



Missouri Ag News

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Pigs can't sweat to cool off; give them help on hot days

Pigs can't cool themselves through sweating and need special attention during heat waves, says University of Missouri Extension swine nutrition specialist Marcia Shannon.

Pigs take priority over any other animals on the farm when temperatures rise, Shannon says. Pigs have few working sweat glands to remove body heat.

Shannon offers these tips:

Provide an adequate, constant supply of fresh drinking water cooled to room temperature or lower.

Water flow rate should be at least 1 gallon per minute for sows with litters and 0.5-0.6 gallons per minute for finishing pigs.

Run cool water using a hose or sprinkler over the pigs' skin to cool them. Let skin dry before wetting again.

Provide outside pigs shade and mud holes for relief. When pigs roll in the mud, it cools their skin and prevents sunburn.

If you notice overheated pigs, move them away from other pigs, Shannon says. Wet their skin with cool, not ice-cold, water. Let them dry. Repeat process as needed. Put fans on them to increase air movement. Make sure the space is adequately ventilated to remove the hot, moist air from the area.

Watch for stressed breathing patterns or panting. It is one of the first signs of heat stress in pigs. Count breaths to check for stress. More than 50 breaths per minute indicates stress.

Pigs don't eat as much when it is hot. Eating and digestion generates heat, so pigs eat less to control their internal body temperature. Producers could consider changing rations by adding more fat to minimize heat increment and increase energy. When doing so, also increase protein in their diet. Another option is to add cool water to their feed to stimulate intake.

Pigs will sprawl out over a larger area of cool floors or ground to try to keep cool. They'll also move less to avoid overheating.

Pigs breed less during heat stress, so expect lower conception rates. The heat lowers semen production in boars.

Confinement operations can take simple steps to reduce heat also, says Joe Zulovich, MU Extension agricultural engineer. First, clean fans with brooms or power washers. A dirty exhaust fan system can reduce airflow by half.

If ventilation is adequate, inside temperatures should be no more than 3-5 degrees higher than outside temperatures. If not, check and clean fans, grilles and shutters. If inside temperatures still remain more than 3-5 degrees above outside temperatures, the ventilation system needs to be evaluated by a ventilation system professional.

When inside temperatures reach 85-90 F, wet pigs with water hoses or sprinklers. Let them dry between wettings. When relative humidity levels are above 70 percent and when temperatures are above 75-80 F, wet pigs to cool them.

Marcia Shannon, Animal Science Professor and Joseph M. Zulovich, Ag Engineering Specialist, University of Missouri Extension, Columbia, MO.

The Current Financial Situation for Missouri Agriculture

The University of Missouri Extension and Missouri Department of Agriculture are joining together to hold a series of meetings across the state to inform agricultural stakeholders on the current financial issues facing Missouri agriculture. These meetings will gather input on local financial issues facing specific areas of the state and an opportunity to discuss the effects of the current financial downturn on the local communities.

Registration is free but to help in planning we request that you contact the Scott County Extension office at 573-545-3516 or email David Reinbott at reinbottd@missouri.edu if you plan to attend or for more information.

Tuesday, July 12, 2016

Miner Convention Center – Miner Missouri
(Next to the Drury Inn – East Malone & I-55)

9:00am – 12:00pm

Registration: 8:30 a.m. Program 9:00 a.m. to 12:00 p.m.

Agenda

Welcome

Missouri Department of Agriculture

Current Situation in Missouri Agriculture

University of Missouri Extension

Commodity and Financial Outlook for Agriculture

Panel Discussion

Local Stakeholders to Discuss Local Agricultural Situation

Questions/Comments

Closing Comments/Next Steps

These meetings are sponsored by:



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The logo for the University of Missouri Extension features a stylized "M" and "U" in a yellow and black square on the left, followed by the word "Extension" in a large, bold, black serif font.

Hot Weather.. Must Be Close to Fair Time

The purpose of youth (4-H and FFA) livestock projects is to provide an opportunity for youth to learn how to feed, fit, and show their animals, but more importantly to provide an opportunity for personal growth and development. Although these projects are intended for the youth, the parents are encouraged to be involved and projects often become a family affair. As Missourians we are accustomed to hot temperatures with high humidity levels in the summer and take precautions accordingly. We should not overlook those same needs for our 4-H and FFA livestock projects.

