

## HAPPY HOLIDAYS – Outlook for 2012

As another year comes to a close, we reflect on the events of the past year and look forward to 2012.

As always, it was an eventful year for the U.S. swine industry. For most producers, it was an opportunity to generate excellent margins and rebuild financial strength. As our industry continues to face high input costs, this profitability was a result of excellent demand for our meat products – especially export demand.

At NUTRIQUEST, we too were blessed with increased demand for our products during 2011. In particular, CEL-CAN® and ILLUMINATE® have gained increasing market share as producers have obtained benefits in highly prolific sows and DDGS-diet performance. We've also achieved growth in many other featured product categories. All in all, we continued to focus on those products and services which represented the highest return proposition for producers, and I am thankful that we have been successful!

### SO WHAT DOES 2012 BRING FOR OUR INDUSTRY?

Despite the recent drop in lean hog futures, 12-month-forward hog crush margins are as attractive as they have been in many years. All commodities (corn, soybean meal and hogs) have softened, but hogs have shown a greater amount of strength, resulting in very attractive cash and futures values. With demand increasingly dependent on exports – and the myriad of dynamics that impact these markets (political risk, currency risk, disease risk, and the fragile world economy as most strikingly demonstrated by Europe's woes) – we strongly encourage you to lock in some of these profits if you haven't already. Those producers we work with who are the strongest financially have proactively managed their forward margins with various risk management tools. We encourage you to access our "hog crush" risk management tool at [www.nutriquest.biz](http://www.nutriquest.biz).

Though forward margins are attractive, we also know that 2012 will bring with it several challenges. Most notably in our minds is our industry image challenge. We are increasingly under pressure from animal activist groups whose agenda is to put us out of business. Though we know they don't reflect the views of most of the general public, they are having an impact. Implementation of best practices (many of which we noted in Volume 1 Issue 1 of NUTRIQUEST NEWS...see [www.nutriquest.biz/MediaCenter.aspx](http://www.nutriquest.biz/MediaCenter.aspx)) at our farms is increasingly important. Also, supporting our industry's efforts, and those of the newly formed Farmers and Ranchers Alliance (see related article "USFRA & Discovery Communication Partnership" in this issue of NUTRIQUEST NEWS) will be critical as we attempt to educate the public regarding our noble profession of raising protein for a growing world population.

### AND WHAT DOES 2012 BRING FOR NUTRIQUEST?

We will continue to be driven by trying to address producers' most significant challenges. For 2012, we hope to further improve market penetration of existing products and are continuing to develop products and solutions that address the issues of price volatility, animal welfare and high feed costs.

We extend our heartfelt thanks for our association, and wish you a blessed holiday season and prosperous New Year.

Sincerely,

Steve Weiss, *President*

## Look for the NUTRIQUEST Team in 2012

The NUTRIQUEST team is gearing up for 2012 and preparing to participate in many swine, dairy and poultry tradeshow and conferences throughout the year. We have compiled a list of events where our team will be present. Feel free to give us a call to arrange a meeting during one of these upcoming events. We look forward to serving you in 2012!

### MN Pork Congress

*(January 18-19, Minneapolis, MN)*

### BANFF Pork Seminar

*(January 17-21, Edmonton, Alberta, Canada)*

### International Poultry Expo

*(January 24-26, Atlanta, GA)*

### IA Pork Congress

*(January 25-26, Des Moines, IA)*

### Illinois Pork Expo

*(January 31-February 1, Peoria, IL)*

### Nebraska Pork Day

*(February 20, West Point, NE)*

### Nebraska Poultry Industries Convention

*(February 22-23, Norfolk, NE)*

### Purchasing and Ingredient Suppliers

*Conference (March 12-16, Orlando, FL)*

### Midwest Poultry Federation Convention

*(March 14-15, Saint Paul, MN)*

### Midwest Animal Science Meetings

*(March 19-21, Des Moines, IA)*

### World Pork Expo (June 6-8, Des Moines, IA)

### Joint Animal Science Meetings

*(July 15-19, Phoenix, AZ)*

### Allen D. Leman Swine Conference

*(September 15-18, St. Paul, MN)*

### World Dairy Expo

*(October 2-6, Madison, WI)*

### Cornell Nutrition Conference

*(October 16-18, Ithaca, NY)*

## Economics Drives Oil Extraction *by Dr. Rob Musser*

The rush to oil extraction in the ethanol industry is driven by pure economics. The value of corn oil today is about \$0.40 per pound. The value of oil in DDGS is the same as the selling price of the DDGS or about \$0.10 per pound. Thus, oil extraction increases the value of the oil by about \$0.30 per pound. A 100 million gallon ethanol plant produces about 900 tons of DDGS per day typically containing 10.7% oil. By using centrifuge technology the plant can extract oil to result in DDGS with 7.2% oil, a reduction of 3.5 percentage units and 70 lb of oil per ton of DDGS. On an annual basis the plant will produce about 11,000 tons of corn oil and gain \$6.6 million in additional value from the same amount of corn as processed before oil extraction. Moreover, the equipment required to gain this value can easily be paid for within one

year of operation, well within the investment hurdle rate for most companies. This is why the industry extracts oil, purely a simple business solution.

