The Bill Kunkle Interdisciplinary Beef Symposium titled “The Current Status of Mineral Nutrition in Beef Cattle Production: From Pasture to Plate” was held at the annual meeting of the Southern Section of the American Society of Animal Science on Monday, February 8, 2016, in San Antonio, TX. The symposium was developed to present up-to-date information regarding mineral nutrition of beef cattle in all sectors of production through harvest as well as offer an arena for discussion on the impact of current feeding strategies and management practices on mineral status, reproduction, immunity, growth, and antemortem impacts on carcass characteristics and meat quality. The symposium comprised 4 invited presentations, all of which are briefly discussed below.

The symposium began with an invited presentation by Dr. L. W. Greene (Auburn University, Auburn, AL) entitled “Assessing the current mineral supplementation needs in pasture-based beef operations in the Southeastern United States.” Dr. Greene gave an overview of the macro- and micromineral requirements for cattle and discussed the large variability of nutrients available within and between forage varieties (Greene, 2016). Additionally, Dr. Greene discussed the need to understand the potential for mineral interactions and antagonists, particularly with fertilization strategies over the years. Based on these situations, all mineral supplementation recommendations should be based on the forage mineral supply and stage of cattle production.

The second speaker was Dr. J. D. Arthington (University of Florida, Ona), who summarized research data that focused on the impact of mineral nutrition on beef cattle reproduction in his presentation titled “Mineral nutrition of forage-fed beef cows: Impacts on reproduction.” Dr. Arthington provided an overview of macrominerals; however, he focused on the importance of the microminerals Zn, Cu, and Se, specifically the latter 2 as the most limiting trace elements for forage-based cattle production in the southeastern United States (Arthington, 2016). In this area, primary deficiency (i.e., deficient mineral intake) of microminerals is rare. Rather, deficiencies arise from antagonistic influences of another element, such as S, Mo, Fe, and Al, and are commonly caused by feeding byproduct feeds high in these compounds. Review of the literature indicated that organic sources of Cu and Se had the potential to improve reproductive performance in younger cows (<4 yr) but had minimal impact in mature cows.

Dr. E. B. Kegley (University of Arkansas, Fayetteville) was the third speaker, whose presentation was entitled “Impact of mineral and vitamin status on beef cattle immune function and health.” These authors reviewed the published data concerning macrominerals, microminerals, and vitamins and the role they play in immune function (Kegley et al., 2016). The immune system is a highly complex system, made up of innate and adaptive (acquired) immunity, the latter of which can further be subdivided into cellular and humoral branches. All of these branches are interrelated and