The Ruminant Nutrition Symposium “Advancements in Enhancing Cell Wall Digestibility and its Contribution to Improve Ruminant Production” was held at the Joint Annual Meeting of the American Society of Animal Science and the American Dairy Science Association in Indianapolis, IN, July 8 to 12, 2013. The purpose of the symposium was to update the information regarding the advancements on techniques to improve cell wall digestibility that have occurred over the last few years. By making cell wall constituents more digestible, we are improving animal performance and, thus, sustainability and profitability of beef and dairy farms. Recent chemical, mechanical, and management practices are proven alternatives for increasing the digestibility of cell wall components and, therefore, ultimately improving ruminant animal production.

The first speaker in this symposium was Dr. Adegbola Adesogan (University of Florida, Gainesville) who discussed the topic of “Improving cell wall digestion and animal performance with fibrolytic enzymes” (Adesogan et al., 2014). He presented and discussed a wealth of information regarding the use of exogenous fibrolytic enzymes to treat cattle diets, their variable response, and the reasons for this variability in animal trials. Most importantly, recommendations for improving the understanding of enzymes function and their efficacy in diets for ruminants were proposed.

The second speaker was Dr. Michael Allen (Michigan State University, East Lansing) who presented the “Effects of neutral detergent fiber concentration and digestion characteristics on energy intake and partitioning of lactating cows” (Allen, 2013). He emphasized the importance that the concentration and digestion of NDF in ruminant diets has on factors that affect performance of lactating cows. Among these factors, he enumerated DM intake, digestibility, and energy partitioning. Digestion kinetics of NDF and signals from different origins were factors associated with the NDF turnover rate, an important variable to consider in diet formulation especially considering changes during the lactation cycle.

The next presentation titled “Nutritional strategies to optimize feeding brown midrib corn silage to dairy and beef cattle” was provided by Dr. Jong-Su Eun (Utah State University, Logan; Eun et al., 2013). He established the importance of providing digestible fiber to improve animal performance and health and to ensure that the ruminal environment is appropriate for a more efficient fermentation and digestion of substrates. Highlighted during presentation, he indicated that there have been inconsistent results when using brown midrib corn silages. After presenting some of the experimental results from his laboratory, Dr. Eun concluded that it is crucial to understand the interaction between these forage materials and the physiological stage (lactating, dry, and/or growing) and potential intake of the animal so that the benefits of brown midrib materials can be fully appreciated.

Finally, Dr. Shanna Lodge-Ivey (New Mexico State University, Las Cruces) introduced the audience to “The utility of lipid extracted algae as a protein source in forage or starch-based ruminant diets” (Lodge-Ivey et al., 2013). She presented some background information on microalgae and the importance of it for the biofuel industry as well as the production of coproducts from their industrialization. These lipid extracted algae may be of great value as feed for the livestock industry. The core of her presentation centered on experimental results obtained in her laboratory. Results showed promise that lipid extracted algae can be used as a protein feedstuff in ruminant diets.