



Midwest Forage Research Program 2025 Research Priorities

Forage Production

- Predict and measure nitrogen credits, carbon sequestration potential, and environmental benefits of alfalfa in cropping systems including value of alfalfa to subsequent crop.
- Produce sustainable high yields of quality alfalfa while maintaining persistence:
 - Improve establishment techniques to ensure productive, long-lasting stands.
 - Determine optimum soil fertility levels and practices.
 - Evaluate variety selection and cutting management on winter survival.
 - Management of foliar and root diseases, disease resistance, insect pests and their impact on yield, quality, and profitability.
- Evaluate methods that speed hay drying and improve preservation (e.g., swath manipulation, hay preservatives).
- Improve and evaluate forage grass species and annual forages (e.g., oat, barley, triticale, sorghum, sudangrass, Italian ryegrass, late-seeded corn, and others) in livestock-cropping systems.
- Influence of drought on alfalfa seed establishment.
- "Forage System" cropping rotations.
- Improve management options for forage grass species in livestock-cropping systems.
- Improve forage quality management, reduce leaf loss and reduce ash content during harvest.

Forage Storage, Quality, and Feeding

- Ruminant digestive research to minimize methane production.
- Evaluate the role and performance of alfalfa and annual forages in livestock feeding systems.
- Evaluate inoculants and preservatives for high moisture forages.
- Equipment research: new technologies, drones, seeding, raking v. merging, pickup heads, particle lengths, yield prediction monitoring, and harvest wheel rack management.

Corn Silage

- Evaluate effects of continuous corn on soil compaction/health. Develop ways to overcome adverse effects.
- Evaluate soil nutrient needs for optimum corn silage production (e.g., N,P,K, S, micronutrient needs).
- Evaluate the advantages and performance of cover crops after corn silage and corn silage after cover crops.

Grazing

- Determine how to extend the grazing season in rotationally grazed pastures (e.g., with double cropping systems, cover crop mixes, etc.).
- Nitrogen fertilizer application in pastures, timing, and rates. Short and long term impact/economics of applying N fertilizer to pastures in the fall.
- Evaluate mob and other high density grazing systems for economic and environmental outcomes, long-term impacts.

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