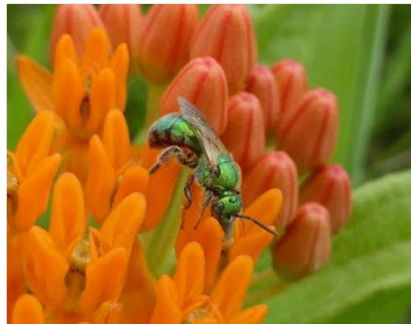


Pollinator Conservation Farm Bill Programs (2018–2023)

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How to Use This Technical Note

Overview and Organization

The United States Department of Agriculture (USDA), through the working lands conservation programs administered by the Natural Resources Conservation Service (NRCS) or the Farm Service Agency (FSA), can help reverse trends in the decline of pollinator species and other beneficial insects through conservation programs. This technical note

- summarizes the existing pollinator conservation guidance set forth in the conservation directives of the Agriculture Improvement Act of 2018 (Pub. L. No. 115-334, hereinafter referred to as the 2018 Farm Bill);
- provides a general overview of the conservation programs used to conserve pollinators and habitat for pollinators and beneficial insects;
- provides a general overview of conservation practices, climate smart agriculture, and forestry activities to support pollinators and protect biodiversity;
- outlines opportunities for NRCS field staff to help eligible producers implement conservation practices and activities that benefit pollinators (see section: [Field Level Opportunities](#));
- identifies opportunities for NRCS state, area, basin, and watershed offices to support conservation of pollinators by developing state-specific funding pools, programs, or technical resources (see section: [State Level Opportunities](#)); and
- includes information on technical guidance documents, tools, and other resources available to support conservation planning for pollinators (see sections: [Other National and State Technical Guidance Documents](#) and [Department of Agriculture Level Resources](#)).

Guidance on Practices for Conserving Pollinators and Important Planning Considerations

The conservation programs and practices covered in this technical note are in the order of the most commonly used programs and practices, beginning with information about the Environmental Quality Incentives program (EQIP). The tables in this technical note provide lists of practices for conserving pollinators. Planners will find details on pollinator habitat requirements, lists of EQIP practices for addressing pollinator habitat resource concerns, and considerations for designing practices to maximize value and benefits to pollinators. The guidance in this technical note provides a basic framework for planners to adapt and customize accordingly based on landowner goals, site characteristics, local conditions, and other factors identified during the planning process. The planning considerations listed in the tables are not intended to be exhaustive. Consult NRCS state-level guidance and resources for developing site-specific conservation plans. When planning practices for conserving pollinators or other beneficial insects, use the tables in this document as general reference along with the following important considerations applicable to most practices:

- A given conservation practice can address multiple resource concerns. Although another resource concern may be the primary purpose of developing a particular practice, adding criteria for pollinators may be appropriate, such as using a plant species with a high pollinator value for revegetation practices. For example, riparian forest buffers designed to address water quality can be designed with native flowering trees and shrubs that provide foraging habitat and nest sites for pollinators.
- Plant species listed in this document are intended for example purposes. To select site appropriate plants, consult state-specific standards and state specialists such as biologists, plant materials specialists, or pollinator specialists. Additional information regarding the distribution of naturally occurring plant species may be accessed on the USDA PLANTS database (<https://plants.usda.gov/>).
- Assessing pesticide risk is an important part of conservation planning for pollinators and other beneficial insects. Plant habitat for pollinators in areas where there is a low risk of pesticide exposure. Refer to NRCS [Agronomy Technical Note 9](#) for detailed information on pesticide risk protection for pollinators.

Introduction

More than 75 percent of the world's flowering plants depend on pollinators to produce seed or fruit. Over 100 crops grown in the United States comprising approximately 33 percent of the Nation's food supplies depend on the pollination services provided overwhelmingly by bees. These crops include foods that we rely on for a healthy and diverse diet, such as fruits, nuts, vegetables, and oilseed, as well as seed for vegetables or livestock forage.

Bees, flies, wasps, butterflies, moths, beetles, birds, bats, and small mammals are among the diversity of animal species that contribute to our Nation's pollination services, and they add tens of billions of dollars to the value of agricultural crops annually and incalculable value to our ecosystem services.

Pollinators also support the healthy ecosystems needed for clean air, healthy soil, clean water, and a diversity of fish and wildlife. Songbirds, gamebirds, trout, and bears (among many other animals) depend upon insects or insect-pollinated fruits and seed plants as a food source.

Habitat created for pollinators (as depicted in figure 1) supports diverse populations of other beneficial insects that help to reduce crop damage and is part of an integrated pest and pollinator management approach. These beneficial insects include predator and parasitoid species such as flies, wasps, beetles, lacewings, assassin bugs, and minute pirate bugs, as well as spiders and mites.



Figure 1. A buffer strip planted with a diverse mix of native wildflowers provides habitat for pollinators and beneficial insects on an organic farm in Minnesota.

Pollinators continue to face many challenges, including multiple interacting stressors such as habitat loss and degradation, pests, diseases, environmental toxins, and changing climate (e.g., increased incidents of drought and flooding). These factors contribute to declines in the populations and overall health of managed and wild pollinators. The National Agricultural Statistics Service (NASS) reports on several annual surveys, and these include the bee and honey inquiry surveys and honey bee colony loss surveys, resulting in annual reports for honey production and colony losses.¹ A nationwide survey conducted by the [Bee Informed Partnership](#) reported beekeepers lost an estimated 45.5 percent of their managed honey bee colonies from April 2020 to April 2021. In addition, declines of wild pollinators continue in North America and globally. In 2021, Zattera (et al.)² noted a 25 percent decline in the global occurrence records of wild bees. Twenty-eight percent of all North American bumble bee species (*Bombus* spp.) have significantly declined and face some degree of extinction risk.³ Monarch butterflies have also steeply declined. Western monarch populations have declined by more than 95 percent since the 1980s, and the eastern monarch population has declined by over 70 percent in the last 3 decades. Other native pollinator species are exhibiting similar trends.⁴

Farm Bills and Pollinators

Given the significant importance of pollinators to U.S. agriculture, food security, natural resources, and the economy, pollinator protections have been included in the 2018 Farm Bill. Revised roughly every 5 years, this omnibus legislation covers a broad number of diverse topics relevant to agriculture and the nation's food programs.

Since the Food Security Act of 1985 (Pub. L. No. 99-198, hereinafter referred to as the 1985 Farm Bill), farm bills have included assistance programs and provisions under the conservation title (Title XII) to promote voluntary participation in conservation programs that are supported by financial and technical assistance, education, and basic and applied research to address multiple natural resource concerns including, more recently, pollinator habitat. These programs originally authorized by the 1985 Farm Bill, as amended, are collectively considered farm bill programs.

The USDA administers the following types of agricultural conservation programs: working lands, land retirement, easement, conservation compliance, and partnerships and grants (see table 1). As depicted in figure 2, taxpayer investment in the working lands programs (where the USDA funds many pollinator conservation efforts) has grown significantly over the past 2 decades. Other legislation (outside the farm bill) authorizes other types of conservation programs

¹ [Honey](#), U.S. National Agricultural Statistics Service (2022).

² E. E. Zattara & M. A. Aizen, [Worldwide Occurrence Records Suggest a Global Decline in Bee Species Richness](#), *4 One Earth*, 1 (2021) at 114-123

³ R. Hatfield, S. Colla, L. Richardson, R. Thorp, & Jordan S. Foltz, [IUCN Assessments for North American *Bombus* spp.](#), *Xerces Society for Invertebrate Conservation*, (2015) <https://xerces.org/sites/default/files/publications/14-065.pdf> at 56.

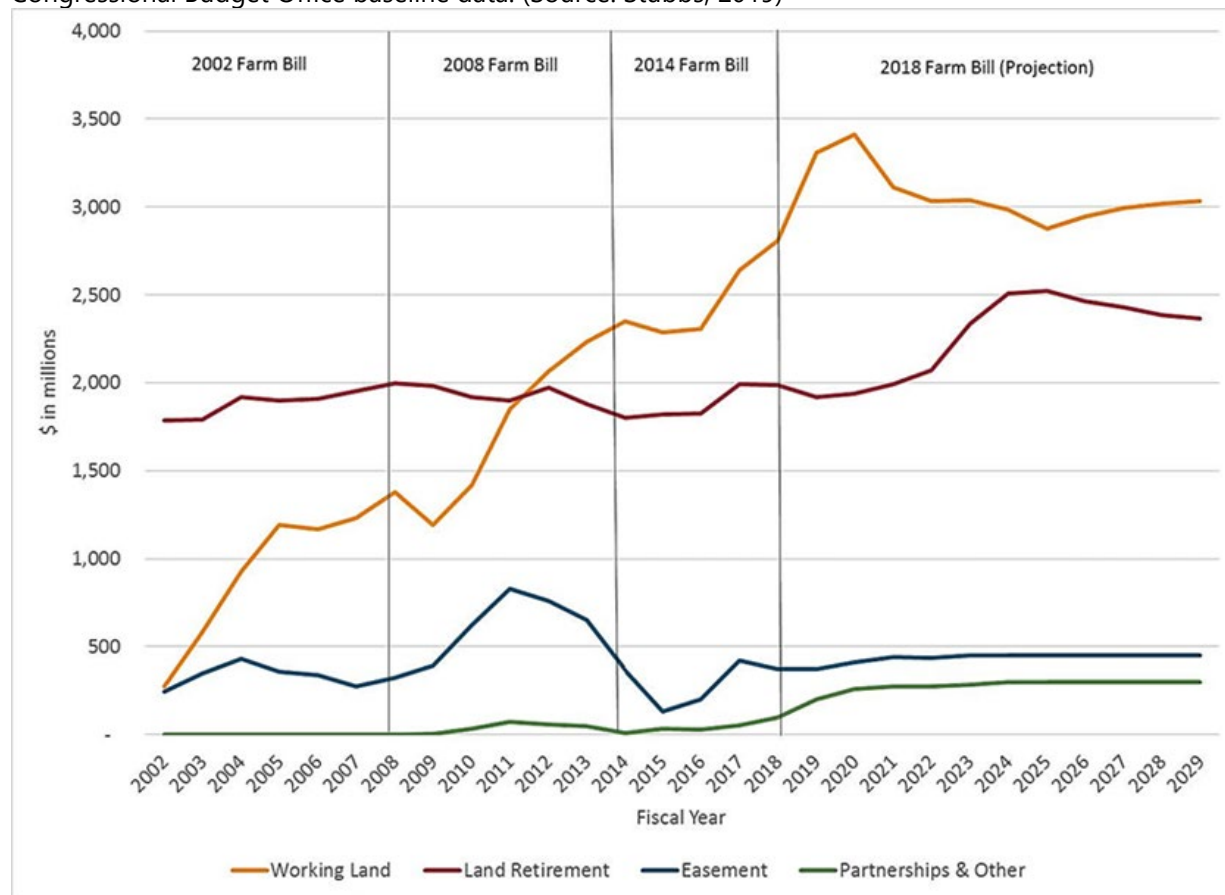
⁴ M. E. Mathiasson & S. M. Rehan, "[Wild Bee Declines Linked to Plant-Pollinator Network Changes and Plant Species Introductions](#)." *The Royal Entomological Society Insect Conservation and Diversity*, (June 2020) at 595-605.