As temperatures increase, the need for heat stress management becomes a necessity. All animals can suffer from heat stress, but is especially true in rabbits and swine, as they are unable to dissipate heat through sweating. Knowing the normal behavior of your animal is important so deviations can be recognized and proper actions taken. Signs of heat stress include, but are not limited to: increased breathing rates, sprawled out body positions, decreased movement and feed intake. Water is very important in the regulation of body temperature and should not be restricted during extreme temperatures. Providing shade and proper ventilation are also key components of managing heat. Keep the animals in the shade where there is a natural breeze or air movement provided by fans. Misters are also a useful tool in regulating body temperatures.

Transport animals to the fair during the cooler parts of the day (early morning or late evening) to avoid the hotter portions of the day. Do not leave animals in the trailer or crate for an extended amount of time as temperatures can reach extreme levels very quickly. Arrive in plenty of time to get settled in prior to weigh in and provide water immediately. Provide water on a regular basis to ensure adequate intake. The use of fans and misters may be required to provide an environment comfortable for the animal. Below is a list of key points and tips that may be useful in managing hot and humid weather.

- Haul animals during the cool parts of the day
- Unload quickly and provide water immediately
- Provide water on a regular basis
- Adding diluted flavors (i.e. Kool-Aid or Crystal Light) to the water before the fair and while at the fair can increase intake since the water may taste differently at the fair
- Provide fans and misters (Do not forget the extension cords!)
- Place frozen water bottles in the pen/cage to provide cool surfaces
- Keep pens dry
- Sprinkle cool water on the shoulder, neck, head, and nose of pigs to cool them off
- Keep a close eye on your animals for any signs of abnormal behavior

Warmer weather means the approach of fair season and the need to take proper care of your livestock project during the extreme weather conditions of summer. Fair season is a great time to spend with family and friends and provides a great opportunity for youth to shine. Good luck at the fair, stay cool, and remember to have fun!

Heather Conrow, Livestock Specialist, University of Missouri Extension, Fulton, MO.

High Heat and Dry Conditions Put Fish Ponds at Risk

The combination of prolonged high heat and dry weather potentially threatens fish ponds, says a University of Missouri Extension fisheries and wildlife specialist. “Fish are at risk from high water temperatures, oxygen depletion, increased disease potential and other problems as water levels drop in ponds through lack of runoff and evaporation,” said Bob Pierce.

“Ponds potentially most at risk are those that depend on water from surface runoff within a watershed that may be too small to maintain a pond’s water level, even during years of average rainfall,” he said. “Ponds typically need a surrounding watershed that is about 15 times larger than the area of the pond.”

Two MU Extension publications explain how to monitor your pond and respond to problems. “Managing Fish Ponds During an Extended Drought” (G9401) is available for download at www.extension.missouri.edu/p/G9401. In addition, the MU Extension guide “Pond Dynamics and Water Quality Considerations” (G9476), at www.extension.missouri.edu/p/G9476, provides basic information on pond ecology, water quality and steps you can take to prevent fish kills during the summer months.

Under extended dry conditions, watershed ponds can lose a lot of water to evaporation and seepage, reducing both the oxygen supply and the amount of living space for fish populations. Long stretches of scorching temperatures make the problem worse. “Warmer water can’t hold as much oxygen as cool water,” Pierce said. “A combination of extended dry conditions and higher than normal temperatures like we are having right now can leave ponds with dangerously low levels of dissolved oxygen.”

Fish gulping for air at the surface just after sunrise is an early symptom of low levels of dissolved oxygen. A common way to increase dissolved oxygen is to use a commercial surface aerator — a pump and a nozzle that sprays water into the air. Any technique that mixes water and air can help provide an oxygen refuge for fish. But supplemental aeration is only a remedy for low dissolved oxygen levels, so landowners will also need to address other factors causing the problem, such as an overabundance of decaying aquatic plants and algae.

Refrain from supplemental feeding of fish during extremely warm weather, Pierce said. Fish will often go “off feed” when water temperatures are around 85 to 90 F, so most of the uneaten feed will sink to the bottom and decompose. The decomposition process can further decrease the amount of available oxygen in the pond.

Falling water levels also leave a pond’s fish with less and less living space. Crowding makes fish more vulnerable to stress and disease. Nutrients and waste products become more concentrated as the pond shrinks, further increasing the risk of oxygen depletion, disease outbreaks and other problems, he said.

