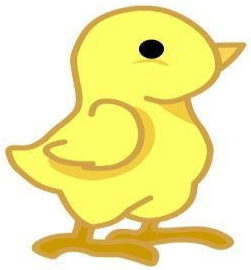

Quick Start Guide: 4-H Embryology in the Classroom Program and Incubation

Incubation Instructions

1.) Incubators heated with a light bulb should be about 98-100 degrees F when the bulb shuts off.

2.) Incubators heated with a metal heat element should be kept at 98-100 degrees F.

3.) Incubator needs to be regulated for a minimum of 24 hours before delivery of eggs.

4.) Monitor the temperature of the incubator and adjust to your environment when necessary.

5.) Changes in weather outdoors can cause your incubator to begin running hot or cold, depending upon the changes that are occurring.

6.) When the eggs first arrive, we will mark each egg with an "X" so you will know which eggs you have turned. Turn the eggs in the morning, at lunch, and before going home from school each day for the week the eggs are delivered. You will not have to turn the eggs after you go home from school on Friday.

7.) Water must be added to create high humidity within the incubator. Fill dish with warm water and place under the screen holding the eggs. Check every day. You will want to make sure there is plenty of water on Friday before going home for the weekend. You may want to place a paper towel in the water to help with cleanup.

8.) Eggs should hatch Monday or Tuesday. It is possible eggs may hatch early. It's also possible eggs may hate late. You may want to allow a couple of extra days for hatching. Those eggs that have not hatched by the end of the week should be thrown away.

9.) Please Do Not "Help" The Chicks Out Of Their Shells when hatching begins. Helping chicks in this way actually harms the vigor of the chicks. Those that are helped are more likely to not make it.

10.) Chicks can be removed from the incubator when they are completely dry and begin to "fluff-up".

11.) Instructions for cleaning your incubator are included on page 2.

After the Chicks Hatch

1.) Place chicks in a large cardboard box with wood shavings/shredded newspaper in the bottom of the box. Never place chicks on a smooth surface. This causes "spraddle legs". A gooseneck lamp or something similar at one end of the box provides enough heat for the birds. The chicks will huddle under the light for warmth and then will move away if too hot. A 60-75 watt bulb is usually adequate, however 125 watt heat lamp (Orscheln's) may be needed depending on outside weather. You can watch the chicks to see if they are warm enough or are too hot. If chicks "pile up" in a corner, they are probably too cold.

2.) We supply a small amount of Chick Feed that should get you through the chicks going home. Depending on the appetite of the chicks, you may have to provide some additional feed as well. Put water in a jar lid with pebbles or marbles in the water to keep the chicks from standing in the lid and getting wet or drowning.

3.) Return the cleaned incubator and program evaluation to the Extension Office the Monday after the chicks have hatched.

Cleaning Your Incubator

Upon completion of the incubation period, there are several things to do before returning the incubators.

1.) Discard any eggs that have not hatched. Put them in a sack, box, or other container and have the janitor or custodian put them in the trash. Do not return un-hatched eggs.

2.) Egg shells from the hatched chicks should be removed as they hatch. Those pieces left or fall through mesh will be cleaned out after the incubation period.

3.) Remove the mesh screening after disposing of the eggs.

4.) Prepare warm water with disinfectant (Clorox). Wash off the screen and water pan, bottom of incubator and thermometer. Dry and reassemble.

5.) Replace the screen, thermometer, and water pan.

6.) Cleaning and reassembling the incubator correctly will make the incubation and embryology program a success for you and much nicer for the next teacher scheduled to use the incubator.

Finding a Home for Your Chicks

Prior to starting the 4-H Embryology in the Classroom project, a specific plan for re-homing of the chicks should be worked out. Chicks from these and related projects should be re-homed in a reasonable, humane way. The best plan is to give the chicks to someone who has proper brooding facilities, successful brooding experience, and the interest to properly care for and raise the chicks.

The chicks you will be hatching are a meat bird from Tyson. They don't make good flock birds, and are not suitable for egg production. They have a short life expectancy.

If you cannot find someone qualified to take and raise the chicks, contact the Extension Center and we may be able to give you some ideas.

Additional Resources:

http://4hembryology.psu.edu/

http://www.urbanext.uiuc.edu/eggs