(e.g., watershed programs, emergency programs, and technical assistance) even though amendments to these may occur in farm bills.⁵

The Food, Conservation, and Energy Act of 2008 (Pub. L. No. 110-234, hereinafter referred to as the 2008 Farm Bill) was the first farm bill to emphasize the importance of all pollinators. The 2008 Farm Bill made conservation of pollinators and their habitat a priority resource concern and required considering wild and managed pollinators (both native and introduced) when reviewing or developing any conservation practice standard. It authorized special consideration when determining payments for conservation practices that were voluntarily implemented to promote pollinator habitat under EQIP. Most importantly, the 2008 Farm Bill authorized the Secretary of Agriculture to encourage developing habitat for native and managed pollinators and using conservation practices that encourage native and managed pollinators when administering any conservation program. As a result, pollinator conservation support needed to be incorporated not only into EQIP but also into the Conservation Reserve Program (CRP), Conservation Stewardship Program (CSP), and Agricultural Conservation Easement Program (ACEP).

⁵ M. Stubbs, [*Agricultural Conservation in the 2018 Farm Bill*](#), Congressional Research Service, (2019).

Figure 2. Historical and programmatic shifts in conservation funding. Shows actual and projected mandatory spending for farm bill conservation programs for fiscal years (FY) 2002 through 2029 using Congressional Budget Office baseline data. (Source: Stubbs, 2019)



The Agricultural Act of 2014 (Pub. L. No. 113-79, hereinafter referred to as the 2014 Farm Bill) retained all of the pollinator conservation provisions of the 2008 Farm Bill. The 2014 Farm Bill condensed and streamlined conservation programs and added targeted support for the creation of honey bee habitat.

In the 2018 Farm Bill, Congress continued past support for pollinator conservation by reauthorizing and amending all of the major USDA agricultural conservation programs. The 2018 Farm Bill retains all the important pollinator conservation provisions of the previous farm bills with an emphasis on further streamlining, targeting, and simplifying programs by increasing focus on working lands programs and voluntary participation in conservation measures (table 1). Pollinators and other beneficial insects received support across multiple programs, including increasing allocations for funding of wildlife-related practices for EQIP from 5 percent to 10 percent and increasing the total acreage cap for CRP. Figure 2 shows the historic and projected farm bill funding trends for conservation from 2002 through 2029.

Other types of conservation programs such as watershed programs, emergency programs, and technical assistance programs are authorized in legislation other than the farm bill and therefore are not covered in this technical note.

Table 1. USDA agricultural conservation programs by type under the enacted 2018 Farm Bill.

Type	Program
Working Lands – programs allow private land to remain in production while implementing various conservation practices to address natural resource concerns specific to the area.	<ul style="list-style-type: none"> • EQIP • CSP • Grassland CRP
Land Retirement – programs provide Federal payments to agricultural landowners for temporary changes in land use or management to achieve environmental benefits.	<ul style="list-style-type: none"> • CRP • Conservation Reserve Enhancement Program • State Acres for Wildlife Enhancement • Farmable Wetlands Program • Clean Lakes, Estuaries and Rivers • Soil Health and Income Protection Program
Easement – programs apply a permanent land-use restriction that is voluntarily placed on the land in exchange for a Government payment.	<ul style="list-style-type: none"> • ACEP • Healthy Forests Reserve Program
Partnership and Grants – programs that use partnership agreements to leverage program funding with non-Federal funding or provide grants to states or research organizations.	<ul style="list-style-type: none"> • Regional Conservation Partnership Program • Conservation Innovation Grants • Voluntary Public Access Habitat Incentive Program

Source: Adapted from Stubbs, 2019.

The authors of the 2018 Farm Bill (referred to as managers) expressed how conservation programs should be administered outside of the actual language of the farm bill. Specifically, they encouraged the protection of pollinators by

- facilitating and coordinating USDA-wide honey bee and pollinator research efforts;
- expanding on existing work at USDA to encourage the protection of pollinators and the enhancement of pollinator habitat through conservation practices;
- supporting innovative approaches to pollinator conservation through the Conservation Innovation Grants (CIG) program;
- encouraging the use of native plants wherever practical in USDA conservation efforts to support habitat restoration, including for pollinators and monarch butterflies; and
- expanding on existing work at the USDA to protect and enhance pollinator habitat through areawide conservation plans, increased use of integrated pest management (IPM), and implementation of habitat enhancements for beneficial insects.

Climate Smart and Regenerative Agriculture

Recent policy efforts have focused on providing financial and technical support for the adoption of climate smart and regenerative agricultural practices. While much of the focus of this work has been on cropland or grazing lands, where there certainly can be habitat elements for

pollinators, it is important for conservation planners to consider conservation buffers, non-crop areas, and expansion of permanent habitat when developing climate smart or regenerative systems. Permanent woody or herbaceous habitats (such as the hedgerows noted in figure 3) can be designed to store significant amounts of carbon per unit acre and support high levels of pollinator biodiversity and providing forage and untilled areas for nesting and refuge for wildlife. Careful selection of locally adapted native plants maximizes habitat value and contributes to climate-smart farming systems. Increasing, protecting, and maintaining high quality terrestrial, wetland, and aquatic habitat in and around working lands is a critical element of truly climate smart, resilient regenerative agricultural practices.



Figure 1. A flowering hedgerow supporting pollinators and beneficial insects in California's intensively managed agricultural landscapes.

Overview of Conservation Programs

Agricultural producers play a pivotal role in the conservation of pollinators and other natural resources as two-thirds of the continental United States is privately owned and managed. NRCS serves as the lead USDA agency in assisting landowners with addressing natural resources on private lands through voluntary, production-compatible conservation. NRCS works with American Indian tribes, farmers, ranchers, and forest managers in the 50 states and U.S. territories (Caribbean Area, including Puerto Rico, and the Pacific Islands Area) to develop and implement conservation plans that improve and protect natural resources. This includes practices that combat the decline of pollinators by establishing new habitat and managing existing habitat.

NRCS provides scientifically based technical assistance. NRCS staff assess specific resource concerns (soil, water, air, plants, animals, and energy) during the conservation planning process and provide agricultural producers with options to address these concerns through key agricultural conservation programs.⁶ To address pollinator habitat, assessments focus on the resource concerns for the terrestrial habitat of wildlife and invertebrates and may yield

⁶ [National Resource Concern List and Planning Criteria](#), USDA NRCS, (October 2019).

recommendations for implementing specific conservation practices that address the identified concerns. The concerns may include inadequate habitat in terms of quantity, quality, or connectivity of pollen and nectar sources, host plants, nesting habitat, winter cover, water, and pesticide exposure risk. In addition, the implemented practices may target other beneficial insects, such as predators and parasitoids of crop pests.

A resource concern assessment may identify issues related to soil erosion, soil quality, water quality, invasive species, and even nature-based solutions to climate change or the adoption of climate smart conservation practices that help farms and ranches increase resilience to climate change. When assessed as part of a Resource Management System, a landowner may receive financial and technical assistance to address multiple conservation challenges at a single site using a combination of conservation programs and technical assistance. NRCS ensures fair and equitable accessibility to all programs and services for all NRCS customers, with emphasis on reaching historically underserved (HU) and socially disadvantaged farmers, ranchers, and landowners.

The collection of tables in the appendix B of this document (tables B1 to B5) provide an overview of the 2018 Farm Bill's main agricultural conservation programs that are available to assist with establishing pollinator habitat.

Field-Level Opportunities

The conservation specialist works with the client (landowner or producer) to develop targeted plans as part of the overall conservation planning process. Technical resources, such as wildlife habitat evaluation guides (WHEG), assist the conservation planner in assessing terrestrial habitat for wildlife and invertebrates and identifying resource concerns. A variety of conservation practices can be contracted through several NRCS programs that offer financial assistance to help address and mitigate the identified natural resource concerns for pollinators. Additional tools (such as NRCS pollinator plant lists, practice specifications, implementation requirement forms, pollinator or monarch conservation technical notes, and wildlife, pasture, or rangeland handbooks) provide conservation planners with science-based technical resources and information to guide decision making and the development of site-specific conservation plans.

Conservation practices contracted to support pollinators and beneficial insects are planned and designed to provide permanent or seasonal habitat to

- increase the abundance and diversity of high-value pollen and nectar plants;
- expand the availability of blooming plants through the growing season, ideally from early in the spring (e.g., willow) through late fall (e.g., goldenrod);
- add or protect potential nest sites, overwintering habitat, and host plants, and improve habitat connectivity;
- provide refuge from potential pesticide exposures and environmental toxins;
- implement management practices with pollinators in mind; and
- include additional pollinator supporting practices.

The Environmental Quality Enhancement Program

EQIP provides financial and technical assistance to eligible producers and landowners to plan and install structural, vegetative, and land management practices that can alleviate natural resource problems (refer to table B2 in the appendix for additional information).

Habitat is commonly contracted under EQIP, which offers numerous vegetative practices that allow field office planners to include diverse flowering plants that provide sequential or increased bloom throughout the growing season. Many of these practices support creating and protecting nest sites, such as snags, brush piles, stable untilled ground or small cavities, grass tussocks, and leaf litter for bumble bees. Any conservation habitat or management practice that increases areas of pollinator habitat will minimize harm to pollinators and other beneficial insects (for more information, consult [Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms](#)).

Whenever practical, conservation planners should prioritize using native plants because native pollinators and other wildlife rely on diverse native plant communities for adequate food and shelter. Habitats established with locally adapted, native plants provide the enduring benefits of improved water and air quality, soil health, and resilience to drought and climate change. Perennial long-term habitats, especially those created with a diversity of native plants, have higher conservation value for pollinators than frequently disturbed seasonal habitats.

Annual or temporary plantings with abundant flowers add habitat value to sites. Therefore, conservation planners should also consider adding or diversifying cover cropping practices or incorporating noninvasive forage legumes into pasture or biomass plantings for added foraging habitat. These practices will benefit managed honey bees by providing mass bloom and will help sustain beneficial insect populations by offering alternative food sources when preferred prey is scarce while breaking pest cycles, improving soil health, reducing erosion, and adding soil nutrients. To be of benefit to pollinators and beneficial insects, cover crops must be allowed to flower and complete most of their bloom cycle before they are terminated.

