

SPECIAL POINTS OF INTEREST:

- Minimize the effects of heat on livestock and poultry
- U.S. beef cattle slaughter has been influenced by the drought
- 2011 milk prices should be good but profit margins will be reduced due to high feed costs

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Heat Stress in Livestock

Dr. Christine Navarre

We are in the midst of heat stress season. High daytime temperatures in combination with high nighttime temperatures and high humidity can be deadly. Heat stress can be a primary disease, causing illness or death. It also can be a subclinical disease causing reduced productivity and suppression of the immune system which makes animals more susceptible to other diseases. Heat stress can cause females to abort and males to become infertile. Heat stress induced infertility can be permanent, so breeding soundness exams each year on breeding males are essential to make sure they have recovered. Non-heat adapted males in excess body condition and animals with other health problems (either clinical or subclinical) are at most risk for heat stress.

All livestock need adequate shade and unlimited access to fresh, clean water, even heat adapted breeds. Water should be close to shade. If water is far from shade, animals may not leave the shade to drink, causing dehydration and eventually death. Cool water is best if possible.

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 and decrease both feed and water intake. Trough water 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.

Drought

The severe drought this year poses several potential problems.

- With grass being short, livestock will more likely eat toxic plants.
- Blue-green algae in ponds might also crop up.
- Body condition scores are likely to drop which has multiple ramifications to health and production.
- Early weaning of beef calves, if possible, is a good way to take some pressure off of brood cows.



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Tips to Avoid Heat Stress in Poultry

Dr. Theresia Lavergne

The heat of the summer is upon us! Dealing with summertime heat is a great challenge for people in Louisiana, and high heat and humidity combine to pose severe problems for all types of poultry.

Under conditions of severe heat stress, poultry will have a reduced growth rate, decreased feed intake, poor feed conversion, decreased egg production, reduced hatchability rate, reduced egg shell quality, reduced egg size and reduced internal egg quality. Additionally, heat stress can cause increased mortality.

All types and ages of poultry are susceptible to heat stress, but older poultry face a bigger risk. As poultry get older, they increase in size as well as insulation (feathering). This makes it harder for them to dissipate heat.

The most obvious sign of heat stress in poultry is panting, and they will start panting at an ambient temperature of 85°F along with a humidity level of 50%. Poultry do not have sweat glands that can cool their skin, so instead they must use evaporation from their throat

and respiratory system as a means of cooling themselves.

Panting takes a lot of energy which, in turn, generates an appreciable amount of body heat for poultry.

Ultimately, if poultry are not relieved of heat stress, their body temperature (normal range is 105-107°F) can continue to rise and increase the possibility of mortality (upper lethal body temperature is 116.8°F). Fortunately there are several things you can do to help your poultry flock handle heat stress.

- Provide cool, clean, quality drinking water to your poultry. Water must be available at all times and must be in a location that is easily accessible to your poultry. Water will help keep your birds cool.
- Provide a comfortable environment for your poultry. Always make sure your poultry are in a well-ventilated area in which there is nothing to obstruct the airflow. Placing poultry in a well-ventilated area will help reduce the incidence of heat stress. In addition, a misting/fogging system can be used in a well-ventilated area to help the birds cool themselves.
- Provide feed during the coolest part of the day. Poultry produce heat during the process of digestion, and when this heat is combined with the significant rise in body temperature that occurs during the late afternoon of a hot day, there is a greater risk of heat stress for poultry.
- Supplement drinking water with electrolytes. During true heat stress, the electrolyte balance in birds is altered as a result of panting. The addition of electrolytes to the drinking water will help balance the electrolytes in the birds and increase their water intake. The increased water intake will aid in cooling the birds and will improve the evaporative cooling of the birds. However, you should consult your veterinarian before using any heat stress supplements such as electrolytes.
- Avoid overcrowding your poultry. You should reduce the number of birds kept in a house or in an area. Birds produce body heat. Thus, by reducing the number of birds in a house you will reduce the amount of body heat produced in the house.

