August 2010

Animal Industry News Update

from the LCES Animal Science Specialists

Poultry (Dr. Theresia Lavergne)

GIPSA

On June 22, 2010 the USDA's Grain Inspection, Packers and Stockyards Administration (GIPSA) published a proposed rule that was dictated by the 2008 farm bill. This Packers and Stockyards Act (PSA) is to provide "new protections for producers against unfair, fraudulent or retaliatory practices."

The PSA focuses on contract production and will have an effect on poultry, swine and cattle producers. However, the biggest effect may be on poultry producers since they have a greater percentage of contract production than the other two animal industries.

The proposed PSA would provide:

- A definition of unfair, discriminatory or deceptive practices
- A definition of undue or unreasonable preferences or advantages
- Protections for producers required to make expensive upgrades to their facilities
- Prohibition of packers from purchasing, acquiring or receiving livestock from other packers and communicate prices to competitors
- A fair and equitable process for producers to choose arbitration to resolve a dispute
- The same base pay to growers who raise the same type and kind of poultry in companies using a tournament system to pay growers
- Poultry growers a written notice of an intent to suspend delivery of birds at least 90 days prior to the suspension
- Improved market transparency (sample contracts would be available on the GIPSA website)
- Protections so producers can resolve a breach of contract
- Improved competition in markets by limiting exclusive arrangements between packers and dealers

Currently, we are in the comment period whichhas been extended until November 22, 2010 (originally it was scheduled to end on August 23, 2010). GIPSA has requested comments on the proposed rule by all of those who may be affected. Comments can be sent via email to comments.gipsa@usda.gov or by mail to Tess Butler, GIPSA, USDA, 1400 Independence Avenue, SW, Room 1643-S, Washington, DC 20250-3604, and comments can be sent anonymously if desired.

Information on the PSA can be found at http://www.gipsa.usda.gov and click on Federal Register (on the right side of the page). Comments are posted at http://www.regulations.gov

All affected animal industries and parties within the affected animal industries are encouraged to make comments on the proposed rule.

Beef (Dr. Tim Page)

Beef Cattle Reproductive Efficiency – Profitability

One of the most important economic concerns for cow-calf producers is reproductive efficiency. Some economists say it is 10 times more important than production (weaning weights, etc.) and 20 times more important economically than carcass traits and/or product.

Revenues are increased in a herd that produces more calves per exposed female, by selling more calves. Depending on the source you check, Louisiana calving rates range from 50 percent to 97 percent. One of the first goals of all producers should be to maximize the reproductive efficiency of their herds.

Some management techniques that can improve reproductive efficiency in beef cattle herds are:

- Palpate and remove all non-producing cows. The best way to eliminate non-producers is to evaluate each cow and heifer critically as to health and physical soundness and to palpate each cow in your herd.
- Maintain cows in moderate body condition score (BCS) at calving. A cow should calve at a BCS of 5 or higher, while a heifer should calve at a BCS of 6. Many problems are associated with low body condition at calving such as: cows do not cycle post-calving, longer calving intervals, increased number of bull services for conception, decreased weaning weights, more open cows and cows are more susceptible to disease.
- Conduct breeding soundness exams on all bulls every year. Be sure you are using fertile bulls. The bull is responsible for every calf born in the herd so he must be healthy and fertile.
- Use the proper vaccinations against reproductive diseases and use them correctly. Routinely vaccinating herds protects against immunological catastrophes. Most cattle are challenged on a regular basis from a variety of sources such as commingling, water runoff, purchased animals and carrier animals in a herd.

Swine (Dr. Tim Page)

Swine Health and Diseases

Blue Ear Disease

The United States has a real challenge to protect its pork industry from the deadly Blue Ear Disease that has inundated China. This disease has killed as many as 100 million pigs (estimates vary). China claims that over 1.5 million pigs have been vaccinated against the disease. The National Pork Board is stressing the importance of United States port security for the new Chinese disease threat.

This disease reportedly causes abortion in breeding sows and respiratory death, swollen joints and sometimes central nervous system symptoms in nursery pigs. It is unclear at this time which pathogen or combination of pathogens is causing this fatal disease in China. Reports suggest that a strain of Porcine Reproductive and Respiratory Syndrome (PRRS) virus is

involved and may be complicated by association with *Streptococcus* or *Heamophilus* bacteria.

