P279 Engaging undergraduate animal science majors in career opportunities using basic poultry research projects. R. S. Beyer* and C. Hancock, Kansas State University, Manhattan.

Over many decades, the number of faculty specializing in poultry production has declined both in total number as well as a percent of all animal production-related faculty in the US. During this same time period, commercial poultry production has continued to expand and seek graduates to fill the needs of the industry. A small, but significant number of faculty exist in many larger animal science departments to fill the needs of special state industries, teaching requirements and directed research programs. These faculty must find a way to engage students who initially considered careers in areas such as pre-veterinary sciences, equine and large animal production. Undergraduate students who enrolled in a general poultry production course were offered an opportunity to participate in individual research projects during the semester as part of the laboratory portion of the course. Although not required, participation in the research lab in 2 successive courses was 100% even though it required significant work outside of normal classroom activities. The projects were related to nutrition, management, and behavior. Of 11 student projects, 9 groups completed the research activities. Surveys indicate that out of 24 students, just 5 were initially enthusiastic about poultry-related careers while at the conclusion of the projects 22 would consider a career in the poultry industry. Interest in industry management increased to 60% while interest in bird behavior increased 40%. An interesting response by the students at the conclusion of the projects was that 100% indicated that they perceived the poultry industry in general had improved strongly. Every student indicated that they better understood the problems of poultry industries after participation in the project. Engaging undergraduate students in research is an excellent method to attract students in smaller programs, and it may as well promote this important food production industry in a positive manner even if these students work in other careers.

Key Words: poultry, research, undergraduate, faculty numbers


The precision of an experiment can be measured mathematically by the coefficient of variation (CV). Low coefficients of variation indicate that the experimental design and variation sources were accordingly controlled. To establish the CV ranges for the most usual performance parameters used on broilers experiments were used 163 scientific papers published at the most relevant journals of poultry and animal science in Brazil. Only experiments conducted from hatching through slaughter age were considered. The ranges were defined according to the model proposed by Costa et al. (2002), which considers: low: CV ≤ (Md - PS), medium: (Md - PS) ≤ (Md + 2PS) ≤ (Md + 3PS) ≤ (Md + 4PS), and high: CV ≥ (Md + 5PS). The descriptive statistics for weight gain, feed consumption and feed conversion respectively might have uncontrolled sources of variation.

Key Words: coefficient of variation, broiler, precision


Small flocks on family farms were the basis of poultry production in the US in the first half of the twentieth century. Land-grant colleges and universities were an important resource for these producers. More than 40 state universities had poultry science departments in the 1950s and provided information on nutrition, genetics, physiology, health and food science. Changes in the structure of the poultry industry lead to larger farms and companies and a historic decline in small flocks. A resurgence of small flocks is presently occurring. In the past few years there has been growing interest in locally-grown foods, including poultry meat and eggs. It is becoming more common to see small chicken flocks kept in backyards in many large cities. In the more rural areas there has been an increase in the production of niche market poultry production such as organic and pasture-raised. With the loss of university poultry science departments, and with retirements of key extension people, there has been a loss of updated extension publications addressing the management needs of this poultry sector. Many producers have turned to outdated books as well as non-science-based and anecdotal information to meet their education needs. The small and backyard flock resource area on eXtension.org fills that gap and supports extension offices throughout the country. The information posted online is supported by researchers and educators with poultry experience in both large and small production settings. The Small and Backyard Flock resource on eXtension (www.eXtension.org/poultry) has information on getting started as well as poultry anatomy, behavior, biology, nutrition, and management. There are more than 250 frequently asked questions and 350 glossary terms, 100 articles, 9 You-Tube videos, as well as 14. The website is available to anyone, at any time, from any internet connection allowing eXtension to solve real-life problems in real time. More material is continually being developed. Becoming a member of the eXtension network allows poultry specialists to bring their unique education, skills and experience to a wide community of interested users and enabling them to reach a larger audience.

Key Words: small flock, extension