



NAFA - Year in Review

National Alfalfa & Forage Alliance 2017-2018 Annual Report

NAFA Garners Million Dollar Increase in ARS Funding to Support Alfalfa Research

After many years of persistence, NAFA's efforts to increase public research funding for alfalfa is starting to pay dividends. For years now, NAFA has been educating lawmakers about the significant disparity in public research funding between alfalfa and other major crops. While crops such as corn, wheat, and soybeans enjoy substantial research funding from USDA's Agricultural Research Service (ARS), alfalfa, the nation's third most valuable crop, receives just a fraction of that funding. Now, due to continued encouragement from NAFA representatives, things are slowly beginning to change.

Working with lawmakers on the House and Senate Ag Appropriations Committees, NAFA was able to secure a \$1 million increase in recurring funding for alfalfa research at ARS. While modest in terms of overall funding, this is a great first step toward leveling the 'research funding playing field' with other major crops and should pave the way for future increases.

The language contained in the appropriations bill read as follows: Alfalfa Research – The Committee notes that research into alfalfa seed and alfalfa forage systems holds the potential to increase yield, increase milk production, and improve genetics, and the Committee recommendation includes an increase of \$1,000,000 to support research focused on alfalfa improvement. Research should focus on using tools to accelerate and enhance existing breeding programs focused on improving yield and quality parameters; developing innovative harvesting and utilization systems; developing new markets for co-products; and quantifying environmental benefits from alfalfa-based systems.

This first million dollar increase will be dedicated to hiring two new scientists to perform research on water utilization improvement and harvesting storage and handling effects on quality in alfalfa at the ARS station in Parlier, CA. The funding was also used to hire a postdoc at Kansas State University to work on alfalfa water use efficiency.

NAFA will continue its efforts to increase ARS appropriations to fund additional, critical alfalfa research positions moving forward.

NAFA DC Fly-In Focuses on Safety Net, Research Funding

Alfalfa farmers need an increased public investment in alfalfa-related research at USDA, as well as an improvement in crop insurance options which provide a safety net for alfalfa farmers. This was the message National Alfalfa & Forage Alliance (NAFA) representatives took to lawmakers and agency officials during the organization's 8th annual Washington, D.C., Fly-In. Held Feb. 6-8, the Fly-In included nearly 100 meetings that helped build awareness and recognition for the nation's 3rd most valuable field crop – alfalfa.

NAFA Fly-In participants met with agency officials and regulators, as well as House and Senate Ag and Ag Appropriations Committee members, to discuss NAFA objectives and issues important to the alfalfa industry. When talking with staff from the House and Senate Ag Committees, NAFA brought attention to the need for risk management tools that provide an adequate safety net for forage farmers. Since alfalfa is not a program crop, current risk management tools contained in the Farm Bill – Agriculture Risk Coverage and Price Loss Coverage – are not available to alfalfa farmers. This situation incentivizes farmers to shift acres away from non-covered commodities, such as alfalfa, into program crops.

Meetings were also held with staff members of the House and Senate Ag Appropriations Committees to discuss funding needs for the Alfalfa Seed & Alfalfa Forage Systems Research Program (ASAFS) and investments in research funding for alfalfa at USDA's Agricultural Research Service (ARS). The public research investment devoted to alfalfa is only a fraction of that dedicated to program crops.

NAFA's DC Fly-In participants also met with: the Environmental Protection Agency (EPA) to ensure continued dialogue regarding crop protection tools important to alfalfa seed production; USDA's Risk Management Agency (RMA) to discuss crop insurance products on par with other major crops; USDA's ARS to discuss how best to use limited research funding to the greatest benefit of the alfalfa/forage industry; and USDA's National Institute of Food and Agriculture (NIFA) to discuss the ASAFS.

"As the new Farm Bill takes shape, we want to ensure lawmakers are aware of the alfalfa industry's priorities," said Beth Nelson, President of the National Alfalfa & Forage Alliance. "As the nation's 3rd most valuable field crop, it is imperative we begin seeing movement toward parity with other major crops in terms of policy and public research funding in order to keep this sustainable crop competitive with other cropping choices."

John Deere Hosts NAFA Summer Board Meeting

Olathe, KS, a southwestern suburb of Kansas City, served as the location for the National Alfalfa & Forage Alliance's Annual Summer Board Meeting. NAFA member John Deere served as meeting host and held the meeting at its Ag Marketing Center on June 26-27, 2018. NAFA board members met to discuss industry issues and tour the John Deere facility. In addition to hosting NAFA's board meeting, John Deere used the opportunity to hold a customer focus group and collect feedback from NAFA's hay producing board members on a range of topics related to John Deere's forage products.