Chinese authorities released 12 complete genomes of PRRS virus strains believed to be involved, along with several partial genomic samples that scientists call 'open reading frames' associated with the disease. When the 12 complete genome sequences were compared to the PRRS database, none of the Chinese isolates were a precise match to anything in the United States database.

Reports indicate that blue ear disease may have begun in the same Chinese province that had outbreaks of high-pathogenic avian influenza (H5N1). However, United States authorities do not believe that the H5N1 virus is involved in the new disease. The Chinese government initiated mandatory vaccination using a newly developed killed PRRS vaccine developed in China. Most U.S. scientists are not convinced that a killed PRRS vaccine will be effective enough to achieve the rapid control claimed by the Chinese.

PRRSV

A research team at the University of Nebraska has discovered a vital clue for battling porcine reproductive and respiratory syndrome virus (PRRSV). The team evaluated two lines of swine for genetic resistance to PRRSV. One genetic line was selected for its improved reproductive traits and the Hampshire X Duroc cross was selected for its high growth rates.

During the project, all pigs in both groups were exposed to PRRSV, and all pigs in both groups became infected. But all pigs did not respond the same to the disease. The improved reproductive trait pigs recovered more quickly, maintained higher levels of weight gain during their illness and had lower body temperatures. Samples of blood, lung and bronchial lymph node tissue showed that virus levels cleared more quickly in PRRSV-resistant pigs in both groups.

The scientists also evaluated the tissue expression of 11 genes and one 'housekeeping gene' involved in the immune response to PRRSV. Both lines showed significant activity in 11 of the 12 genes, but the type of activity differed between the two groups. High pre-infection blood levels of one protein (IL8) was found to be significantly associated with PRRSV-resistant pigs. Low levels of another protein (IFNG) in the blood and in RNA samples also were correlated with PRRSV resistance.

These findings support existing research that indicates animal breeds with high growth rates devote less energy to immune and disease traits. This information will facilitate work into developing genetic tools for increasing swine resistance to PRRSV.

H1N1 Origin

The claim made by some that the 2009 H1N1 virus originally came from swine farms in North Carolina starting back in the 1990s is wrong. Researchers at that time did find an H3N2 flu virus in pigs there, but it was not the current H1N1 pandemic virus circulating around the world. That virus had a different genetic architecture because it only had components from two species (people and pigs) not three like H1N1. In addition, that virus was found to have died out years ago.

Assertions that modern swine facilities are most likely to blame for viruses reasserting and changing into novel ones are not correct. This biological process can occur in humans, birds or animals. Modern swine facilities actually help protect pigs from coming into contact with other species, such as birds, that may carry the genetic component needed to create a novel virus. Pigs in these facilities also are protected from many environmental stresses and disease-carrying vectors, thereby limiting the genetic ability of viruses to alter themselves into novel forms.

Animal Health (Dr. Christine Navarre)

FREQUENTLY ASKED QUESTIONS: LIVESTOCK SHOW ANIMAL HEALTH

1**. Should I give my show animal antibiotics before, during or after the show to prevent them from getting pneumonia?** No. Although some animals may become sick when they get stressed and are exposed to other animals from the show, most do not. Animals should only be treated if they show signs of pneumonia and a diagnosis is made by a veterinarian. Needlessly treating animals with antibiotics is a misuse of these drugs, and jeopardizes their future availability (the drugs currently available may become illegal for use, and future drugs may not get approved). Needlessly treating animals can lead to illegal meat and milk residues and many have side effects if not used properly. And since injections can be painful, drugs should only be given if absolutely needed to avoid needless discomfort to the animal. Although some medications are available for use without a veterinarian's advice ("Over the Counter Drugs") these might not be the correct choice for your animal. And, not following the label on these products is actually illegal. Selecting the appropriate treatment early will ensure your animal has the best chance of recovering quickly and completely.

