

## Incubator & Brooder Department



We invite correspondence for this important department of commercial poultry raising, which is growing so rapidly in Canada.

### OPERATING THE INCUBATOR.

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At your request we give a few ideas as to how incubators may be managed successfully. What is said is the result of the writer's experience, other methods may be successful but we shall deal only with the one we practise. [Just what we want.—ED.]

With an incubator at hand which will not vary in temperature more than a fraction of a degree, even though the outside temperature may vary thirty degrees, this being found satisfactory we may begin to look for a permanent location. A cellar, not a wet one, is the most desirable place as there is no jar of the floor and surroundings, and a comparatively even temperature is maintained outside the machine. This evenness of temperature is a saving of oil: do not try to run an incubator where the outside temperature varies 40° in 24 hours. Perhaps it may be done but it is a waste of fuel and attention.

See that the incubator sets level. This is very important, especially if the machine is a hot water one, as the water must circulate evenly all over the egg chamber in order to have an evenness of heat inside.

Close the machine and start the lamp, when 100° is reached adjust your regulator. Now run for a day or so until you are positive you can successfully control the temperature. If you cannot operate an empty machine do not waste the eggs to fill it. When the eggs are put in the temperature should rise to 101° as your thermometer is then raised the height of an egg nearer the tank. One hundred and one degrees has given better hatches than a higher temperature. Some say 103°, but we have never yet been able to get as strong chicks, nor as many of them, when the temper-

ature went above 101°. The last few days it may be wise to run at 103°, but not above. After putting in the eggs if the temperature does not rise to 101° in a few hours do not be alarmed, as we have known eggs to be nearly 24 hours in getting warmed up. Do not meddle with the regulator unless it is an absolute necessity. We prefer eggs too cool rather than too warm.

Turn the eggs twice daily, morning and evening, as near at an equal distance of time as possible. We get the best hatches where the tray of eggs is removed from the machine to be turned. After removing the tray shut the machine door at once so as to maintain the temperature. The eggs are turned by means of putting the tray on a table, the one side of which has an inch strip tacked on it. This raises the one end of the tray; now take some eggs from the lower end of the tray and place them near the centre, then gently roll the half next you down hill; next turn the tray around and do the same with the other end, this puts the eggs from the centre to the ends, and the end eggs to the centre, thus assuring evenness of heat to all the eggs. We have never yet got as strong, healthy chicks where the eggs were turned inside the machine.

We use no moisture or ventilation until the last five days. This method has proved the most satisfactory; while we have occasionally got good hatches where moisture and ventilation were used before, yet taking all hatches into consideration, they have not been so successful.

When the eggs begin to pip do not peep in the machine every ten minutes. True, you may lose a chick or so from scrambling over pipped eggs and shells which occasionally get united and thereby shut off the supply of air to the pipped eggs, but you are likely to lose dozens where the machine door is opened frequently and the temperature of the machine becomes variable. In our mind nothing is more important than keeping an even temperature in the egg chamber during the hatch.

Remove the chicks from the egg trays to the nursery below every six hours. Do not take chicks from the machine before the hatch is over as every 15 chickens lower the temperature 1°. After the hatch is over remove the chicks to the brooder, clean the machine, run one day to get an even temperature and you may begin over again.