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MIKE STONES  
REPORTING FROM NEBRASKA

# Riding the rising tide of ethanol

Growing maize for ethanol is transforming the fortunes of US growers and lifting world grain prices. **Mike Stones** reports from Nebraska

**G**-o-n-n-a take a sentimental journey....” Music from a 1930’s radiogram wafts over an immaculate 1926 Henry Ford Model 7 Coupé parked beside a period-style petrol pump.

Welcome to show time at the farm event Husker Harvest Days, Grand Island, Nebraska in the heart of the USA. The car’s driver, dressed in farmer’s bib overalls, is Randy Klein, director of market development with the Nebraska Corn Development Board.

He is acting out a scene with a colleague, dressed as a pump attendant, designed to recall that ethanol was the fuel of choice for Henry Ford’s first cars. Seventy years since the Model 7 rolled off the world’s first production lines, there’s renewed interest in ethanol sparked by rising fossil fuel costs.

“About 25% of the corn [maize] produced in Nebraska goes into ethanol production, which adds between 5-10 cents to the bushel price,” said Mr Klein. But within three years ethanol will account for 60% of all the corn produced in Nebraska, he predicted. “At present, Nebraska alone is putting 240m bushels a year into ethanol production. Another 240m bushels will be added by the end of 2007 and a further 300m bushels in 2008.”

A measure of the growing attractiveness of ethanol is revealed by the interest of outside investors. “We’ve begun to see Wall Street investors backing plans for new ethanol plants.” Up to about half of new site proposals come from farmer controlled businesses. “It’s helping to reclaim value from the market for their corn,” said Mr Klein. “It’s a good time to be a corn farmer in Nebraska,” he adds. During the past 10 years average



yields have risen by three bushels a year. Plus distillers’ grains, a by-product of ethanol production, are being fed to cattle. “Distillers’ grains are a good feed for cattle, which the state rears in large numbers. With cattle in such close proximity the grains can be fed wet, which avoids drying costs,” he said.

Outside farming, the public views ethanol as an environment friendly fuel, said Mr Klein. “Nine out of 12 studies into the energy efficiency of ethanol production from corn have shown positive results. The latest from the Department of Energy reveals a 34% gain in energy from ethanol.”

Although encouraged by the growing demand for ethanol, farmers would like to see more impact on prices. “Farmers are optimistic about ethanol but frustrated that the price [premium] is not there yet. We say it will come – hang in there,” said Mr Klein.



It could be good advice. The US car industry has an insatiable thirst for fuel and as fossil fuel prices rise, despite recent dips, ethanol produced from maize looks more attractive.

According to the Earth Policy Institute there were 200 ethanol plants at the planning stage at the end of last year. That’s expected to generate an additional 3bn gallons of capacity needing 27m tonnes more grain. Even that massive increase in extra capacity, generating nearly 15m gallons of ethanol, will satisfy only 6% of the US car industry’s thirst for fuel.

So, almost within a generation, ethanol, Henry Ford’s fuel of choice, is again filling vehicle tanks and promises to do US farmers a power of good in the process.

## US ETHANOL AT A GLANCE

- \* US production hit 5bn gallons from 105 operational plants last year with at least 40 under construction
- \* National Corn Growers Association is aiming for 15bn gallons of ethanol by 2015
- \* Ethanol adds \$4.5bn to US farm income, says NCGA
- \* US Farm Bill proposals include \$500m for bio-energy research
- \* US ethanol production is supporting world and UK grain prices now, say experts





GETTY

## How biofuels promise a better tomorrow

\* "United States agriculture is riding the ethanol wave." Rick Tolman, chief executive officer of the National Corn Growers Association is upbeat about the contribution ethanol is making to the US agricultural economy.

Speaking exclusively to *Farmers Weekly* at a CaseIH conference in Nebraska held to celebrate 30 years of Axial-Flow combines, Mr Tolman said: "It costs \$1.02 to produce a gallon of ethanol from corn (maize)." With US gas prices last week ranging from \$2.25/gallon in the Mid-West to more than \$3 in California, interest in ethanol production is growing rapidly.

Last year, US ethanol production reached 5bn gallons from 105 operational plants with another 40 under construction, said Mr Tolman. There's more to come.