2**. My show animal sometimes will not eat or drink well at the show. Should I force it to eat and drink?** No. Animals traveling to shows, especially if it is their first, will commonly not eat or drink well the first day. Sometimes it is caused by stress; sometimes they do not like the taste of the water. Make sure to offer the same feed that is fed at home. If water intake continues to be a problem at multiple shows, bringing water from home may be a good idea. Force feeding water and food should only be done if the animal is actually sick. If the animal will not eat or drink for more than one day, it should be examined by a veterinarian. Force feeding water also is against show rules as it can alter the natural appearance of the animal, and can have serious consequences. Withholding water then force feeding or allowing them to drink large amounts at once can lead to bursting of the animal's red blood cells. This can lead to weakness, kidney failure and possibly death. Also, never add electrolytes to water unless directed to do so by a veterinarian. And always have water without electrolytes available.

3. **My show animal sometimes gets diarrhea. What should I do?** Diarrhea in show animals is most commonly

caused by stress and minor changes in eating and drinking habits. In most cases it will resolve on its own. Treating with antibiotics or other medications may actually make the diarrhea worse. As long as the animal is eating, drinking and acting normally, do nothing. If the animal starts to show signs of depression, or does not resume its normal appetite, then have it examined.

4. **Should I isolate my show animal(s) when we get home?** Yes. Show animals get exposed to many other animals from all over the state, and they may come in contact with viruses and bacteria. When they get home, they can shed these "germs" to other animals, even if they themselves are not sick. Young animals not yet weaned are especially susceptible to pneumonia, and pregnant animals may abort if they get exposed. It is best to put show animals in a comfortable grass paddock with good shade and water that is separated from other pastures or paddocks by at least 10 feet of space when they arrive home. Keep them there for two weeks, and then they can join the rest of the animals if they need to.

5. **Do my show animals need special vaccinations?** No. They need the same vaccinations recommended for animals that stay at home. It is important to make sure that vaccines are given at least one month before traveling to a show to allow time for the immune response to work. Follow all label directions, including proper timing of booster doses. It is also important to do other things to keep your show animal's immune system working. Good nutrition and control of parasites is crucial. Decrease stress as much as possible. That means working with your animal at home so it is comfortable with being on a halter and being tied or stalled.

6. **Why is it against the rules to give my animal a sedative if it is acting unruly?** First, it is against state law. That includes "natural" products like Show Cattle Calm. Second, it can actually be dangerous. Many sedatives actually cause excitement if the wrong amount is given. Because the correct dose varies with each individual animal, some will become excited while some will be sedated. Sedated animals also are more dangerous. They can become disoriented, making them nervous and more likely to stumble and fall. They also are more likely to startle due to noise and movement. Some animals simply do not have the disposition to be show animals. Unfortunately, this may not be revealed until the first show. Animals may act calm at home, but unruly at the show. Working hard with an animal only to find out it is not suitable for the show ring is a hard lesson to learn, but safety of the exhibitors is first priority.

Dairy (Dr. Charlie Hutchison)

Milk Prices

The class prices for July milk were higher than the previous month and the same month last year. The Class I at $19.46/cwt is $0.38/cwt higher than last month and $5.40/cwt higher than the same month last year. The Class II at $17.10/cwt is up $1.09 from June and $6.23 higher than last year. The Class III price was 12 cents higher than last month at $13.74/cwt. This is the fourth consecutive month that the Class III price increased. It has gained $0.96/cwt since March and is $3.77/cwt higher than last year. The July Class IV price was $15.75/cwt which is up $0.30/cwt from June and is $5.60 higher than July 2009. The Class IV price is the highest since August 2008. Based on these prices and an estimation of utilization in each class the uniform blend price for July milk should be $18.15/cwt + or - $0.20/cwt. This should result in a net pay price for July milk of about $17.55/cwt depending on incentives, deductions and butterfat percentage.

The increase in milk prices for July helped offset an increase in feed prices. The All-Milk price was estimated at $16.00/cwt., up 50 cents from June, according to USDA's "Ag Prices" report released on July 30. Feed costs increased 1.9 percentfrom the prior month, to $6.93/cwt of milk. That left income over feed costs at $9.07/cwt., up 37cents from June. Corn prices increased 14 cents/bushel to $3.55. Fat tests for July were estimated at 3.51 percent, a level that has not been seen since 1998.