“Provide cool, clean, quality drinking water to your poultry.”



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- Avoid excessive activity during the hottest part of the day. The hot weather is a great stress on the birds, so avoid bothering and disturbing the birds during periods of peak heat.
- Consider lowering the light intensity. The body temperature of birds is higher during periods of increased light intensity than during periods of decreased light intensity (or darkness). The heat of the summertime is

unavoidable. However, by recognizing the signs of heat stress and taking steps to prevent heat stress in your poultry flock, you can help keep your poultry comfortable and productive during the summertime.

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“Heat stress can affect all animals, but can be a severe problem with show pigs during the summer.”

Minimizing Heat Stress in Show Pigs

Dr. Tim Page

With the extreme hot conditions that Louisiana and the Gulf South are experiencing and expecting for the rest of the summer, heat stress in show pigs can result in death loss and /or reduced performance unless strict attention is given to providing supplemental cooling to animals. Heat stress can affect all animals, but can be a severe problem with show pigs during the summer. There are some simple practices that exhibitors can implement to reduce heat stress in show pigs.

Heat stress occurs when an animal cannot remove enough heat from its body. Pigs do not perspire like humans and, therefore, cannot sweat or utilize evaporative cooling off of their skin to cool them. Primarily, there are two ways in which pigs minimize heat stress. First, they can increase heat

dissipation. Pigs will attempt to increase heat dissipation by increasing contact of their body with a cooler surface such as a concrete floor. Increased respiration, or panting, increases air flow and evaporation of water from the lungs, releasing additional heat. Second, they can reduce their feed intake. Pigs reduce the amount of body heat they generate when they reduce feed intake because digestion of feed creates body heat (which then must be dissipated).

One of the most important management practices in reducing heat stress and ensuring that pigs do not dehydrate is to always provide free access to fresh, clean water. Cool drinking water provides the most heat relief. A large amount of water intake during hot weather will dissipate heat through evaporative heat loss from

respiration. Waterers must be checked daily to make sure they are functioning properly.

Another management practice that exhibitors can use is to spray the pigs regularly with water. Spraying or misting show pigs a few times a day and putting a fan on them will do a lot toward relieving heat stress. Some exhibitors set up a mist or drip system by poking small holes in a garden hose and letting it run off and on throughout the day. Commercial drip and mist systems also are available at most feed stores and/or plant nurseries. One key to making a mist or drip system really work is to provide plenty of air movement with fans.

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Shade is critical (I know this should not have to be mentioned but I have visited exhibitors' show pig facilities and some do not provide adequate shade). Most everyone knows that pigs will sunburn easily. Shade prevents sunburn but also aids in cooling and reducing heat stress. If pigs get sunburned, be careful about which lotion you select since many lotions contain compounds such as lidocaine that can show up

in drug tests. If you ever have any questions, please contact your veterinarian for advice. A few simple management practices can reduce heat stress in show pigs and will keep pigs more comfortable and healthier.

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"In the states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, year-to-date beef cow slaughter is 11.6% higher than last year."

Year-to-Date U.S. Cattle Slaughter Rate Dr. Ross Pruitt

As 2011 began, expectations in the beef cattle industry were to see stabilization in the number of U.S. beef cows as producers held back heifers for replacements. It will be late July before indications of the heifer retention rate are known, but fewer beef cows have gone to market so far in 2011 compared to 2010. Through the first twenty weeks of the year, beef cow slaughter is down 4.4% from last year. However, year-to-date beef cow slaughter is 14.4% higher than the 2005-09 average. In order for there to be any expansion in the beef cow herd this year, everything had to go right which has not been the case in 2011. The hardest hit area by drought in 2011 has been the

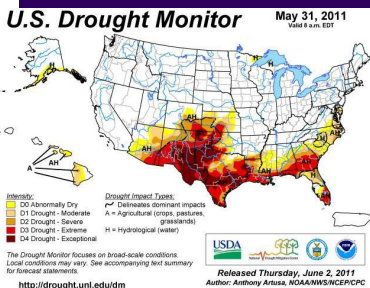
Southern Plains, and beef cow slaughter has reflected this. In the states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, year-to-date beef cow slaughter is 11.6% higher than last year.

