



2021-089: Whole genome sequencing of sainfoin: an invaluable resource for a future of sustainable beef and dairy production systems

Researcher: Stacy Singer

Funding: \$15,000

As genomic sequencing has been used for a variety of other projects, its cost has been reduced. This has given way to sequencing genomes for various plant species, but this work has yet to be completed on sainfoin. Sainfoin is a legume with bloat-reducing condensed tannins, and has high nutritive value, palatability, and digestibility. However, it is underutilized likely to its low dry matter yield, persistence, and regrowth.

This research, lead by Stacy Singer, would become a vital foundation for economically important traits wheil improving the precise repetition of these genes. DNA will be extracted from the young leaf tissue of an AAC Mountainview Sainfoin plant for the completion of short and long read DNA sequencing. After its analysis, it will help set the stage for future sainfoin breeding programs.