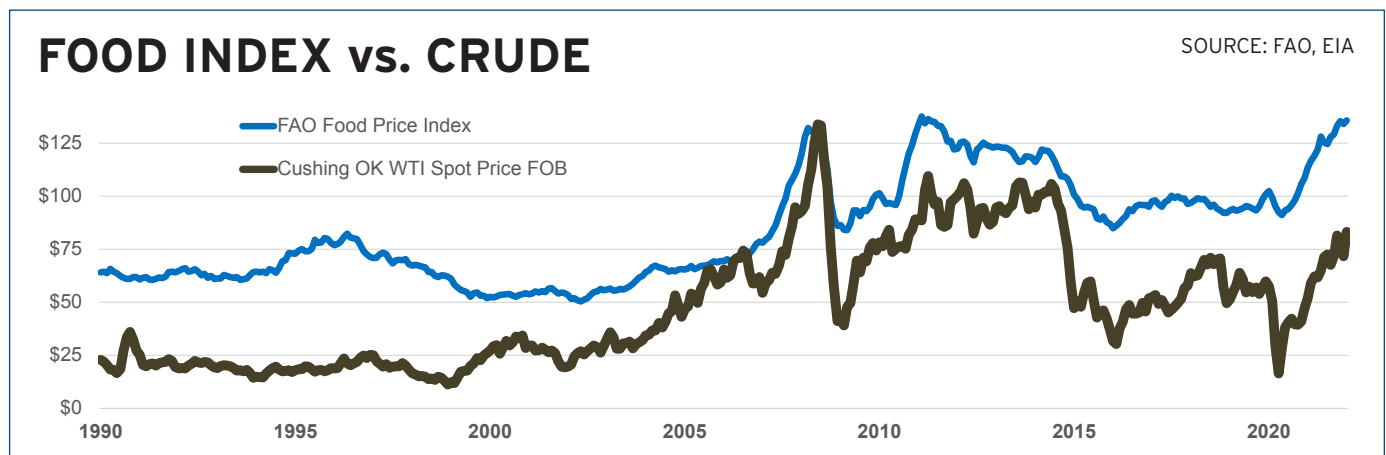
At the same time, ethanol reduces greenhouse gas emissions (GHG) by 46 percent compared to regular gasoline, making biofuels a key to achieving the nation's climate goals. As a result, nationwide adoption of E15 could cut GHG emissions by 17.62 million tons per year, which is the equivalent of removing approximately 3.85 million vehicles from the road.

That's why a permanent fix is so important. We can't let outdated regulations stand in the way of a clean-energy future.

Q: Will the emergency waiver raise the cost of food?

A: No, higher food prices have been driven by the price of [crude oil and inflation](#). Crude oil prices are set by global markets and strongly impact the prices of other goods. The chart below illustrates the strong correlation between the food price index and crude oil prices.

The same factors are impacting costs today. Higher consumer prices and inflation are being driven by a post-COVID surge in demand for everything from cars to housing, and economists agree that grocery prices are driven largely by factors like packaging and marketing – not the value of farm commodities. In fact, the U.S. Department of Agriculture (USDA) estimates that 84 percent of every dollar spent on food covers marketing costs, while only 16 percent goes to pay for actual farm commodities.



Notably, ethanol production utilizes only the starch in each kernel, preserving valuable protein, minerals, vitamins, and fiber for co-products such as animal feeds and oils. The equivalent of nearly 30 percent of each bushel going into ethanol production is returned to the food chain in the form of dried distillers grains (DDGs) for animal feed. In fact, U.S. DDG production represents the fourth largest source of grain-based livestock feed in the world.

As a result, **producing ethanol fuel from corn has no effect on the supply of food nutrients from corn**, and any impact on food prices is negligible.



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Q: Will the emergency waiver lower the cost of gas?

A: Yes. Lifting restrictions on E15 will ensure continued access to a fuel that saves drivers up to 10 cents per gallon on average, and even greater savings – 50 to 60 cents per gallon – following the most recent surge in oil prices.



Currently, E15 is available at more than 2,600 gas stations across 31 states. And just about anyone can use it because E15 is approved for all light-duty cars and trucks model year 2001 or newer. That's more than [96 percent of light duty vehicles currently on the road](#) – more than 245M cars and trucks on the road today which account for 98 percent of all vehicle miles traveled.

More importantly, E15 offers relief at the pump at a time when we need it most. In fact, even before the recent run-up in oil prices, it was estimated that nationwide access to E15 saves drivers [\\$12.2 billion](#) annually in fuel costs.

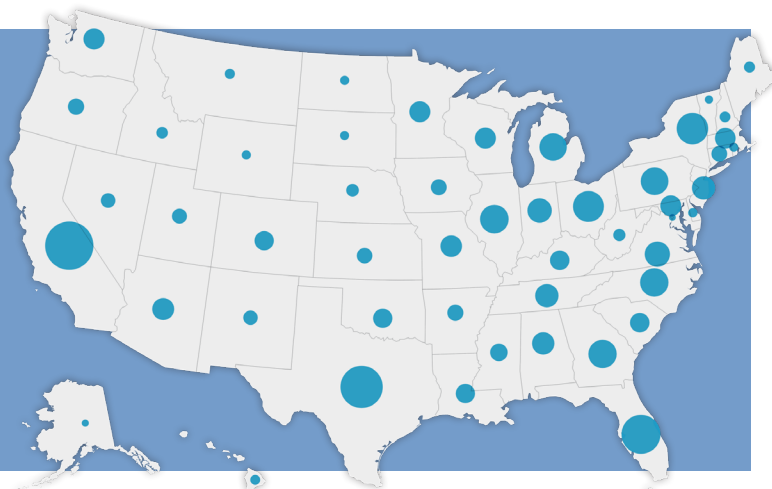
Q: Does E15 increase the emission of greenhouse gases?