Dairy cow slaughter has been higher this year in the U.S. and the region containing Louisiana. U.S. slaughter of dairy cows is 6.7% higher than last year and 20.2% greater than the 2005-09 average. Slaughter in the region containing Louisiana is 8.3% higher than last year. In spite of the struggle to stay profitable in the dairy industry, USDA National Agricultural Statistics Service is reporting that 8,000 dairy cows were added to the milking herd during the

month of April.

The impact of beef cow slaughter rates will provide additional support for cattle prices in the long run as the drought gripping Louisiana and most of the Southern Plains continues. The drought conditions will slow, if not stop, any chance for herd growth in the next few years. For dairy producers, any cost advantages that forage based dairies had relative to grain based dairies are being eroded as a result of the drought. Margins for feedlots and dairies will continue to be tight as stocks of grain are not expected to rebound with corn planted this year for the 2011-12 marketing year. Forage, when and where available, will provide a relatively cheaper source of gain for the foreseeable future.

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Avoiding Heat Stress in Youth Livestock Projects

Dr. Karl Harborth



Even though summer does not officially arrive for a couple more weeks, summer temperatures have definitely arrived in the southern United States. Most of us are not comfortable when the temperatures soar into the upper 90's and higher, but the livestock projects that we have chosen to care for are much less comfortable than we are and are very susceptible to heat stress during this time period. It would not be an uncommon sight to drive by a pasture on a summer morning and see a herd of cattle fighting for a spot in the shade or at the watering hole. This can make the dog days of summer very stressful for livestock even when they are roaming in their natural habitat. Cattle, swine, sheep, and goats all have thermoneutral zones (Comfort Zones) well below that of humans. A thermoneutral zone (TMZ) is the range in temperature that livestock will perform the most efficiently and be the most comfortable. While livestock are out of their TMZ's most of the time during the summer months, it means we

need to be more cognizant of the potential for heat stress.

Indicators of heat stress include panting, excessive slobbering, lack of coordination and trembling.

Tips to help alleviate or prevent heat stress:

- Provide cool, clean drinking water as often as possible
- Water prevents dehydration, and is the fastest way to lower body temperature.
- A 1250 pound steer will need to consume approximately 25 gallons of water per day when the weather is hot.
- A 280 pound hog will need approximately 3 gallons of water a day
- A typical market goat or market lamb will need around 1.5 to 2.5 gallons of water a day
- All of these may vary depending on the size of the animal, effective temperature, and wool or hair amounts
- Rinse livestock down to lower body temperatures
- During down time on days that your project is not showing, rinsing them down for 10 to 15 minutes will help make them feel more comfortable
- Reduce Stress
- Try to clip and prep livestock as little as possible

at the show

- Do not get them ready too early - try to gauge the amount of time needed to prepare
- Do not overcrowd livestock in pens or stalls
- Overcrowding reduces airflow and does not allow livestock to naturally dissipate their body heat
- Use fans and misters
- Airflow helps cool the area
- Fans and misters work well to increase evaporative cooling and to aid in making livestock more comfortable, but be careful as adding moisture can increase humidity and defeat the purpose
- Use as little bedding as possible
- Bedding will retain heat and reduce the animals surface area

If you ever have a question about an animal that may be experiencing heat stress, contact a veterinarian, your project leader, or your county agent. A lot of time and money has been committed to your livestock projects and the last thing you want is your animal to not perform at the best of its ability or, even worse, to die.



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Avoiding Equine Heat Stress in Louisiana

Dr. Neely Heidorn



It is June. In Louisiana temperatures are easily reaching the mid-nineties with over 50% humidity, and if you are like me, you are still riding!!! Of course we are all taking the proper precautions: SPF 50 +, water, hat, and long sleeved shirt. But, did any of us stop to think about our horse? As the summer heats up there are four factors every horse owner should be aware of that will reduce the chances of your horse becoming a heat casualty: water consumption, ventilation, feed, and conditioning.

