2020 Dr. Karl C. Ivarson Agricultural Scholarship Winners

Jessica Sperber receives the $17,000 scholarship for PhD students. She is a PhD student in ruminant nutrition under Dr. Galen Erickson and Dr. Andrea Watson at the University of Nebraska-Lincoln researching beef cattle topics that incorporate production efficiency and sustainability.

Miss Sperber was born and raised on a fourth-generation commercial cow-calf and grain operation in central Alberta and her dedication to the Canadian agriculture industry remains elevated.

In 2016, she was honored as a Cattlemen's Young Leader (CYL) through the Canadian Cattlemen's Association and she now serves as a committee member for CYL selections. In 2019, she was elected for a 2- year term as a member at large to the Young Cattlemen's Council (YCC) and assumed the role of Vice President in August 2020. Once she has attained her doctorate, Miss. Sperber plans to return to Alberta and pursue a career in the Canadian beef industry.

Her research focuses on feedlot sustainability and greenhouse gas emissions, utilizing a wood-sourced biochar (a by-product of the forestry industry) and measuring its impact, when fed as a cattle-feed additive in a grower and finisher diet, on enteric methane production. In addition, she is utilizing biochar as a feedlot soil amendment to improve manure nutrient capture of nitrogen and phosphorous, ultimately aiming to improve the economic value of manure and reduce ammonia volatilization to the environment.

David MacTaggart receives the $10,000 scholarship for Masters students. He was the top graduating student in the College of Agriculture and Bioresources at the University of Saskatchewan, winning the most prestigious undergraduate Gold Medal award and is now a MSc student in Plant Sciences at the University of Saskatchewan.

Mr. McTaggart was born and raised in Alberta and was active in 4-H from the local to the provincial level. Since coming to Saskatchewan, he has enjoyed engaging students through roles like the Academic Vice-President of the Agriculture Students' Association. Here he planned the Farm to Fork Tour to introduce first year and international students to food production around Saskatoon.

As a new Director of the Saskatchewan Forage Council, he is expanding his professional network to improve how information can be shared between private industry, farmers, and researchers in agriculture. Mr. McTaggart's research focuses on the development of drone-based tools to identify superior breeding populations of meadow bromegrass and cicer milkvetch for stockpile grazing. Through his research, he hopes to provide a strategy for forage breeders to increase genetic gain by decreasing the time needed to characterize breeding populations. In combination with improved pasture management practices, the release of these forage varieties aims to decrease winter feed costs and greenhouse gas emissions by minimizing the equipment hours and fertilizer needed to prepare winter feed for cattle.