A: [No, biofuels like ethanol significantly reduce GHGs today and will play a key role in decarbonizing the transportation sector into the future.](#) Moving to E15 nationwide would reduce CO₂ emissions by another 17.62 million tons – the equivalent of taking 3.85 million cars off the road.

At the same time, biofuel producers work hand in hand with U.S. farmers to promote sustainable practices across the agriculture sector while meeting a growing demand for renewable products.

**Nationwide adoption of E15
would effectively remove
3.85 million vehicles from
American roadways today.**

California	411.1 thousand cars
Texas	312.2
Florida	263.6
New York	169.1
Ohio	163.0



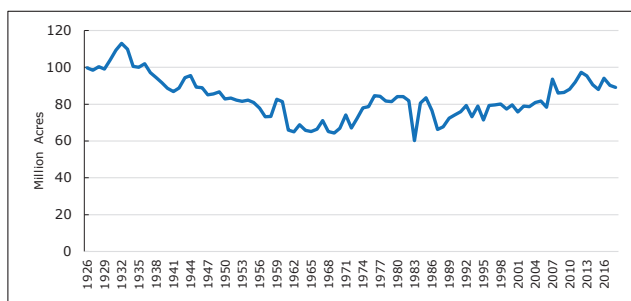
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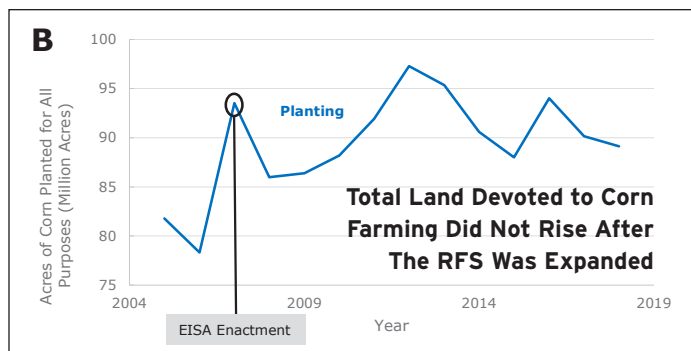
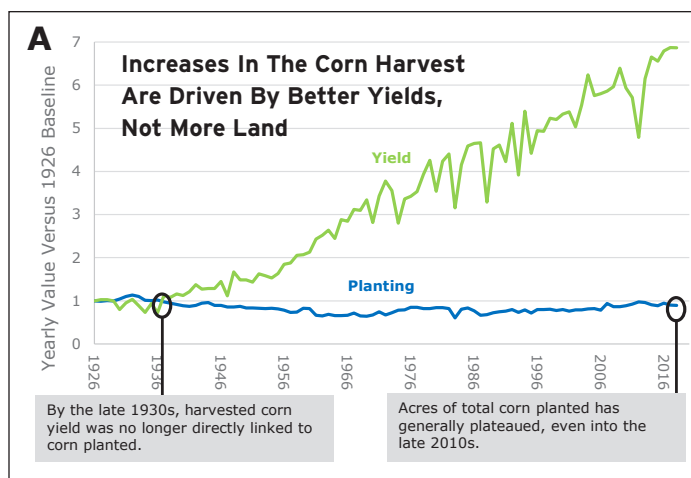
Q: Will the use of summertime E15 increase land use acreage devoted to agriculture?

A: No. Compared to the 1930s, farmers today grow five times as much corn using 20 percent less acreage. America's agriculture sector continues to improve farming methods to increase efficiencies and yield, lowering the amount of energy needed to produce a bushel of corn. Corn acres have not grown since 2007, the first year the Renewable Fuel Standard was implemented, yet yields continue to increase.

Total U.S. Planted Acres of Corn per year (million acres)



SOURCE: USDA 2019



SOURCE: USDA Crop Production Historical Track Records, 2019

Q: Is E15 less energy dense than E10?

A: Ethanol is the best available source of octane. It is the cleanest, most affordable high-octane fuel on the market. It provides a superior octane boost without the carcinogens associated with other fuel additives. As a result, E15 increases performance, while any change in fuel economy between E10 and E15 is negligible.

The U.S. Department of Energy ([DOE](#)) agrees, noting that its research “showed no statistically significant loss of vehicle performance (emissions, fuel economy, and maintenance issues) attributable to the use of E15 fuel compared to straight gasoline.”

Q: Can anyone use E15 in their car?

A: The U.S. Environmental Protection Agency has approved E15 fuel for all light-duty vehicles model year 2001 and newer. That's more than 96 percent of the vehicles on the road today or more than 245M cars and trucks, accounting for 98 percent of all vehicle miles traveled. In fact, Americans have driven nearly 30 billion miles on E15 with no reported issues.