The advanced class I price for August milk was announced at $19.57/cwt which was $0.11/cwt higher than the previous month and the highest Class I price since November 2008.

Dairy Products

According to the Department of Agriculture's Dairy Products report released on August 2, June 2010 nonfat dry milk (NFDM) and butter production declined from the same month last year. However, total cheese and yogurt production posted strong increases compared to June 2009. Total cheese production surged to a record high (on a daily-average basis) in June, reaching 881.8 million pounds, up 43.7 million pounds (5.2 percent) from a year ago last June. Within the cheese category, Italian cheese production increased 21 million pounds compared to last June. Italian cheese production was reported at 362.9 million pounds which is 6.1 percent higher than June 2009. Year-to-date production of Italian cheese was 117 million pounds (5.7 percent) higher than the corresponding period last year. June yogurt production increased 19.8 million pounds (6 percent), reaching 52.2 million pounds compared to the same month last year. So far this year, yogurt production has increased 7.3 percent compared to last year.

Production of American styles of cheese totaled 370.4 million pounds which is 13.5 million pounds (3.8 percent) higher compared to June 2009. Cheddar cheese production for June was 286.3 million pounds, an increase of 9.7 million pounds or 3.5 percent compared to last June. Butter production for June declined 7 million pounds (5.6 percent) to 118.3 million pounds. Butter production has been declining monthly since February. Combined production of NFDM and skim milk powder for June 2010 was estimated at 169 million pounds, 6 million pounds (3.6 percent) more than the same month last year.

Last week, Cooperatives Working Together (CWT) approved four bids to provide assistance on exports of 2.8 million pounds of cheddar, and 10 bids on 19.6 million pounds of butter and anhydrous milk fat. Delivery will take place through the end of the year (with

some butterfat shipments going into January). Since re-opening the program in late March, CWT has agreed to bonuses for 41.0 million pounds of cheese and 23.4 million pounds of butterfat.

Effect of Sexed Semen on Dairy Heifer Supply from 2006 to 2012

According to a recent article in the University of Florida dairy newsletter by Dr. Albert De Vries, of all conceiving heifers, 3 percent (early 2006), 23 percent (late 2008), and approximately 20 percent (in 2009), became pregnant with sexed semen. Of the conceiving cows, 0.01 percent (early 2006), 1.4 percent (late 2008), and 1.2 percent (in 2009) became pregnant with sexed semen. The remainder of the calving heifers and cows then became pregnant with either conventional AI or by natural service bulls, with 48 percent of these pregnancies resulting in heifer calves. Sexed-semen use has resulted in 1 percent (early 2006), 8 percent (late 2008), and 7 percent (2009) more heifer calves in new pregnancies than if conventional semen had been used.

The first heifer calves conceived with sexed semen in early 2006 were starting to enter milking herds in late 2008. The estimated numbers of extra heifers entering the national milking herd in 2008, 2009, 2010, 2011 and 2012, as a result of the use of sexed semen, are 8,000, 63,000, 156,000, 258,000 and 237,000. Based on the conceptions from sexed semen from 2006 to 2009, a total of 722,000 extra heifers are projected to calve in the five years from 2008 to 2012.

Beef (Dr. Karl Harborth)

Management practices that will save you money at marketing time

Numerous studies have been conducted throughout the United States trying to get a handle on what factors have the most bearing on feeder cattle value. Recently researchers at Kansas State University published a report surveying these factors during the fall of 2008 and spring of 2009. Most of the factors that influence feeder cattle pricing fall into one of three categories: genetic, management and marketing. Genetic factors include breed, muscling, frame, and color. Management factors include weight, condition, body fill, the presence of horns and castrated or not. Marketing encompasses marketing time, lot size and weight. This study validates the fact that there are premiums and discounts for the various factors. The magnitude of these premiums and discounts change with time due to the influence of many of the other factors that affect supply and demand and vice versa. Understand that I do not have data from this part of the country to strengthen this data but the cost of implementing some of these practices easily outweighs the cost. The report can be viewed at: http://www.agmanager.info/livestock/budgets/production/beef/Factors%20Affecting%20Feeder%20Cattle%20Prices%20%28Nov2009--RevisedMar2010%29.pdf

The following are two management practices that you can implement to potentially increase the value of your calves at marketing.

