Alfalfa Pollinator Research Initiative: Requests for 2022 Plans

Funding available through the ***Alfalfa Pollinator Research Initiative*** (APRI) provides valuable resources from USDA Agricultural Research Service for research that ensures the availability of healthy non-*Apis* pollinator populations essential for alfalfa seed production. The current primary non-*Apis* (non-honey bee) pollinators are the alfalfa leaf cutting bee, *Megachile rotundata*, and the alkali bee, *Nomia melanderi*.

Research must address one or more of the topics listed, which are all relevant to alfalfa pollinators:

I.   Management: Includes assessment of current, and the development of new, methods for storing and rearing bees at bee-management facilities or on the farm, including better understanding of bee development under natural and artificial conditions.

II. Production: Includes development of practices for cost-effective on-farm and off-farm multiplication and retention of populations for commercial use.

III. Safety: Includes studies of the effects on alfalfa-pollinating bees of: 1) exposure to pesticides (used for crop or for bees), 2) of farming/community practices (e.g., tilling, pesticide-treated seed plantings, weed control, mosquito abatement), and of 3) bee handling and shipping.

IV. Epidemiology and Disease Management: Includes study of bee-related pathogens, predators, parasites, and their interactions with other natural factors (e.g., nutrition, starvation, pesticides) that contribute directly or indirectly to mortality or reduced fecundity.

V.   Genetics and Demographics: As directly relevant to the above topics, includes studies of bee population genetics, gene expression, and demographics such as population presence, abundance, and distribution (historical and present).

In particular, the Western Alfalfa Seed Growers are interested in the following topics, given issues they are facing. Given their immediate needs, research that will lead to solutions in the near future will be ranked higher.
   a) Advancements in management of alfalfa leafcutting bees (ALCB) and alkali bees that enable greater production of these pollinators in the United States and greater returns in bee stocks for pollination in subsequent years
         a. Control of parasitoids, parasites, and pathogens

      b.   Improved sorting of cocoons to remove diseased and parasitized cocoons (AI sorting/technology)

      c.   Technology to help improve quality and quantity of diapausing ALCB stocks in the United States, given the increased demand for this species in pollination of other crops

  b) Advancements in managing pesticides and control measures to target pest insects (Lygus and aphids) while ensuring safety and health in the alfalfa leafcutting bees and alkali bees

Requests for plans (RFPs) of work for Fiscal Year 2022 will be accepted until 5pm MST, **January 17, 2022.** Funding requests may be for work requiring up to two years for completion but cannot exceed **$25,000 per year** and can only be funded one year at a time. For two-year plans, please submit separate budget sheets for each year, neither exceeding $25,000. Funding consideration, however, will only be given for Year 1 during this requesting cycle. ARS in-house fee of approx. 2.9% will be deducted from any award amount as well (but not included on your budget form).

At this time also, a request for Year 2 of a plan already funded for Year 1 should be (re)submitted, with only the Year 2 budget.

Contingent on the number of awarded proposals, full budget requests may, or may not, be met. It is strongly encouraged that findings be reported in peer-reviewed journals. Additionally, brief project reports (1-3 pages) will be annually required and will be posted on the NAFA website, which will archive all APRI projects in a searchable database. By solicitation of the WASGA program organizer, oral reports or posters by funded researchers will be requested for presentation at the annual Western Alfalfa Seed Growers Association meeting in January.

RFPs are accepted for review only if they strictly adhere to submission procedures and format outlined below. Only RFPs received by close of business (5 pm Mountain Time) on the given deadline will be accepted for review.

RFPs will be reviewed by ARS Pollinating Insects Research Unit scientists and the Class 1 members of the National Alfalfa and Forage Alliance. Announcements of awarded proposals for 2022 will be made in mid-**February**. Funding will be provided to non-ARS PIs via Non-Assistance Cooperative Agreements (NACA) between ARS and the institution of the Lead Investigator. ARS PIs will be funded at the ARS Research Unit level. The dispensation of funds will occur as efficiently as is possible within any current restrictions on the Federal Budget (i.e., USDA-ARS funding under a continuing resolution) or the work load of the ARS Agreements Specialists.

