

# impact

University of Idaho Extension programs that are making a difference in Idaho.

## UI Extension innovative grant helps promote pollinator nectar resources statewide

### AT A GLANCE

Idaho pollinator species such as bees, butterflies, flies, beetles and other insects require flowering plants for life. We provide wildflower seeds to plant throughout Idaho for these beneficial insects.

### The Situation

A multitude of Idaho's native pollinator species (including bees, butterflies, flies, beetles, birds and other beneficial insects) rely on flowering plants to provide the essential energy for life and proliferation in the form of nectar. Native pollinator species have been known to be in decline throughout the world, including Idaho. The United States Department of Agriculture (USDA) estimates that pollinators are directly responsible for "one in every three bites of food we take" and that they "increase our nation's crop values each year by more than \$15 billion dollars." Idaho has an abundance of native pollinator species that occupy various niches and ecosystems throughout the state. Pollinator species contribute to backyard gardeners, horticulture, agriculture, rangeland and native ecosystems. Factors leading to pollinator species stresses and potential losses or extinction include: pesticide overuse (especially those that are translocatable), habitat loss, pollution, pests, pathogens, diseases, parasites, natural enemies, drought and climate change. Pollinator species conservation, protection and promotion is a top concern into the future.



Pollinator Conservation Innovative Project logo (left), a bumblebee foraging for nectar (right). Photo by Brad Stokes.

### Our Response

UI Extension Educator Brad Stokes applied for and received a University of Idaho Extension Innovative Project Award in the amount of \$5,000 to help protect, promote and conserve Idaho's pollinator species. The funds were used to purchase wildflower seeds, clear plastic vials and labeling materials. Wildflower seeds were put into labeled and marketed plastic vials, hence creating wildflower kits for each UI Extension office throughout Idaho.

Wildflower seeds were purchased through Eden Brothers and two different wildflower mixes were selected (Western wildflower mix and a Bird & Butterfly wildflower mix) based on recommendations from the Xerces Society for Invertebrate Conservation to

prevent selecting potentially invasive and weedy wildflower species. Over 100 pounds of the Western wildflower and 75 pounds of the Bird & Butterfly wildflower mixes were then placed into 1,602 individual plastic vials for distribution throughout UI Extension offices statewide. Kits also contained marketing materials, a logo as well as guides for how/where to plant wildflower seeds for successful germination and establishment.

To get results of the project, a website with a nine-question survey and Quick Response (QR) code was created and included on each of the 1,602 plastic vials as well as all marketing materials within each kit. Individual wildflower kits were then mailed in late March of 2022 to each UI Extension office (44 total) for free distribution to educators, Extension clientele, volunteers (4-H and master gardener), other specialty programs and the public. The minimal number of wildflower seed vials was set at 25 vials/UI Extension office and based on adjusted population of each county in Idaho to be impartial. Each selected wildflower mix contained both annual and perennial wildflower seeds and aligned with Idaho's established USDA hardiness zones. Wildflower species selected also bloomed during critical pollinator foraging times in the season, including spring, summer and fall.

### Program Outcomes

Pollinator nectar resources are expected to increase by 175,000 to 350,000 ft<sup>2</sup> (~4 to 8 acres) throughout Idaho as a direct result of this grant funded project. Nectar resources for Idaho's pollinator species (including bees, butterflies and other beneficial insects) directly increased statewide with help from clientele and volunteers.

Over 50 individuals completed the online survey related to this project from 20 different counties in Idaho. Of the survey results 45% were public, 20% were UI faculty or affiliated faculty positions, 19% were 4-H leader/member/family and 16% were

master gardener volunteers/coordinators. Over 35% of survey respondents were employed directly with agriculture as a profession while 27% of respondents were employed directly with education. Of the 51 respondents, more than half planted wildflower seeds "somewhere on their personal property." This type of approach was well received by UI Extension educators, staff, volunteers and offices statewide.

- 98% of survey respondents were satisfied or very satisfied with their wildflower seeds.
- 94% of survey respondents were likely or very likely to recommend UI Extension programs or initiatives to someone they know.
- "We put out a Facebook notification of the free wildflower seeds you provided, while limiting to one container per individual we ran out within three hours, Thank You!" — UI Extension office

### Cooperators and Co-Sponsors

We would like to thank University of Idaho Extension for funding this pollinator conservation project, [Eden Brothers](#) for providing wildflower seeds and the [Xerces Society for Invertebrate Conservation](#) for guidance in selecting Idaho appropriate wildflower seed mixes.



Wildflower seeds kits were mailed out to all 44 counties in Idaho in March of 2022. Photo by Brad Stokes.

### FOR MORE INFORMATION

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