



EASTERN REGIONAL RESEARCH CENTER

## NEW COMPUTER MODELS FOR RESEARCH AND ECONOMIC ANALYSIS OF FUEL ETHANOL PRODUCTION AND CORN WET MILLING

### ***2007 SuperPro Designer® Model for a 40 MGY Dry Grind Ethanol Plant***

Integrated Process and Cost Model

### ***2007 Aspen Plus® / Microsoft Excel® Model for a 40 MGY Dry Grind Ethanol Plant***

Aspen Plus Process Model with Linked Excel Cost Model

### ***2005 SuperPro Designer® Model for a 100,000 Bushels/Day Corn Wet Milling Plant***

Integrated Process and Cost Model

#### **The Models Can Be Used for:**

- *Guiding Ethanol Research and Development Efforts*
- *Evaluation of the Impact of Corn Composition and Cost On Ethanol Production Costs*
- *Comparison of Traditional Versus Raw Starch Hydrolysis Technologies on Ethanol Production Costs*
- *Comparison of the Economics of Different Existing and Proposed Ethanol Production Technologies*
- *Determining the Effects of CoProduct Value on Ethanol Production Costs.*

#### **These Models Contain:**

- *Volume, Composition and Physical Characteristics of Material Flowing through the Process*
- *Description, Sizes and Costs of Process Equipment*
- *Consumption and Cost of Raw Materials and Utilities*
- *Detailed Estimates of Capital and Operating Costs*
- *Quantity and Cost of Products and Coproducts*

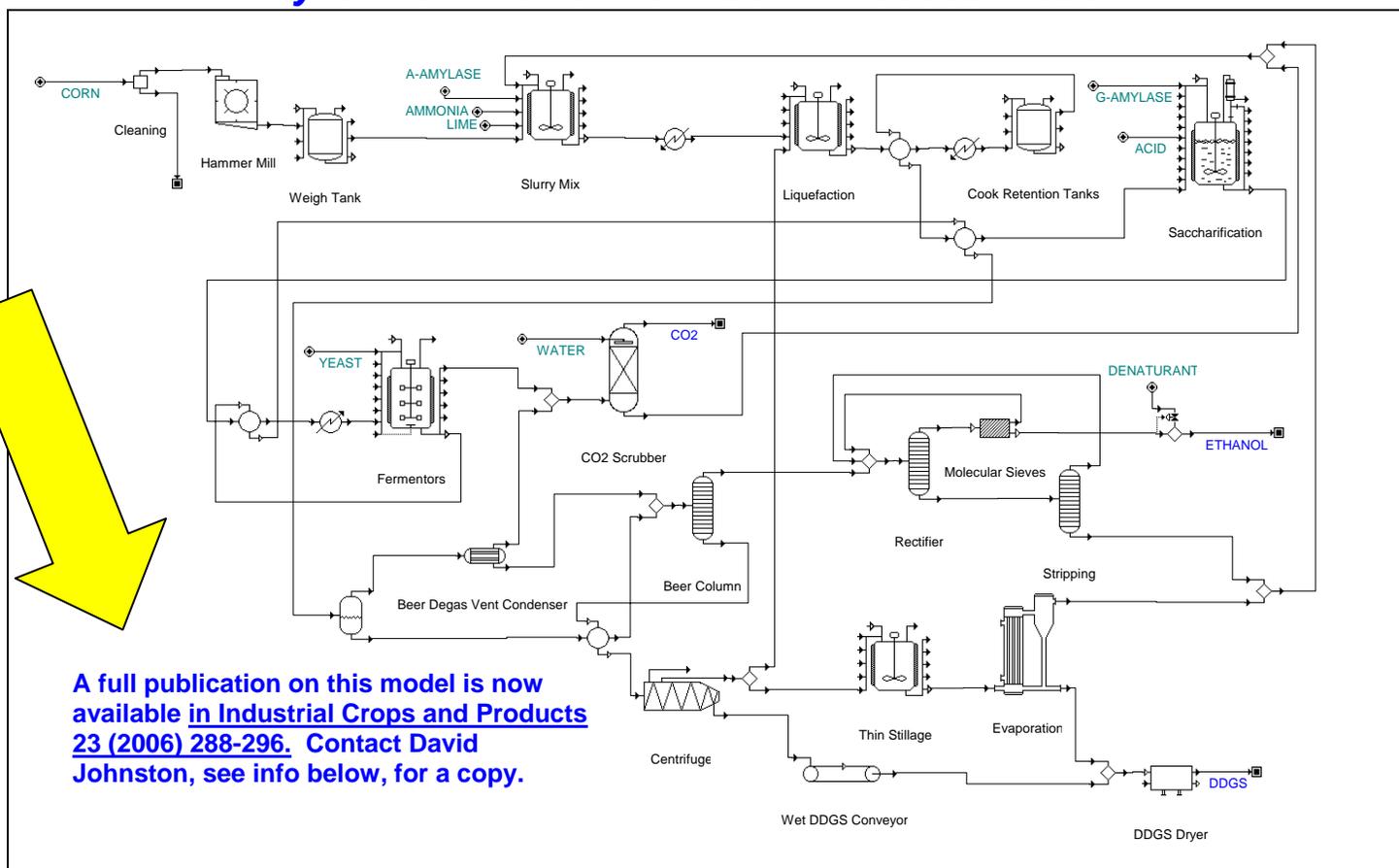
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## Dry-Grind Ethanol from Corn Process Model



### HOW TO OBTAIN MODELS:

#### Contacts:

New SuperPro Designer ® Dry Grind Ethanol Model: David Johnston, [david.johnston@ars.usda.gov](mailto:david.johnston@ars.usda.gov)

Aspen Plus ® Dry Grind Ethanol Process and Microsoft Excel ® Cost Model: Frank Taylor, [frank.taylor@ars.usda.gov](mailto:frank.taylor@ars.usda.gov)

Wet Mill Models: David Johnston, [david.johnston@ars.usda.gov](mailto:david.johnston@ars.usda.gov)

Cost Models and General Contact: Andy McAloon, [andrew.mcaloon@ars.usda.gov](mailto:andrew.mcaloon@ars.usda.gov) or [kevin.hicks@ars.usda.gov](mailto:kevin.hicks@ars.usda.gov)

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