

ETHANOL PROBLEMS

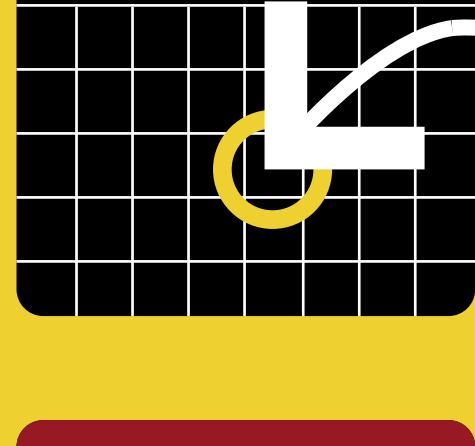
Background Facts



2007

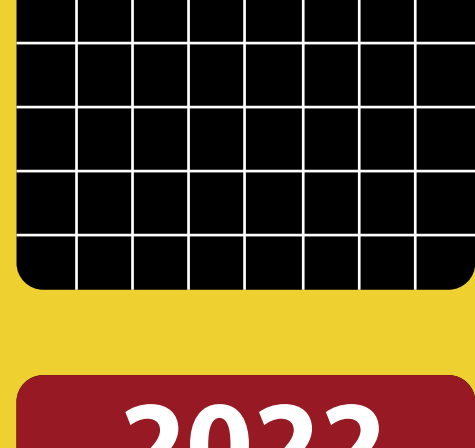
Congress, through the Renewable Fuels Act, creates the rules that require the addition of things like ethanol into gasoline.

2013



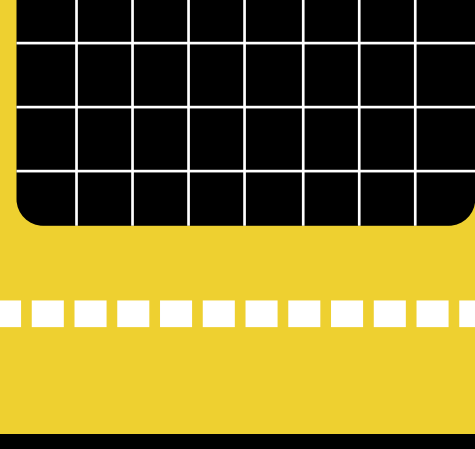
Gasoline refineries blended **37,000,000** gallons per day
= **13.5 BILLION** gallons per year

