

Title Coproducts from bioprocessing of corn  
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### **Abstract**

Increase in demand for ethanol as a fuel additive has resulted in dramatic growth in ethanol production. Ethanol is produced from corn by wet milling or dry grind processing. Wet mill plants are capital intensive due to equipment requirements; they produce large volumes of ethanol and are corporate owned. In dry grind processing, the kernel is not fractionated and only one coproduct, distillers dried grains with solubles (DDGS), is generated. Dry grind plants require less equipment and capital than wet mills. They generate smaller volumes of ethanol, are producer owned and add direct benefits to rural economies. Most of the increase in ethanol production during the past decade is attributed to growth in the dry grind industry.

The marketing of coproducts provides income to offset processing costs. For dry grind plants, this is especially important, because only one coproduct is available. The increasing volume of DDGS accompanying ethanol production could reduce market value; high phosphorus content could limit use of DDGS, because of animal waste disposal issues. Water removal is a costly processing step and affects the economics of ethanol processing. Technologies to remove germ and fiber from DDGS could produce a new coproduct suitable for feeding to nonruminants; this would expand the markets for DDGS. Reducing phosphorus in DDGS would sustain markets for conventional DDGS. Development of more efficient methods of water removal would increase the efficiency of ethanol processing and reduce costs. New technologies could contribute to greater economic stability of dry grind plants.