Table 2 provides a list of core EQIP conservation practices used to benefit native bees, managed honey bees, monarch butterflies, and beneficial insects, and it describes the potential for each practice to add or improve habitat for these target species or guilds. The pollinator habitat resources column indicates if the conservation practices can be planned to (1) provide foraging or nesting habitat, (2) reduce exposure to pesticides, (3) design pollinator-friendly management techniques that benefit or reduce adverse impacts to pollinators (such as the careful timing of prescribed burns), and (4) support climate smart agriculture and land management by delivering quantifiable reductions in greenhouse gas emissions and increases in carbon sequestration.

Table 3 lists EQIP supporting practices that do not directly create pollinator habitat but are part of a conservation system that, as a whole, contributes to conservation of pollinators and beneficial insects. These practices are often important for creating and managing habitat.

Tables 4 through 6 list additional practices that are beneficial for pollinators associated with other 2018 Farm Bill programs including CSP and CRP.

Table B1 in appendix B provides a quick reference guide that lists pollinator habitat requirements, such as forage, nesting, or pesticide protection, along with the conservation practices used to meet these needs. Table B2 in appendix B provides an overview of working lands conservation programs for pollinators.

EQIP Practices for Pollinators

Practices in tables 2 and 3 are organized into two categories. Table 2 lists main practices to support pollinators, which are prioritized when wildlife and invertebrates are the primary resource concerns. Table 3 lists additional practices (in alphabetical order), which can be designed to support pollinators as the main purpose or as additional criteria. It is important to note that regional variations may influence how standards are applied. For instance, standards used in the east may be applied differently or not applicable at all in the west, but they are still within the National standards. In addition, the tables identify if the practice meets pollinator habitat requirements, including

- Foraging Habitat: Foraging habitats are diverse sources of pollen and nectar that support pollinators, predators, and parasitoids from early in the spring to late in the fall.
- Nesting Habitat: Nest sites include stable ground, snags and holes in wood, cavities for bumble bees or overwintering sites for bumble bee queens, plants with hollow or soft pith stems, and protective cover for beneficial insects (e.g., standing vegetation, leaf litter, brush piles, brush piles, etc.).
- Protection: Pollinator habitat must be free of environmental toxins (e.g., refuge from pesticides, buffers to drift, etc.).
- Site Management: Pollinator friendly management techniques associated with the practice may be implemented to benefit or reduce adverse impacts to pollinators (e.g., timing the implementation of prescribed burns).
- Climate-Smart: When applied appropriately, climate-smart practices may deliver quantifiable reductions in greenhouse gas emissions and increases in carbon sequestration. Many offer co-benefits and ancillary benefits that help operations build climate change resilience while addressing other natural resource concerns such as soil health, water quality, pollinator and wildlife habitat, and air quality. Some practices, such as 338 (Prescribed Burns), may also help reduce the risk of wildfires associated with climate change. For more information, see the [NRCS Climate-Smart Mitigation Activities](#) web page.

Table 2. Main core EQIP conservation practices used to create or enhance habitat for pollinators and beneficial insects.

Code – Name	Table 2: Planning Considerations for Pollinators	Habitat Requirements
327 – Conservation Cover	Establish permanent herbaceous cover with a diverse mix of native wildflowers for pollinators (designed to maximize the abundance and availability of pollen and nectar throughout the growing season). Select multiple species from each bloom period and include regionally appropriate native milkweed species for monarch host plants. When pollinators are not the primary purpose, include native and naturalized (non-invasive) species to increase plant diversity and address gaps in bloom where possible.	Foraging Habitat, Climate-Smart
647 – Early Successional Habitat Development/ Management	<p>Use mowing, burning, disking, prescribed grazing, herbicide, mechanical removal, or a combination thereof to manage plant succession and to maintain open and sunny habitat for pollinators. Implement habitat management practices using techniques that reduce harm to pollinators. Carefully plan the methods, timing, and frequency of management to allow for habitat heterogeneity and opportunities for recolonization of nontreated habitat.</p> <p>Note: To minimize adverse impacts to pollinator populations, divide the habitat area into multiple management units and apply practices on a rotational basis so that less than 50 percent the overall site (ideally less than 30 percent) is disturbed in a given year. See state guidance and use site monitoring to create a plan based on local conditions and plant cover. Assess the efficacy of methods implemented and adjust accordingly. Avoid disturbance when pollinators are most active (e.g., when monarch eggs and caterpillars are present on milkweed host plants during ground-nesting bird season or other critical wildlife times).</p>	Foraging Habitat, Site Mgmt.
386 – Field Border	Include diverse native wildflowers or shrubs that provide pollen and nectar. Site management (e.g., mowing) should occur in the late fall to minimize impacts on floral resources used by pollinators. Field borders planted in pollinator habitat must be protected from pesticide drift from adjacent crops. Implement preventative practices to protect pollinators from pesticide risk, see Agronomy Technical Note No. 9 .	Foraging Habitat, Nesting Habitat, Climate-Smart
422 – Hedgerow Planting	Plant a combination of native flowering shrubs and small trees and include stiff-stemmed, robust statured wildflowers able to persist in hedgerows over time. Include species with pithy stems for tunnel-nesting bees (see figure 3).	Foraging Habitat, Nesting Habitat, Protection from Pesticides, Climate-Smart

Code – Name	Table 2: Planning Considerations for Pollinators	Habitat Requirements
612 – Tree/Shrub Establishment	Establish native flowering trees and shrubs that provide pollen and nectar for pollinators. In many regions, trees and shrubs are the primary source of forage for pollinators in early spring when blooming wildflowers are scarce. Include woody plants with pithy stems to provide potential nest sites for solitary tunnel-nesting bees and important larval host plants for butterflies.	Foraging Habitat, Nesting Habitat, Climate-Smart
645 – Upland Wildlife Habitat Management	You may include establishing, manipulating, and managing vegetative cover and structure for wildlife, such as to provide or enhance forage or pollinator nest sites, including snags for tunnel or wood-nesting bees, access to bare soil for ground-nesting solitary bees, and small mammal burrows, bunch grass cover for bumble bees. Consider opportunities for creating, improving, and managing habitat connectivity to increase habitat value and foraging efficiency (see figure 8).	Foraging Habitat, Nesting Habitat, Site Mgmt., Climate-Smart
420 – Wildlife Habitat Planting	This is the main NRCS wildlife practice for pollinator and monarch habitat development. Where available, use this practice instead of practice 327 (Conservation Cover) so plantings designed specifically for wildlife may be more easily recognized, recorded, and tracked by NRCS. Plant a diverse mix of native wildflowers and flowering shrubs to improve foraging and nesting habitat for pollinators and other wildlife (see figure 4). If monarch conservation is an identified goal (or target species), include regionally appropriate milkweed species for an increased density of larval host plants as well as a combination of monarch nectar plants that will bloom when monarchs breed or migrate to the project location. Use management practices and timing to prevent adverse effects on pollinators, monarchs, beneficial invertebrates, and other wildlife.	Foraging Habitat, Nesting Habitat, Climate-Smart

Code – Name	Table 2: Planning Considerations for Pollinators	Habitat Requirements
380 – Windbreaks/ Shelterbelt Establishment and Renovation	<p>Include species especially chosen to provide pollen and nectar for pollinators. Windbreaks can also be designed as a pesticide drift barrier. Plant pesticide windbreaks using within and between row spacing to achieve proper density and porosity for intercepting and trapping particulates and preventing downwash (60 percent density, 40 percent porosity). Use NRCS conservation practice standards and state-specific guidance for species selection and design specifications. When restoring or enhancing existing windbreaks or shelterbelts, preserve or consider adding native flowering trees and shrubs that support pollinators. For additional guidance on windbreaks and how to establish pesticide barriers, see Windbreaks “Designed with Pollinators in Mind,” and Windbreak Innovation.</p> <p>Caution: Do not use flowering species attractive to pollinators and beneficial insects for windbreaks that are established to intercept pesticide drift. Instead, use small-needled evergreen species (e.g., spruce, juniper, fir, or arborvitae), which are recommended over pines because pines generally are less dense and their growth form opens with age.</p>	Foraging Habitat, Nesting Habitat, Protection from Pesticides, Climate-Smart

Table 3. Additional EQIP conservation practices used to create or enhance habitat for pollinators and beneficial insects.

Code – Name	Table 3: Planning Considerations for Pollinators	Habitat Requirements
311 – Alley Cropping	Use for agronomic or forage crops planted in alleys between rows of trees and shrubs. Include pollinator-friendly trees and shrubs with harvestable or value-added products (e.g., nuts, fruits, maple syrup, floriculture, nursery stock, or wood), which provide foraging, nest sites, and important butterfly host plants. Plant native wildflowers or flowering cover crops in alleyways in rotation with cash crops. Tree rows can create favorable microclimates, improving crop production (e.g., windbreaks or untilled soils). Implement integrated pest and pollinator management and preventative practices to protect pollinators from pesticide risk (see guidance in Agronomy Technical Note No. 9).	Foraging Habitat, Nesting Habitat, Climate-Smart
314 – Brush Management	Use for removal or management of invasive or aggressive woody plants to restore desired plant communities or prepare for new plantings. You may combine this with prescribed burning to restore native grassland, savanna, woodland, or forest communities. Removal of invasive species has the potential to release native seedbanks by allowing sunlight to reach the understory and reducing suppressive effects of allelochemicals produced by many invasive species. If natural regeneration after removing invasive species does not result in the desired plant community, treated areas could be replanted with competitive native plants (such as colony-forming or suckering shrubs) or rhizomatous species with fast establishment and growth rates that benefit pollinators.	Nesting Habitat
328 – Conservation Crop Rotation	Diversify cropping systems by adding flowering crops in a rotation to provide sources of temporary forage for pollinators and beneficial insects. This could include value-added crops (e.g., flowering herbs or cut flowers) and flowering cover crops (e.g., sunflower, canola, or insectary mixes). Allow cover crops to flower before termination or leave some unterminated blooming strips. Pollinators should not be exposed to insecticides or bee-toxic fungicides. Implement preventative practices to protect pollinators from pesticide risk (see Agronomy Technical Note No. 9).	Foraging Habitat, Climate-Smart
332 – Contour Buffer Strips	Add native wildflowers to increase plant diversity and provide pollen and nectar for pollinators and beneficial insects. Reduce disturbance by mowing only every 2 or 3 years outside of bloom (e.g., late fall) to maintain areas of undisturbed, standing cover for pollinator nest sites, as well as overwintering habitat for beneficial insects displaced from annually tilled cropland. Protect flowering contour buffer strips (or prairie strips) from pesticide exposure by implementing pesticide protection strategies, such as pesticide-free buffer zones, spray setbacks, drift reducing spray equipment, or other preventative actions (see guidance in Agronomy Technical Note No. 9).	Foraging Habitat, Nesting Habitat, Climate-Smart
340 – Cover Crop	Use flowering cover crops or a multi-species cover crop mix to provide temporary nectar and pollen sources for pollinators and beneficial insects. Planting blocks of a single species cover crop provides mass bloom for a short but abundant forage, while a cover crop mix designed to include multiple	Foraging Habitat, Climate-Smart

