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LSU AgCenter Research & Extension

Animal Industry News Update

from the LCES Animal Science Specialists

Swine (Dr. Tim Page)

Oxytocin Use by Show Pig Breeders

Over the last few years I have noticed a trend of more and more show pig breeders using oxytocin too often (convenient and a crutch), as a time saver (convenient and a crutch), and administered at the wrong time. Oxytocin works well to stimulate farrowing when given at the proper time. However, when improperly used or used too often, it can make farrowing problems worse.

The role of oxytocin is to reduce farrowing time and the interval between each pig born. Oxytocin works by stimulating uterine contractions, which in turn decrease the interval between pig births. In a Kansas State study, when sows were allowed to farrow normally, without intervention, 75% of the stillbirths occurred after the eighth pig was born. In the same study, by contrast, 88% of stillbirths were recorded before the fifth pig was born when sows were administered a single dose of oxytocin after the first pig was born.

More research on two commercial swine farms found that the use of oxytocin increased the risk for stillbirths. A total of 101 litters were evaluated on the first farm, and 373 litters on the second farm. The percentage of litters with one or more stillbirths increased on each farm when sows received oxytocin during the birthing process.

Oxytocin is used on many farms as a farrowing tool to reduce stillbirths and as an aid in the farrowing process. The use of oxytocin can reduce farrowing time by more than half, and reduce the time between pigs farrowed by half. On the other hand, the administration of oxytocin before the cervix is fully dilated or before the first pig is born can lead to dystocia. Improper oxytocin use also can cause an increased number of stillbirths by causing ruptured umbilical cords, which lead to decreased oxygen delivery to the pig during birth.

The research is fairly convincing that the regular use of oxytocin is not a good idea. Overuse of oxytocin can produce higher incidences of interrupted farrowings that require manual intervention, which is a risk factor for uterine infections and subsequent infertility. Producers should be discouraged from using oxytocin with gilts. While oxytocin has potential negative implications, its use can be beneficial by stimulating uterine contractions and preventing stillbirths in older sows.

Recommendations for Oxytocin Usage by Show Pig Breeders:

- Use ½ cc to stimulate uterine contractions; the use of larger doses should be avoided
- Administer oxytocin only after the cervix is fully dilated
- Use little or no oxytocin in gilt litters
- For a normal farrowing sow, do not use oxytocin until at least six pigs have been born
- Use oxytocin when a sow has not had a pig for more than 40 minutes
- Use a maximum of two doses per sow
- Do not use oxytocin as a substitute for obstetrical assistance when problems are evident

Poultry (Dr. Theresia Lavergne)

Trees for Poultry Farms

The use of vegetative buffers around poultry houses has become a “hot” topic in the commercial poultry industry. With a trend toward decreasing acres of farmland and increasing concentration of poultry houses per farm, the planting of trees for vegetative buffers makes good sense. These vegetative buffers can be very beneficial to poultry producers.

Vegetative buffers can be used to maintain good neighbor relations. The “out-of-sight-out-of-mind” principle comes into play here. The trees provide a visual screen, pleasing view, and attractive landscaped appearance for poultry farms. Additionally, the trees can serve as a noise barrier.

Tree and shrub buffers filter odor and dust particles expelled from poultry houses. Vegetation buffers can absorb ammonia and carbon dioxide, as well as remove dust from the air that is removed from the poultry houses. Today, researchers are conducting studies to quantify the poultry house emissions absorbed by vegetative buffers.

The roots of these trees and shrubs can filter and capture nutrients from runoff and ground water. Nutrients are taken up by these plants instead of entering waterways. Thus, vegetative buffers can serve as a proactive environmental stewardship measure.

Furthermore, vegetative buffers may improve biosecurity by trapping air-borne poultry diseases from air entering and exiting a farm.

There is even energy saving potential by planting trees around poultry houses. Strategically placed trees can protect houses from wind, as well as reduce the wind speed around the houses. Also, they can provide some roof shading and cooling of the air around houses.

Plant selection for vegetative buffers is very important. Fast growing trees and shrubs are necessary. Species that do not produce large amounts of seeds and fruits need to be utilized to minimize the attraction of wild birds. Also, plants with high leaf surface roughness and area will help to maximize the trapping of dust from the poultry houses.

