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BEAK TRIMMING REDUCES STRESS OF BROILER CHICKS

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Beak trimming of poultry has been practiced for many years. The practice is used to reduce feather picking and plumage loss, to reduce carcass damage associated with establishing pecking orders, and to reduce cannibalism.

Cannibalism and social interactions are important considerations for poultry producers as they attempt to improve the efficiency of their operations without reducing performance by increasing population densities.

When considering the effects of beak trimming, it is important to consider the amount of the beak

which is removed. It has also been shown that the type of feed — mash or pellet — may affect performance following beak trimming.

We conducted a study to examine the effects of beak trimming on the performance, carcass quality, and level of stress in broiler chickens.

Male Hubbard x Hubbard broiler chicks were used in this study. At hatch, the birds were divided into two groups — a beak-trimmed group and a control group. On the day of hatch, the beak-trimmed group had 1/2 of the upper and lower beak removed by a hot blade. The birds were housed in floor pens at 0.7 square foot/bird (25 birds/pen) using wood shavings for litter. Birds received 14 hours of light per day at an intensity of 0.5 foot-candle 12 inches above the floor.

The birds were given feed (mash

type) and water ad libitum. Body weights, feed consumption, mortality, and feed efficiency were measured.

At 47 days of age, immediately prior to slaughter, some birds from each group were bled to provide blood samples for differential white blood cells as a measure of stress. Percentages of lymphocytes (L) and heterophils (H) were obtained, and H/L ratios were calculated. Following slaughter, some birds were chosen at random from each group and carcasses were graded.

We found that beak trimming did not have an effect on body weight, weight gain, feed efficiency, or mortality. This indicates that beak-trimming at least up to 1/2 of the beak has no detrimental effects on the performance of broiler chicks.

The average grade for the beak-trimmed birds was higher than the control birds and the percentage of Grade A carcasses was increased. This could be because of to decreased cannibalism. Improved carcass quality would lead to an increased profit for the flock of birds that is beak-trimmed — this reflects an advantage of beak-trimming broiler chicks.

Percentages of circulating lymphocytes were lower in the control birds than in the beak-trimmed birds, while percentages of circulating heterophils in the control birds were higher than in the beak-trimmed birds. This resulted in the control birds having higher H/L

ratios than the beak-trimmed birds. It is known that higher H/L ratios are associated with an increased level of stress.

Our results show that beak-trimming may in fact serve to

reduce long-term stress as is indicated by the lower H/L ratios observed in the beak-trimmed birds. Certainly reducing stress in a flock of birds is beneficial both to the welfare of the birds as well as to the profit of producers.

Grange Sets Legislative Conference

HARRISBURG (Dauphin Co.) — The Pennsylvania State Grange annual convention may not be until October but preparation is already under way for the 120th State Session. To get ready, the Grange is sponsoring a pre-convention legislative conference for committee members at the Sheraton Inn Harrisburg.

The conference will take place from 10 a.m. to 4 p.m. on Monday, August 24. The purpose of the conference is to familiarize committee members with upcoming issues.

"The Grange is a grass-roots organization with all our policies coming from individual members and local Granges," said Brenda Shambaugh, Grange legislative director. "This conference highlights some of the major issues which will be discussed during our October convention. With the information our committee mem-

bers receive here, they can make more informed decisions."

Topics for this year's conference will be the pros and cons of nutrient management, health care issues, low-level radioactive waste, and various priorities in the Department of Agriculture and state legislature. Experts in each field will discuss these issues with the Grangers.

Policy for the State Grange is developed through resolutions at the local level. These resolutions are then passed through the state and national level to become Grange policy. Legislative initiatives such as rural mail delivery, nutrient management, and roadside market protection have all started this way.



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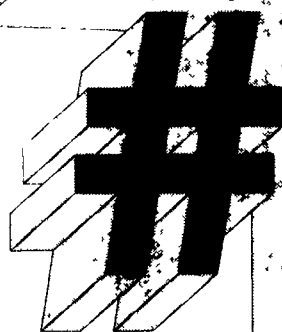
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