Code – Name	Table 3: Planning Considerations for Pollinators	Habitat Requirements
	flowering species with overlapping bloom periods will extend forage availability (see figure 5). To benefit pollinators, cover crops must be allowed to grow through their flowering stage before being terminated. Cover crops provide supplemental food that supports beneficial insects and maintain their populations when crop pests (i.e., preferred prey) is scarce.	
342 – Critical Area Planting	Add wildflowers, shrubs, or trees with resilient root systems and good soil-holding capacity to grass-dominated plantings to increase foraging and nesting habitat for pollinators while addressing erosion on slopes, banks, and dunes. Protect planted areas with undisturbed soil (especially south-facing slopes) for nesting solitary bees in the ground. Where feasible, consider a diverse mixture of forbs to maximize pollinator habitat value. Consider including wildflowers when revegetating after high tunnel installation or other construction and infrastructure projects.	Foraging Habitat, Nesting Habitat, Protection from Pesticides
393 – Filter Strip	Include native wildflowers that tolerate sedimentation, intermittent water conveyance, and dry periods, and provide pollen and nectar for pollinators.	Foraging Habitat, Climate-Smart
397 – Forest Farming	Choose diverse native perennial wildflowers, shrubs, and trees (along with flowering annual crops and cover crops) to enhance the length and increase the type of blooms through the growing season and provide forage for pollinators and other beneficial insects. Leaving stalks of pithy stemmed plants overwinter or including pithy-stemmed shrubs and trees can provide nesting and overwintering habitat. Consider layering of plants to enhance structural diversity and vertical stratification and to add habitat niches.	Foraging Habitat, Nesting Habitat, Climate-Smart
666 – Forest Stand Improvement	Thinning a natural forest or forest edge (e.g., edge feathering or cutbacks) opens the canopy and allows more flowers to bloom in the understory. Thinning can also be designed to favor flowering species, including preserving existing flowering trees and shrubs or regenerating flowering shrubs and herbaceous species suppressed by the shade of a closed canopy.	Foraging Habitat, Nesting Habitat, Site Mgmt.
412 – Grassed Waterway	Include native wildflowers, selecting rhizomatous or taproot species that are adapted to intermittent moisture and water conveyance and provide pollen and nectar for pollinators. Consider planting a diverse pollinator mix adjacent to the waterway. In dry regions, these sites may be able to support flowering forbs with higher water requirements, thereby extending bloom time later into the season.	Foraging Habitat, Climate-Smart
315 – Herbaceous Weed Treatment	Control invasive species to prevent displacement of native species and plant communities important to pollinators. Can also be used in combination with other practices for weed treatment and site preparation prior to planting for practices such as 420 (Wildlife Habitat Planting), 327 (Conservation Cover), or 422 (Hedgerow Planting).	Foraging Habitat

Code – Name	Table 3: Planning Considerations for Pollinators	Habitat Requirements
603 – Herbaceous Wind Barriers	Include diverse native wildflowers that provide pollen and nectar for pollinators and can withstand high wind velocity, saltation, and are resistant to lodging.	Foraging Habitat, Climate-Smart
527 – Sinkhole Treatment	The vegetative buffer associated with this practice includes wildflowers, grasses, shrubs, and trees that benefit pollinators.	Foraging Habitat
543 – Land Reclamation, Abandoned Mined Land	Preservation of trees, vegetation, stream corridors, and other natural features, as well as plantings with diverse native plants (including wildflowers, grasses, flowering shrubs, and trees) can provide forage and nesting habitat for pollinators and other agriculturally beneficial arthropods.	Foraging Habitat, Climate-Smart
453 – Land Reclamation, Landslide Treatment	To add value for pollinators, consider revegetation with deep-rooted native wildflowers, grasses, and flowering shrubs with proven performance for soil holding and bioengineering.	Foraging Habitat, Climate-Smart
484 – Mulching	This practice is useful for weed and water management for new tree, shrub, and wildflower plug plantings.	Foraging Habitat, Site Mgmt.
512 – Pasture and Hay Planting	Planting can include diverse legumes (e.g., alfalfa or various clovers) or other wildflowers that, when in bloom, provide pollen and nectar for bees. Use rotational grazing with long rest periods to allow flowers to bloom. Refer to guidance in the National Range and Pasture Handbook .	Foraging Habitat
595 – Pest Management Conservation System	In general, IPM reduces the impact of pest control chemicals on pollinators. Integrated Pest and Pollinator Management plans are even more effective. A focus on pest prevention practices that eliminate bee-toxic pesticide applications is best. In addition, the plant species commonly used in IPM to support beneficial insects can also support bees. Guidance on conservation practices and IPM strategies that help reduce risks to pollinators is available Agronomy Technical Note No. 9 .	Foraging Habitat, Nesting Habitat, Protection from Pesticides, Site Mgmt.t
338 – Prescribed Burning	<p>This practice can greatly benefit pollinators through restoration of ecological processes and by maintaining a diverse mix of open, early successional habitat in various stages of maturity.</p> <p>Note: It is best for pollinators if the prescribed burn parameters promote a lighter and patchier spatial distribution of the prescribed fire resulting in a natural mosaic structure and refugia for pollinators. In addition, ideally 30 percent or less of the habitat should be burned at any one time to allow for recolonization by pollinators and other beneficial insects from adjacent areas. The timing and frequency of burns depend on the site-specific plant cover, fuel load, and management goals. The fire return interval may be adjusted to meet specific pollinator needs. If it aligns with prescribed</p>	Foraging Habitat, Site Mgmt., Climate-Smart

Code – Name	Table 3: Planning Considerations for Pollinators	Habitat Requirements
	burn management goals, implement burns when pollinators are least active, such as when most plants have senesced in fall, winter, or early spring. The timing may also be used to manipulate the local plant community. Depending on the season, burning may suppress or promote forbs, cool-season grasses, warm-season grasses, or woody plants. Where the primary aim of management is to support butterfly species, additional care sure be taken to ensure sufficient unburned refuge areas are retained in any one year (see figure 7)	
528 – Prescribed Grazing	Ensure grazing plan objectives include a diverse plant community that incorporates legumes, wildflowers, and appropriate flowering woody species to create floral and structural diversity. The natural foraging preferences of livestock can be used to manipulate the local plant community and help to maintain early successional habitat and its associated flowering plants. For example, at moderate-to-low-stocking rates cattle will preferentially consume grass (giving forbs a competitive advantage), whereas goats may help manage some woody species. Refer to guidance in the National Range and Pasture Handbook .	Foraging Habitat, Site Mgmt., Climate-Smart
550 – Range Planting	This practice can include diverse native grasses and wildflowers that provide pollen and nectar for bees and nutrition for livestock. Refer to guidance in the National Range and Pasture Handbook .	Foraging Habitat, Climate-Smart
329 – Residue and Tillage Management, No Till 345 – Residue and Tillage Management, Reduced Till	Reduced soil disturbance can protect ground-nesting bees, some of which readily nest in crop fields (e.g., squash bees specialized on cucurbit crops and nest at the base of the plants). Tillage can destroy or block nest access and emergence from these ground nests (located 0.5 to 3 feet underground). Timing and intensity of tillage can be adjusted to protect existing ground nests and reduce harm to soil-dwelling beneficial insects (e.g., predatory ground beetles and wasps).	Nesting Habitat, Site Mgmt., Climate-Smart
643 – Restoration and Management of Rare and Declining Habitats	This practice can be used to provide diverse native forage plants and nesting resources for pollinators. Many specialist pollinators are closely tied to rare plants or habitats and may significantly benefit from efforts to protect rare habitat. Certain rare plants require specific pollinators to reproduce. Note: Plant species must be evaluated closely and restricted to only part of the rare ecosystem you are trying to restore. Do not plant species that have the potential for adverse impacts on rare and declining habitats or threatened and endangered species.	Foraging Habitat, Nesting Habitat, Site Mgmt., Climate-Smart

Code – Name	Table 3: Planning Considerations for Pollinators	Habitat Requirements
391 – Riparian Forest Buffer	This practice can include trees and shrubs especially chosen to provide pollen, nectar, and nest sites for pollinators. These areas can be especially important in mid-summer if drought reduces the availability of pollen and nectar sources in upland sites. Adding pollinator-friendly plants in riparian corridors can improve habitat connectivity, facilitating movement of pollinators and improving access to resources.	Foraging Habitat, Nesting Habitat, Protection from Pesticides, Climate-Smart
390 – Riparian Herbaceous Cover	This practice can include diverse wildflowers that provide pollen and nectar forage. Wildflowers that bloom in late summer and fall can help to extend bloom and forage availability in riparian areas dominated by woody species that bloom in early spring. Adding pollinator-friendly plants in riparian corridors can improve habitat connectivity, facilitating movement of pollinators and improving access to resources.	Foraging Habitat, Climate-Smart
654 – Road, Trail, and Landing Closure and Treatment	Use diverse native wildflowers, shrubs, and trees when establishing vegetation, especially those having multiple values (e.g., biomass, nuts, fruit, and aesthetics). Avoid using introduced or exotic species that could become nuisances.	Foraging Habitat, Nesting Habitat
381 – Silvopasture	This practice can include native flowering plants and forage legumes that provide pollen and nectar for pollinators. Reduced canopy cover tends to increase forb abundance and flowering; thinning a stand helps to enhance or establish forage plants. Manage grazing at appropriate levels to allow for plants to flower and persist over time. Consult with NRCS state biologists and grazing specialists to select pollinator-friendly plants that are compatible with the site and the livestock present, and avoid plants that are toxic to livestock.	Foraging Habitat, Climate Smart
395 – Stream Habitat Improvement and Management	Plants chosen for adjoining riparian areas can include trees, shrubs, and wildflowers that provide pollen and nectar for pollinators. Maximizing plant diversity along riparian corridors will increase pollinator value as well as the abundance of other insects that are an important food source for fish, birds, and other aquatic and terrestrial species associated with stream habitats.	Foraging Habitat, Nesting Habitat
580 – Streambank and Shoreline Protection	Streambank revegetation can include woody species and wildflowers with resilient root systems and soil-holding capacity especially chosen to provide pollen and nectar for pollinators. Fast establishing species like willow (<i>Salix</i> spp.) are often used for this purpose and are of high value to pollinators beginning with the first sources of forage in spring, but male plants must be included for a pollen source.	Foraging Habitat

