Introduction

In 1999, The National Council for Agricultural Education and the National FFA Organization, in collaboration with the National 4-H Council, established a collaborative effort to maximize youth educational efforts. The National Research Council (1988) revealed that much of the curriculum in agricultural education was outdated. In 1995, a needs assessment was conducted by agricultural teachers in North Carolina to ascertain what new courses were wanted and needed in high school agricultural education programs. A series of animal science courses was selected and ranked on top as the courses to be added to the program of study.

A diverse group of educational professionals was assembled in 1996 to begin developing competencies and objectives for animal science (1), animal science (2), and equine science. The committee consisted of agriculture teachers, Extension agents, university faculty members from animal science, agricultural education, and agribusiness.

In collaboration with Extension professionals, the agricultural education team from the Department of Agricultural and Extension Education, North Carolina State University, released curriculum course outlines, blueprints, and competency-based evaluation test item banks in the fall of 1998. Currently, more than 200 high schools offer animal science in North Carolina with many more making plans to pursue this specialty area. Many Extension specialists not only provided subject matter expertise in the development of this curriculum, but also provided training for agriculture teachers and volunteers who have implemented this program of study and series of courses.

Purpose and Objectives

Animal science is vital to the food chain for all people and affects agribusiness as well as technology. In North Carolina, farm income is a billion-dollar industry. Swine production is ranked 2nd in the nation, turkey production is ranked 1st, dairy is in the top 10, and the equine industry is enjoying tremendous growth.

This project is to prepare agriculture teachers and Extension agents who are interested in developing new courses or programs of study for high school agricultural programs. It is (1) to provide opportunities for sharing technical expertise, reviewing existing course outlines, blueprints, and competencies with fellow educators, (2) to develop specific educational objectives and strategies for both formal and non-formal educational programs, (3) develop a multiple educational delivery system utilizing multimedia instruction and other effective communication, (4) to build and to improve collaborative efforts between extension agents and high school agriculture teachers; and (5) to develop competency-based measures for students, teachers, state department specialists, and university faculty.

Major Points

Animal science is a yearlong course for the traditional seven period day schedules or the new four-by-four semester block schedule designed for students in grades 9-12 in North Carolina. Essential elements for this course and units of instruction are listed. While the curriculum committee recommended a primary textbook to be used, there are also secondary references available from land-grant universities and state and local Extension units. All essential elements will be met by using designated references from both primary and secondary sources.

A course blueprint provides information on recommended hours of instruction for each unit title/competency and objective statement as well as information indicating the percentage of weight each objective statement has in relation to both the course and the unit of instruction. Type of outcome behavior is identified as either “cognitive 1,2,3,” “psychomotor,” or “affective” for each competency and objective statement. Additionally, related skills were identified for arts, communications, health/safety, math, science, and social studies, as well as vocational or JPTA skills. The blueprint is designed to provide 108 hours of teaching content. Additional hours of teaching time remain (27) for local adaptation by the teacher if the course is offered on a block four 135-hour unit, and 72 additional hours of teaching time remains for local adaptation by the teacher if the course is offered on a traditional 180-hour unit.

Conclusions and Educational Importance

The project is very successful. Agricultural education programs have either added animal science or substituted the traditional agricultural production for animal science, going in less than two years from 0 to > 200 animal science
programs. Student numbers have risen along with a more diverse class make up. Agriculture teachers are building new relationships with Extension agents, Extension subject matter specialists, and other professionals.