Phases of Poultry Work: Proper Way to Set a Hen, Artificial Incubation, Selection of Eggs

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PHASES OF POULTRY WORK

(Proper Way to Set a Hen)
( Artificial Incubation )
( Selection of Eggs )

by

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By incubation we mean the development of the chick in the egg, either by natural or artificial incubation. Few, if any of you, will use the artificial method; that is, hatching by placing the eggs in heated machines called incubators, so we will discuss the first, or natural method.

In natural incubation the eggs are placed under a hen or else she is allowed to make a nest wherever she chooses and begin sitting as soon as she has laid a certain number of eggs. If the eggs are not taken out of the nest the hen will lay from twelve to fifteen eggs before she becomes broody.

If the egg is removed from the nest each day she may choose a new place but if one is left or if a plaster of Paris or wooden nest egg is put into the nest she will oftten lay two or three times as many eggs as she would if all of her own eggs are left until she has twelve or fifteen. This has been carefully worked out by people who had the time to spend, and who were really trying to find whether a hen could be made to lay more eggs. You will be wise if you profit by their experience. It is not best to leave the hen’s eggs in the nest, because when she sits on the nest each day that she lays, she warms them enough to finally spoil them for food, and many times spoils them for hatching as well.

**TABLE OF INCUBATION:**

The following table may be of interest as the time for different birds varies so much from that of the chicken:

<table>
<thead>
<tr>
<th>Kind of Poultry</th>
<th>Days of Incubation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hen</td>
<td>21</td>
</tr>
<tr>
<td>Duck - Pekin, Rouen, Runner, etc</td>
<td>26</td>
</tr>
<tr>
<td>Duck - Muscovy</td>
<td>35-37</td>
</tr>
<tr>
<td>Goose</td>
<td>30-34</td>
</tr>
<tr>
<td>Turkey</td>
<td>28</td>
</tr>
<tr>
<td>Guinea</td>
<td>26-28</td>
</tr>
<tr>
<td>Pheasant</td>
<td>22-24</td>
</tr>
<tr>
<td>Peafowl</td>
<td>28</td>
</tr>
<tr>
<td>Ostrich</td>
<td>42</td>
</tr>
<tr>
<td>Swan</td>
<td>35-42</td>
</tr>
</tbody>
</table>

The time may vary according to conditions, but the above table is standard.

**NATURAL INCUBATION:**

If Wyandotte, Plymouth Rock, Rhode Island or Orpington breeds are kept, natural incubation is preferable unless a very large number of chicks is to be hatched.

Leghorns, Minorcas or Anconas do not usually become broody soon enough for early hatched chicks. Choose a medium sized quiet hen, see that she is free from both body and head lice, then place her in a rooky nest that is free from mites. An extra large hen is too apt to break the eggs, while a small hen cannot cover a good sitting except in warm weather.
THE NEST:

The nest should be at least twelve inches square and twelve inches deep. If no sod is placed in the bottom a shallower nest may be used. If the nest is too deep the hen is liable to break eggs in jumping down when she returns to the nest. If too shallow the baby chicks are apt to fall out and by their cries persuade the hen to leave the nest before the hatch is completed. If the box is covered this difficulty will be avoided. Twelve to fifteen eggs is considered a sitting, according to the size of the hen.

A piece of sod, the size of the nest and from three to four inches deep should be placed soil side up in the bottom of the nest, then short cut straw or hay placed over this to make a well-rounded nest with the corners well filled. If the sod is too cold or damp it should be warmed and partly dried in the oven before being placed in the box.

LICE:

Dust the hen well with louse powder before placing her on the nest, repeat at the end of the first week and three or four days before hatching time. Do not use Blue Ointment or other grease, as it will affect the hatch as grease or oil of any kind on the egg will injure it so far as hatching is concerned.

PLACING THE HEN:

The hen should be left on the nest at least one day before the eggs are placed under her to make sure that she is ready to stay. If she is to be moved it is best to do it at night, handling the hen carefully to avoid making her nervous. Place the eggs under her at night rather than in the day time.

FEEDING:

The hen should be allowed to leave the nest once each day if she cares to do so. Feed whole grain (corn and oats are especially good) charcoal, grit and a plentiful supply of fresh, clean water.

BROKEN EGGS:

If some eggs are broken remove the nesting material, replace with clean straw, wash the eggs that need it with warm water and replace.

TESTING:

At the end of the fifth and twelfth day white shelled eggs, or at the end of the seventh and fourteenth day the brown shelled eggs may be tested so that the infertile and spoiled eggs may be removed. If many are taken out, those left may be placed under fewer hens and fresh ones placed under the remaining hens.

APPEARANCE:

The infertile egg will appear perfectly clear. The dead germ will show as a dark spot or ring. The live germ will show a dark spot with dark lines branching out in all directions very much like a spider with many legs.