Tim and Mark Wagoner, alfalfa seed farmers from Touchet, WA; Dan Wiersma of Pioneer, Johnston, IA; and John Ruedinger, dairy/alfalfa farmer, Van Dyne, WI.



Darrin Unruh and Minnesota Congressman Rick Nolan.

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MISSION STATEMENT

To ensure the ability of all segments of the alfalfa and forage industry to compete effectively while maintaining access to global markets and meeting the requirements of those markets. The objective of NAFA is to be a forum for consensus building among the various stakeholders and to be an effective advocate on behalf of the alfalfa and forage industry.

POLICY INITIATIVES

CROP INSURANCE

NAFA Working with RMA to Improve Forage Seeding, Forage Production Insurance Products

Improvements to risk management tools available to alfalfa farmers is an industry priority. NAFA's crop insurance committee continues to work closely with USDA's Risk Management Agency to address insurance product shortcomings in order to offer reliable risk management tools for the alfalfa industry competitive with those offered to other major crops.

CROP PROTECTION TOOLS

Crop Protection Tools, Protection of Pollinators the Focus of NAFA EPA Meeting

NAFA's DC Fly-In provided its members the opportunity to meet with regulators at the Environmental Protection Agency (EPA) and discuss integrated pest management, protecting pollinators, and access to critical crop protection tools, all essential components of successful alfalfa seed production. Alkali and leafcutter bees are the pollinators primarily used to pollinate alfalfa seed, and farmers go to great lengths to protect them. While crop protection tools are necessary to ward off harmful pests, bee safety is a top priority for alfalfa seed farmers. NAFA's alfalfa seed farmer representatives had the opportunity to demonstrate to EPA the great lengths to which they go to ensure bee safety, as well as to discuss crop protection tools most effective against harmful pests while protecting bees. Alfalfa seed farmers have worked for years to develop effective integrated pest management plans and other tools to protect bees.

Crop Protection Tool Committees

NAFA continues to foster its relationship with EPA. NAFA, in an effort to enhance its oversight efforts, established two internal committees, hay and seed, to monitor product re-registration and phase-out activities at EPA. Both seed and forage farmers are encouraged to contact NAFA with a list of crop protection tools important to their operations; NAFA will add them to its list of products to be monitored and supported.

BIOTECHNOLOGY

NAFA Fosters Coexistence

NAFA continues to foster industry coexistence between producers of genetically enhanced, conventional, and organic alfalfa seed production by facilitating the formation of grower opportunity zones (GOZs), and annually reviewing dynamic coexistence documents for industry use.

ASAFS Receives \$2.25 Million for FY 2018

NAFA was successful in securing continued research funding for the Alfalfa Seed and Alfalfa Forage Systems Research Program (ASAFS; formally known as AFRP) for fiscal year 2018 at \$2.25 million.

In 2014, thanks to Senator Jerry Moran (R-KS), \$1.35 million in funding for the AFRP was included in the FY '14 budget. Funding for the AFRP continued in FY '15 at \$1.35 million, was increased to \$2 million in FY '16, and was increased again for FY '17 and FY '18 to \$2.25 million. ASAFS priorities: Increase alfalfa forage and seed yields and forage quality through improved management practices, plant breeding, and other strategies to reduce biotic and abiotic stresses and costs of production; Improve alfalfa forage and seed harvest and storage systems to optimize economic returns to alfalfa producers as well as end-users including milk producers; Develop methods to estimate alfalfa forage yield and quality to support marketing as a livestock feed and instruments to reduce producer risks; Explore new uses for alfalfa such as in fish feeds, nutritive supplements, high-value chemical manufacturing, or other novel uses; and Conduct life cycle analysis for all or a part of an alfalfa production system for enhancing field to market opportunities.

OFFICIAL PUBLICATION

Hay & Forage Grower Magazine

NAFA continues its agreement with *Hay & Forage Grower* (HFG) magazine as its official publication. HFG maintains the exclusive right to publish NAFA's annual "Alfalfa Variety Ratings Winter Survival, Fall Dormancy & Pest Resistance Ratings for Alfalfa Varieties." *Hay & Forage Grower* also highlights news and information regarding NAFA activities.



RESEARCH

Over \$1.2 Million Awarded for FY 2017 Alfalfa Research

The U.S. Department of Agriculture's National Institute of Food and Agriculture (NIFA) awarded funding to eight projects in the Alfalfa Seed and Forage Systems Research Program (ASAFS).

Now in its fourth year, the ASAFS was created to support integrated, collaborative research and technology transfer to improve the efficiency and sustainability of alfalfa forage and seed production systems. It encourages projects that establish multi-disciplinary networks to address priority national or regional science needs of the alfalfa industry.

Project submissions must include a collaboration among organizations in at least three states as a requirement of funding. Researchers from 19 states will share in 2018 funding. ASAFS supports the development of improved alfalfa forage and seed production systems.

