MINNESOTA– Investigating Cover Crop Use in Equine Grazing Systems

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Cover crops have been used to extend the grazing season for ruminant species but they have not been explored in equine grazing systems. Horses pose a unique grazing interaction with forages due to their highly selective and intensive grazing behaviors. These behaviors may impact regrowth, which has not been well documented. This study evaluated the preference, nutrient value, and biomass of five cover crop species in an equine grazing system.

Annual ryegrass, winter rye, berseem clover, purple top turnip, and daikon radish were planted in monocultures and mixtures and grazed by adult horses in fall 2018. Berseem clover, annual ryegrass, and the annual ryegrass-berseem clover mixture were most preferred with removals ≥55%, while monocultures and mixtures containing radishes or turnips were least preferred, with removals ≤6%. Radish and turnip herbage (tops) were the most nutrient dense, providing the highest levels of equine digestible energy and crude protein, and the lowest levels of neutral detergent fiber. Radish and turnip herbage also produced the greatest amount of biomass compared to other species in monocultures and mixtures; however, root biomass was not different between turnips and radishes. Thus, researchers preliminarily concluded horses preferred annual ryegrass and berseem clover over higher-yielding and more nutrient dense turnips and radishes. Research was repeated in 2019.