Code – Name	Table 3: Planning Considerations for Pollinators	Habitat Requirements
649 – Structures for Wildlife	<p>This practice can include habitat structures for bumble bees and solitary cavity-nesting bees, such as brush piles, rock piles, and bundles of hollow or pithy stems. Prioritize natural nesting materials over artificial nesting blocks or bee hotels. When using artificial nesting structures, regular monitoring and annual maintenance is required to prevent pests, disease, and other adverse conditions that can harm pollinators. Refer to the guidelines in Nesting and Overwintering Habitat for Pollinators and Other Beneficial Insects.</p>	Nesting Habitat
<p>644 – Wetland Wildlife Habitat Management</p> <p>See also, 656 – Constructed Wetland, 657 – Wetland Restoration, 658 – Wetland Creation</p> <p>See also, 656 – Constructed Wetland, 657 – Wetland Restoration, 658 – Wetland Creation</p>	<p>Wetlands and their associated buffers are critical habitat for wildlife, and many wetland plant species have high pollinator value. Manage invasive species that degrade or displace native plant communities. Implement management practices using methods and timing that reduce adverse effects on pollinators and their habitat. When establishing vegetation in wetlands and adjacent buffers, select native wildflowers, shrubs, and trees that provide abundant nectar and pollen for pollinators. Include plants for nesting (e.g., bunch grasses for bumble bee nests and wildflowers, shrubs with hollow, or soft-pith stems for tunnel-nesting bees) and protect and maintain existing nest sites (e.g., areas of undisturbed soils in upland buffers for ground-nesting bees and snags for tunnel-nesting bees). Refer to state-specific wetland standards for details and consult with NRCS state biologists or specialists to select regionally appropriate native plants suitable for the site and project goals.</p>	<p>Foraging Habitat, Nesting Habitat, Protection from Pesticides, Site Mgmt., Climate-Smart,</p>



Figure 4. Plantings established with a diversity of native perennial plants provides season-long habitat for monarch and pollinators.



Figure 5. Flowering cover crop, such as the buckwheat pictured, can be managed in certain states to provide temporary foraging habitat for pollinator. However, unlike perennial habitat, seasonal plantings do not provide the season-long forage, undisturbed nesting, and overwinter habitat that pollinators require to complete their life cycle.

EQIP Supporting Practices that Benefit Pollinators

Table 4. EQIP conservation practices used to support the creation or enhancement of habitat for pollinators and beneficial insects.

Code – Name	Pollinator Notes
382 – Fence	Fencing is an important practice for protecting riparian areas and managing grazing. Riparian areas are especially important for pollinators during periods of drought. Besides preventing cattle from entering riparian sites, movable fencing is used to manage grazing in a way that supports deeper roots of pasture plants and can lead to higher diversity of plants over time. An irrigation system may be needed to support fencing livestock out of riparian areas.
394 – Firebreak	Prescribed burns used to restore grasslands and woodlands can support greater diversity of flowering species. Firebreaks are a critical tool for ensuring that burns are managed well and that, in the short term, some areas of habitat are protected from fire to support nesting habitat for bumble bees and overwintering habitat for many pollinator species.
516 – Livestock Pipeline	Livestock pipeline can greatly benefit pollinators and other wildlife when used to support riparian or other sensitive habitat protection by bringing water to a watering facility outside of sensitive habitat.
500 – Obstruction Removal	This practice is used in preparation for establishing pollinator habitat (e.g., pavement or debris removal in urban settings and stump removal after invasive species treatment).
336 – Soil Carbon Amendment	Pollinators benefit from the improved plant productivity and health that results from improved soil properties.
575 – Trails and Walkways	This practice may be used when fencing livestock out of riparian areas, managing a prescribed grazing plan designed to allow for the bloom of pollinator-friendly forage in pastures, managing livestock movement around new or valuable habitat, or protecting ecologically sensitive areas.
490 – Tree/Shrub Site Preparation	This practice supports site preparation for practice 612 (Tree/Shrub Establishment).
614 – Watering Facility	Watering facilities are important for protecting riparian areas as part of efforts to prevent livestock using riparian sites where they may destroy riparian vegetation. Riparian areas are especially important for pollinators during periods of drought.

Conservation Reserve Program Practices That Benefit Pollinators

CRP is a land retirement program that provides annual rental payments to producers who replace crops on highly erodible and environmentally sensitive land that has long-term, resource-conserving plantings (refer to table B2 in the appendix for additional information).

Table 4 lists CRP conservation practices commonly used to improve pollinator habitat by establishing new habitat or by improving existing habitat. While all CRP practices can be tailored to support pollinators, plantings that enhance native plant diversity (including grasses, wildflowers, and flowering shrubs and trees) can benefit pollinators, beneficial insects, and other wildlife.

Table 5. CRP conservation practices that improve pollinator habitat.

Code	Practice Name
CP1	Establishment of Permanent Introduced Grasses and Legume
CP2	Establishment of Permanent Native Grasses
CP4D	Permanent Wildlife Habitat
CP4B	Wildlife Habitat Corridor
CP5A	Field Windbreak Establishment
CP17A	Living Snowfence
CP22	Riparian Buffer
CP23	Wetland Restoration
CP25	Rare and Declining Habitat
CP28	Farmable Wetlands Buffer
CP29	Marginal Pastureland Wildlife Habitat Buffer
CP30	Marginal Pastureland Wetland Buffer
CP31	Bottomland Hardwood Trees
CP32	Expired CRP Hardwood Trees
CP33	Upland Bird Habitat Buffer
CP39	Farmable Wetlands Constructed Wetland
CP41	Farmable Wetlands Flooded Prairie Wetland
CP42	Pollinator Habitat
CP43	Contour Buffer Prairie Strips
CP88	Permanent Grasses and Legumes
CP90	Soil Health Perennial Conservation Cover

State Acres for Wildlife Enhancement

State Acres for Wildlife Enhancement (SAFE) is a partnership between FSA and state partners to use CRP to address the habitat needs of important species. Users of this guide are encouraged to learn more about CRP SAFE opportunities at their state level (see table 6).

Table 6. CRP SAFE practices that improve pollinator habitat.

Code	Practice Type	Applicable CRP Practice
CP38A	Buffers	CP8A, CP15A, CP15B, CP21, CP22, CP43
CP38B	Wetlands	CP9, CP23, CP23A, CP27, CP28, CP37
CP38C	Trees	CP3, CP3A, CP5A, CP16A, CP17A, CP25, CP31
CP39D	Longleaf Pine	CP36
CP39E	Grass	CP1, CP2, CP4D, CP12, CP18B, CP18C, CP24, CP25, CP33, CP42

Grassland Conservation Reserve Program

This program is part of the CRP and contracts with agricultural producers to maintain grasslands in locations with the highest threat of conversion to non-grassland uses. Grassland CRP provides participants with an annual, per acre rental rate to maintain grasslands, while allowing grazing, haying, and seed harvest. This program supports grazing operations, plant and animal biodiversity, and key habitats for pollinators (see figure 6).



Figure 6. Perennial wildflower pollinator habitat on Grassland CRP in Iowa.

CSP Enhancements That Benefit Pollinators

CSP enhancement opportunities are available to producers who demonstrate excellent natural resources stewardship or who have been using USDA-supported conservation practices on their land and want to maintain and further enhance their conservation efforts to a higher level of stewardship (see table B2). Available enhancements may change each year and vary by state, but several commonly adopted enhancements support pollinators, monarch butterflies, natural enemies of crops pests, dung beetles, and other wildlife. These pollinator-specific enhancements include planting new habitat, managing existing habitat, creating cover cropping, employing targeted crop rotations, and improving pest management. However, other enhancements that target native plant establishment (such as riparian restoration) can be designed for pollinators.

Tables 7 through 12 list CSP enhancements by the primary practice category or resource concern for pollinators (i.e., animals) and provide examples of enhancements from other categories, including crops and soils, water, plants, air, and air and water. This list is not exhaustive, and other CSP enhancements that enhance flowering plant biodiversity or protect habitat from certain types of disturbance (such as pesticides or tillage) may benefit pollinators, beneficial insects, and other wildlife. More information on CSP wildlife enhancements can be found on the [CSP website](#). Additionally, [CSP fact sheets](#) are available online. To check on CSP enhancements currently available in your state contact your [local field office](#).



Figure 7. Prescribed burning can be used in many settings to encourage forbs that feed and shelter pollinators.

Table 7. Animals. CSP enhancements that benefit pollinators, beneficial insects, and other wildlife.

Code	Table 7: Enhancement
E314A	Brush management to improve wildlife habitat
E327A	Conservation cover for pollinators and beneficial insects
E327B	Establish Monarch butterfly habitat
E328J	Improved crop rotation to provide benefits to pollinators
E328M	Diversify crop rotation with canola or sunflower to benefit pollinators
E338B	Short-interval burns to promote a healthy herbaceous plant community
E338C	Sequential patch burning
E386D	Enhanced field borders to increase food for pollinators along the edge(s) of a field
E386E	Enhanced field borders to increase wildlife food and habitat along the edge(s) of a field
E390B	Increase riparian herbaceous cover width to enhance wildlife habitat

Code	Table 7: Enhancement
E391C	Increase riparian forest buffer width to enhance wildlife habitat
E420A	Establish pollinator habitat
E420B	Establish monarch butterfly habitat
E512G	Native grasses or legumes in forage base
E512I	Establish pollinator and/or beneficial insect and/or monarch habitat
E512J	Establish wildlife corridors to provide habitat continuity or access to water
E528B	Grazing management that improves monarch butterfly habitat
E528D	Grazing management for improving quantity and quality of food or cover and shelter for wildlife
E550B	Range planting for improving forage, browse, or cover for wildlife
E570A	Enhanced rain garden for wildlife
E580B	Stream corridor bank vegetation improvement
E595E	Eliminate use of chemical treatments to control pests and to increase the presence of dung beetles
E612G	Tree/shrub planting for wildlife food
E643B	Restoration and management of rare or declining habitat
E643C	Restore glade habitat to benefit threatened and endangered species and state species of concern
E645B	Manage existing shrub thickets to provide adequate shelter for wildlife
E645C	Edge feathering for wildlife cover
E647D	Establish and maintain early successional habitat in ditches and bank borders
E666R	Forest songbird habitat maintenance
E666O	Snags, den trees, and coarse woody debris for wildlife habitat

Table 8. Crops and Soil. CSP enhancements that benefit pollinators, beneficial insects, and other wildlife.

Code	Enhancement
E329D	No till system to increase soil health and soil organic matter content

Table 9. Water. CSP enhancements that benefit pollinators, beneficial insects, and other wildlife.

Code	Enhancement
E390A	Increase riparian herbaceous cover width for sediment and nutrient reduction
E391A	Increase riparian forest buffer width for sediment and nutrient reduction

Table 10. Plants. CSP enhancements that benefit pollinators, beneficial insects, and other wildlife.