The National Institute of Food and Agriculture (NIFA) awarded funding to the following 2017 recipients:

AFRP Project Title	Principal Investigator	Collaborators	Award
Developing Regionally-Adapted, Resilient Alfalfa Germplasm Pools	E. Charles Brummer, Univ. of California	Cornell; USDFRC	\$290,000
A Decision Support Tool for Predicting Alfalfa Yield and Quality to Enhance Resource Use Efficiency	Isaya Kisekka, Kansas State Univ.	Univ. of AZ; Univ of FL; MT State	\$253,825
Development of Grazing Recommendations and On-Farm Decision Tools for Managing Alfalfa-Grass Mixtures in the Southeastern U.S.	Jennifer Tucker, Univ. of Georgia	Auburn; Univ. of FL	\$250,000
Bacterial Stem Blight of Alfalfa: Connection with Frost Damage, Development of Resistant Germplasm, and Mapping Resistance Genes	Deborah Samac, USDA-ARS (MN)	Univ. of CA; USDA-ARS (WA)	\$250,000
Developing an Attractant for <i>Lygus hesperus</i> Derived from Host Plant Volatile Compounds	Zainulabeuddin Syed, Notre Dame	UT State; Univ. of WI; USDA-ARS (WI)	\$250,000
Proximal and Remote Sensing of Alfalfa Canopies for Early Detection of Insect Stress and Rapid Integrated Pest Management Decision Making	William Lamp, Univ. of Maryland	OH State; WV Univ.	\$290,000
Determining Genetic Factors that Influence Forage Quality in Alfalfa	Steve Norberg, Washington State Univ.	Univ. of ID; OR State; USDA-ARS (WA); Univ of WI	\$250,000
Identifying Factors to Optimize Establishment of Alfalfa Interseeded in Corn	Mark Renz, Univ. of Wisconsin	MI State; Penn State; USDFRC	\$250,000

To keep tabs on the progress of these projects, be sure to check out NAFA's research database to find comprehensive information regarding two of the alfalfa industry's most important research programs – the ASAFS and the Alfalfa Pollinator Research Initiative (APRI). Information is available including individual project objectives, program priorities, and information regarding each program's request for applications. Also available is a search tool allowing users to search for projects based on keywords, researcher, university/entity, year of project, category, or research program. As projects are completed, results will be posted to the site. Please take a moment to visit the site (alfalfa.org/research.php) for more information.

Five Projects Received Alfalfa Pollinator Research Initiative Funding

The Alfalfa Pollinator Research Initiative (APRI) awarded \$100,000 to five research projects focused on supporting the health of non-*Apis* alfalfa pollinators. APRI, a coordinated research effort managed by the Pollinating Insects Research Unit in Logan, UT, focuses on: management for crop pollination; population sustainability; environmental safety; epidemiology and disease management; and genetics. The program is managed by Diana Cox-Foster of USDA-ARS (located at the Logan Bee Lab in Logan, UT). 2018 projects:

APRI Project Title	Principal Investigator	Award
Impact of Immune Stress on Pathogen Susceptibility & Life History Traits in <i>Nomia melanderi</i>	Karen Kapheim, Utah State University	\$19,064
Enhancing & Protecting Populations of Alfalfa Seed Pollinators	Doug Walsh, Washington State University	\$24,976
Impact of Organosilicone Spray Adjuvants Upon the Health & Reproduction of the Alfalfa Leaf Cutting Bee	Diana Cox-Foster, USDA-ARS, Logan, UT	\$21,720
Chalkbrood Control Potential of Hypochlorous Acid in Managed Alfalfa Leafcutting Bee Populations	Ellen Klinger, Diana Cox-Foster, USDA-ARS, Logan, UT	\$11,942
Study of Life Cycles of <i>Melittobia</i> & <i>Pteromalus</i> in Populations of <i>Megachile rotundata</i> in Summer, Fall & Winter	Theresa Pitts-Singer, USDA-ARS, Logan, UT	\$22,298

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New Alfalfa Checkoff Funds 14 Research Projects in First Year

A total of fourteen researchers were the first beneficiaries of the U.S. Alfalfa Farmer Research Initiative (USAFRI), a farmer-funded investment in alfalfa-related research. An initial request for proposals was distributed in the summer of 2017 which funded nine projects, followed by a second call for proposals in April of 2018 which funded an additional five projects. “We are extremely pleased with the response to the first year of the Alfalfa Checkoff,” said Beth Nelson, NAFA President. “We concentrated funding on projects we believe will have a beneficial economic impact on alfalfa farmers across the country.”

