

Nonruminant Nutrition: Past and Future of Nonruminant Nutrition

298 ASAS Centennial Presentation: Landmark studies in swine nutrition during the past century. G. L. Cromwell*, *University of Kentucky, Lexington.*

During this centennial year of the American Society of Animal Science (ASAS), it is of interest to look back over the history of our Society and, in particular, to the many contributions made by researchers in the area of swine nutrition. A great number of basic and applied research studies involving the nutrition of weanling, growing, and finishing pigs, and gestating and lactating sows have been conducted by swine nutritionists during the past 100 years. Most of these studies were conducted at universities by scientists or graduate students under their leadership. Others were conducted by nutritionists in the feed and pharmaceutical industries as well as government scientists at ARS/USDA sites. Important contributions also were made by animal scientists beyond our borders. Many of the important findings have been reported in the *Journal of Animal Science* during its 66 years of existence. Before the first issue of the *Journal* was published in 1942, some of the earlier studies were reported in the Proceedings of the Annual Meeting of the Society of Animal Production, the forerunner of ASAS. These research studies have progressively led to a better understanding of the utilization of energy, protein, amino acids, carbohydrates, fats, minerals, and vitamins by pigs and have helped to quantify the nutrient requirements of pigs for various stages of growth, for sows during gestation and lactation, and to a limited extent, for boars. Determining the nutritional value of a wide array of feedstuffs, evaluating feeding strategies, and assessing the value of growth promoting and carcass enhancing agents have been important research contributions as well. To identify the particular studies that were among the most instrumental in contributing to our present knowledge of swine nutrition is, to say the least, a daunting assignment. To aid in this task, a survey of swine nutritionists was conducted in which they were asked to identify and rank the 10 most significant findings in swine nutrition during the past 100 years. The results of that survey will be presented.

Key Words: Swine Nutrition, History, Research

299 ASAS Centennial Presentation: Nonruminant nutrition - A proud past but uncertain future. R. A. Easter*, *University of Illinois, Urbana.*

Nonruminant nutrition is a sterling example of multidisciplinary scholarship requiring practitioners to integrate knowledge from fields as diverse as animal biology, ingredient composition, housing environments, experimental design and analysis, animal feeding behavior, meat quality and production system management. For the past 100 years academic and industry research programs have steadily advanced the science leading to improved animal well-being, increased production efficiency and more nutritious products for human consumption. University programs have provided a reliable supply of graduates well-prepared for careers in industry, government and academia. Global consumer demand for food products derived from nonruminant species is projected to expand at roughly three percent per annum for the foreseeable future. At same time, the market for companion animal feeds is reliably linked to growth in economies in many developing countries. Yet the future of nonruminant nutrition cannot be assumed. Across the developed world public support for educational programs in applied agriculture, especially in animal agriculture, is declining and student interest continues to diminish. Increasingly, the direction of academic research is a function of state and national funding priorities. Applied nonruminant nutrition research, which has been the mainstay of graduate student preparation, is rarely identified as a priority. The situation is not hopeless. The need for high-quality research and education in nonruminant nutrition is very real. The challenge is for industry and academic leaders to jointly develop an implementable strategy for the future.

Key Words: Nutrition, Nonruminant, Future