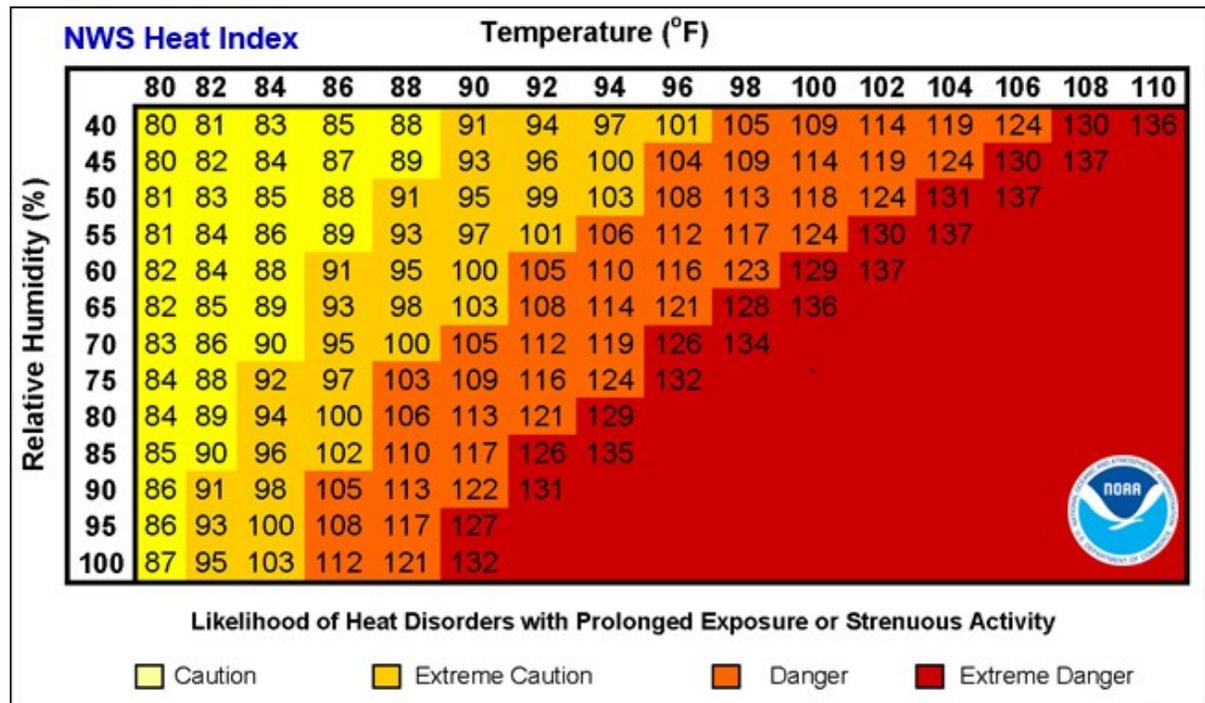
Landowners can reduce the chance of fish kills by keeping livestock out of the pond and avoiding the overuse of fertilizer in the watershed. Wise watershed management and proper design and construction of the pond can lessen the impact of drought, said Pierce.

Additional MU Extension publications on pond management are available at www.extension.missouri.edu/aquaculture. For more information, contact your local MU Extension center. Detailed information is also available from the Missouri Department of Conservation at <http://mdc.mo.gov>.

Robert Pierce, Natural Resource Specialist, University of Missouri Extension, Columbia, MO.

Keeping an Eye on Heat/Drought Scenarios

The Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature. To find the Heat Index temperature, look at the Heat Index Chart (left) or check our Heat Index Calculator. As an example, if the air temperature is 96°F and the relative humidity is 65%, the heat index--how hot it feels--is 121°F. The red area without numbers indicates extreme danger. The National Weather Service will initiate alert procedures when the Heat Index is expected to exceed 105°-110°F (depending on local climate) for at least 2 consecutive days.



If you are interested in how drought may impact your area visit Missouri Drought Information at <https://www.facebook.com/MissouriDroughtInfo/> or look at National information at <https://www.drought.gov/drought/>.



Drought.gov
U.S. Drought Portal

Future Meetings & Events -

Feral Hog Class - Tuesday, July 12, 2016. Three Rivers Community College, Poplar Bluff, MO at 6:00 PM. Free with an evening meal provided at 6:00 pm and program to follow. To register call calling 573-681-5312.

The Current Financial Situation for Missouri Agriculture - Tuesday, July 12, 2016. Miner Convention Center in Miner, MO (Next to the Drury Inn – East Malone & I-55) from 9:00am – 12:00pm. Registration: 8:30 a.m.

Commodities and markets - <http://extension.missouri.edu/scott/crop-budgets.aspx>

Contributions to this publication are made by University of Missouri agriculture food and natural resource specialists. If you would like to receive this publication please send an email with request to:

denklers@missouri.edu

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For those planning vegetable and fruit acres for next season who need bees for pollination, pollinators are available from Ernie Wells. Contact him at (573) 429-0222 or wells.ernie@gmail.com.