



# Alfalfa Seed and Alfalfa Forage Systems Research Program

## Programmatic Funding Request

FY 2025 Request: **\$5 million**

FY 2024 Appropriation TBD; FY 2023 Appropriation - \$4 million

The Alfalfa Seed and Alfalfa Forage Systems Research Program (ASAFS) effectively addresses the priority research needs of the alfalfa seed and alfalfa forage systems industry for improving efficiency and sustainability of production through integrated, collaborative research, and technology transfer. The program focuses on national priority research needs and needs of regional scope. The ASAFS provides a structure to encourage multi-disciplinary research networks enhancing limited state and industry resources.

### Authorizing Language

Located in the *“High Priority Research and Extension Initiatives”* of the 2018 Farm Bill (Section 7209):

(1)(A) ALFALFA SEED AND ALFALFA FORAGE SYSTEMS.

### Appropriations Language

Located in the *“AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS BILL, 2023”*:

Alfalfa Seed and Alfalfa Forage Systems Research - “The agreement provides funding to support research into the improvement of yields, water conservation, creation of new uses, and other research areas with the potential to advance the alfalfa seed and alfalfa forage industry.”

### Research Emphasis

**Increasing Alfalfa Forage and Seed Yields and Forage Quality.** This can be accomplished through improved management practices, plant breeding, and other strategies to reduce biotic and abiotic stresses and costs of production.

**Improving Alfalfa Forage and Alfalfa Seed Harvest and Storage Systems.** Yield monitoring equipment needs to be developed for alfalfa, such as that which currently exists for other small grain crops, to better monitor nutrient needs and removal from soil. Harvesting systems (hay, baleage, and silage) that reduce losses during the harvesting and storage process are critical to farm profitability and are needed to optimize economic returns to alfalfa farmers as well as end-users, including dairy farmers.

**Improving Estimates of Forage Quality.** Fiber measurements currently being used to estimate energy levels in forage are less than accurate. Livestock producers, therefore, maximize grains in the rations they feed because the energy content of grains is more definitive, even though grains may be less economical and/or environmentally sound. Better forage quality tests will improve forage usage in animal rations and reduce production risks.

**Developing Improved Insect, Disease, and Weed Management Strategies.** This can include potential herbicide carry-over issues.

**Climate Smart Agriculture.** Documenting the contribution of alfalfa production systems to climate-smart agriculture, including the sequestration of carbon.

**New Uses.** New uses for alfalfa offer the promise of greater demand and utilization, such as in fish feeds, nutritive supplements, high-value chemical manufacturing, or other novel uses.

Alfalfa and alfalfa forage systems are key to sustainable agricultural systems and are an economic engine in rural communities - their value for soil conservation, nitrogen fixation, energy savings, crop rotation, and wildlife habitat is unsurpassed. It is the ultimate regenerative crop, increasing biodiversity, enriching soils, improving watersheds, and enhancing ecosystems.

Alfalfa and alfalfa forage systems must offer a competitive value for farmers in order to provide these benefits and maintain or expand its acreage base. Being recognized in research funding decisions is critical in keeping pace with other cropping choices.

Alfalfa...  
4<sup>th</sup> most valuable field crop!  
Ultimate regenerative crop!

## Forage Facts

**Industry Contribution.** Industry companies contribute millions per year to forage-related research, including variety evaluations, nutrition-related analysis, and applied research. Additionally, the U.S. Alfalfa Farmer Research Initiative (aka Alfalfa Checkoff) was implemented in 2017 for the sole purpose of funding public research.

**Fertilizer Savings.** One crop of moderately thin alfalfa plowed down provides the equivalent of up to 100 lbs of nitrogen per acre, enough to replace almost all of the fertilizer required by the following corn crop, the equivalent of 292,000 tons of anhydrous ammonia. This represents a savings of over 8 trillion BTUs of fossil fuel energy from natural gas.

**Value of Hay in the U.S.** Among field crops, the value of all hay produced in the United States is exceeded by only corn and soybeans. In 2022, all hay in the U.S. was valued at over \$23.8 billion.

