

Ethanol profitability calculator developed by Iowa State University researcher

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(PhysOrg.com) -- A researcher at Iowa State University has developed a tool to determine what market conditions are needed for ethanol producers to make a profit.

David Peters, an assistant professor of sociology in Iowa State's College of Agriculture and Life Sciences, has been getting questions about the profitability of ethanol plants under current market conditions and decided to create a spreadsheet that would allow anyone to figure it out for themselves.

"I've developed a model that inputs all the costs," he said. "Then it indexes it to corn prices and ethanol prices to determine profitability."

In creating the tool, he considered that there is conflicting information about ethanol.

"Different groups have different perspectives," he said. "But when you sit down and do the numbers, I wanted this to be a neutral, third-party view."

Peters expects this calculator will be useful for several different groups.

"This is a tool for local communities, investors, policy makers and anyone else who wants to better understand how these ethanol plants are doing," said Peters.

"Of course investors are very interested in calculating profitability," he said. "But communities that have plants, or are considering plants, also want to know if they'll make money. The communities invest a lot in local infrastructure and want to know if the plant will be profitable."

According to Peters' model, near-term price conditions -- corn cost, approximately \$4; ethanol price, approximately \$1.75 -- a typical ethanol plant that has capital debt is losing 17 to 23 cents on every gallon produced. For a plant producing 100 million gallons each year, that is an annual operating loss of \$16 to \$23 million. Unless the plant has cash reserves to weather this storm, they could be in trouble, says Peters.

In the past few years, when ethanol prices were high and corn low, many plants made enough money to retire their debt early. These plants with no capital debt are now roughly breaking even or losing a few cents on every gallon, according to Peters.

Peters predicts that the current market may lead to some consolidation among ethanol producers as they try to remain profitable.

"No one has a crystal ball to see the future, but this can give people an idea of where prices have to be," he said. "For example, if corn is at \$4.25, then ethanol would have to be at \$2.00 for plants with debt to break even -- and \$1.85 if they have no debt."

Peters' calculator allows anyone to input their own costs or prices to estimate what the costs of corn and ethanol would have to be for a company to be profitable.

Peters says there are other considerations that he could not include in his calculations.

"Ethanol is important for clean air and that wasn't really figured into the

model," he said. "Health costs and a cleaner environment are important, so from a public policy perspective, it's important."

Peters' model can be found at www.soc.iastate.edu .

Provided by Iowa State University of Science and Technology

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