Code	Enhancement
E315A	Herbaceous weed treatment to create desired plant communities consistent with the ecological site
E338A	Strategically planned, patch burning for grazing distribution and wildlife habitat
E528E	Improved grazing management for enhanced plant structure and composition for wildlife
E612D	Adding food-producing trees and shrubs to existing plantings
E643A	Restoration of sensitive coastal vegetative communities
E340H	Cover crop to suppress excessive weed pressures and break pest cycles
E391A	Increase riparian forest buffer width for sediment and nutrient reduction

Table 11. Air. CSP enhancements that benefit pollinators, beneficial insects, and other wildlife.

Code	Enhancement
E386C	Enhanced field borders to decrease particulate emissions along the edge(s) of the field

Table 12. Air and Water. CSP enhancements that benefit pollinators, beneficial insects, and other wildlife.

Code	Enhancement
E595B	Reduce risk of pesticides in water and air by utilizing integrated pest management prevent, avoidance, monitoring, and suppression techniques.

Agricultural Conservation Easement Program Pollinator Conservation Opportunities

The purpose of ACEP is to (1) restore, protect, and enhance wetlands on eligible land; (2) protect the agricultural viability and related conservation values of eligible land by limiting nonagricultural use that negatively affects agricultural use and conservation value; and (3) protect grazing and related conservation value by restoring or conserving eligible land. Under ACEP Agricultural Land Easements, NRCS provides cost-share assistance to eligible entities to purchase agricultural land easements from eligible landowners. The easements are purchased to protect agricultural use, including grazing and related conservation value (such as pollinators) on eligible lands. Under ACEP Wetland Reserve Easements (WRE), NRCS protects wetlands by purchasing directly from eligible landowners a reserved interest in eligible land or by entering into 30-year contracts on acreage owned by Indian tribes. Through the ACEP-WRE purchases or contracts, NRCS provides for the restoration, enhancement, and protection of wetlands and associated habitats.

During the restoration planning process for WRE, there are many opportunities to incorporate the habitat needs of pollinators. Diverse native wildflowers that are pollinator-friendly, shrubs and trees, milkweed and other butterfly host plants, and nesting structures (such as brush piles) are all compatible with ACEP-WRE restoration projects. Some states have included pollinator habitat as a goal for all Wetland Reserve Enhancement Partnership restoration projects. In addition, there are now program purposes that align with grassland conservation (an important habitat for pollinators) with easement components (such as the Grasslands of Special Significance).

New Programs in the 2018 Farm Bill That Could Benefit Pollinators

The 2018 Farm Bill reauthorized and amended many of the largest conservation programs. Many of these programs focus on assistance with adopting new pilot programs and initiatives that provide innovative conservation.

Soil Health and Income Protection Pilot Program

To conserve and improve soil, water, and wildlife resources, this CRP pilot program enrolls less productive farmland in contracts ranging from 3 to 5 years. The farmland is used to plant low-cost, perennial vegetative cover in exchange for annual rental payments. Eligible land is limited to the Prairie Pothole region. Land must have a cropping history of 3 years prior to enrollment (not including CRP enrollment) and be less productive than other land on the farm. No more than 15 percent of a farm may be enrolled, and no more than 50,000 acres of the CRP

may be used for the pilot. The program requires participants to plant low-cost, perennial, conserving vegetative cover at the participant's expense. In return, the participant receives an annual rental payment that is 50 percent of the general CRP annual rental payment or up to 75 percent for beginning, limited resource, socially disadvantaged, or veteran participants.

On-Farm Conservation Innovation Trials

On-Farm Conservation Innovation Trials is a subprogram of CIG, which is a subprogram of EQIP. Funding is provided to partners, who then provide incentive payments and technical assistance to producers to offset the risk of adopting innovative conservation practices. Producers must meet the EQIP eligibility criteria. Partners must evaluate and report on the environmental and economic impact of adopted conservation practices.

Annual requests for proposals are posted on the [Grants.gov](https://www.grants.gov) website and include a soil health demonstration trial component, which focuses exclusively on soil health practices that minimize disturbance and maximize soil cover, biodiversity, and the presence of living roots. Partners under the soil health demonstration trial agree to follow NRCS soil health assessment protocols when evaluating practices.

CSP Grassland Conservation Initiative

CSP offers the new Grassland Conservation Initiative (GCI) that aids eligible producers with protecting grazing lands; conserving and improving soil, water, and wildlife resources; and achieving related conservation values, such as those that support pollinators. While within CSP, the GCI has separate requirements from other CSP contracts. Under a GCI contract, the producer must meet or exceed the stewardship threshold for at least one priority resource concern. Eligibility is limited to producers with recorded grass on their FSA acreage report from 2009 through 2017. Contracts are limited to 5 years, with no renewal, but a producer can terminate a contract at any time with no repayment penalty.

CRP CLEAR30

This CRP pilot program enrolls expiring CRP acres with select water quality practices in 30-year contracts. CLEAR30 is part of the Clean Lakes, Estuaries and Rivers initiative, which prioritizes select water quality practices for continuous CRP contracts that reduce sediment and nutrient loading and harmful algal blooms. Eligible CLEAR30 practices include grass waterway, contour grass strip, prairie strip, filter strip, riparian buffer, wetland restoration practice, and other similar water quality practices. Expiring continuous CRP contracts with eligible practices may enroll in CLEAR30 during the last year of the contract.

State-level Opportunities

The following state-level program opportunities are available to support pollinators by providing targeted state level assistance.

NRCS Programs for Tribes and Tribal Members

NRCS and American Indian tribes share a common interest in conserving and managing the natural resources of the Earth. NRCS provides technical and financial assistance to tribes and tribal members for conservation work in protecting and improving natural resources including pollinator habitat. For more information on NRCS tribal assistance, access the interactive [Conservation by State](#) map found on the NRCS website's [Conservation Basics](#) tab.

NRCS Programs for Historically Underserved Farmers and Ranchers

Some groups of people are identified in the 2018 Farm Bill legislation and in USDA policy as being HU. Members of this group have been HU by, or have been subject to discrimination in, Federal policies and programs. Four groups of farmers, ranchers, and forest landowners are defined by USDA as HU: beginning; socially disadvantaged; veterans; and limited resource. Special provisions (including specific incentives, waivers, priorities, set asides, and other flexibilities) are available within USDA programs for HU producers. Increased financial assistance for conservation practices and access to advance payments for implementation is offered to farmers, ranchers, and forest landowners who fit into any of the four HU groups. For more information on the four HU groups, visit the [Historically Underserved Farmers and Ranchers](#) web page.

Pollinator Conservation Biology Technical Notes

Each state can develop multidisciplinary technical notes on pollinator conservation relevant to their state through collaboration with biologists, plant materials specialists, foresters, agronomists, engineers, and rangeland management specialists. Technical notes help NRCS field office conservationists to promote pollinators in their conservation planning and implementation. Ideally, drafters of the notes should

- emphasize the importance of leaving as much land as possible undisturbed and in relatively natural condition since many pollinators require this for successful completion of their life cycles.
- provide details on the native and nonnative plants used by honey bees, native bees, or other pollinators (such as butterflies) that could be included in various conservation practices throughout the state. Important information to include in each is
 - the flowering period,
 - suitable habitat conditions for planting,
 - seeding rates,
 - site preparation,
 - seeding methods, and
 - timing.
- Stress the importance of having multiple species of flower in bloom throughout the growing season. Where practicable, this means providing at least three blooming pollinator plants during each season:

- spring (early in the growing season)
 - summer (middle of the growing season)
 - fall (late in the growing season)
- Highlight the importance of nest sites for crop-pollinating native bees. These nest sites include
 - partially bare, well-drained ground for solitary ground-nesting bees;
 - narrow tunnels in standing deadwood, plants with pithy or hollow stems for tunnel-nesting bees that are solitary, or rotting wood in central or eastern United States; and
 - small cavities (such as abandoned rodent burrows), or overgrown vegetation and leaf litter, bunch grasses, and senesced vegetation at the end of the growing season for bumble bees.
- Emphasize the value of added diversity for other wildlife, for ecosystem stability, and for ensuring successful pollination when one or more pollinator species declines in one season or over a longer period. Increased plant diversity leads to higher insect diversity and better nutrition for birds and other wildlife.
- Emphasize the value of diverse niche habitats in supporting and providing refuge for other beneficial arthropods that help reduce crop pest problems. Arthropods beneficial for agriculture include
 - spiders,
 - predatory wasps,
 - beetles,
 - bugs,
 - lacewings, and
 - parasitic wasps and flies.
- Emphasize the value of improved plant health by maintaining healthy soil flora with reduced use of pesticides and herbicides when managing land to support pollinators and other beneficial arthropods.
- Encourage the use of a variety of planting or management strategies to encourage landowners to take actions that suit their budget and landscape. These include
 - wildflower meadows as cover crops,
 - forage legumes,
 - hedgerows,
 - forest edge management, and
 - tree planting.
- Emphasize management techniques and tools optimizing pollinator habitat while achieving desired production outcomes.
- Outline opportunities suited to rangeland, cropland, urban agriculture, and forestry.

Many NRCS state offices have produced pollinator conservation biology technical notes, and others are in the making. The Xerces Society drew from these sources and other technical materials to create a template of a state technical note that any state office can use to develop a regionally appropriate reference. This template is available upon request from the Xerces Society.

The following are some notable examples of pollinator conservation technical notes:

- [Arkansas NRCS Pollinator Conservation Planning Handbook](#)
- [NRCS Kentucky Pollinator Handbook](#)
- [Montana Technical Note No. MT-20 \(Rev. 10\)](#)
- [NRCS New England Pollinator Handbook](#)
- [West Virginia Pollinator Handbook](#)

Other National and State Technical Guidance Documents

Over the past 15 years, national and state technical specialists, NRCS Plant Materials Center (PMC) staff, and partners have developed countless technical documents to help NRCS conservation planners and landowners conserve pollinators. These resources include plant lists, seed mix design guidance and tools, habitat installation guides, habitat assessment guides, IPM technical notes, webinars, and more. As part of the NRCS Science and Technology training library, pollinator-related webinars may be accessed free of charge and on demand through the [Conservation Webinar Portal](#).

Many states and regions have developed pollinator conservation habitat installation guides and implementation requirement forms to aid in planning and contracting pollinator conservation projects. These tools help conservation planners work with their clients on project design. The planning guides usually provide general criteria and specifications, details on site maintenance, lists of appropriate plants, timing and techniques for site preparation, and tools for site planning. Many examples are available for a variety of conservation practices from across the United States, and any state office technical staff can adapt them to meet the needs of that state.

NRCS has reorganized the online [Field Office Technical Guides](#) for each state. To find the pollinator conservation technical or program resources for a specific state, choose the state, select the Document Search tab, and type the topic of interest (e.g., “pollinator”) into the Search field. If nothing shows up in the Field Office Technical Guide search, use a standard online search engine to look for a specific state guide (e.g., “Washington NRCS pollinator”) since some states have created separate web pages for storing their technical documents.