There are benefits to planting trees around poultry houses. This practice can demonstrate good neighbor relations, reduce odor and dust particles in the air, benefit the environment, and, possibly, reduce energy costs to the producer.

(Sources: Environmental and Production Benefits of Trees for Poultry Farms, University of Delaware, Bulletin #158; and The Mid-Atlantic Poultry Farmer, July 10, 2007)

Animal Health (Dr. Christine Navarre)

Heat Stress

We are in the midst of heat stress season. The most important factor this time of year is that nighttime temperatures remain elevated. That combined with high daytime temperatures and high humidity can be deadly. Heat stress can be a primary disease, causing illness or death. But it also can be subclinical, meaning no clinical signs of illness are apparent, but productivity is reduced, the

immune system is depressed, and animals are more susceptible to other diseases. Animals that suffer heat stress lose body condition. Their weight and body condition score may stay the same, but they lose body mass and take on more water. Heat stress can cause females to abort and males to become infertile. Heat stress induced infertility can be permanent, so testing males before breeding season is essential to make sure they have recovered or do not have other fertility problems. Overweight or obese animals with other health problems (either clinical or subclinical) are at most risk for heat stress. But, all animals need adequate shade and unlimited access to fresh, clean water. Cool water really helps. Water from ponds and lakes gets warm this time of year and does not allow for any cooling effect. Evaporation also can decrease water quality. Trough sources need to have enough capacity to handle cattle numbers, but not so much that water sits and gets hot. Good turnover in a trough will help keep water cool and clean, which encourages water intake and keeps animals cooler. The more mature forages get, the more heat they produce during digestion. Grazing management practices that maximize forage quality also will help combat the heat.

Toxic Plants

Late summer and early fall are peak times for plant toxicities. As summer grasses start to mature and get scarce, cattle and other livestock are more likely to eat toxic plants which in some cases are more abundant and/or toxic this time of year. Animals are more likely to eat toxic plants when moved to a new pasture, or penned in corrals or lots where toxic plants are more abundant and food is scarce. Blue green algae blooms also can occur in ponds and lakes this time of year. For more information on toxic plants visit www.lsuagcenter.com and "Texas Toxic Plants" http://texnat.tamu.edu/cmplants/toxic/byscience.html. Plants on this website that occur in the eastern regions of Texas are likely to occur in Louisiana too.

Dairy (Dr. Charlie Hutchison)

Milk Prices

The milk price received by producers for June was the highest ever and the prices anticipated for July and August will be at unprecedented levels. The class I price for June milk was $20.94/cwt with the uniform blend price at 3.5% butterfat at $20.76/cwt. Producers in Southeast Louisiana received a net $19.75 - $20.30/cwt in June (depending on deductions, milk quality incentives, and butterfat level). Last June they received between $12.30 - $12.85/cwt plus $1.00/cwt for MILC payment. The class I price for July milk is $24.01/cwt. According to my calculations the uniform blend price for July milk could be $23.40/cwt $\pm$ $0.20/cwt with a potential net pay between $22.50/cwt - $23.00/cwt. The advanced class I price for August milk was announced at $24.86/cwt. Depending on utilization and the prices of the other classes of milk, the August net price could be higher than the July net milk price. Looking at the futures market and the spot cheese market, the prices probably will not be as high for the rest of the year but will still be above the five year average for prices. However, these high milk prices have been tempered somewhat by higher input costs such as feed, fertilizer and fuel.

Milk-feed ratio tops 3.0

The July all-milk price of $21.70 pushed the July milk-feed price ratio past the favored 3.0 mark. The ratio climbed to 3.19, up 0.31 points from June. One year ago, the ratio was 2.33. If milk prices remain high and input costs continue to drop, the result will be a higher milk-feed ratio and potential expansion in the West.

Midyear Dairy Cattle Inventory

According to the USDA, as of July 1st, there are **9.15 million cows** in U.S. herds, unchanged from July 1, 2006, but about 21,000 more than the 9.13 million on Jan. 1, 2007.