Better known as the Alfalfa Checkoff, USAFRI’s initial request for proposals garnered an impressive response, generating 34 research proposals requesting more than \$1.4 million. Projects funded included:

USAFRI Project Title	Principal Investigator
Maximizing Alfalfa’s Yield Potential	Charles Brummer, University of California-Davis
Developing High Yielding and High Quality Varieties and Cropping Systems for High Salinity Conditions	Dan Putnam, University of California-Davis
Enhancing Alfalfa Yields and Stand Life by Improving Management of Seed Rot and Seedling Damping Off	Deborah Samac, USDA-ARS
Evaluating Progress in Alfalfa Forage Quality Improvement	Craig Sheaffer, University of Minnesota
Impact of Poultry Litter Application on Yield and Quality of Alfalfa Grown in Mississippi	Brett Rushing, Mississippi State University
Evaluation of the Efficacy of Various Herbicides for Control of Broadleaf and Buckhorn Plantain in Alfalfa	Leslie Beck, New Mexico State University
Developing Practical Phosphorus and Potassium Tissue Test Recommendations and Utilizing Struvite in Modern Alfalfa Systems	Steve Norberg, Washington State University
Integrated Pest Management and Pollinator Protection on Alfalfa Produced for Seed	Doug Walsh, Washington State University
The Impact of Tedding on the Economic Production of Alfalfa Silage	Matt Digman, University of Wisconsin-River Falls
Use of Alfalfa in Crop Rotations to Control Herbicide-Resistant Pigweed	John Jennings, University of Arkansas
Do FAE-Producing Microbial Inoculants Improve Fermentation and Improve Digestibility of Stored Alfalfa Forage?	Dennis Hancock, University of Georgia
Developing a Soil Bioassay for Alfalfa Autotoxicity	Kim Cassida, Michigan State University
There’s an App for That! Validating Real-Time Assessment of Alfalfa Nutritive Value	Krishona Martinson, Craig Sheaffer, University of Minnesota
Evaluation of the Efficacy of Herbicide Tank-Mixes and Sequential Applications for the Control of Plantain (<i>Plantago</i> spp.) in Alfalfa	Leslie Beck, New Mexico State University



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NAFA strongly encourages alfalfa farmers to patronize checkoff-participating alfalfa seed brands to support the U.S. Alfalfa Farmer Research Initiative. (If your favorite alfalfa brand is not on the list, contact NAFA at 651.484.3888 for information on how a seed marketer can become a participating brand.)

EDUCATION

2018 Variety Leaflet

NAFA released the 2018 edition of its popular “*Alfalfa Variety Ratings - Winter Survival, Fall Dormancy & Pest Resistant Ratings for Alfalfa Varieties*” - a useful tool for hay and dairy producers, extension specialists, agribusiness personnel or anyone involved in the production of alfalfa. The publication is unlike any other in providing an extensive listing of alfalfa varieties and their corresponding ratings for fall dormancy, winter survival, bacterial wilt, aphanomyces, leafhopper, and a host of other pests, to help make educated decisions about varieties which will perform best in your environment. All varieties listed in the *Alfalfa Variety Ratings* publication can be purchased in the United States for the 2018 production year. The 2018 edition features 181 alfalfa varieties from 23 marketers and has been verified with the Association of Official Seed Certifying Agencies (AOSCA) and the National Alfalfa Variety Review Board (NAVRB).

Those who prefer an electronic option can try NAFA’s searchable, online *Alfalfa Variety Ratings* database where they can make the process of narrowing alfalfa varietal choices even easier. Available at alfalfa.org/varietyratings.php, NAFA’s searchable database allows users to search for varieties using up to 23 different parameters including variety name, marketer, fall dormancy, winter survival, disease resistance, and insect resistance just to name a few. NAFA has made finding the perfect variety as effortless as possible.

NAFA’s *Alfalfa Variety Ratings* publication was available in the November issue of Hay & Forage Grower magazine or by visiting NAFA’s website at alfalfa.org.

NAFA’s 2017 Alfalfa Intensive Training Seminar (AITS) – Cuyahoga Falls, OH

One of the most successful programs available for training industry professionals about alfalfa growth and management was held in Cuyahoga Falls, OH, November 14-16, 2017. Sponsored by NAFA, AITS featured the latest information with regard to genetics, variety testing and selection, seed and seed production, growth and development, soils, fertility, irrigation and water use, cutting management, mowing and field drying, and a host of other topics intended to give participants the knowledge they need to make the most of their alfalfa investment. The 2017 seminar featured nationally recognized speakers: Dr. Kim Cassida, Michigan State University; Dr. Dennis Hancock, University of Georgia; Dr. Neal Martin, former director of the U.S. Dairy Forage Research Center, Madison, Wisconsin; Dr. Marc Sulc, Ohio State University; Dr. Dan Undersander, University of Wisconsin; and Dr. Bill Weiss, Ohio State University.

