

It's Time To Cool Off

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Today's pigs are significantly leaner than those of the not too distant past. What is interesting is how did we get them there?

If we look at the results of selection experiments where the objectives were to decrease fatness, a common outcome is that growth rate is slightly depressed and this appears to be due to a decrease in appetite.

We know barrows are fatter and grow faster than gilts – also largely due to differences in feed intake. So why, when pigs are hot, do they eat less and get fatter? It appears that the excessive heat load actually alters their ability to deposit lean.

Work at the University of Missouri (Lopez et al., 1991) demonstrated that pigs raised under hot environments ate 10.9 percent less than contemporaries in a thermo-neutral or comfortable environment, but experienced 16.3 percent lower weight gain.

For now suffice it to say that pigs finished under high temperature conditions eat less and end up with fatter carcasses. What can be done to alleviate this? A common recommendation is to make changes in the feeding program.

Another solution is to provide an environment which minimizes the effects of temperature extremes. Since it's already hot out let's not talk about new buildings, but provide a summary of a report presented at the Fifth International Livestock Environment Symposium (Bridges et al., 1997).

The concept behind evaporative cooling is that as water changes from a liquid to a gas it uses energy, thus reducing the temperature of the air around it. This is different from the old wallow where the water was conducting heat away from the body.

Bridges et al, 1997, acknowledge that evaporative cooling pads may be the most popular form, but that they require a significant initial capital investment and will not work in all finishing facilities.

An option which has been shown to work well in turkey operations and which can be retrofitted into most barns is misting. Use of drippers, where large drops of water drop directly on the animal and evaporate, has become very common practice in Missouri gestation and farrowing barns. Why not for finishers? Δ

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