

## TIP 38

### Measuring Vent Temperatures Accurately

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We know that newly hatched chicks cannot control their body temperature very well, and need some help by keeping the environment close to their needs. It is easy to tell from the chicks' behaviour whether they are too hot (**Figure 1**) or too cold (**Figure 2**). Hot or cold chicks also tend to be noisy. By checking their body temperature you can quantify how hot or cold they are, compared to the Aviagen target of 103°-105°F and make adjustments to the environment accordingly. This hatchery tip gives some hints as to the best way to get repeatable, accurate results when checking chick temperatures.



**Figure 1** Chicks which are too hot start to pant.



**Figure 2** Chicks which are too cold huddle together for warmth.

All the Aviagen trials measuring vent temperature have used a Braun® Thermoscan® thermometer. These are widely available, well priced and consistent. Of the current models, the Thermoscan 5 or 7 are the most suitable, because they pre-heat the measuring tip. However, they should still be checked regularly, and we advise replacing the unit every 12 months. There are other excellent paediatric infrared (IR) thermometers available, but these may give slightly different readings. So if you want to use an alternative, calibrate it against a Braun device. Switch the thermometer on and leave to settle in the room where it will be used for 15-20 minutes at the start of any measuring session.

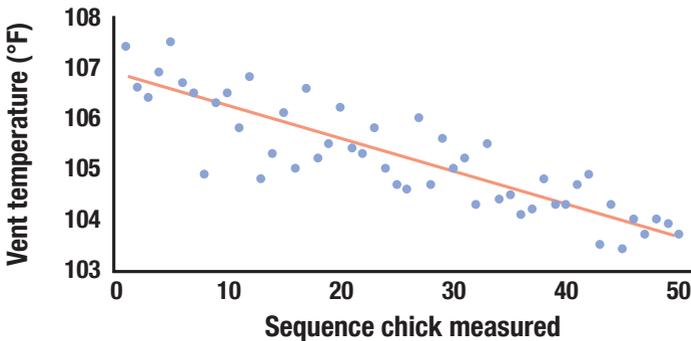
To measure vent temperature, hold the chick with its vent towards you, and use your thumb to push the rump upwards. The tip of the thermometer should be placed on the area free of any down (**Figure 3**). If the vent is wet, after a dropping has been passed, then any visible moisture should be blotted away, or another chick sampled – a chick with a wet vent will appear to have a much lower temperature than others in the group.



**Figure 3** Use the thumb to push the rump of the chick upwards so that the skin on the vent is exposed

Once moved to a different environment chick temperature will change quite fast. **Chart 1** shows the temperature of 50 chicks in the order they were measured. They had been moved from a hot environment to a cooler one just before measurement started. Whenever possible, chicks should be measured in the place where they are being held. If they have to be moved, for example out of a hatcher or a delivery vehicle, then the vent temperatures will only be representative of the former environment for around 15 minutes. After this time, a new sample should be taken.

Vent temperatures can give accurate and repeatable guidance to the comfort of chicks at all stages between hatching and arriving at the farm. Take care to measure accurately, record the data to place and time and use it to make improvements to the environment for the chicks.



**Chart 1** Vent temperatures dropping as a box of chicks adjusts to a cooler environment.