

Economic implications of ethanol on swine production

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How will the current increase in demand for domestic corn, largely “fueled” by increasing production of ethanol, affect corn availability and profitability for swine, and to a larger extent, livestock production? These were just a few of the topics discussed during the “Distillers Grains: Implications for the U.S. Pork Industry” conference hosted by the National Pork Board and held in Des Moines on November 20th. One of the potential opportunities in light of the current and future challenges for corn procurement and/or cost involves feeding distiller’s grains co-products, such as DDGS (distiller’s dried grains with solubles) generated from the ethanol plants.

Dr. Steve Meyer, an economic livestock production consultant, discussed economic implications of corn-based ethanol for the swine industry. First and foremost, feed is the most important and expensive item for producing pigs, well ahead of the cost for labor, buildings, and energy, and becomes an even more significant proportion of total costs when grain prices increase. Dr. Meyer indicated that the recent feed cost increase was expected, although not as quickly as it has occurred, and is due not only to long run expectations for corn use in ethanol production, but has also been driven in the short term by reduced wheat crops in the U.S. and Australia and reduction in the USDA forecast for corn production in 2007. Ethanol production is currently at around 5 billion gallons annually, but with the federal ethanol mandate and increase in ethanol plant construction, production could double over the next 5 years. How long this trend can hold and support itself is driving considerable debate. Dr. Meyer has indicated that additional demand for corn will be made up primarily by reductions in corn exports and increases in corn production, both in acres planted and yield expectations. Current prices for energy and gasoline indicate that ethanol plants can purchase corn for up to \$4.05/bu while maintaining profitability, but that if current tax credits were not present to the ethanol industry, that value for corn would drop to around \$2.50/bu.

Dr. John Lawrence, an economist with Iowa State University, discussed economic implications of feeding DDGS given the current and future market scenarios for corn availability and price. Cheap corn prices the past 10 years have encouraged producers to market pigs at the high end of packer buying grids, resulting in poorer feed conversion but increasing overall profitability since the marginal increase in feed cost/gain has been less than increases in value added to pigs marketed. However, increasing feed costs now and in the future should drive producers to market pigs at the low end of buying grids since marginal feed cost may be more than value received for marketing at higher weights. Optimal marketing weight should be the point at which the cost equals the revenue generated from the last pound of gain. Producers will be constrained by production facilities, pig flow, number of days available for finishing, and marketing premiums and discounts, but in general increasing feed costs should drive optimal market weights lower. Dr. Lawrence indicated that DDGS price has largely followed the corn price, remaining valued at about 85% of corn, and he evaluated the economic impact of including DDGS in swine diets, based on previous University of Minnesota growth

performance and carcass quality research. Revenue per pig remains relatively unchanged at 10% inclusion of DDGS, and based on \$3/bu corn and \$185/ton soybean meal, a decrease in feed cost results in an increase in revenue of \$1.25/head. A similar increase in revenue is observed when \$4/bu corn and \$195/ton soybean meal is assumed. All of these projections assume that DDGS will remain priced at 85% of the corn price. If increasing supplies of DDGS were to reduced that relationship to 75% the price of corn, 10% DDGS inclusion would increased revenue by about \$1.50/head.

Additional research and information is needed to economically evaluate higher inclusion levels of DDGS, but it is apparent that individuals willing to consider including DDGS in diets have the opportunity to at least partially negate the affect higher corn prices are having on profitability of finishing pigs.

