The Bill Kunkle Interdisciplinary Beef Symposium entitled “Tall Fescue Toxicosis Update” was held at the annual meeting of the Southern Section of ASAS on Monday, February 2, 2015, in Atlanta, GA. The purpose of the symposium was to present up-to-date information regarding fescue toxicosis in beef cattle and new information regarding metabolism of ergot alkaloids, as well as to provide an environment for discussion of years of research focusing on how to reduce the negative effects of this syndrome and improve genetic resistance to it. The symposium was comprised of 5 invited presentations, which are briefly discussed below.

The symposium began with an invited presentation by R. L. Kallenbach (University of Missouri, Columbia, MO) entitled “Coping with tall fescue toxicosis: Solutions and realities”. During his presentation, Kallenbach gave an overview of the current status of the possible alternatives to reduce the effect of fescue toxicosis in beef cattle with emphasis on agronomic and management practices (Kallenbach, 2015). Testing tall fescue for infection rate is of major importance due to its impact on animal productivity and well-being. Based on these tests published in several scientific journals, it has been concluded that ADG of stocker cattle is reduced 45 g for every 10% increase in endophyte infection and cow conception rates decreased 3.5% for every 10% increase on the pastures infestation rates.

The second speaker was M. S. Gadberry (University of Arkansas, Little Rock, AR) who summarized the research data that focused on reducing the negative impact of fescue toxicosis on animal production. In his presentation “Research efforts aimed at reducing the impact of fescue toxicosis on economically important production measures for beef cattle”, Gadberry conducted a meta-analysis of published literature based on treatment hypothesized to improve animal performance or reduce the production losses associated with grazing endophyte-infected tall fescue (Gadberry et al., 2015). The production per animal, per unit of land (hectare), and DMI were the economically important traits under evaluation. Results were presented grouped into 3 strategies: 1) applied with forage systems, 2) based on pharmacological compounds and functional foods, and 3) based on supplemental dietary nutrients.

Trent Smith (Mississippi State University, Mississippi State, MS) was the third speaker who presented the talk titled “Genetic resistance to the effects of grazing endophyte-infected tall fescue”. He reviewed the published data concerning the differences between cattle breeds, research conducted using mice as a model, and the identification of genetic markers and other traits and their relationship to fescue toxicosis (Smith and Cassady, 2015). Data reviewed on the difference between breeds (i.e., Hereford and Angus) did not show conclusive results. When comparing genetic lines of mice fed an endophyte-infected diet, the resistant line of mice produced more pups and they weighed more at weaning than the susceptible line, which had also a smaller mature weight. Similarly, the resistant line had greater activity of 2 detoxifying enzymes present in the liver; glutathione-S-transferase and uridine diphosphateglcuronosyl-transferase. The incorporation of Bos indicus or the use of tropically-adapted