2015



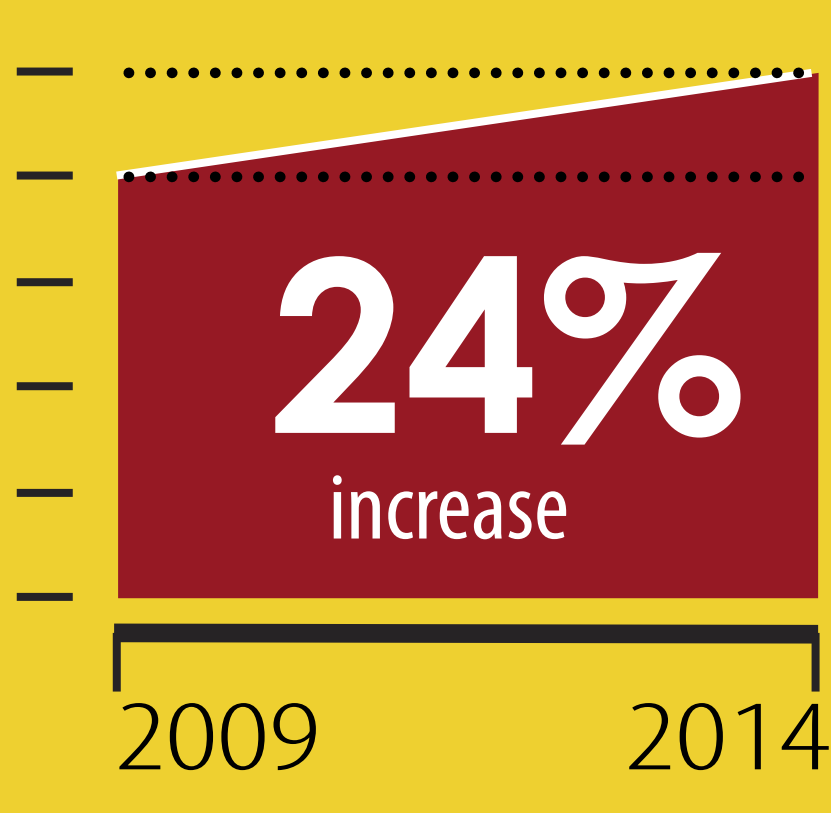
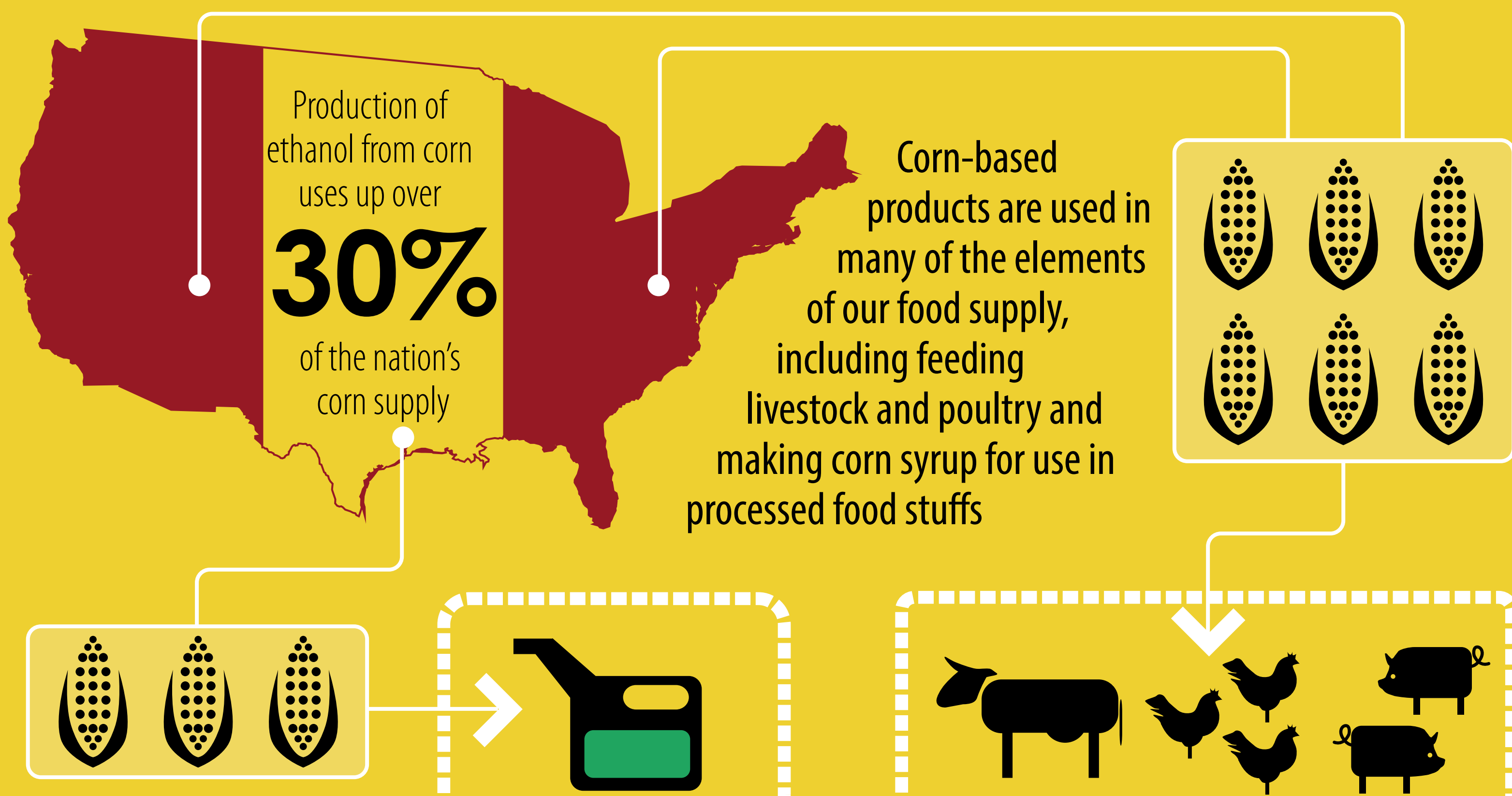
2015 CONGRESSIONAL TARGET IS
= **15 BILLION** gallons per year

