reduced feed efficiency, were directly correlated with the severity of lesions. They concluded that infections producing lesion scores of one or two had little measurable effect on the eventual growth performance.

The term “coccidiosis” has been used to describe these low-grade infections of coccidial organisms (Levine, 1961).

Conversely, an average lesion score of three or higher for a group of birds randomly selected for postmortem examination would definitely be predictive of reduced growth performance for the respective broiler flock.

In a subsequent study, Reid and Johnson (1974) reported a similar relationship between the severity of lesions and weight gain in chickens infected with *E. brunetti*.

Conway et al. (1990 and 1993) showed a clear relationship between the severity of lesions resulting from different oocyst doses of *E. acervulina*, *E. maxima* or *E. tenella*, and the subsequent weight gain and feed conversion of the infected chickens, whereby the greater the severity of infection, the greater the loss of weight and feed efficiency in a stepwise fashion.

They also studied the relationship between the oocyst dose and plasma constituents (carotenoids, lipids and protein) in the infected birds. In their studies, plasma carotenoids appeared to be the most sensitive measure of the severity of infection with each of the three species of coccidia.

Conclusion

In summary, Table 3 contains a broad comparison of the two methods (litter oocyst counting versus postmortem lesion examination) for monitoring the effectiveness of anticoccidial medication programs. The merits of postmortem lesion scoring greatly outweigh those of litter oocyst counting.

References


Brackett, S., and A. Bliznick. 1963. The reproduction potential of five species of coccidia of the chicken as demonstrated by oocyst production. J. Parasitol. 38:133.


