**Exploring the world of agriculture on a Nuffield International Farming Scholarship**

By Brian Dougherty

I recently had the opportunity to travel to several countries on a Nuffield International Farming Scholarship. The Nuffield organization provides scholarships for people working in the agricultural sector to travel the world and learn about agriculture outside their own borders. It was established in England in 1947 but has since spread to multiple countries, with the first scholar from the U.S. participating in 2017. The scholarship consists of two components. The first involves a weeklong Contemporary Scholars Conference with other Nuffield scholars from around the world. The scholars then split into groups of seven to ten people who travel the world together for six weeks learning about global issues in agriculture. The second part of the scholarship involves personal travel where each scholar researches their chosen topic.

This year the Contemporary Scholars Conference was held in mid-March in the Netherlands. I spent a week with approximately 80 scholars and guests from around the world learning about the Nuffield organization and exploring the diverse agricultural sector in the Netherlands. From there I began a six week tour through Italy, Washington D.C., Texas, British Columbia Canada, Argentina, and Chile with seven other Nuffield scholars. Our group was very diverse which made for a great experience. It included a robotic engineer from Wales, an organic vegetable grower from Ireland, a business development manager from New Zealand, and four Australians including an agronomist, an avocado grower, a sheep and cereal crop farmer, and a poultry farm manager. We learned about global trade, regulations, government policy, marketing, production practices, and environmental issues in different agricultural sectors in each country we visited. The surprising thing to come out of the group trip was that farmers around the world all struggle with the same issues. Expensive land and absentee land ownership makes it difficult for young farmers to enter the industry and for existing farmers to expand. Farm succession is also a difficult issue everywhere. Young people have limited opportunity and capital to enter the business unless they grew up on a farm. In countries we visited, government support for agriculture was decreasing or wasn’t available to begin with. Farmers everywhere will face increasing pressure to compete in international markets in the future.

In early May I headed off to New Zealand and Australia for a month to begin the personal study portion of the scholarship. I am exploring how farmers and researchers in other countries tackle soil health, nutrient management, and water quality issues. New Zealand is challenged with nitrate leaching issues similar to those in Iowa. Farmers there face strict environmental regulations regarding effluent capture and application. In Australia the challenges are different. Dry conditions in the areas I visited make soil moisture conservation a priority and nutrient leaching is less of an issue. Poor quality soil and limited moisture makes it difficult for farmers there to build organic matter levels and improve soil health.

This fall I will travel to Europe to complete my personal study. In addition to investigating soil health practices, I will be looking at manure management and odor control technologies for livestock farms. Feel free to contact me at 1briandougherty@gmail.com with questions or comments and follow my journey on Twitter @1briandougherty. I would like to take this opportunity to thank the ISU Agricultural and Biosystems Engineering department for their generous support of this scholarship, along with Iowa Corn Growers Association, Iowa Soybean Association, Iowa Farm Bureau, Iowa Pork Producers Association, and the National Pork Board.