

# 2008 ETHANOL

JIM JORDAN & ASSOCIATES

PROSPECTUS



## Global Market Analysis of Fuel Ethanol

**JJ&A**



## **GLOBAL MARKET ANALYSIS OF FUEL ETHANOL**

### **A Multi-Client Study**

### **Prepared by**

### **Jim Jordan & Associates**

**Fuel Ethanol** is an increasingly important component of the world's transportation fuel supply. It consists of ethyl alcohol dehydrated to remove the 5% of eutectic water remaining after normal distillation. Made from corn, sugar and in some instances other biological feeds, it is blended into gasoline in varying amounts, most typically at 10% by volume. As a gasoline blend component, its advantages include a high octane number, and absence of sulfur or aromatic compounds such as benzene or toluene. Its production was started in the United States as an indigenous material to alleviate supply problems resulting from the Arab oil embargos of the 1970's. Its oxygen content gave it clean-burning advantages in the early years of the Reformulated Gasoline Program under the Clean Air Act Amendments of the early 1990's.

Under an increasingly tight gasoline supply and demand situation across the world, with demand stable in the US and growing significantly in developing countries such as China and India, and with static refining capacity in many areas, fuel ethanol offers a means of energy production from renewable sources. This has both practical and political attractiveness, though many politicians are discouraging the production of ethanol due to the perceived "Food Versus Fuel" crisis. The world produced about 13.1 billion gallons of ethanol in 2007. In the USA, about 6.5 billion gallons were produced last year, representing about 5.1% of the total US gasoline pool. As a comparison, fuel ethanol accounted for only 2.7% of the total US gasoline pool in 2005.

At the end of 2007, the United States enacted the Energy and Independence Security Act of 2007 (EISA 2007), which mandates that fuel ethanol production reach 36 billion gallons by 2022. Elsewhere, governments in countries such as Brazil, Thailand, and India are encouraging increased use of this fuel. The European Union enacted the European Biofuels Directive in 2003, but is still waiting to approve actual mandates.

JJ&A consultants have been following the growth and application of ethanol in gasoline since the early 1990's. We have established a detailed data base of production facilities in the USA in particular. We have also developed a

highly detailed understanding of the logistics of gasoline production and distribution, and the factors which must be addressed in alcohol blending and maintenance of water-free supply chains.

In the United States, the ethanol industry has already built more than 170 plants in response to the government mandates, and many more plants have been planned, including a new wave of construction for the production of cellulosic ethanol. In addition to the construction of new cellulosic ethanol plants, millions of dollars, from both the public and private sectors, have been invested into the research and development of this technology.

This study has been designed to provide background information and useful market observations to participants in the industry, in gasoline production and distribution and to government personnel involved in guiding the use of ethanol. In this study, we have assembled a highly detailed picture of the ethanol industry, by plant and by location. This is presented in detail with descriptive material to give the reader a clear understanding of the problems and opportunities facing the industry. The ethanol industry still faces many hurdles. This study offers some practical ideas to address some of the issues facing the industry. The "Food Versus Fuel" debate has evolved into a global concern, and this study explores that issue in depth.

Ethanol use is growing in many global markets, including Asia and South America, driven by many of the same factors such as energy independence and a cleaner environment. The study discusses each market separately with emphasis on the economic and political factors involved.

The study also contains appendices giving data on the cost of production of ethanol, and its relationship to prices of feeds and products. Portions of the Energy Independence and Security Act of 2007 relating to ethanol are also appended.

A Table of Contents is attached. The price of the study is \$3500. The study will be available by September 30, 2008. Orders placed by September 15 will receive a 10% discount. JJ&A Fuels clients will receive an additional 10% discount.

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Prepared by Jim Jordan and Associates



This multi-client study will be available September 30, 2008 at the cost of:

- USD \$3,500
- Orders placed by September 15 will receive a 10 percent discount
- JJ&A Fuels Clients will receive an additional 10 percent discount

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### Multi-Client Study Order Form

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Complete the form,  
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