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Hensall CO-OP

ANIMAL NUTRITION

POULTRY NEWS & UPDATES

LOOKING FORWARD TO WARMER WEATHER

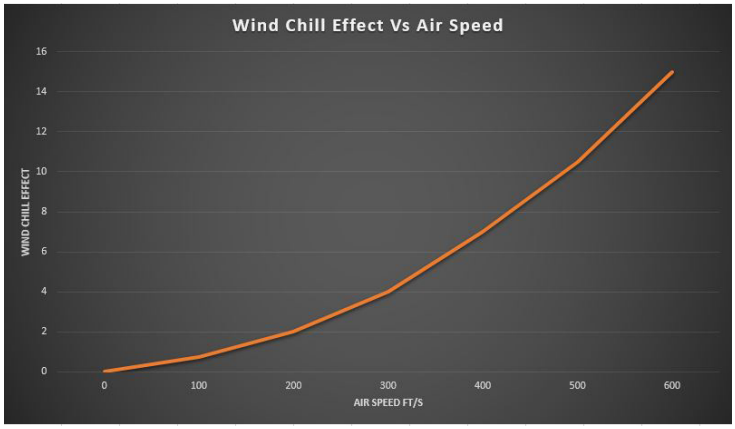
By: Justin Otten, Poultry Specialist

Before we know it, the summer heat will be upon us. Here are a few things to keep in mind as we prepare for the change in seasons. With the broiler chickens growing at the rates they are today, there is more pressure on our ventilation programs. Not only are these birds consuming more feed and water, resulting in more waste, but their metabolic rates are higher, resulting in more heat generated by the birds themselves.

It is always better to be prepared. Uncovering the fans prior to chick placement can prevent disrupting the chickens later on when there is a need for more fan power. Having to uncover the fans with larger chickens in the barns can lead to a spike in mortality and/or condemnations. On the same note, if you need to adjust circulation fans, it is best to do so before there are any chickens in the barn.

It is easier to keep chickens cool than to cool down an over-heated bird. Preventing any excess heat production in a time of stress is a good idea. Taking chickens off feed is the tried, tested and true method for this. It is important to remember the chickens will continue to produce heat from the metabolic processes of digestion for up to 4 hours after their last meal. In order to have birds finish the process by noon, feed should be removed by 8:00 am.

Birds can only cool off by evaporation and convection. Making sure you have enough air speed is the key for summer ventilation. If there is not enough air speed, the heat around the bird will not be removed. Then the chickens will start to use evaporation (panting) to cool down. This in turn will lead to dehydration which uses up a lot of the bird's energy and will increase the relative humidity (RH) in the barn. As the RH increases in the barn, the chicken's ability to use evaporation to cool off is greatly reduced. With the humidex or heat index effect, it will be even hotter for the birds. So if you have a low air speed with a high RH, your chickens will have a hard time cooling off. Tunnel barns are now being built that can move air at a rate of 600 feet/min and faster. Having air speeds that high will move hot air away from the chickens and out of the barn quickly. Just think of going into a big box store on a hot summer day and standing in the doorway, taking a big breath as the fast-moving air cools us down.



Using cooling pads/sprinklers correctly is just as important as using fans and inlets correctly. If you start your cooling pad/sprinklers at to lower temperature when the humidity is still high, you will just be adding

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more humidity to your barn with out getting the cooling effect. The lower the outside humidity, the more effective your cooling pad will work. If you look at the environmental trends, we can gather from weather stations around the world, there seems to be a correlation between temperature and humidity. Around 26.7° C (80° F) the outside humidity will be around 80 %. When you are using your cooling pad at these temperatures you will not be doing a whole lot of good. The cooling effect you are getting will quickly be lost by the increase in humidity in the barn.

This would be a great time to increase those air speeds and use a wind chill effect instead. When the temperature continues to climb the humidity will start to decrease outside. As we approach 30° the relative humidity will begin to drop. This would be the ideal time to get the cooling pad running.

Having the proper products on the farm could save time, money and stress. There is nothing worse than being in the middle of a heat wave needing electrolytes but discovering there are none to be found. With the current uncertain times, it is very easy to forget the little things that can make a big difference. Focus on the things that can be controlled to help decrease the stress on those hot summer days.