

# Animal Industry News Update

from the LCES Animal Science Division



## Dairy (Dr. Charlie Hutchison)

The new millennium was ushered in with much fanfare and fireworks. To most, there was excitement in the air and with the U. S.

economy rolling, a feeling of more prosperity to come. To most dairy farmers in Louisiana and the surrounding area, the year 2000 will be remembered for low milk prices, lower class I utilization, drought in certain areas, lower than normal temperatures in the fall and early winter resulting in poor ryegrass growing conditions. The year started with the final rule of the federal milk order reform which resulted in an increased area for Southeast Federal Order No. 7. The expanded territory along with lax pooling provisions resulted in an average reduction of 13% in class I utilization for the year. However, the final rule also instituted a new pricing system for milk which replaced the old Basic Formula pricing system. In the new pricing system, the Class I price mover is based on the higher of either the Class III or Class IV advanced skim milk price plus the differential. This has resulted in \$1.61 more per hundred-weight on average for Class I milk.

The year 2000 was also the first year since 1987 that prices for dairy products such as cheese and non-fat dry milk powder dipped below the federal support price. The dairy product support floors would have expired at the end of 1999, but were extended through 2000 as a part of the federal order reform final rule. The low prices for producer milk were caused by an over supply of milk that was fueled by low to moderate feed cost, good weather conditions particularly in the west and California, an increase in the national herd size and large inventories of dairy products. In 1999 the Louisiana Agriculture Summary reported the average milk price per hundred-weight paid to producers was \$15.70. The average price in the year 2000 was \$13.95 per cwt. The outlook for 2001 looked about as bleak as the previous year until recently. The last quarter milk production and cow population for the top 20 milk producing states showed a significant slowdown as compared to the first 3 quarters of the year. This led to an increase in prices for dairy products and milk on the futures market. This has caused some of the experts to be a little more optimistic about milk prices in 2001. A recent report by USDA reported that almost a year's supply of corn and soybeans is on hand. Thus, feed prices should remain low during the year. Also, the milk support prices have been extended through 2001. Beginning in January, 2001 a few slight adjustments have been made by In 2001, broiler production and prices are expected to be similar to 2000. Therefore, broiler producers

USDA on the Class III and Class IV price formulas for all the federal orders. USDA suggests that the changes will have very little impact on milk prices; but, according to University of Georgia Extension Agriculture Economist, Dr. Bill Thomas, Class I prices would have been 40 cents higher during 2000 using the proposed changes.

## Swine (Dr. Tim Page)

Irradiation of Pig Diets: According to research conducted at Kansas State University, irradiating the spray-dried animal plasma or blood meal included in early nursery diets appears to improve growth performance. In one experiment, irradiation improved average daily gain and feed efficiency. In another trial, average daily gain and average daily feed intake increased for pigs fed the irradiated spray-dried animal plasma.

Irradiated diets included either gamma ray or electron beam irradiation. Gamma ray irradiation is produced from a cobalt-60 source, which is an unstable isotope. Electron beam irradiation is generated with electricity and accelerated by a linear accelerator machine. Both processes produce ionizing energy which creates ions and free radicals in an irradiated product. Irradiation of blood meal with gamma ray irradiation lowered concentrations of aerobic bacteria more than electron beam irradiation. In fact, no bacteria were detected in the gamma ray treatments. Low levels of bacteria were cultured with electron beam treatments.

These researchers concluded that pigs can more efficiently utilize irradiated spray-dried animal plasma or blood meal, which indicates that irradiation either reduces anti-nutritional factors (bacteria and/or other factors) or alters the protein structure to make it more available to the pig. Researchers will continue to investigate the mode of action for growth performance improvements from feeding spray-dried blood products that have been irradiated.

## Poultry (Dr. Theresia Lavergne)

Total U.S. broiler production for 2000 is estimated to be 30.4 billion pounds, which is up 2% from 1999. The wholesale price of broilers averaged 56.2 cents per pound, down two cents per pound from 1999. Total broiler exports for 2000 are estimated to be 11% higher than in 1999. Increased exports are due to an increase of 94% in shipments sent to Russia, and an increase of 18% in shipments sent to Hong Kong/China. Egg production increased 1.7% in 2000, and egg prices increased 3 cents per dozen.

have begun to slow down their production. Broiler exports are expected to increase in 2001. The

increased export shipments are expected to go to Asian markets and to a recovering Russian market. Egg production is expected to increase 1-2% in 2001. Wholesale prices should remain similar to 2000. Therefore, producer net returns are expected to be slightly negative in 2001.

