

Tips for Embryology Questions

1. What temp should incubator be set to?
 - Incubators should be kept at 100-101 degrees.
 - An acceptable range is 99-103 degrees.
2. When should I put the eggs in the incubator
 - After the temp has been maintained at 100-101 degrees for at least an hour.
 - Allow the eggs to come up to room temp (70-75 degrees) before placing in the incubator
3. What if the incubator was at 105 degrees or higher?
 - If the incubator is at 105 degrees for more than 30 minutes, it will seriously effect or kill (cook) the embryos.
 - If you are uncertain how long the eggs were at a high temp, you can still try and hatch them, if after 21-23 days the eggs have not hatched it is likely they have been cooked by the initial overheating.
4. What if the incubator has been below 97 degrees?
 - The eggs will be effected by this is if the temperature has been decreased for an extended period of time. The chicks will likely have growth problems.
 - If you think that the temperature was decreased only for a short period of time, leave the eggs, continue turning them and maintain the temp at 100.
 - If after 21-23 days the chicks have not hatched, then it is likely that they were killed by the lack of heat in the incubator
5. How often should the eggs be turned?
 - The eggs should be turned a minimum of 3 times a day. From day 1-17. On day 18, leave the eggs alone and only open the incubator to add water.
 - In cases where you can not get to the school on the weekends, do the best you can, however this may affect the hatching process.
6. What should the incubator humidity be kept at and how do I tell what the humidity is?
 - The humidity should be kept at 60-65% relative humidity.
 - If you rented an incubator from PCE, check the instructions.
 - If you have water in the “t” zone, at the temperature is at 100-101 degrees, you will have the proper humidity.

For more information please visit:

- Sources:
1. 4-H Embryology in Nebraska, <http://lancaster.unl.edu/4h/Embryology/>
 2. University of Illinois Extension 4-H Embryology: <http://www.urbanext.uiuc.edu/eggs/index.html>
 3. UConn Teacher help site: http://web.uconn.edu/poultry/4-hpoultry/help_inset.html
 4. Penn State 4-H Embryology <http://4hembryology.psu.edu/>