An average 1,000 pound idle horse will consume a minimum of 10 to 12 gallons of fresh, potable water each day. As the temperature and humidity rise, the horse's primary cooling mechanism kicks in and even idle horses begin to sweat and consume more water. If they are working hard and the temperature is above 70° F, adult horses can consume 20 to 25 gallons of water per day. To prevent overheating, make sure clean water is offered regularly, even during work.

Another way to prevent heat stress in horses is to ensure that barns, paddocks, and stalls are properly ventilated. Barn doors and windows should be kept open (when safe) to allow air flow. Additional fans may be added to increase circulation around

the horse within its stall. Water misting systems are available and may decrease the temperature by as much as 10 degrees; however, you will find limited success with this tool due to the humidity in Louisiana.

The way you feed your horse also may play a role in its ability to stay cool this summer. All equine rations should contain salt. Rations for an idle mature horse should contain 0.5% salt, while working horses should have 1.0% salt, daily. If you feed a pre-mixed complete ration, the salt already will be added to the feed. However, as added insurance, free choice salt or mineral blocks should be provided, because each horse's salt requirement varies. As long as horses have free choice of water available, extra salt consumption is not typically a problem. Crude protein also should not exceed 12-14% of the total ration for the working adult horse. The protein content in the ration for an idle, mature horse should be closer to 10%. Excessive protein can cause the generation of additional metabolic heat during the digestion process. The dissipation of this extra body heat places more demands on the horse's ability to cool down.

A horse's conditioning also will play a large role in its ability to sustain the summer heat. Good management requires owners and trainers to acclimate horses to the environment with proper fitness programs before working a horse in high humidity or heat. Even a well conditioned horse can become overly stressed if the temperatures are above normal. Riding in a covered arena (when available) or when the temperatures are cooler (early morning or evening) is a way to prevent direct sun exposure and overheating. Spend additional time to properly cool your horse after riding.

Enjoy riding your horse this summer, but make sure to prepare yourself and your horse properly before attempting to beat the heat. Be aware and take breaks to monitor your horse's physical condition. Watch for the signs of heat stress: weakness, stumbling, increased respiration, and an increased temperature in the range of 102 - 106° F. If you suspect heat stress, offer small amounts of water regularly, place the horse in a shaded well-ventilated area, and, if necessary, hose the horse with lukewarm water (starting at the feet and working up to the body). If your horse's temperature stays above 106° F contact your veterinarian immediately.

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Dairy Update

Dr. Charlie Hutchison



Milk Prices

Milk prices and utilization of the different classes of milk for the month of May in Federal Order #7 were: Class I at \$23.55/cwt with 59.91% utilization, Class II at \$20.63/cwt with 7.82% utilization, Class III at \$16.52/cwt with 27.07% utilization and Class IV at \$20.29/cwt with 5.20% utilization. The uniform blend price for May milk was \$21.65/cwt which is \$0.30/cwt higher than April and \$5.06/cwt higher than the same time last year. Based on the current spot prices of blocks at \$2.11/lb, barrels at \$2.725/lb and butter at \$2.14/lb and the Class III futures average for June-August at \$19.41/cwt and Sept. – Nov. at \$18.09, there is much optimism that milk prices will remain relatively high for the remainder of 2011. Last week USDA increased the projections for the All-Milk price to \$19.85 per cwt for 2011 and \$18.25 for 2012. Class III is anticipated to average \$17.60 for 2011 and \$16.50 for 2012. The Class IV price is projected at \$19.20 this year and \$17.05 next year. It appears the USDA feels Class IV will remain higher than Class III for the foreseeable future. The higher of Class III or Class IV helps determine the Class I price. Also, USDA increased the cheese price

for this year by 8¢ to a projected average of \$1.77 per pound. The price for 2012 was increased 6-1/2¢ to \$1.71. Butter price was raised 7¢ to \$1.9425, while next year's projection was up only 1/2¢ to \$1.6750. Nonfat dry milk price was increased 2-1/2¢ and is now expected to average \$1.52 this year and \$1.4050 next year. Dry whey was increased to \$0.4750 this year and \$0.4250 per lb. for 2012. Although all prices were increased, USDA expects 2012 prices to be lower compared to 2011.