Other ethanol industry dynamics are also fueling the implementation of oil extraction. The US government's decision to eliminate the ethanol blending credit (\$0.45 per gallon) and uncertainties surrounding the extension of the import tariff (currently \$0.54 per gallon and scheduled to expire at the end of this year) are forcing ethanol producers to search for avenues to insure the sustainability of their businesses. These factors combined with the industry's transformation from a very fragmented industry with many small players to an industry where the six largest ethanol companies now control 30% of the ethanol plants and 40% of the industry's



*Big River Resources, LLC.*

production capacity are driving change. Experienced, professional managers recognize that financial performance and profitability are more closely tied to energy markets rather than feed markets. This realization and the drive to insure sustainability has resulted in an unprecedented rush to evaluate and implement all profit-improving new technologies, with oil extraction being the first of many.

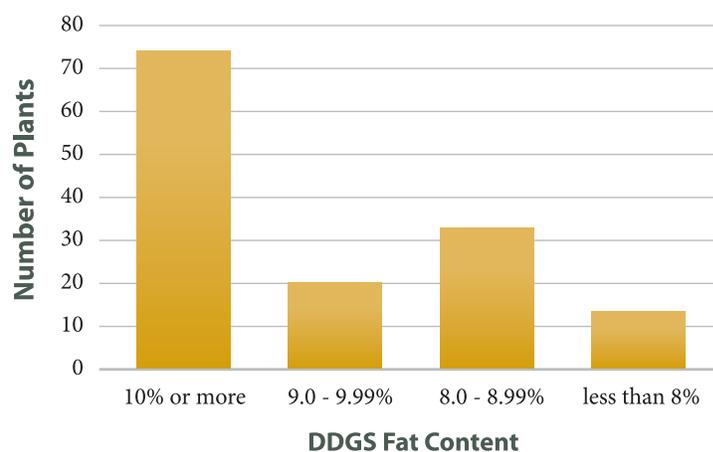
## Which Ethanol Plants Are Not Extracting Oil? *by Dr. Rob Musser*

The buzz in the DDGS market today is oil extraction. Feeders of DDGS want to know which plants have begun doing it and even more importantly which plants have not. To compound the difficulty in obtaining accurate information, many ethanol plants are extracting oil without notifying their DDGS customers. Our ILLUMINATE database with nutrient loadings for 140 different ethanol plants can help sort out the facts. Figure 1 shows that of the 140 plants in the database, 66 plants (47%) are doing some oil extraction (fat content less than 10%). Moreover, there are 46 plants selling DDGS with less than 9% fat which is a reduction of almost 2 percentage points from a typical DDGS fat level of 10.7%. Equally important to note is the range in DDGS fat levels. Using a book value fat level of 10.5% when the DDGS actually contains 8.5% will likely result in less desirable feed conversion and reduced pig performance.

As the ethanol industry moves to more oil extraction, buyers of DDGS must be careful to monitor DDGS fat and energy levels. Equally important to gaining maximum value from feeding DDGS is the need to identify ethanol plants producing DDGS that have not

been compromised by oil extraction. Producers subscribing to the ILLUMINATE DDGS monitoring tool from NUTRIQUEST have a low-cost, accurate and timely method for doing both. NUTRIQUEST will keep you updated as new research is available.

**Figure 1. Number of Plants in Each Fat Category**



## Oil Extraction Has Dramatic Impact on DDGS Value *by Dr. Rob Musser*

What is the value of fat from DDGS in a finishing diet? Our data show that each one percentage unit reduction in DDGS fat content increases the cost of a swine finisher diet by \$3.00 to almost \$6.00 (Figure 2). A reduction of 1.2 percentage units (from 10.7 to 9.5%) increased diet cost by \$4.09 per ton. Moreover, a 2.2 percentage unit reduction (from 10.7 to 8.5%) increased diet cost \$9.75 and a 3.2 percentage unit reduction (from 10.7 to 7.5%) increased cost \$12.98. It is important to note that when oil is extracted from DDGS, nutrients in addition to fat are also changed. Thus, the value reductions shown here are not due simply to reductions in DDGS fat content.

In order to estimate the value of fat in DDGS, data from the ILLUMINATE database were used. A nutrient specification for DDGS for the selected fat levels was developed by averaging the results of 10 ethanol plants that fit into each of the chosen fat level categories: 10.7 (typical non-extracted), 9.5, 8.5 or 7.5%. This process insured that all nutrients in each specification reflected what actually occurs in real-life situations as the energy content of DDGS is driven not only by fat content but also by other components (fiber, protein, ash, moisture, etc.). *continued on page 3.*

## Oil Extraction (continued)

These DDGS nutrient specifications were then used to formulate the same finisher diet (1,530 kcal/lb ME, 0.91% TID lysine) with a fixed level of 30% DDGS. The prices used for corn, soybean meal (46% protein), DDGS and fat were \$5.84/bu, \$267.20/ton, \$175.00/ton and \$0.435/lb, respectively. It is important to remember that the incremental value of energy changes based on diet constraints and ingredient prices.

