



Alfalfa Seed and Alfalfa Forage Systems Research Program

Programmatic Funding Request

FY 2022 Request: **\$5 million**

FY 2021 Appropriation - \$3 million

The Alfalfa Seed and Alfalfa Forage Systems Research Program (ASAFS) will effectively address the priority research needs of the alfalfa seed and forage systems industry for improving efficiency and sustainability of production through integrated, collaborative research and technology transfer. The program will focus on national priority research needs and needs of regional scope. The ASAFS will provide 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 *"Explanatory Statement for Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Bill, 2021"*:

"Alfalfa and Forage Research - The Committee notes that research into alfalfa and forage has the potential to increase alfalfa and forage yields, increase milk production, and improve genetics. The Committee provides funding to support research into the improvement of yields, water conservation, creation of new uses, and other research areas holding the potential to advance the alfalfa seed and alfalfa forage industry."

Alfalfa...
3rd most valuable field crop!
Ultimate regenerative crop!

Research Emphasis

Improving Alfalfa Seed & Forage Yield. Yield is the major determinant of profit for forage farmers. However, pests often limit yield and need to be identified and controlled. In addition, since manure is often applied to alfalfa, more information is needed to determine its effects on alfalfa growth, as well as its potential for disease transmission.

Life Cycle Analysis. Life cycle analysis of the alfalfa production system will identify the environmental benefits of alfalfa and will enhance field to market opportunities.

Harvesting and Storage of Alfalfa. 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.

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.

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.

Forage Facts

Industry Contribution. Industry contributes millions per year to forage related research, including variety evaluations, nutrition related analysis, and applied 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 2019, all hay in the U.S. was valued at over \$20.6 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.

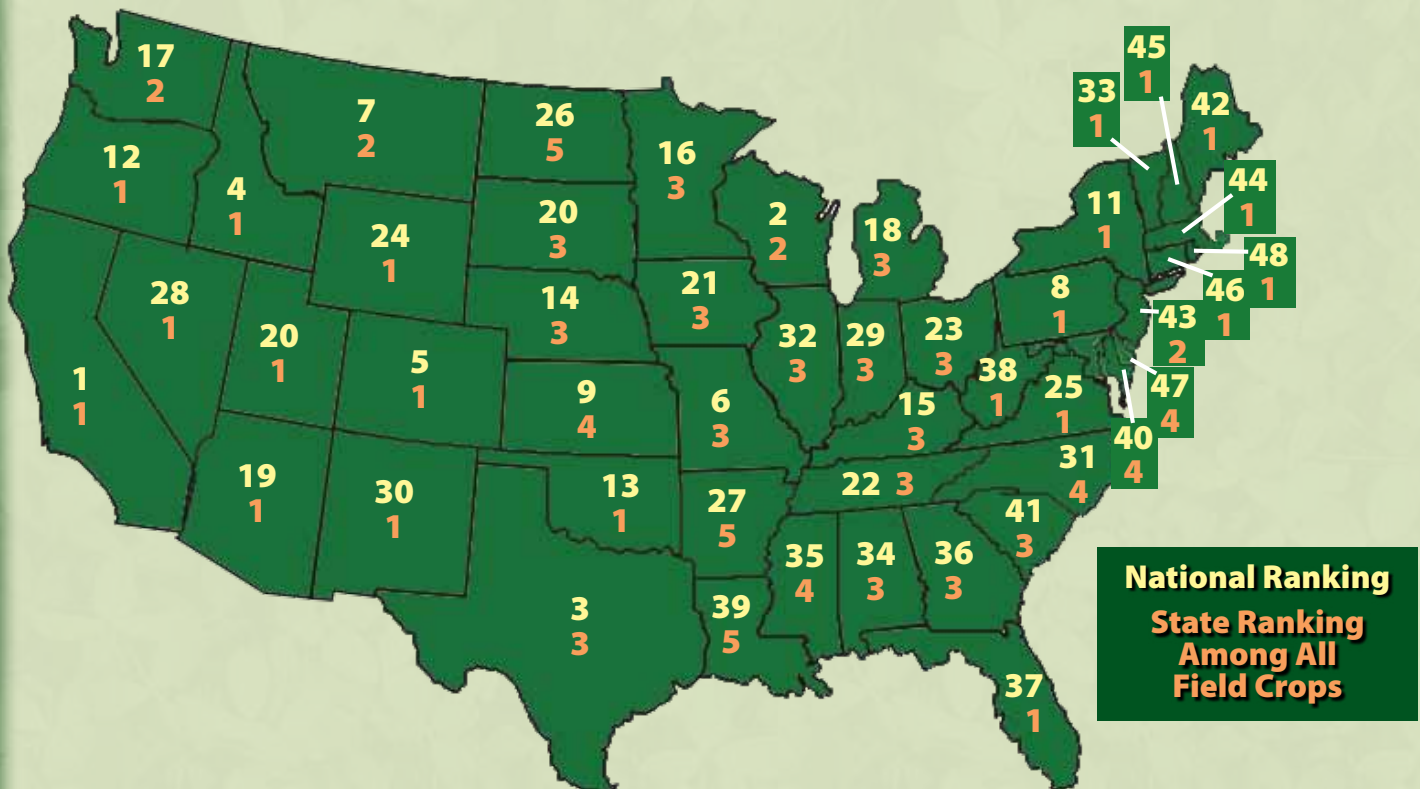
Forages Critical to Livestock Production. Grassland agriculture provides up to 90% of the feedstuffs consumed by livestock, critical to maintaining agricultural diversity. With its 103 million beef and dairy cattle, the forage-livestock industry contributed more than \$138 billion in beef and dairy sales to the nation's economy in 2019.

Environmentally Friendly. Forages are environmentally friendly in that 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.

2019 Value of Forage Production

Source: USDA-NASS (National Rank 2019 data)



National Ranking
State Ranking
Among All
Field Crops

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