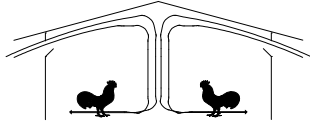




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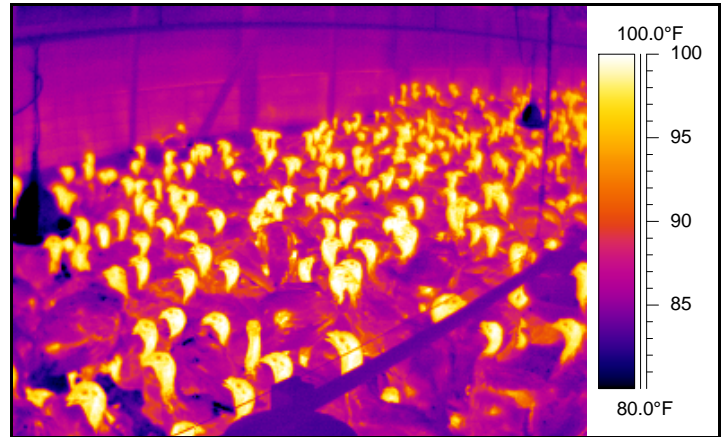
Poultry Housing Tips

Bird Migration...A Very Costly Hot Weather Issue

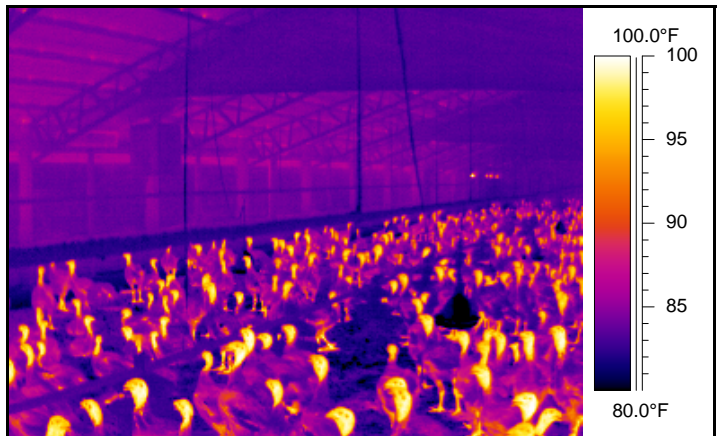
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There are two facts to remember when it comes to hot weather and tunnel-ventilated houses: First, the birds in the house will, over time, migrate towards the tunnel inlet end of the house if not prevented from doing so. This is true whether talking about broilers, broiler-breeders, pullets, or turkeys. It is basically in their nature to walk into a breeze. It doesn't matter whether it is a dark house, cool cell house, fogging pad house, fogging nozzle house, or for that matter a naturally ventilated house with a large number of circulation fans blowing in one direction. The second fact is that if the birds are allowed to migrate performance will definitely suffer.



Inlet end of tunnel-ventilated turkey house

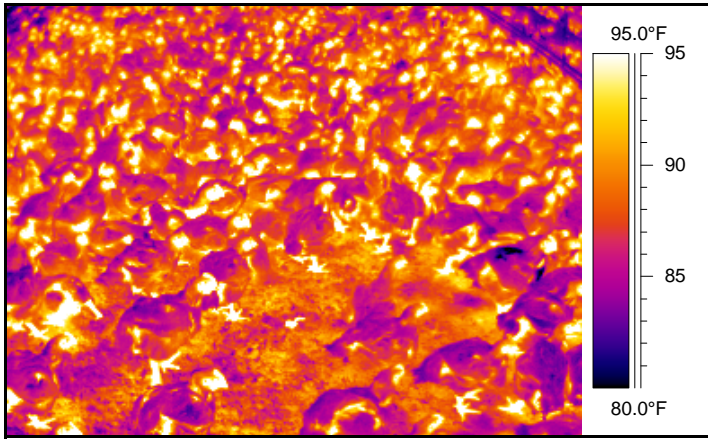


Fan end of the same tunnel-ventilated turkey house.

