

CREATING MICROCLIMATE IN-TRAILERS CARS FOR CHICKS

V. Vasylenkov

D. Pogrebnyj

In the article the thermal calculation poultry house on wheels to determine the amount of ventilation calculate the amount of air supplied per hour for 1 kg of live weight of the chicks, the multiplicity of air and according to this selection of ventilation equipment required performance.

Thermal design, poultry house on wheels, ventilation, air parameters, microclimate premises.

The microclimate in the room - a climate of limited space, which includes a set of environmental factors such as temperature, humidity, speed and cooling capacity of air, pressure, noise level, the content of suspended dust particles in the air and microorganisms, gas composition of air, etc. .

Modern technology accepted high demands to the microclimate in livestock buildings. According to scientists, experts in the field of animal and technologists, animal performance by 50-60% determined feeds, 15-20% - care and by 10-30% - microclimate in livestock buildings. Rejection of microclimate parameters set limits leads to a reduction of live weight at 20-33%, leaving young plants to increase 5-40% reduction yaytsenosnosti chickens to 30-35%, the cost of additional quantities of feed, reducing the life of the equipment, machines and buildings themselves , reducing the resistance of animals to disease.

Teplovyy pezhym ptashnyka vctanovlyuyetcyia in pezultati teploobminnyh ppotseciv chto ppotikayut like cepedyni ppymischennya, didst i chepez yoho zovnishni ohopodzhennya. He fopmuyetcyia under vplyvom cyctem opalennya ta ventylyatsiyi zalezho from meteopolohichnyh papametpiv zovnishnoho povitpya i teplotehnichnyh hapaktepyctyk budivelnyh konctpuktsiy body.

Purpose - to create a microclimate in the poultry house on wheels calculate the amount of air supplied per hour for 1 kg of live weight of the chicks.

Materials and methods of research. To determine the amount of ventilation poultry calculated amount of air supplied per hour for 1 kg of live weight poultry multiplicity of air and accordingly selected the desired ventilation equipment performance.

Calculation of ventilation is based on determining the maximum amount of air that you want to remove carbon dioxide from the poultry house, excess moisture and heat. Productivity tidal ventilation settings should be less than the value obtained air. Since air quality is determined by several parameters, for significant volume of necessary ventilation conducted mutually complementing each other calculations on carbon dioxide, moisture and heat.

Results.

Body-van should be provided with adjustable heating and forced-air ventilation, which accurately should provide temperature control body. Forced ventilation can be provided with centrifugal fans and be in front of the van. For heating the cold air blowing time to use Russian equivalent ridkistnoho heater "Webasto" diesel fuel. Nyzkozamerzayucha coolant is liquid. Exhaust ventilation located on the roof-trailers and consist of axial fans. Diesel fuel supply system to ridkistnoho heater must include a separate fuel tank (for cars with gasoline engines), and all the fuel supply system. The system of heating and ventilation is performed with the cab driver. The temperature in the body is controlled by a temperature sensor. Electric power supply systems of heating and ventilation is performed from the onboard vehicle network.

Conclusions

The paper shows the thermal calculation poultry house on wheels (semi-trailers) based on modernized 475,113 car KAMAZ chassis for transportation of hatching eggs and day-old chicks, internal body dimensions: 5320 mm x 2380 mm x 1950 mm was calculated the ventilation system, in which it was determined that for the normal functioning of chicks required in air-trailers is 1185,98,1 m³ / h. presented proposals for the selection of equipment heating and forced-air ventilation to create a microclimate in this poultry house on wheels.