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ORGANIZATION OF HATCHING OF DAY-OF YOUNG BIRDS IN DIFFERENT INCUBATORS

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Annotation
The article discusses the methods of hatching young animals of various farm birds. It also says the daily rate of hatching of young birds, the maintenance of young birds after hatching, the rules for transfer to the consumer and transportation.

Keywords: young animals, birds, incubation, hatchers tray, eggs, embryo, control check, hatching period, weight

The organization of the hatching of young birds is carried out by the fact that eggs from incubators are transferred to hatchers before the shell is pecked; for example, eggs of hens of egg breeds - after 18 days from the moment they were laid in the incubator, and meat breeds - after 18.5 days. This prevents to some extent the setters and the eggs of other batches placed in them from infection. In addition, when the eggs are transferred to the hatch, they are cooled, which has a beneficial effect on the embryos, preventing them from overheating.

For the withdrawal of young animals, special hatching incubators (cabinets) are used. For three setters of the IUP-F-45 incubator, there is one hatcher for 8000 chicken eggs.

The mode in the hatcher is differentiated due to the fact that eggs with embryos are transferred to the hatcher, in which the evaporation of the allantoic fluid has not been completed and low air humidity is required to facilitate this process. Prior to the mass pecking of the shell, the hatcher maintains a humidity regime close to that of the incubator. With the advent of the first chicks (table 1), the air temperature is reduced, and the relative humidity is maximized. The eggs are placed in the hatchers horizontally and do not rotate.

Table 1 Approximate timing of the withdrawal of young animals in the party

Index	chickens		Turkeys, ducks	geese
	egg	meat		
Beginning of pecking	19 days 8 hours	19 days 12 hours	25 days 8 hours	28 days 12 hours
Start output	19 days 19 hours	20 days	26 days 12 hours	29 days
Bulk withdrawal	20 days 6 hours	20 days 12 hours	27 days	29 days 12 hours
End of output	21 days	21 days 8 hours	27 days 12 hours	30 days 12 hours

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The transfer of eggs for hatching in the Universal incubator is carried out in this way. The setter trays are removed from the cabinet, placed on a trolley and transported to the hatcher. There, on a special table, the eggs from the incubation trays are transferred to the hatchers. To save time and labor costs, the setter tray with eggs is covered with a hatcher tray and quickly turned over by two operators.

Trays with eggs begin to be installed from top to bottom, leaving no gaps between them. If there are not enough eggs to fully load the cabinet, they are placed in the central or front of the cabinet, and empty spaces are filled with empty trays, which is necessary for proper air circulation.

Before transferring the eggs to the hatchers, a control check of the eggs is carried out by transilluminating them on an ovoscope; they look through 3-4 trays from each cabinet, take into account the number of eggs with live and dead embryos, determine whether the embryos are well developed.

If the waste in the batch is large, then all the eggs of this batch are checked with a hammer ovoscope, and only eggs with live embryos are transferred to the hatching trays.

If during the control check a small number of eggs with dead embryos are found, then the entire batch of eggs is transferred to the hatchers without sorting.

After the eggs are transferred to the hatch, the upper trays are covered with a net to prevent the young from falling out onto the floor of the incubator; the lighting in the incubator is turned off, and the control windows are closed with curtains.

During hatching, in order to avoid violation of the regime, the incubator should not be opened unless absolutely necessary.

Chicks from eggs are hatched unevenly: from smaller eggs earlier, and from larger eggs later. In the same batch, chickens of egg breeds can be hatched on the 20th day, and some on the 21st or 22nd day. The time from the first chicks hatched in a batch to the last chicks is called the **hatching period**.

The friendly hatching of young animals is ensured during the incubation of biologically high-grade eggs, calibrated by weight. The main number of chickens in the batch (80%) hatch within 10-12 hours.

A long withdrawal period stretched for 1.5-2 days is undesirable. It is a consequence of the incubation of eggs that are heterogeneous in mass and quality in a batch or violations in the incubation regime.

Young growth is chosen only with dried down. The time of the main sampling is determined by the number of hatched and dried young animals (85-90% of all hatched chickens in the batch).

If the conclusion is friendly, then make one sample. For example, chickens of egg breeds are selected 504 hours after the start of incubation, and meat breeds - after 512 hours.

If the hatching period is extended to 1.5 days or more (this often happens when incubating duck eggs that are not calibrated by weight), then two samples of young animals are made: the main sample (65-70% of the young), and after 8-12 hours - the second.

Juveniles are selected in the following way. Trays with young animals are taken out one by one, starting from the lower tiers, and put on the table. Dried young animals are selected by hand and placed in standard boxes. The shells and eggs with dead embryos are dumped into airtight containers. The remaining eggs and poorly dried young are grouped into trays and placed in one of the hatchers, placing them in the central part.

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Selected young animals are placed in standard boxes and transported on trolleys to another special room. Dried young animals should not be kept in the incubator for a long time, they should be removed from the hatchers as soon as possible, since the high temperature and humidity of the hatcher reduce the quality of the young animals and can cause a large waste during the rearing period.

In a clean and dry room for temporary placement of young animals, the air temperature is 24-30°C and the humidity is 60-65%. There must be forced ventilation, as young animals need an influx of fresh air. High temperature in the room, especially if a large batch of young animals is placed in it and the lack of forced ventilation can lead to overheating and even death of young animals, since the air temperature near it in the container rises to 40°C or more (and normally - 27-34°C).

After the end of the withdrawal period, the incubators are cleaned; the hatchers are sent to the washroom and the hatchery waste in containers is removed from the hatchery.

When transferring chickens to the consumer, it is necessary to follow the rules for its transportation:

- use light plastic boxes or cardboard boxes divided into sections with holes for ventilation as containers; the bottom is lined with paper or clean shavings;
- 25 chickens, 15 ducklings and turkey poults, 12 goslings are placed in a section measuring 300x300 mm;
- transportation is carried out in special vehicles, with a body disinfected with formaldehyde vapors; temperature in the body 24-26°C and humidity 45-75%, provide air exchange so that the concentration of carbon dioxide does not exceed 2%;
- a passport for the transportation of day-old young animals is filled in with an indication of the sending company and the recipient, the amount of cargo, the time of departure and arrival, with a note on disinfection. When sending young animals to the consumer, an additional 0.5 to 2% of chickens are given for natural decline, depending on the distance: up to 200 km - 0.5; up to 600 km - 1; more than 600 km - 2% of chickens from the batch.
- upon delivery - acceptance of young animals, 2% of the chicks from the batch are taken to control its quality, but not less than 100 heads for evaluation by external signs, 50-100 heads for determining live weight and at least 3 boxes to control the number of young animals in the batch. The results of the control check (averaged values) are recorded in the passport, which is sent with this batch.

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