

# Establishing a legume pasture plant 'em where they ain't

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# Reasons for adding legumes

- 1 Legumes provide additional nutrition for the grazers.
- 2 Legumes add N to the soil.



# SARE grant goals & field setup

- 1 SARE: sustainable agriculture research and education. We must share our results.
- 2 Our grant was for 2022-2024. Dollars paid for seed, fuel, & miscellaneous.
- 3 Our goal was to find out if a legume-grass pasture could be established in a field with less ideal soil. Graphs show results at Kila.
- 4 Ten acres were tilled, with 7 acres planted to sainfoin and 3 acres planted to birdsfoot.



# Sainfoin pasture & cattle AUMs

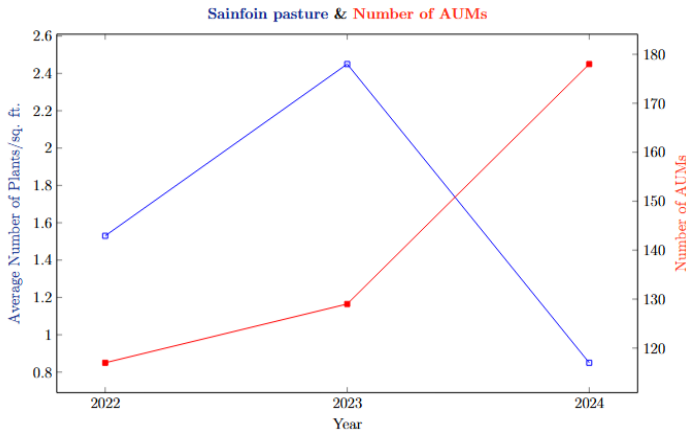


Figure 1: The graphs show a year to year change in both the average number of Shoshone sainfoin plants per square foot (blue) and the number of cattle AUMs (red) per grazing season. Seeding was done on 5/26/2022 at the rate of 25 lbs/acre of sainfoin plus 4 lbs/acre of Potomac orchardgrass. Sampling occurred on 8/16/22, 9/28/23, and 11/17/24.



# Birdsfoot trefoil pasture & cattle AUMs

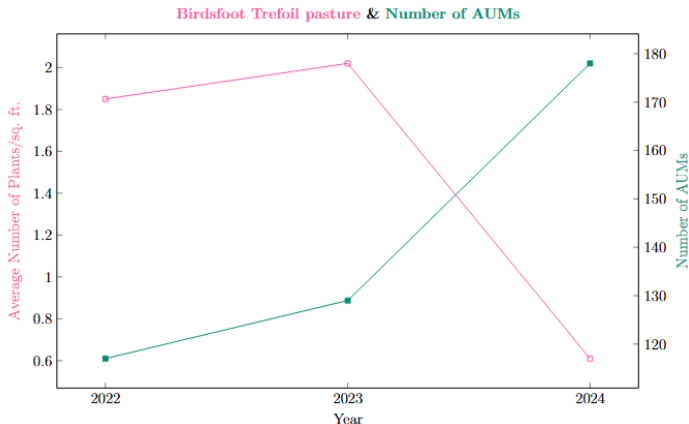


Figure 2: The graphs show a year to year change in both the average number of birdsfoot trefoil plants per square foot (rhodamine) and the number of cattle AUMs (pinegreen) per grazing season. Seeding was done on 5/31/2022 at the rate of 6 lbs/acre of birdsfoot plus 4 lbs/acre of Potomac orchardgrass. Sampling occurred on 8/17/22, 9/28/23, and 11/18/24.



# Any Conclusions?

- 1 Legume density decreases greatly when cattle AUMs increase dramatically.
- 2 Most of this pasture is too wet for anything other than Canary grass and Garrison foxtail. In the dry part, there is Canada thistle where legumes were planted. At the end of the last grazing season, the thistle was fairly well eaten down. Were cattle attracted to the desirable legumes and, when there, ate the young thistle plants? Maybe... To be continued...

