Cole D. Gross

A Cold Winter's Sunset Semi-finalist

PhD

Department of Renewable Resources, Faculty of Agricultural, Life & Environmental Sciences

Image created in Sturgeon County, Alberta

After a long day of sampling greenhouse gas (GHG) emissions from the cropland and forested borders of agroforestry systems near Edmonton, Alberta, this photograph captures the beauty of getting out of the laboratory and doing field research (even during the cold winter). The row of poplars in the photograph borders a canola field and may help increase carbon sequestration and reduce GHG emissions compared to agricultural systems without a forested component. My research investigates the potential of agroforestry systems to mitigate global warming, particularly by increasing soil organic carbon accumulation. The deeply rooting trees of agroforestry systems could especially increase carbon sequestration in deep soils. The bare trees against the sky at sunset shows the aboveground view we are accustomed to seeing, while another beautiful and mysterious palette lies just under our feet.