Dairy replacement heifers (weighing more than 500 lbs.) were estimated at 3.90 million on July 1, 2007, up from 3.80 million on July 1, 2006, but about 400,000 fewer than on Jan. 1, 2007. Based on these estimates, there were **42.6 heifers for every 100 cows** in U.S. herds on July 1, 2007, up from 41.5 replacements per 100 cows on July 1, 2006, but less than the 47.2 heifers per 100 cows on Jan. 1, 2007. In recent years, USDA's July estimates have usually discounted replacement numbers per 100 cows compared to January estimates. USDA's midyear inventory also is not as extensive as the January summary, and does not provide individual state data.

Cold Storage

USDA's latest Cold Storage report showed June commercial butter stocks at 275.3 million lbs., up 2% from May and 5% more than June 2006. American-type cheese totaled 564.4 million lbs., down 2% from May and 7% less than a year ago. The Chicago Mercantile Exchange Daily Dairy Report indicates this is the lowest midyear stocks level since 2003. Total cheese inventory for June was 876 million lbs., unchanged from both May and June a year ago.

House passes Farm Bill

With a vote of 231 to 191, the House passed its version of the Farm Bill on Friday, July 27th. This is a positive step toward the passage of a 2007 Farm Bill that is good for the U.S. dairy industry, says Tom Camerlo, chairman of the board for Dairy Farmers of America. This bill, he says, contains "a variety of programs that will improve the economic viability of dairy farmers."

Rehydrate with skim milk

New research shows that skim milk — not water or a sports drink — is the best way to rehydrate after exercise. Researchers at the Loughborough University's School of Sport and Exercise Studies in Leicestershire, England found that people who drank skim milk reyhdrated four times faster than those who drank water or a sports drink. Sounds like the folks at the Indianapolis 500 have known this all along, since the celebratory drink for the winning driver is a tall glass of cold milk.

Milk Promotional Program Increases Consumption

Teens not only know about the **Milk Processor Education Program's "Body By Milk" program**, they are drinking more milk because of it. Sales data show that between spring 2006 and spring 2007, average weekly milk servings per student increased 2.7% in middle schools and 12.5% in high schools. The "Body By Milk" program includes a teen-targeted website, BodyByMilk.com; print ads featuring high-profile milk mustache celebrities; and an in-school poster program. The specific message suggests drinking three glasses of lowfat or fat-free milk each day can help teens stay healthy, lean and looking their best.

(Sources of information for this update include: Dairy Herd Management Alert, Dairy Profit Weekly and Daily Dairy Report)

Beef (Dr. Jason Rowntree)

Gulf Coast Beef Cattle Education Alliance

The Gulf Coast Beef Cattle Education Alliance is a working alliance between the cooperative extension services of Alabama, Florida, Louisiana, and Mississippi. The goal of this alliance is to work collaboratively in providing beef cattle producers the very best in programming, utilizing distance education technology. This service is offered to Louisiana clientele as continuing education for Master Cattle Producers, but we certainly welcome all who wish to attend. In the first series, **67 sites** from the four states were involved. The next course, "Limiting Winter Feed Expenditures" will be on August 28th from 7 to 9 pm.

August Beef Tips

- Enhance grazing distribution with a mineral mixture placed away from water sources
- Observe pasture weed problems to help plan control methods for next spring
- Monitor grazing conditions and rotate cattle to different pastures, if possible and practical
- Be prepared to provide emergency feeds if pastures run out in late summer; Providing supplemental feeding now can help extend the grazing period
- Reduce spoilage and waste of forages by harvesting and storing properly
- Analyze harvested forages for nitrate and nutrient composition
- Plan a winter nutrition program through pasture and forage management
- Supplement maturing grasses with a degradable intake protein for stocker cattle and replacement heifers
- Avoid unnecessary heat stress by handling cattle during the coolest parts of the day
- Repair, replace and improve facilities needed for fall processing
- Order supplies, vaccines, tags and other products needed at weaning time

If drought conditions develop and persist, consider weaning calves earlier than normal. Early weaning can be effective if current pasture conditions are limiting milk production in cows and if the cows are losing weight or body condition.

Before weaning calves early, producers should ensure that facilities and management are available to handle lightweight calves. First-calf heifers have the most to gain from early weaning, and feeding early-weaned calves is more efficient than feeding cows without weaning their calves. (Kansas State University)