Do you know the ethanol industry's history?

THE ORIGINAL FUEL OF THE FUTURE

LINCOLN, NEBRASKA, April 11, 1933. -- Gov. Charles Wayland Bryan and friends have their gas tanks filled with a blend of gasoline with ten percent ethanol (corn alcohol) at the Coryell service station in downtown Lincoln. (Courtesy Nebraska State Historical Society).

Ethanol fuel has a century of history

For over a century, agrarians and environmentalists have seen ethanol's potential for revolutionizing agricultural economics, for dispelling city smog, and for helping to strike balance between city and farm. There was even the prospect, they thought, of humanizing industrial machinery.

This hope was depicted in a portrait of the **Muse of Agriculture,** driving an early model automobile, on the cover of the report from a conference on alcohol fuel held in Paris, France in 1902. With research and incentives, France and most other industrial nations used ethanol in blends with gasoline for the same reasons we use blends today -- to raise octance and reduce pollution. The programs worked.

Alcohol blends were common and sometimes the dominant auto fuels through the 1940s, and returned again worldwide after the oil embargoes in the 1970s. Especially important was Brazil's "Proalcool" initiative, created by engineers who had studied ethanol use in Europe in the early part of the 20th century.

US ethanol proved crucial in 1930s and WWII

In 1937, Henry Ford and the Chemical Foundation built the country's first alcohol fuel plant in Atchison, Kansas. The plant made anhydrous ethanol for a 10 percent blend called Agrol that was sold in 2,000 service stations in the Midwest.

Although the plant closed down in bankruptcy in 1939, the engineering experience proved extremely valuable only three years later, when a critical war material -- natural rubber -- was cut off. The US attempted to make a synthetic variety, but Standard Oil Co. had blocked patents in a development that then-senator Harry Truman called "treasonous,"

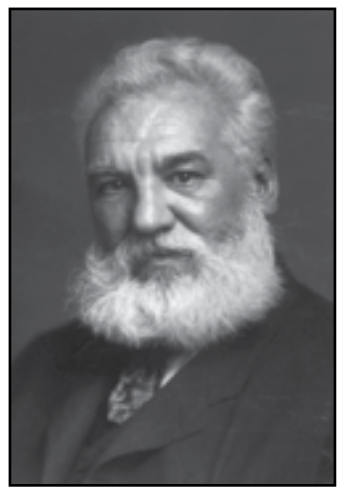
So the ethanol industry had to come to the rescue and make synthetic rubber, and it delivered. By D-Day, 3/4 of the tires on planes, trucks and tanks were "Buna-S" rubber from Midwestern corn fields and converted distilleries.

Ethanol Pioneers

Henry Ford

The fuel of the future is going to come from fruit like that sumac out by the road, or from apples, weeds, sawdust -- almost anything … There is fuel in every bit of vegetable matter that can be fermented. There's enough alcohol in one year's yield of an acre of potatoes to drive the machinery necessary to cultivate the fields for a hundred years.
Sept 20, 1925 New York Times. Ford founded the Ford Motor Co.

Alexander Graham Bell



Alcohol makes a beautiful clean and efficient fuel… Alcohol can be manufactured from corn stalks, and in fact from almost any vegetable matter capable of fermentation… We need never fear the exhaustion of our present fuel supplies so long as we can produce an annual crop of alcohol to any extent desired. *National Geographic,* Feb. 1917.

Bell is known as the inventor of the telephone and also as a leader in technology development in the 19th and 20th centuries.

Harry Ricardo

It is perfectly well known that alcohol is an excellent fuel, and there is little doubt but that sufficient supplies could be produced within the tropical regions of the British empire…"

The High Speed Internal Combustion Engine, 1923. Ricardo was a designer of the Rolls-Royce Merlin engine that was used in Spitfire fighter airplaines in WWII.

Charles Kettering

It is well known that alcohol ... improves the combustion characteristics of the fuel ... The scarcity and high cost of gasoline in countries where sugar is produced and the abundance of raw materials for making alcohol there has resulted in a rather extensive use of alcohol for motor fuel. As the reserves of petroleum in this country become more and more depleted, the use of benzene and particularly of alcohol in commercial motor fuels will probably become greatly extended.

General Motors: Thomas A. Midgley, T.A. Boyd (with Charles Kettering), "Detonation Characteristics of Some Blended Motor Fuels," *SAE Journal*, June 1922.