"Our vision is for 15 by 15 – that's 15bn gallons of ethanol

production by 2015 from 15bn bushels of corn. We can easily do that and some," is his confident prediction. And by 2015 improved technology will allow ethanol to be produced from cellulose.

It will be an increase fuelled not just by planting more acres of corn but yield increases through genetic modification, said Mr Tolman. "Corn yields are increasing 2-2.5% year on year with GM leading to better resistance to pests and improved drought tolerance.

And it's effect on prices? "Demand for ethanol is like a rising tide lifting all boats." At the end of February 2007, corn for March delivery reached a 10-year high of \$4.26 a bushel on the Chicago Board of Trade.

In all, ethanol adds \$4.5bn to US farm income, according to NCGA. Mr Tolman's views are endorsed by US agriculture secre-

## Why UK farmers benefit

\* "Demand for ethanol is like a rising tide; lifting all boats." That's the assessment from the National Corn Growers Association, but what's the view on this side of the Atlantic?

Leading UK sources confirmed recently that the US passion for maize produced from ethanol was supporting world grain prices, but by how much was difficult to assess.

"US maize is the main feed grain traded in the world and generally all feed grains take their price from this base," said a HGCA spokeswoman. "Current prices have been boosted by fragile world market balance sheets and stock outlook as well as by bioethanol activity.

"Specific targets are not easy to comment on, but it is clear there's a global commitment in 2007 for expansion in biofuel production and this gives a supportive background to UK grain production."

According to Prof Alan Buckwell, CLA chief economist, there's no doubt US ethanol production is supporting prices. "It's an inevitable consequence because the tonnages are so vast," he said. But he detects a self regulating process at work where a dip in oil prices plus the higher cost of producing

fuel from renewable sources will mitigate the effect on world grain prices.

Carmen Suarez, NFU chief economist agrees that the US bioethanol industry is benefiting world grain prices: "By next year half of US maize production will go into bioethanol. As well as encouraging land to be diverted from other crops to maize, it will drive up the price for coarse grains.

"The market is driven by reality and expectations and some of those expectations are already reflected in current wheat prices."

Meanwhile, March sees the start of US maize planting with over 90m acres expected to be sown this month. But how long before the real battle begins over whether finite land resources should be devoted to growing crops for food or for fuel?



tary Mike Johanns, a former governor of Nebraska. Commenting on his 2007 Farm Bill Proposals to the Agribusiness Roundtable of Washington DC, Mr Johanns said recently: "Renewable energy is of the utmost importance to agriculture. I believe we are at a defining moment at the interface of energy and agriculture. New markets are emerging along with new models of how to serve them."

Backing rhetoric with cash, Mr Johanns' Farm Bill proposals included \$500m earmarked for a new bioenergy and bioproducts research initiative. A further \$500m has been slated for rural alternative energy and energy-efficient grants going directly to farmers and \$2.1bn in loan guarantees to support cellulosic ethanol projects.

Mr Johanns' colleague US energy secretary Samuel Bodman underlined the government's commitment to protect its ethanol industry. Commenting on the 54 cent per gallon duty imposed on imported ethanol, Mr Bodman told FW's sister publication *ICIS Chemical News* that: "No one

in the administration is looking to end the tariff [on imports] or subsidy prematurely (certainly not before the end of the 2008).

Meanwhile, corn grower Dan Eyer, who also attended the Case IH conference, said an ethanol plant can't come soon enough to his area of Anchor, Illinois. "There's no ethanol plant near us – I wish there was." It could be just the tonic the state needs."

### NEBRASKA WEBLOG

\* You've read the facts of my visit to Nebraska, now read the unplugged version. Visit our website [www.fwi.co.uk](http://www.fwi.co.uk) to find out why a Nebraska state trooper boarded a commuter plane to deliver pizza and how the tragedy of a US military death affected our visit.

\* This article was written after visiting Grand Island, Nebraska courtesy of CaseIH to mark the 30th anniversary of its Axial-Flow combines.

### WINDOW ON THE WEB

For daily updates on the politics, production and potential of biofuels, don't miss Simon Robinson's Big Biofuels blog

>> <http://www.icis.com/blogs/biofuels/> from our Chemicals Group ICIS.