ARTIFICIAL INCUBATION

If the incubator has been used before, thoroughly scald it with boiling water and expose it to the direct sunlight for several days so that all molds will be destroyed.

THE INCUBATOR:

When purchasing it, it is best to buy the best made machine on the market, one that is well constructed and proven to last. If your neighbor has had good success with a certain make, it is often wise to get that kind so that you may profit by his experience.
The one run by electricity is the most satisfactory, for the temperature can be held more even, but the kerosene lamp is more commonly used.

**TEMPERATURE:** Follow the directions that come with the incubator, especially placing the thermometer. Test the thermometer by a clinic or druggist's thermometer, if possible, to see that it is working correctly. Place both in water about 100° and notice carefully whether it varies.

**LOCATION:** A great deal depends upon the location of the incubator for if the temperature of the room is uneven the hatch will be poor or there will be too many weak chicks. A well ventilated cellar or cave is excellent. Never let the sun shine directly on it. See that it is perfectly level in order to prevent uneven temperature. If a carpenter's level is not at hand, fill a flat bottle so that only a small air space is left. Lay the bottle in the position of a level to see whether or not the incubator needs to be leveled.

**LAMP:** Adjust the lamp before placing eggs and run for at least twenty-four hours, watching the thermometer carefully.

**REGULATE:** Disconnect the regulator, then light the lamp and allow the temperature to drop to 103°. Then connect the regulator and adjust the damper to about one-eighth of an inch above the flue with the temperature at 102½°. When it is satisfactorily adjusted do not change but regulate by turning the wick higher or lower.

**TEMPERATURE:** 102½° the first week, 103° the second and 103½° the third until the chicks begin to hatch, then run to 104°. This will usually give the most satisfactory hatch, providing the temperature of the room has been regular.

**CARE OF EGGS:** Test the same as for natural incubation. Turn eggs twice each day, moving them with the hands. Cooling twice each day from five to fifteen minutes, according to the temperature of the room, is more apt to produce good vigorous chicks. Do not leave the incubator open while turning the eggs. After the first testing cool the eggs once a day until they feel slightly cool to you, but do not let them get cold.

**MOISTURE:** Moisture is largely controlled by ventilation, so if the ventilating system is not good there will either be too much or not enough moisture. If the air of the room is dry it will help to keep a box of moist sand about three inches below the incubator.

**HATCHING:** During hatching time do not open the incubator door unless it is absolutely necessary for the chicks chill easily.

**WEAK CHICKS:** You will save money and time by killing the weak or crippled chicks, for they are the ones that will spread disease to the healthy ones.

**FEEDING:** Do not feed until at least 36 hours, and it is best to wait 48 hours. The white of the egg produces the growth and development of the chick while the yolk furnishes food. Just before the chick comes from the shell the yolk is enclosed in the abdomen and furnishes the necessary food from 36 to 60 hours so if other food is given the chick is overfed and contracts bowel trouble almost at once.
SIZE: In selecting the eggs for hatching choose medium rather than large or small eggs, unless you are planning to raise pullets that will lay extra large or small eggs, as the size of the egg that is used for sitting decides the kind that your pullets will lay the next year.

SHELL: Never set an egg that has a thin shell or an extra heavy one, for either is apt to hatch well. The thin shelled one is apt to break and the heavy shell is hard for the chick to break, then the evaporation is apt to be too rapid in the first and too slow in the second.

COLOR: Choose eggs of a like shade if you wish to have the eggs of your flock uniform. If you are planning to market the eggs next year now is the time to begin the production of uniform eggs of a medium size, like color and good shape.

HEN'S EGGS: A larger hatch and stronger chicks can be expected from the eggs of hens than from pullets unless the pullets were early hatched last year and are especially well matured.

CARE AND STORAGE OF EGGS: In saving the eggs for sitting either under hens or in an incubator, one should remember that incubation starts at about 68°. If the eggs are kept in too warm a place the germ may begin to develop but does not have enough heat, so the chick — if it is hatched when placed under the hen — will be weak. If the eggs get too cold the germ may be killed or at least will be weakened.

PROPER TEMPERATURE: Therefore, the eggs kept for hatching should be at a temperature of between 55° and 65°.

WHEN TO SIT: Never place the eggs under a hen while they are still warm; allow them to cool at least one day and night. Do not keep them more than ten days if possible, for there is too much moisture lost, and unless they are very carefully turned the yolk is liable to settle on one side of the shell.

SHIPPED EGGS: If eggs are shipped or hauled, they should be allowed to settle at least one day and night before being placed under the hen.

If you must buy the eggs from someone else, you, of course, must depend upon that person to do most of these things for you, but another year you will know what to do.

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