Table 1. **Impact of Feed Price Increases on DDGS Value\***

FEED PRICE INCREASE	DDGS VALUE CHANGE
\$3.00	\$10.00
\$5.00	\$16.66
\$7.00	\$23.33
\$9.00	\$30.00
\$11.00	\$36.67
\$13.00	\$43.33

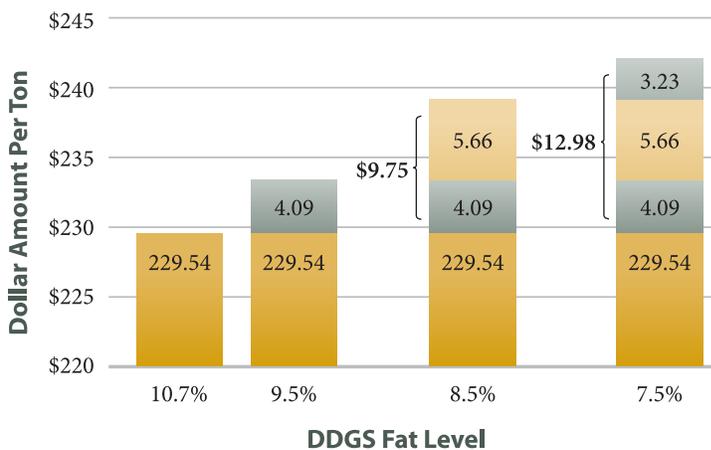
\*Assumes 30% DDGS in complete feed.

Of course, the economic impact of oil extraction depends on the rate of DDGS inclusion. In this example a DDGS inclusion of 30% was used. The shadow price (representing the price at which adding the first few pounds will reduce diet cost) for the 7.5% fat DDGS was \$50

per ton less than that of the 10.7% fat DDGS. When a diet was actually formulated using the two different DDGS specifications, the reduction in DDGS value was \$43 per ton (\$12.98/0.30). Thus, the value change of the 3.2 percent unit lower fat DDGS is \$50 per ton at a low inclusion rate and \$43 per ton at a relatively high inclusion rate.

Higher complete feed costs with lower fat DDGS have a dramatic impact on DDGS value (Table 1). An unsuspecting buyer could easily overpay for DDGS by \$10 to \$20 per ton.

Figure 2. **Effect of DDGS Fat Level on Complete Feed Cost**



## USFRA & Discovery Communications Partnership *by Steve Weiss*

U.S. agricultural production – like all other industries in our capitalistic society – has significantly increased its technological efficiency and consolidated, resulting in fewer participants “on the farm”. Our efficiency in food production has led to a greater proportion of our population engaged in other professions such as services and high tech industries. While we have developed the world’s most efficient food production system, with an unparalleled emphasis on safety, environmental and animal welfare management, this shift has led to a serious disconnect between the average U.S. consumer and the farm.

Meanwhile, animal activist organizations have proactively and systematically telegraphed to the American consumer a biased, unscientific and negative view of U.S. agricultural practices. Many of these organizations are well funded and managed, and desire, quite simply, to put us out of business. Their tactics – like the undercover videos at Iowa Select Farms and Sparboe Foods in 2011, used to pressure giant retailers into terminating supply relationships and mandating changes in production practices – are effective and seriously damaging.

The U.S. Farmers & Ranchers Alliance is a recently formed alliance that, for the first time, unites the various agricultural organizations (from grains to meat, milk and eggs) to proactively and systematically communicate our message. And in the early market survey work of the USFRA, it is evident that we have an uphill battle. Though consumers generally have a positive feeling for “farmers” and “ranchers”, they associate such feelings with “farmers market farmers” as opposed to today’s farming and ranching enterprises, which they view negatively as large agribusiness concerns. If you haven’t studied this very worthwhile alliance, we encourage you to check-out the USFRA web site at <http://usfraonline.org>.

Recently, the USFRA developed a partnership with Discovery Networks to help Americans learn more about how food is grown.

Check out [www.fooddialogues.com](http://www.fooddialogues.com) to view videos, featuring real farmers and ranchers answering real consumers’ questions about the agricultural community’s commitment to continuous improvement and the role farmers and ranchers play in providing healthy choices for people everywhere.

The videos reinforce farmers’ and ranchers’ commitments to having a conversation with consumers and answering questions



about food production. They are meant to reinforce these important messages and stress the Food Dialogues themes launched by the USFRA in September. Even more importantly, they reflect USFRA’s overarching strategy and key learnings from message research.

The documentary-style videos which are wholly or partially funded by Checkoff programs began airing across the Discovery Communications’ networks (TLC, Discovery, Discovery Science, Discovery Fit & Health, Identification Discovery, Planet Green and Animal Planet) on November 14 and will continue to run through December 25, 2011. Perhaps you have seen some of them.

We are a strong believer in the work being done by the USFRA and this partnership. This effort will only be effective if it is widely heard, so we sincerely hope that you will share this information with your network (suppliers, customers, friends, family) to help encourage Americans to learn more about how their food is grown and raised. Please have a seat at the growing table, and join in on the conversation.