2022



2022 CONGRESSIONAL TARGET IS
= **36 BILLION** gallons per year

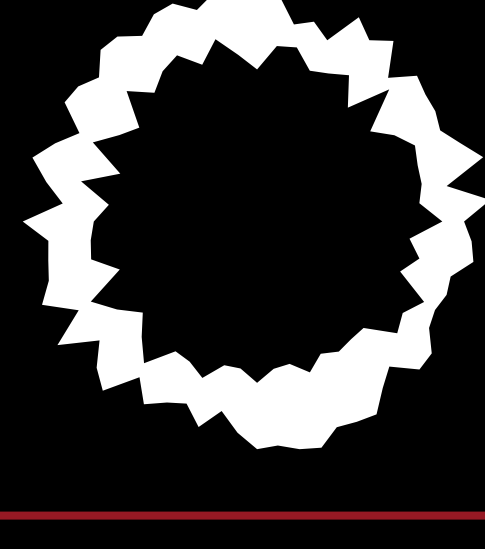
Other Bad Things About Ethanol



In the last five years, ethanol production are major contributors to a 24% increase in the price of food staples like flour, milk and eggs.



Ethanol Damage



Ethanol attacks and softens materials like rubbers, plastics and fiberglass.

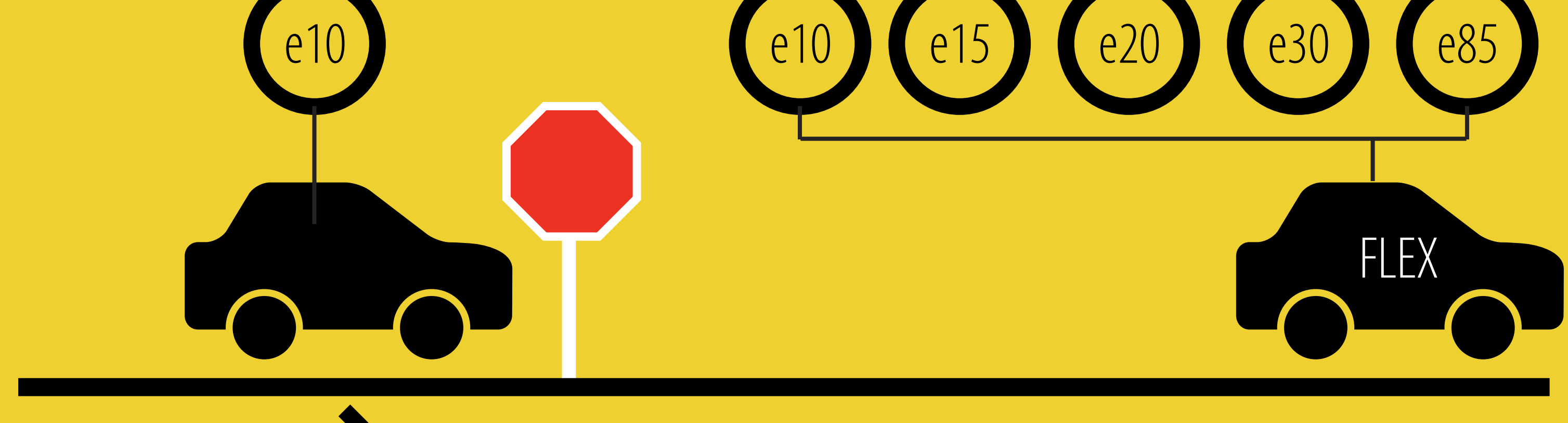


When used in two-cycle engines, ethanol fuel can interfere with essential fuel-oil lubrication, leading to catastrophic engine damage