Pollinator Habitat Evaluation Guides

NRCS state programs can add pollinator habitat criteria to their existing WHEGs or develop specific documents that assess pollinator habitat. They can incorporate information on pollinators into their state vegetation guides. The following are some examples of pollinator habitat evaluation guides:

- [Farms and Agricultural Landscapes](#)
- [Assessment Guide for Organic Farms](#)
- [Natural Areas and Rangelands](#)

Other guides or examples aligned with the NRCS conservation planning process or that have incorporated pollinators into existing WHEGs include the following:

- [Wildlife Habitat Evaluation Guides for California](#)
- [Iowa Wildlife Working Lands Habitat Evaluation with Appendix](#)
- [USDA NRCS Monarch Butterfly Habitat Evaluation Guide \(WHEG\) and Decision Support Tool: Greater Appalachian Mountains Region](#)
- [Oregon's Pollinator Habitat Evaluation Guide](#)
- [Monarch Butterflies web page](#) (provides monarch butterfly evaluation guides for the Midwest Region, Northern and Southern Great Plains Region, Greater Appalachian Mountain Region, and Western Coastal Plain Region)

Plant Materials Program and Centers

The [Plant Materials Program](#) develops vegetative solutions for natural resource concerns such as soil stabilization, soil health and productivity, and water quality. The program also focuses on national priorities such as enhancement of pollinator and other critical wildlife habitat and evaluation of cover crops to support soil health. Regional NRCS PMCs and plant material specialists, as part of the national Plant Materials Program, work to select plants and provide recommendations on species that will enhance pollinator populations throughout the growing season. These wildflowers, trees, shrubs, and grasses are an integral part of the conservation practices that landowners, farmers, and ranchers install as part of their conservation plan. Plant materials specialists provide support for pollinator plant selection to state and field offices.

PMCs conduct field trials on pollinator plantings and seed mixes, helping to bring new and important plant materials, such as milkweed, into production (see figure 8). PMCs are a critical resource for supporting field office staff and growers in developing and implementing pollinator conservation projects. PMC staff can work with states to produce regional pollinator conservation biology technical notes and other documents or to refine existing pollinator plant lists and guidelines. Technical documents related to pollinators may be accessed through the [NRCS Plant Materials Technical Documents Search web page](#) by typing “pollinators” in the search box.



Figure 8. Bumble bee (*Bombus* sp.) on spider milkweed (*Asclepias asperula*).

USDA PLANTS Database

The [PLANTS](#) (Plant List of Attributes, Names, Taxonomy, and Symbols) database is an internationally recognized database that provides standardized information about the vascular plants, mosses, liverworts, hornworts, and lichens naturally occurring in the United States and its territories, Navassa, Canada, Greenland, Saint Pierre, and Miquelon. The database includes names, plant symbols, checklists, distributional data, species abstracts, characteristics, images, crop information, automated tools, onward web links, and references. This database is invaluable to conservation planners and others for providing distributional data on plants that aids in plant identification and the development of seed mixes and provides characteristics suitable for pollinators. The home page provides additional pollinator information and resources, and a pollinator tab is being developed with support from partners throughout USDA. The Office of the Chief Scientist (OCS) is providing information on specific pollinator and plant interactions, as well as pollen nutritional data.

Additional NRCS Publications

USDA NRCS provides a variety of agency forms and free publications about conservation and conserving natural resources, including pollinators. A list of available items related to pollinators can be found on the [NRCS Distribution Center](#) web page by entering “pollinators” in the search field. The [NRCS Insects and Pollinators](#) web page also provides additional information and publications about pollinator conservation.

State Office Assistance

NRCS funded partner biologists offer state-level assistance with pollinator habitat planning. For example, the NRCS National Technology Support Centers and several private foundations fund the Xerces Society to provide NRCS state offices with the technical support needed to implement pollinator and other beneficial insect conservation measures.

NRCS conservation plans developed by [technical service providers \(TSPs\)](#) or other third-party service providers for NRCS can carry out planning, design, implementation, and monitoring of tasks for NRCS conservation program purposes (previously known as Conservation Activity Plans). NRCS reorganized and renamed Conservation Activity Plans into three new categories:

- Conservation Planning Activities (CPAs).
- Design and Implementation Activities (DIAs).
- Conservation Evaluation and Monitoring Activities (CEMAs).

NRCS created the three new categories to clarify which phase of the NRCS conservation planning process will be supported by the TSP or other third party. The development of these plans is a contracted practice under EQIP. TSP developed plans for addressing pollinator habitat resource concerns follow the requirements and criteria outlined in the Pollinator Habitat DIA (148). Access the [NRCS EQIP CPAs, DIAs, and CEMAs](#) web page for more information on each of the three new categories.

Department of Agriculture Level Resources

USDA's OCS provides leadership and coordination to ensure that research supported by and scientific advice provided to the Department and external stakeholders is held to the highest standards of intellectual rigor and scientific integrity. Title 10 of the 2018 Farm Bill notes enhanced coordination of honey bee and pollinator research and specifies a research coordinator who is responsible for implementing and coordinating the pollinator health research efforts of the Department. The coordinator establishes annual strategic priorities and goals for native and managed pollinator research and communicates and coordinates these efforts to reduce unintended duplication of efforts and ensure consistency.

OCS publishes an [annual report](#) on pollinator research and programmatic priorities on the [USDA Pollinators web page](#) where fact sheets, USDA pollinator initiatives, news, and blogs may also be accessed.

National Agroforestry Center

The USDA National Agroforestry Center has developed a wide range of interactive, print, and other resources (including [pollinator resources](#)) related to agroforestry.

National Agricultural Library

The National Agricultural Library (NAL) is one of five national libraries of the United States. It houses one of the world's largest collections devoted to agriculture and its related sciences. This library provides access to AGRICOLA, a database produced by the NAL containing over 6

million records that encompass all aspects of agriculture and allied disciplines. To narrow your search to specifically pollinator information, use the search term “pollinators” when accessing the [AGRICOLA database](#). The [NAL Beekeeping](#) web page provides additional resources and links to beekeeping research, data, and history.

Appendix A – Abbreviations List

ACEP	Agricultural Conservation Easement Program
AFA	Alternative Funding Arrangement
CEMA	Conservation Evaluation and Monitoring Activity
CIG	Conservation Innovation Grants (subprogram of EQIP)
CLEAR	Clean Lakes, Estuaries and Rivers Initiative (subprogram of EQIP)
CPA	Conservation Planning Activity
CPS	Conservation Practice Standard
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CSP	Conservation Stewardship Program
DIA	Design and Implementation Activity
EQIP	Environmental Quality Incentives Program
FSA	Farm Service Agency
GCI	Grassland Conservation Initiative (subprogram of CSP)
HU	Historically Underserved
IPM	Integrated Pest Management
NAL	National Agricultural Library
NASS	National Agricultural Statistics Service
NRCS	Natural Resources Conservation Service
OCS	Office of the Chief Scientist
PLANTS	Plant List of Attributes, Names, Taxonomy, and Symbols
PMC	Plant Materials Center
RCPP	Regional Conservation Partnership Program
SAFE	State Acres for Wildlife Enhancement (subprogram of CRP)
sp.	abbreviation for species (singular)
spp.	abbreviation for species (plural)
TSP	Technical Service Provider
USDA	United States Department of Agriculture
WHEG	Wildlife Habitat Evaluation Guide
WRE	Wetland Reserve Easements

Appendix B – Tables

Table B1. Quick reference guide to NRCS pollinator habitat conservation practices that meet specific pollinator habitat requirements.

Pollinator Habitat Requirements	Code and Conservation Practices
Forage (diverse sources of pollen and nectar that support pollinators, predators, and parasitoids from early in the spring to late in the fall)	311 – Alley Cropping 327 – Conservation Cover 328 – Conservation Crop Rotation 656 – Constructed Wetland 332 – Contour Buffer Strips 340 – Cover Crop 342 – Critical Area Planting 386 – Field Border 393 – Filter Strip 512 – Forage and Biomass Planting 666 – Forest Stand Improvement 412 – Grassed Waterway 422 – Hedgerow Planting 315 – Herbaceous Weed Treatment 595 – Pest Management Conservation System 527 – Karst Sinkhole Treatment 544 – Land Reclamation, Currently Mined Land 543 – Land Reclamation, Abandoned Mined Land 453 – Land Reclamation, Landslide Treatment 379 – Multi-Story Cropping 528 – Prescribed Grazing 550 – Range Planting 643 – Restoration and Management of Rare and Declining Habitats 391 – Riparian Forest Buffer 390 – Riparian Herbaceous Cover 381 – Silvopasture Establishment 395 – Stream Habitat Improvement and Management 580 – Streambank and Shoreline Protection 612 – Tree/Shrub Establishment 645 – Upland Wildlife Habitat Management 658 – Wetland Creation 659 – Wetland Enhancement 657 – Wetland Restoration 644 – Wetland Wildlife Habitat Management 420 – Wildlife Habitat Planting 380 – Windbreak/Shelterbelt Establishment 650 – Windbreak/Shelterbelt Renovation
Nest sites (stable ground, holes in wood, cavities for bumble bees, or overwintering sites for bumble bee queens and other beneficial insects)	314 – Brush Management 656 – Constructed Wetland 332 – Contour Buffer Strips 342 – Critical Area Planting 386 – Field Border

Pollinator Habitat Requirements	Code and Conservation Practices
	422 – Hedgerow Planting 329 – Residue & Tillage Management, No-Till/Strip Till/Direct Seed 643 – Restoration and Management of Rare and Declining Habitats 391 – Riparian Forest Buffer 649 – Structures for Wildlife 612 – Tree/Shrub Establishment 490 – Tree /Shrub Site Preparation 645 – Upland Wildlife Habitat Management 659 – Wetland Enhancement 657 – Wetland Restoration 644 – Wetland Wildlife Habitat Management 420 – Wildlife Habitat Planting 380 – Windbreak/Shelterbelt Establishment 650 – Windbreak and Shelterbelt Renovation
Protection from environmental toxins: (refuge from pesticides, buffers to drift, etc.)	656 – Constructed Wetland 342 – Critical Area Planting 422 – Hedgerow Planting 595 – Pest Management Conservation System 391 – Riparian Forest Buffer 657 – Wetland Restoration 380 – Windbreak/Shelterbelt Establishment
Site management for pollinators	647 – Early Successional Habitat Development or Management 595 – Pest Management Conservation System 338 – Prescribed Burning 528 – Prescribed Grazing 643 – Restoration and Management of Rare and Declining Habitats 645 – Upland Wildlife Habitat Management 644 – Wetland Wildlife Habitat Management
Supporting practices	382 – Fence 394 – Firebreak 430 – Irrigation Pipeline 516 – Livestock Pipeline 580 – Streambank and Shoreline Protection 575 – Trails and Walkways 490 – Tree/Shrub Site Preparation 614 – Watering Facility

Table B2. Summary of working lands conservation programs promoting pollinator habitat. All programs are voluntary. See the NRCS website for more information on [program initiatives](#) and visit the [USDA service center locator](#) to find USDA offices that administer these programs.

