Related Problems and Solutions

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cent will continue toward automation, environmental control, and the handling of poultry manure.

Air Movement

One poultry consultant sees an improvement in fan efficiency and a trend toward larger fans, perhaps as large as 60 inches He also notes that variable speed motors for fans are no longer needed with the large number of birds in most houses

Air volume would be controlled by simply cutting off or turning on fans because the total change in cubic feet per minute is spread with many birds

The problems, say the ventilation experts, have been to develop controls that are sensitive enough to do the job, yet capable of withstanding the working conditions of a poultry house.

Interest in pad-type evaporative cooling systems seems to have waned during the past year in some parts of the country Pennsylvania never did have installations of this type In some parts of the country these systems do work well, but the common complaint has been the high maintenance costs and the management involved with the system relating to utside relative humidity conditions

The trend today is to depend on air movement and distribution rather than on evaporating cooling

However, the industry does need a great deal more research on the effects of air movement, especially at different temperatures and humidities

This brings to mind a need for research in varying the temperatures for raising pullets That is, cycling the temperatures during the day, so that the pullets may be "hardened up" to subsequent differences in temperature changes and stresses

This has proven to be beneficial to broilers and this principle should be carried over to started pullets

Engineering Help Sought

Relative to engineering, I should like to mention that we have had terrific cooperation here in Pennsylvania with our agricultural engineers in the poultry industry and we welcome any further cooperation in the poultry-engineering area

Just at random, concerning some of the problems in the poultry industry, as engineers we need your further assistance for their solution.

We need to control poultry feathers, especially in transporting broilers to the processing plant We have tried to straighten this out with the highway people, however, there are still complaints of sifting Some of the large poultry processing plants have installed large vacuum cleaners to at least clean out the crates before they are returned to the farm However, this is only part of the problem

Effect Of Gases?

Another problem has to do with the detection of the various gases in the poultry house to establish tolerances, then to monitor these so that we can keep them under control

An example would be that of ammonia The effects of ammonia on the performance of broilers are probably not as well known as the effects of ammonia on egg production.

However, it might be logical to suspect that the effects would be detrimental to broilers, somewhat similar in economic magnitude to the detrimental effect on layers.

Layers exposed to excessive amount of ammonia do eat less feed, and it affects the rate of sexual maturity and the rate of production.

However, the most important thing as far as the poultry industry is concerned is that it lowers the bird resistance to the onslaught of various respiratory diseases.

Caged Broilers?

In the poultry industry, we need to develop a system of raising broilers in cages, however, under the present management system utilizing cages for broilers, breast blisters, poor conformation and so forth are major problems that have to be solved before this management system is utilized

However, if cage growing does come into being, then some of the people outside of Pennsylvania are going to be greatly concerned about remodeling their present housing to adapt to the cages They will be concerned relative to the choice between windowless and windowed houses.

In Pennsylvania most of the broiler houses are windowless; however, we have a lot of talk relative to the practicality of the windows The common complaints concern the bird quality as to the bird's poor pigmentation, too many blisters and many downgrades, among other complaints However, how factual this complaint is can be argued.

Balloon Houses?

You might be interested in a new concept in turkey and chicken housing being tried in the Shenandoah Valley A reinforced balloon, this is 26 feet by 300 feet, has been placed on a foundation with a large circulating

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