Cut the Bull before it is too Late

If you are not in the herd sire production business castrating bull calves as early in life as possible will not only save you money in the end, but is less stressful on the calf. Historical data shows us that bulls sold at the sale barn can bring a discount of $2.00 to 6.00 when compared to their steer counterparts. The steer to bull discount ratio typically becomes greater as the weight of the bull increases, this is due to the fact that as a bull gets older the recovery time after castration becomes greater.

Oklahoma State University researchers conducted a study in 2005 to compare calves that were left intact, castrated or castrated and implanted with 36g of Zeranol. Bull calves that were castrated weighed more at weaning and gained more from the time of castration than those bulls that were left intact. The researchers did not report the results that we would expect from implanting, but implanting steer calves has increased weight gain prior to weaning at a minimal input cost. Castration is a management practice that should be conducted early in a calf's life.

Dehorning

We have heard for many years that horns are not desirable on cattle for many reasons. If we compare the occurrence of cattle marketed with horns from the late 80's and early 90's to more recent studies conducted in Kansas and Missouri, it is safe to say that we have made an improvement in this area. The K-state survey reported a $2.18/cwt difference between hornless and horned calves marketed. While the best way to dehorn the herd is genetically, this is not always an option so once again doing this early in a calf's life will be less stressful on them and your pocket book.

Implementing these two practices on your operation potentially can add value to your calves.

Horses (Dr. Neely Heidorn)

Hello, Louisiana! Let me introduce myself, I am Dr. Neely Heidorn your new extension equine specialist. I grew up on a hobby farm raising fruit trees and horses in the Mojave Desert of Southern California. I earned a B.S. in animal health science from California State Polytechnic University Pomona (Cal Poly, Pomona) in 2003. While attending school I worked as the assistant farm manager for the W.K. Kellogg Arabian Horse Center. Following graduation I was hired as the stallion manager at an embryo transfer facility/clinic, Winner's Circle Equine Clinic. While working at Winner's Circle I went on to obtain an M.S. in Equine Reproduction in 2006. Upon completion of my master's degree, I moved to Winterville, Ga., where I earned a Ph.D. in reproductive endocrinology from the University of Georgia in 2010.

I look forward to participating in Louisiana's equine industry as well as challenging each and every person within this industry to make it the best that it can be. Please contact me if you need assistance or have any questions.

The Unwanted Horse

In 2005 The American Association of Equine Practitioners (AAEP) defined "unwanted horse" as:

“Horses which are no longer wanted by their current owner because they are old, injured, sick, unmanageable, fail to meet their owner’s expectations (e.g., performance, color or breeding) or their owner can no longer afford them.” A study conducted by the Unwanted Horse Coalition (UHC) in 2009 revealed that the major reasons contributing to the number of unwanted horses were the reduced economy, closing of the nation’s horse processing facilities, indiscriminate breeding and the high cost of euthanasia and removal. In 2007 the UHC estimated that there were approximately 170,000 unwanted horses. In other words, there were more horses than there are people who want them. Until 2007, most unwanted horses were likely sent to slaughter with fewer numbers being rescued, rehabilitated, euthanized and even fewer simply abandoned and left to die of natural causes. The closure of all processing facilities and the decreased economic situation unfortunately results in a higher number of unwanted horses who may ultimately suffer more extremes due to starvation or neglect than the stress experienced at a processing facility. No matter your belief on the issue, it is obvious that difficult decisions need to be made. The mission of the UHC is to reduce the number of unwanted horses and to improve their welfare through education and the efforts of organizations committed to the health, safety and responsible care and disposition of horses. In an effort to meet these goals, the UHC has produced a manual which contains multiple options, initiatives and activities responsible horse owners can take to help alleviate the problem of unwanted horses. For more information, visit www.unwantedhorsecoalition.org.

Unwanted horses will always be present within the horse industry; however we as horse owners have a duty to make responsible decisions regarding horse ownership.