Block cheese price has increased 42¢ since mid-May, moving to the highest level since June 2008. Buyers have been aggressive, with sellers holding back waiting for higher prices. Some have suggested prices have increased due to higher grain prices. However, this is not likely since milk production continues to increase each month. There was some impact from buyers looking for cheese due to the hold put on a significant volume of American cheese, for some reason turning buyers to other sources to cover needs. This cheese coming back to the market and the slowing of orders for replenishing aging programs could have a negative impact on prices in the near term. Last week, more cheese began trickling to the market as sellers took advantage of higher prices. The recent run-up in the CME cheese prices has put U.S. cheddar prices above Oceania benchmark prices for the first time since fall 2009. Since Janu-

ary 2010, the U.S. block price has run about 32¢ below the Oceania price. Oceania cheddar is trading at \$1.93-\$2.18, according to USDA's Dairy Market News. "Oceania cheese markets and prices are steady to lower," says DMN. "Cheese output is trending lower to reflect the seasonal end to the milk year. Buying interest is fair to good and new deals are occurring."

The more likely reason for the price increase in block cheese is the desire for the industry to move Class III price closer to Class IV again, similar to what took place in March. This time, underlying fundamentals are a bit more supportive of higher cheese prices. This should keep the price spread between III and IV closer.

Dairy Product Export and Demand

U.S. cheese exports in the first four months of the year were 175.4 million lbs., up 68% from a year ago. Exports were equivalent to 5.0% of U.S. cheese production, up from 3.1% in the first four months of 2010.

Last week, CWT accepted bids to provide export assistance on sales of 3.5 million lbs. of cheese for delivery through the

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end of the year. Year-to-date acceptances total 43.1 million lbs. Cheese imports also are higher this year. In the January-April period, imports were 102.3 million lbs., up 25% from last year, according to USDA/FAS trade data.

However, domestic fluid milk sales were down for the month of April. U.S. Department of Agriculture officials released the April *Estimated Total U.S. Sales of Fluid Milk Products* report. According to the report, total fluid milk products adjusted for calendar composition had 2.3% less sales than April 2010 at 4.4 billion pounds. Estimated whole milk sales for April were 1.1 billion pounds, down 3.3% from last year. Flavored milk declined 3.2% for the same period. Buttermilk, which had

sales of 38 million pounds, was the only fluid product to increase compared to the previous year, up 0.2% compared to last year. While organic milk makes up only 1% of the dairy market, total organic fluid milk products sold in April were reported at 170 million pounds, up almost 20% compared to April 2010. As fluid milk sales continue to be less than last year, sales of yogurt, cheese and butter continue to increase.

Even though milk prices appear to be very good for the remainder of 2011, feed prices also will remain high for the rest of 2011. Thus, the potential profit margins will be reduced considerably. Current prices for ground corn at over \$325.00/ton (\$9.10/bushel) and soybean meal 48 at over

\$425/ton with current corn futures hovering between \$7.50 - \$8.00/bushel for July and December corn and July soybean meal futures at around \$370.00/ton does not bode well for feed prices to decrease in the near future. And, USDA estimates that 40% of this year's corn crop, and 38% of next year's, will go toward ethanol production. Also, the U.S. Senate rejected an amendment that would have eliminated the 45¢/gallon ethanol blenders' credit and the 54¢/gallon ethanol import tariff.

Let us all hope demand for milk and dairy products remains strong to keep milk prices higher, or at least keep pace with rising feed costs.

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