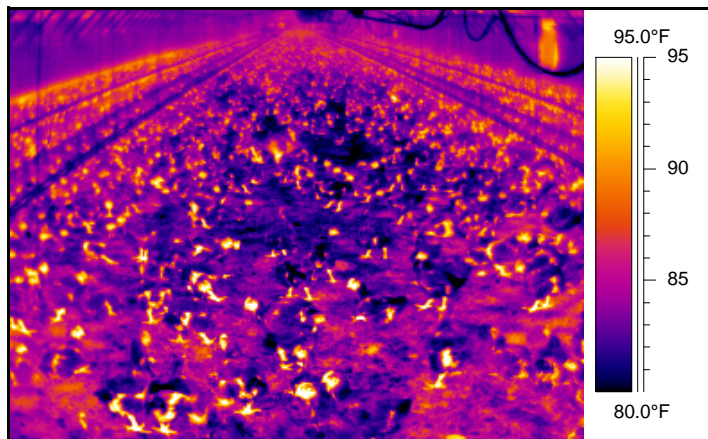
PUTTING KNOWLEDGE TO WORK

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES, COLLEGE OF FAMILY AND CONSUMER SCIENCES
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Inlet end of tunnel-ventilated broiler house with a single migration barrier.



Fan end of tunnel-ventilated broiler house with a single migration barrier (same house as above).

Bird migration costs producers in the following ways:

- 1) Significantly reduced bird weight gains due to insufficient feeder/water space for the number of birds present at the tunnel inlet end of the house. It is important to realize that it is not uncommon to find that 60% of the birds end up at the tunnel inlet end of a house if migration barriers are not properly installed.
- 2) Significantly reduced bird weight gain at the tunnel inlet end of a house due to their inability to easily move to the feeders and drinkers.
- 3) Reduced performance at the tunnel inlet end due to reduced bird cooling. It is very hard to cool birds with air movement during hot weather if there is little or no space between them. Furthermore, when birds are tightly packed together it is difficult if not impossible to remove the heat from between and under the birds (see above thermal images).
- 4) Increased condemnations due to scratches. It is difficult to walk through birds at the tunnel inlet end of a house with a migration problem without birds jumping on one another.
- 5) Increased densities have been associated with suppressed immune responses that could result in increased susceptibility to infections.
- 6) Damp litter at the tunnel inlet end of the house. Yes, some damp litter on the tunnel inlet end is caused by very humid air entering through a house's evaporative cooling pads. But keep in mind if when there are 30% more birds in the tunnel inlet area of a house there is 30% more wet manure being deposited into the litter in the tunnel inlet area. Furthermore, if the birds are packed tightly together it is very difficult to get air movement over the damp litter to dry it out. Damp litter can lead to leg and condemnation problems due to both carcass and paw defects.

- 7) Bird crowding and damp litter at the tunnel inlet end of a house can lead to increased incidence of leg issues with regards to tibia dischondroplasia.
- 8) Increased electricity usage. The more evenly the birds are spread out through out a house the easier they are to cool and the less fan power required to keep them cool.



Wet litter at the inlet end of tunnel ventilated turkey and broiler houses.

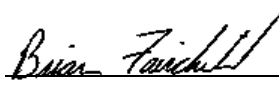


Dry litter at the fan end of tunnel-ventilated turkey and broiler houses (same houses as above).

Though bird migration can be a costly problem it can be easily avoided if the following steps are taken:

- 1) Install migration barriers as soon as the birds are evenly spread out throughout the house (ideally within two weeks of placement).
- 2) Install one migration barrier for every 100' to 125' of house length (*Poultry Housing Tips*, July 2005).
- 3) Install two water meters per house (one per end) to track bird migration (*Poultry Housing Tips*, July 2002).


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