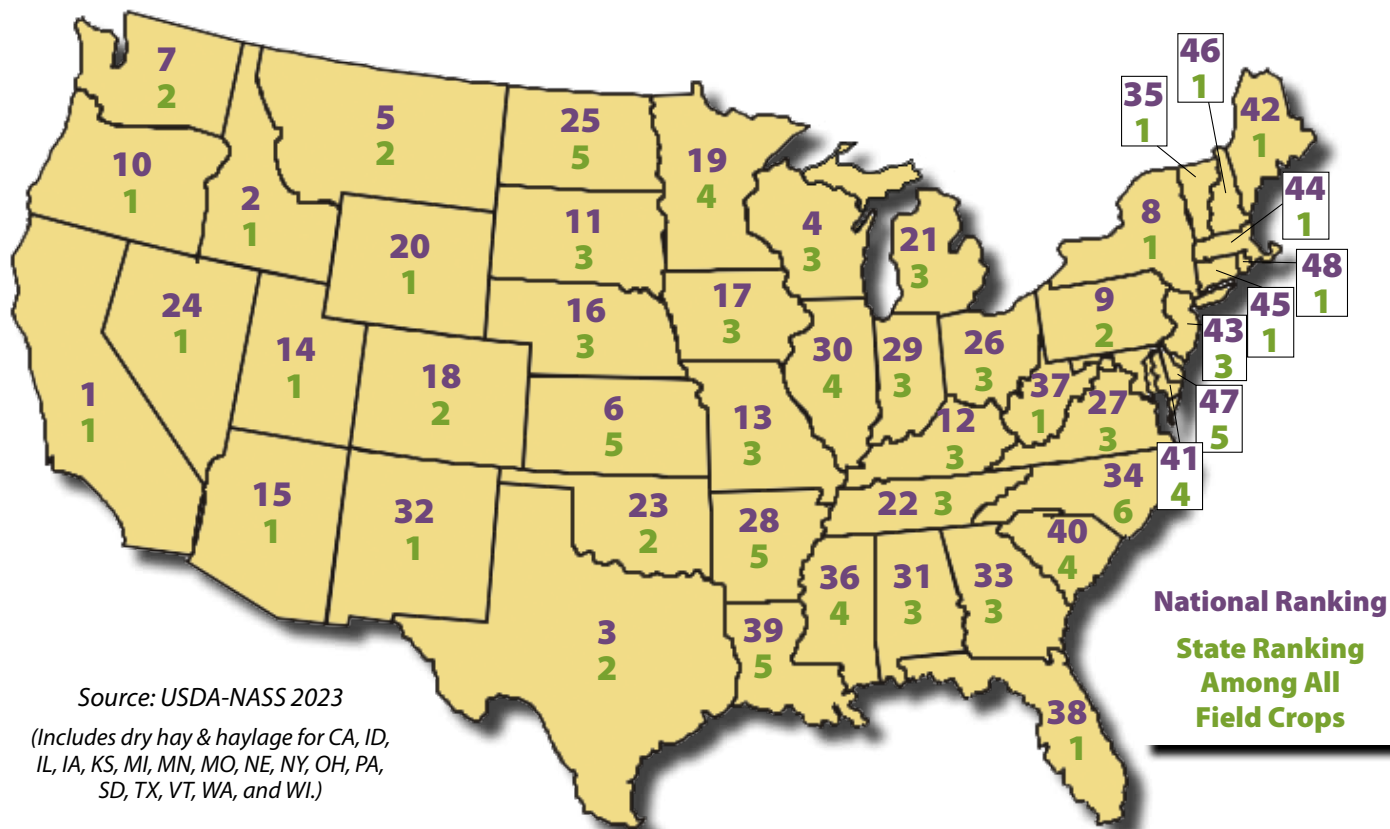
**Mitigating Accidental Chemical Spills.** Alfalfa's high protein content makes it a valuable crop for cleaning up sites with too much nitrogen. Alfalfa was used at railroad derailment sites in both North Dakota and California to remove excess spilled nitrate from the soil and groundwater.

**Forages Critical to Livestock Production.** Grassland agriculture provides up to 90% of the feedstuffs consumed by livestock, critical to maintaining agricultural diversity. With its 95.9 million head of cattle and calves on U.S. farms, the forage-livestock industry contributed more than \$143 billion in beef and dairy sales to the nation's economy in 2022.

**Environmentally Friendly.** Forages are environmentally friendly - they reduce soil erosion, pesticide usage, and fertilizer application. In addition, forages increase soil structure and organic matter and enhance agricultural profitability.

**Forage Benefits Everyone.** Our nation's forage, grassland, and range resources cover about 55% of the land area of the United States and improve as well as protect the soil due to its capability to "fix" atmospheric nitrogen.

## 2022 Value of Forage Production



Source: USDA-NASS 2023

(Includes dry hay & haylage for CA, ID, IL, IA, KS, MI, MN, MO, NE, NY, OH, PA, SD, TX, VT, WA, and WI.)

### National Alfalfa & Forage Alliance

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