Ethanol and Vehicles



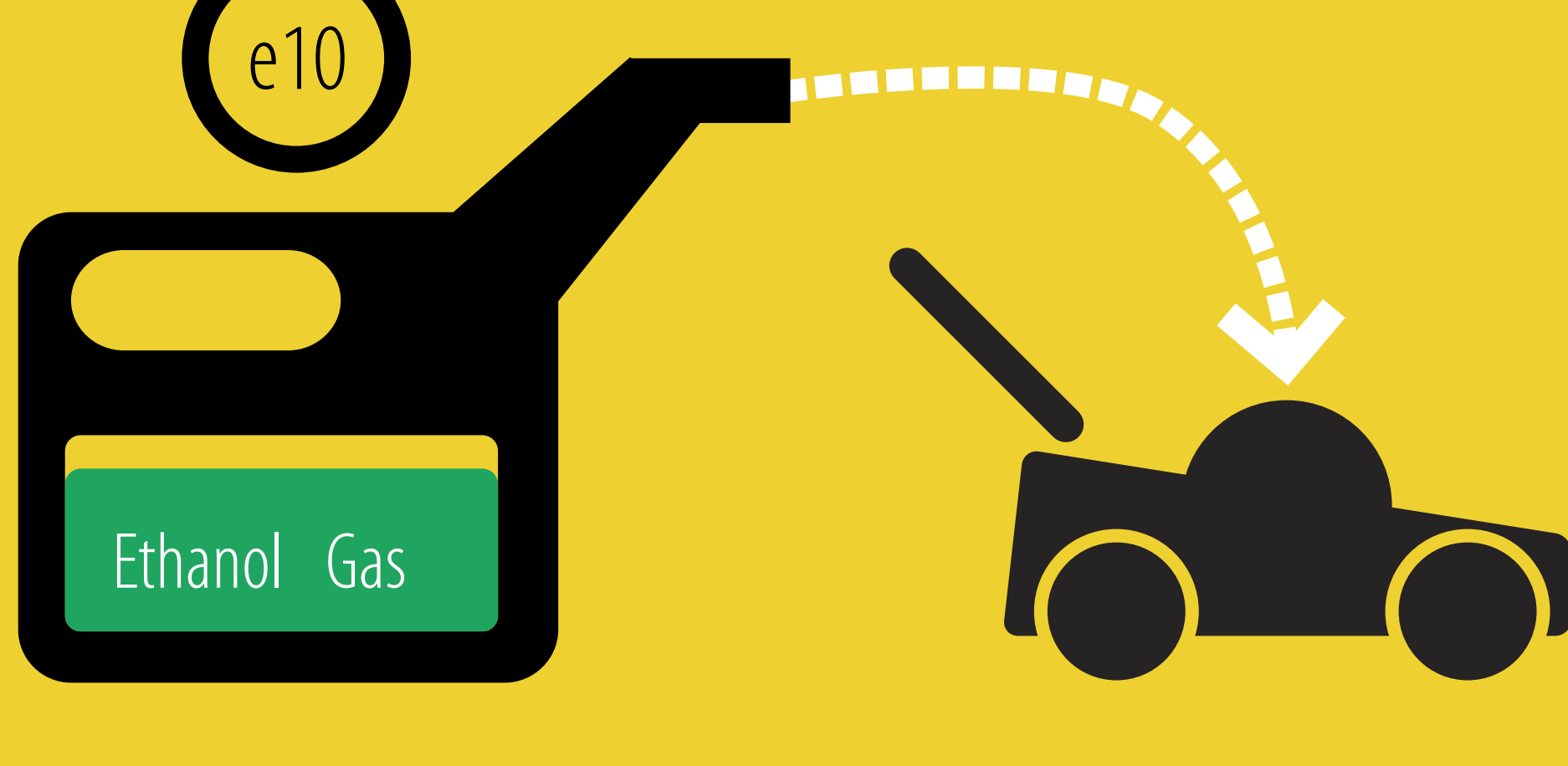
Ethanol has a lower energy content than gasoline, so the more ethanol in your gas, the lower your mileage is going to be.



Cars made before 2001 are not approved to fuel up with ethanol blends higher than 10%.

Only "flex-fuel" cars and trucks are able to run on 85% ethanol fuel, a blend that is widely available. Currently, there are, at most, 17 million flex-fuel vehicles in the US.

Ethanol Blends and Engines



Gasoline blends with ethanol content in excess of 10% are not legally approved for use in "off-road applications", which means they are not legally approved to be used in boats and small equipment like lawn mowers.

