Ethanol Quandry

Ethanol production will have to increase to meet government mandates, but that's easier said than done.

by **KAY LEDBETTER**

Ethanol plant construction has come to a halt, but the mandates by government

are not declining, which could mean prices could jump again. Producers should prepare for Round 2, a Texas AgriLife Extension Service specialist said.

"Expanded ethanol production is

probably a given; however, the pace is expected to slow due to capacity limits and policy," said Steve Amosson, AgriLife Extension economist.

The President and U.S. Secretary of

Agriculture are both big supporters of renewable fuels, Amosson said. President Barack Obama has stated, "I have established a goal to have 60 billion gallons (gal.) of our fuel come from sustainable, affordable biofuels in 2022."

The reality is that, nationwide, 213 ethanol plants were in production or under construction in September 2007, with many more on the drawing table, Amosson said. Nine months later, some of the plants that were under construction have come into operation, but no new plants have started construction.

Bill Tierney, former Kansas State University (K-State) grain marketing economist and former head of the U.S. Department of Agriculture (USDA) wheat and feedgrains forecasting division in Washington, D.C., said the global "credit crisis" came at just the right time to stop the U.S. ethanol industry from seriously overbuilding capacity relative to the market share.

"In early August 2007, the industry was well on its way to overbuilding, much as the U.S. biodiesel industry already has," Tierney said.

USDA approves first guaranteed loan for commercial-scale cellulosic ethanol plant

Former Agriculture Secretary Ed Schafer announced Jan. 16 that U.S. Department of Agriculture (USDA) Rural Development has approved the first-ever loan guarantee to a commercial-scale cellulosic ethanol plant. The \$80 million loan to Range Fuels Inc., Soperton, Ga., comes from the Section 9003 Biorefinery Assistance Program authorized by the 2008 Farm Bill.

"The investment in this facility, which will make cellulosic ethanol from wood chips, has the potential to significantly advance the timetable for second-generation ethanol production in this country," Schafer said. "I visited the pilot plant last October and was excited to see how well the technology works."

Schafer said the funding helps reduce America's dependence on foreign oil by developing alternative, renewable energy sources.

The Biorefinery Assistance Program promotes the development of new and emerging technologies for the production of advanced biofuels, defined as fuels that are not produced from food sources. The pro-

The credit crisis and declining ethanol margins dried up financing for 11 billion gal. of "probable" projects, he said.

"Ethanol production is and will continue to suffer from growing pains," Amosson said.

Recent analysis shows that ethanol plants are losing money given the current prices of ethanol and distillers' grains byproducts, after taking into consideration the cost of the primary inputs —natural gas and corn, Amosson said. However, he said, considering oil prices are expected to start going back up and "we may be falling below producing enough ethanol to meet the amount necessary to meet the renewable fuel standards, ethanol prices should rise."

The energy bill signed into law in December 2007 requires 36 billion gal. of ethanol to be available for use by 2022, Amosson said. Twenty-one billion gal. is supposed to come from feedstocks other than corn.

The problem, he said, is that cellulosic ethanol production is not even expected to get off the ground until 2015 or after, and then it takes time to ramp up the industry.

"The renewable fuel standards will not hold up; it can't," Amosson said.

The renewable fuels standard mandate enacted under the Clear Air Act applies to blenders but has never been enforced, he said. The

gram provides loan guarantees to develop, construct and retrofit viable commercial-scale biorefineries producing advanced biofuels. The maximum loan guarantee is \$250 million per project. The program is designed to create energy-related jobs and economic development in rural America. The loan to Range Fuels is approved subject to conditions.

The project is expected to produce an estimated 63 jobs. When fully operational in 2010, the plant is expected to produce approximately 20 million gallons (gal.) of cellulosic ethanol per year.

USDA Rural Development's mission is to increase economic opportunity and improve the quality of life for rural residents. Rural Development has invested more than \$111 billion since 2001 for equity and technical assistance to finance and foster growth in home ownership, business development, and critical community and technology infrastructure. More than 2 million jobs have been created or saved through these investments. Further information on rural programs is available at a local USDA Rural Development office or by visiting its web site at www.rurdev.usda.gov.

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Environmental Protection Agency (EPA) is the enforcement arm.

According to the standards, 11.1 billion gal. of ethanol nationwide, or 10.21% of the national energy supply, must come from renewable fuel this year, Amosson said. The amount gradually steps up from there.

Penalties for blenders not meeting the mandates include having to return any profit from non-renewable fuels and a fine of \$25,000 per day, he said, so that may be

enough incentive to keep them moving in that direction.

"I thought distillers' grain prices would go down, but last year Europe had a disaster in their wheat," he said. "While they wouldn't import any of our GMO (genetically modified) corn, they still used our distillers' grains for feed, and that is why we didn't see the decrease."

Amosson said distillers' grain prices could be expected to start falling, making

them more attractive for livestock rations, and that should increase their usage.

At the same time, the limit on cornbased ethanol and the growth in yields will eventually cap corn prices, he said.

Editor's Note: Kay Ledbetter is a communications specialist for the Texas AgriLife Research and Extension Center, which supplied this article.