Program	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates Relevant to Pollinators
Agricultural Management Assistance	Helps agricultural producers manage financial risk through diversification, marketing, or natural resource conservation practices.	<p>Land on which agricultural commodities, forest-related goods or livestock are produced.</p> <p>Land used for subsistence purposes and on which risk may be mitigated through operation diversification or change in resource conservation practices.</p> <p>Available in 16 states where participation in the Federal Crop Insurance Program is historically low: CT, DE, HI, ME, MD, MA, NV, NH, NJ, NY, PA, RI, UT, VT, WV, and WY.</p>	Financial and technical assistance up for the cost of installing conservation practices with the additional higher cost-share that is available to historically underserved (HU) producers.	
Environmental Quality Incentives Program (EQIP)	Promotes agricultural production and environmental benefits by investing in solutions that conserve natural resources for the future while improving agricultural operations.	<p>Land on which agricultural commodities, livestock, or forest-related products are produced.</p> <p>Targeted assistance through several programmatic and landscape conservation initiatives, including Pollinator Efforts, Wildlife and Ecosystem Initiatives, and Cover Crops</p>	<p>Financial and technical assistance to eligible producers to help offset the cost of implementation of conservation practices approved by NRCS. Payment rates developed each fiscal year are based on the estimated incurred cost and potential foregone income resulting from practice implementation.</p> <p>HU participants are eligible for advance payment to help offset materials or contracting costs.</p>	Increased the required allocation for wildlife-related practices from 5 percent to 10 percent.

Program	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates Relevant to Pollinators
Conservation Stewardship Program (CSP)	Compensates agricultural and forest producers who agree to increase their level of conservation by adopting additional conservation activities and maintaining their demonstrated high baseline level of conservation.	<p>All eligible land on an applicant’s agricultural operation where eligible land means</p> <ul style="list-style-type: none"> • private and tribal land on which agricultural commodities, livestock, or forest-related products are produced, and • upon which priority resource concerns could be addressed through a contract under the program. <p>Eligible land includes cropland, grassland, rangeland, pastureland, nonindustrial private forest land, and other agricultural lands including cropped woodland, marshes, and agricultural land used or capable of being used for the production of livestock as determined by the Chief of NRCS.</p>	Annual per acre payments for working lands enrolled in CSP, and additional cost share for adopting additional enhancements that increase resource conservation.	Created CSP Grassland Conservation Initiative

Table B3. Land Retirement programs that can be used to promote pollinators on working lands. All programs are voluntary. See the [NRCS website](#) for more information, and visit the [USDA service center locator](#) to find USDA offices that administer these programs.

Programs	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates
<p>Conservation Reserve Program (CRP), administered by the FSA with technical assistance provided by NRCS.</p> <p>Includes: Farmable Wetlands Program, Continuous Conservation Reserve Program, and additional subprograms</p>	<p>Removes environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. The long-term goal of the program is to re-establish valuable land cover to help improve water quality, prevent soil erosion, and reduce loss of wildlife habitat.</p>	<p>A producer must have owned or operated the land for at least 12 months before the close of general or grasslands signup. For cropland, land must be planted or considered planted to an agricultural commodity for 4 of 6 crop years from 2012 to 2017 and must be physically and legally capable of being planted to an agricultural commodity. Bids to enroll land are solicited during a limited time period, then compared using an Environmental Benefits Index. Those with the highest index are accepted. This is referred to as general sign-up. The Grassland CRP is part of the CRP program but focuses on grasslands. This program helps landowners and operators protect grasslands, including range and pasturelands, and certain other lands, while maintaining areas as grazing lands.</p>	<p>Yearly rental payment for contracts ranging 10–15 years. Financial and technical assistance for the implementation and establishment of conservation practices.</p> <p>Disadvantaged farmers and veterans are potentially eligible for a 25 percent higher rental rate and practice establishment cost-share.</p> <p>Contact NRCS or your FSA state or local office.</p>	<p>Increased enrollment acreage to 27 million acres by 2023.</p> <p>The Forest Incentive Management Program provides financial assistance to CRP participants with existing tree covers to engage in management activities that improve forest resource conditions, promote forest management, and enhance wildlife habitat.</p> <p>New pilot programs:</p> <ul style="list-style-type: none"> • The Soil Health and Income Protection Program Pilot is restricted to landowners in the Prairie Pothole region (IA, MN, MT, ND, and SD). • CLEAR30 focuses on water quality and is restricted to landowners in DE, IL, IN, MD, MI, MN, NY, OH, PA, VA, WV, and WI.

Programs	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates
Conservation Reserve Enhancement Program (CREP)	Land retirement program that helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water. An offshoot of Conservation Reserve Program, CREP emphasizes USDA partnerships with (supplemental funding from) state, tribal, or local governments and private groups to support high priority state and national conservation concerns.	A state-level CREP agreement needs to be in place. Lands that address an agriculture-related environmental issue of state or national significance, such as impacts to water supplies, loss of critical habitat for threatened and endangered wildlife species, soil erosion, and reduced habitat for fish populations, such as salmon. Enrollment in a state is limited to specific geographic areas and practices.	Annual payment plus cost-share of up to 50 percent of the eligible costs to install the practice. CREP contracts require a 10 to 15-year commitment to keeping lands out of agricultural production. CREP is administered by FSA. NRCS provides technical assistance. Contact FSA state or local office .	

Table B4. Easement programs that can be used to promote pollinators on working lands. All programs are voluntary. See the [NRCS website](#) for more information, and visit the [USDA service center locator](#) to find USDA offices that administer these programs.

Program	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates
Agricultural Conservation Easement Program (ACEP)	Easement program introduced in the 2014 Farm Bill that replaced the Wetlands Reserve Program, Grassland Reserve Program, and Farm and Ranch Land Protection Program. ACEP helps prevent working land conversion to nonfarm activities. It also encompasses restoration, protection, and enhancement of agricultural wetlands.	Land in production for crops, grazing, or private forests are eligible for the agricultural programs. Wetlands that have been converted to agricultural uses but that could be effectively restored are eligible for the wetland reserve easements.	NRCS may pay 100 percent of the value for a permanent easement and 75 percent for 30-year easements. NRCS also can help with costs associated with recording the easement as a wetland reserve easement. In addition, NRCS may pay 75 to 100 percent of the restoration costs on a permanent easement, and 50 to 75 percent of the restoration costs on a 30-year easement. (Up to 50 percent of financial assistance for an agricultural easement, and up to 75 percent on grasslands of special environmental significance.) Contact NRCS state or local office.	
Healthy Forests Reserve Program	Easement and financial assistance program to restore, enhance, and protect forestland resources.	Private landowners or American Indian tribes must agree to restore, enhance, or measurably increase the recovery of threatened or endangered species, improve biodiversity, or increase carbon storage.	Three enrollment options are available: (1) 10-year, 50 percent cost-share restoration agreements (30-year contracts for American Indian tribes); (2) 30-year, 75 percent cost-share agreements plus 75 percent of easement value; or (3) 100 percent cost-share and 100 percent easement value for permanent easements. In addition, landowners may avoid regulatory restrictions under the Endangered Species Act by restoring or improving habitat during a specified time. Funding may vary annually and by state.	

Table B5. Partnership programs and grants that can be used to promote pollinators on working lands. All programs are voluntary. See the [NRCS website](#) for more information, and visit the [USDA service center locator](#) to find USDA offices that administer these programs.

Program	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates
Conservation Innovation Grants Program (CIG) is a subprogram of EQIP	Supports the development of new tools, approaches, practices, and technologies to further natural resource conservation on private lands. Through creative problem solving and innovation, CIG partners work to address our nation’s water quality, air quality, soil health, and wildlife habitat challenges, while improving agricultural operations.	This program awards competitive grants to state and local agencies, nongovernmental organizations, tribes, and individuals to implement innovative conservation techniques and practices. Annual requests for proposals are posted on the Grants.gov website and include separate funding categories for national and state level competitions.	Grantees must provide a one-to-one match for grant funding.	Community colleges were added to the list of eligible EQIP producers that may be included in a project. The list of eligible projects was expanded to include urban agriculture and edge-of-field monitoring.
Regional Conservation Partnership Program (RCPP) CIG	Promotes NRCS coordination with partners to address regional (versus state level) natural resources concerns in innovative ways. Partner projects address on-farm, watershed, and regional conservation challenges. Project activities may include land management and restoration, land rental, easements, and public works and watershed protection.	Projects chosen based on potential impacts in addressing natural resource challenges, effectively employing partner contributions (cash and in-kind), demonstrating innovative approaches, and supporting partnership development for long-term integrative conservation, and the ability of partners to manage, provide outreach, and quantify environmental outcomes.	Landowners and agricultural producers enter into RCPP contracts and RCPP easements associated with RCPP projects coordinated by partner organizations. Partners may receive support through Enhanced Alternative Funding Arrangements (AFA) from two funding pools: (1) Critical Conservation Area (CCAs), which are regions designated by the Secretary of Agriculture) or (2) a state or municipality.	RCPP is now a standalone program with its own funding (\$300 million annually). Moving forward, landowners and agricultural producers will enter into RCPP contracts and RCPP easements. Enhanced AFA provision: NRCS may award up to 15 AFA projects, which are more grant-like and rely more on and rely more on partner capacity to implement conservation activities.

Program	Purpose	Land and Participant Eligibility	Type of Assistance	2018 Farm Bill Updates
		<p>Projects must be implemented on agricultural or nonindustrial forest land or associated land that supports the project conservation benefits, including public land.</p>	<p>Visit RCCP to apply or contact your local USDA service center to learn about existing RCCP projects in your area.</p>	<p>Three funding pools were reduced to two (the National pool was eliminated). Partners must apply to either the CCAs or a state or multistate funding pool.</p> <p>Emphasis is on project outcomes. All RCCP projects must now develop and report on their environmental outcomes.</p>
<p>CIG On-Farm Trials</p>	<p>Competitive grant program supporting on-farm testing and field trials of new tools, approaches, practices, and technologies to improve natural resource conservation on private lands.</p>	<p>All CIG projects must involve EQIP-eligible producers. All non-Federal entities and individuals may apply.</p>	<p>National, state, and On-Farm Trials fund availability varies each year.</p> <p>Visit NRCS CIG to sign up for updates about CIG new funding announcements, as well as grantee webinars, and related programming. For more information about the program, contact NRCS CIG.</p>	<p>On-Farm Trials program provides incentive payments that offset the risk to producers testing innovations. A Soil Health Demo Trial (SHD) component targets implementation of practices that improve soil health</p>

Appendix C – References

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