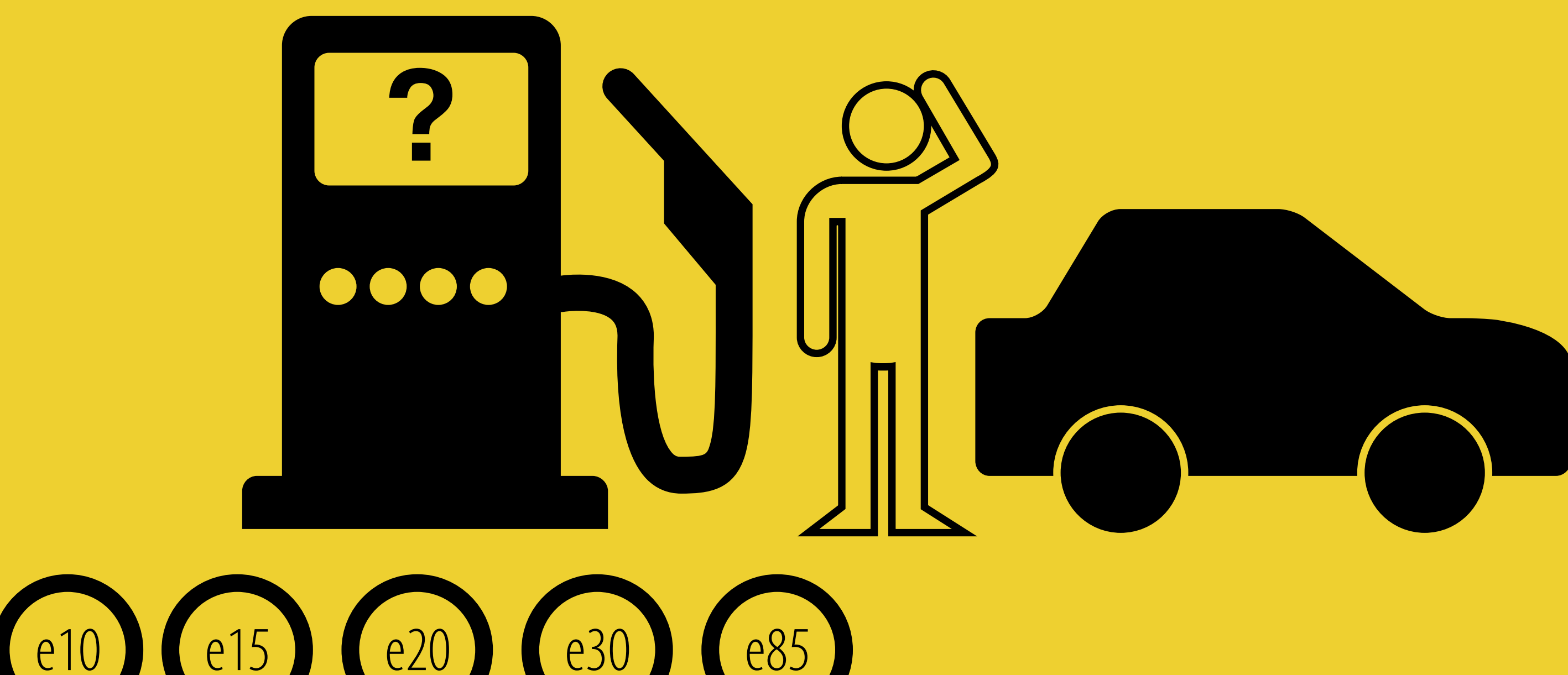
The Outdoor Power Equipment Institute warns against using ethanol blends higher than 10% in small equipment, warning that fuels like E15 and E85 can destroy small engines

Small engine makers like Stihl say:

“

Ethanol attracts and mixes with moisture in the air, causing corrosion to metal components in the fuel system. If enough water is absorbed, the ethanol and water will settle out of the gasoline blend and settle to the bottom of the equipment's tank. The layer of gasoline left floating on top has a lower octane level than the original ethanol gasoline blend, which can result in unstable engine operation, power loss and major engine failures.

”



e10 e15 e20 e30 e85

More and more gas stations are moving to fuel pumps that dispense multiple kind of ethanol blends, like 10%, 15% and 85% ethanol, side-by-side.

Studies have shown repeatedly that, even with the presence of warning stickers on fuel pumps, consumers get confused about the availability of different ethanol levels in their gas, and many times fuel up with the wrong ethanol blend

Ethanol and Boats



#1 reason that boats break down is due to bad fuel.

Machinery failure is the **#5** cause for boating accidents

Once ethanol gas has gone bad in a boat, water separators will not fix bad fuel.