Contact Diana Cox-Foster for more information.
Phone: (435)757-7131; Email: Diana.Cox-Foster@usda.gov

See writing/submission instructions for RFP on the next page.

Request for Plan (RFP) of Work Instructions

Excluding title page, budget, and budget justification, new RFPs shall not exceed 3 pages that includes all single-spaced text, figures, and tables. References can be added to an additional page. Year 2 of an already awarded two-year plan can be a resubmission of the original plan, making sure the work in Year 2 is clearly distinguished from Year 1 and contains a meaningful and separate budget.

Title Page (1 Page)

Project Title:
Year(s) of Study:
Lead Investigator / Affiliation:
Collaborating Investigator(s) / Affiliation(s):
Hyperlink to research website and/or curriculum vitae:

Project Information (3 Page Maximum)

Introduction and Justification (≤ 300 words): Describe the need for research in the context of alfalfa seed production. Explain how results will be tangible and relevant for alfalfa seed growers and bee managers.

Objective(s): Clearly state and describe objective(s).

Methods: Describe laboratory or field set ups, replication, analyses, etc. that provide a general understanding of how research will be performed.

Time Line: Outline important phases as a function of time for the entire project period (≤ 2 years); include start and end dates of study period.

Expected Outcomes and Outreach (≤ 150 words): Already expected outcomes and outreach are peer-reviewed publications, non-peer reviewed university-based publications, and the final report for the APRI website. In this section, also describe any technology transfer or impactful information that will be gained from your research, and how that information may be disseminated to customers beyond reporting for Western Alfalfa Seed Grower Association Winter Meeting Proceedings.

Budget & Justification

Use the form provided. Include a second budget period, if you have a two-year plan. **20% of the ARS funds (Fed) must be matched by non-ARS funds (non-Fed), and no indirect costs can be paid by ARS**. Please work with your sponsored programs or agreements office to determine the

budget. For other information, contact Diana Cox-Foster ((435)757-7131; Diana.Cox-Foster@usda.gov) or (Michelle Covert 435-797-2524; Michelle.Covert@usda.gov).

You will have to upload a **Budget Justification** within the PDF form. It must include the 3 items below.

1. Complete mailing address and phone number of Cooperator/PI (phone number, fax number and e-mail address, if available).

2. Cooperator's representative; and person authorized to sign the agreement for the Cooperator (Special/Sponsored Programs person).

3. Justifications and/or itemizations are **required** for the following:

Salary Costs	Provide a breakdown of roles (job title brief job description, # of personnel per role and period of time per role); total salary, wages and fringe benefits
Equipment	Must itemize tangible personal property items (including information technology systems); estimated cost of each item that exceeds $5,000. Include shipping and any maintenance costs and agreements.
Materials & Supplies	Costs directly purchased to support the project. Tangible property is a supply if the cost is under $5,000. Computing devises are a supply if the value the $5,000 threshold for equipment. Categories less than $1,000 do not require itemization. If a group of materials is less than $1,000; you would summarize, i.e., lab supplies, $650.
Travel	List destination, number travelling and amount for each trip; add the # of cooperator employees going on each trip if applicable as well as the ARS employees.
Publication Costs	Do not use publication costs as the description; examples are journal fees, policy briefs, cd/dvd publication, etc.
ADP Computer Services	Do not use ADP computer services in the description; examples are SAS software update, server backup software, etc.
Subawards	List any subawards by entity name and budget

How to Submit

By the given deadline, send RFPs via email to Diana.Cox-Foster@usda.gov. Project title page and information should be submitted as a single PDF, and the budget form (with included budget justification) should accompany the proposal.