In Louisiana, approximately 1.1 billion pounds of broilers were produced in 2000 with a gross farm value of \$615 million. These broiler were produced by 553 producers. Total eggs produced was 35.7 million dozen.

### **Beef (Dr. Hollis Chapman)**

In our November newsletter we mentioned that biotechnology is bringing about new innovations in the beef industry. A recent Beef Cattle Extra states that, compared to non-modified plants, genetically modified plants are more productive and they have a reduced need for chemical control of insects and diseases. In addition, we have known for sometime that GM corn and other crops are safe as livestock feeds. But, there are some segments of the scientific community that are opposed to the continued use of GM plants.

Recently, The American Medical Association reported that genetically modified foods are safe for people and they will not harm the environment. The AMA said, "There is no justification for labeling of GM foods". Instead, the AMA recommended that research be focused on possible human allergic reactions to GM foods. Human allergic reaction was the main reason for recent recall of some foods made with GM corn. However, the AMA does not mention that human allergic reactions due to the consumption of milk, eggs and sea foods are fairly common.

Although the biological techniques and objectives are similar, the production of GM plants should not be confused with "stem cell" research. The latter uses embryonic tissue from aborted fetuses. In the case of "stem cell" research involving humans there is a morality question. Recently, President Bush has moved to eliminate federal funds for such research because of the possibility of abortion proliferation. Will the future bring fixes for diabetes and other human diseases? Research is sure to continue with private funding.

### **Animal Health (Dr. Steve Nicholson)**

Mad Cow Disease: A recent report that a cattle herd in Texas was fed an animal by-product caused concern. The product in question was of USA origin and not from Europe as one report implied. The disease has not been reported in cattle the USA. Cases were reported in cattle in Spain, Portugal and Germany in recent months. Meat by-product

feedstuffs from England were sold and distributed to a number of countries after the recognition of this disease.

### New USDA Animal Tuberculosis Risk Classification

System: Louisiana and 47 other states remain bovine tuberculosis free under the new system. TB in dairies in the El Paso, Texas milkshed and in captive cervids (deer, elk) in Michigan remain a problem. Cattle are monitored for TB at slaughter and pasteurization of milk kills the organism.

### Texas Had No Known Brucellosis Infected Cattle

Herds: The February 15<sup>th</sup> issue of the Journal of the American Veterinary Medical Association has an article quoting Dr. Terry Conger regarding "0" (zero) known brucellosis in 153,000 herds. The Texas Animal Health Commission veterinarian says this is cause for celebration for cattle producers.

### National Brucellosis Situation Also is at Zero Infected

Herds: US Animal Health Association news release on January 9, 2001 cites no known brucellosis infection in commercial cattle or bison in the United States. This is truly a remarkable situation.

### **Beef (Dr. Ron Delvecchio)**

#### A Vaccine to Protect Cattle Against Fescue's Fungal

Toxins: In the Southeast, tall fescue is an important grass that is used heavily in the "tall fescue belt" which stretches from Arkansas and Missouri to Georgia, North and South Carolina and Virginia. The problem with tall fescue is that it is infected with a fungus which is poisonous to continuously grazing cattle. Researchers have tried to develop varieties of tall fescue with little or no fungal toxins but survival of the grass is compromised. Most recently, researchers have taken a new approach to combat this situation. They have developed a vaccine to protect cattle from the toxic effects of the fungus. Apparently a vaccine prototype has been developed and patented, but the vaccine's effectiveness is too short-lived, lasting only 4 to 5 weeks. However, continued efforts are being put forth to specifically identify which toxins get through the ruminant digestive tissue and where they get through. Researchers are convinced, once they have that information, they can tailor a vaccine to target the correct toxin at the right site, blocking it from entering the bloodstream. Source: USDA ARS, Ag Research, July 2000.