April 24, 2019

Mr. Bill Reck, National Environmental Engineer
USDA- NRCS
1400 Independence Ave., SW
Room 6130
Washington, D.C. 20250


Dear Mr. Reck,

We appreciate the opportunity to comment upon the Review of USDA-NRCS National Conservation Practice Standards. Pollinators, including honey bees, are a vital part of U.S. agriculture, and yet honey bee health faces a variety of challenges. Overwintering honey bee colony losses are higher in the past decade compared to historical averages further adding to the health issues of pests, pesticides, pathogens, and poor forage impacting honey bees. Similarly, the eastern monarch butterfly population has experienced declines over the past two decades. In a Monarch count conducted in November of 2018 the Western Monarch has experienced an 86% decline from 2017. For every 160 monarchs there were 30 years ago, there is only one left flying today.

As traditional stewards of the land, farmers, ranchers, and landowners are uniquely situated to establish, enhance and expand habitat and forage for the monarch butterfly, honey bees and native pollinators on a large scale. To help support honey bee health, the USDA-NRCS launched a six-state targeted honey bee conservation effort1 and has enrolled acreage for bee and pollinator conservation within the Conservation Reserve Program (CRP) and other USDA conservation programs. The lands enrolled in programs such as the CRP, Environmental Quality Incentives Program (EQIP), Agricultural Conservation Easement Program (ACEP) and Conservation Stewardship Program (CSP) offer the opportunity to provide millions of acres of habitat and forage for butterflies, honey bees and other pollinator species. Impediments to the widespread utilization of USDA programs that support establishment of high-quality habitat for pollinators, however, must be removed for these efforts to be successful.
The Pollinator Stewardship Council represents a diverse group of members that support beekeeping, healthy pollinator populations, agricultural productivity, and thriving ecosystems. We join with fellow beekeeping groups to identify several critical priorities for the USDA private lands conservation programs:

**Recommendations to Enhance Quality and Cost-Effectiveness of Honey Bee and Pollinator Habitat in USDA Private Land Conservation Programs Specifications:**

1. **Re-evaluate the limit on the percentage of introduced flowering plants allowed in a seed mixture.** Pollinator seeding mixtures with a high percentage of introduced legumes can be used to develop seed mixtures that are cost-effective, able to compete with early successional weeds, established quickly and offer highly nutritious forage for many pollinator species. The appropriate percentage of introduced species in a mixture will depend on the specific situation, as determined by geography, as well as landowner objectives.

2. **Limit the use of grasses in pollinator mixtures at the state level; where grass is utilized, encourage less aggressive grass species that do not outcompete pollinator-friendly forbs.** While the USDA Conservation Reserve Program CP-42 (CRP-687) guidance on Native Habitat Development for Pollinators appropriately limits the percentage of grass to no more than 25% of the seeding mixture, exemptions have allowed state seeding specifications to consist of a greater percentage of grass seed. The CP-42 guidance should continue to require that no more than 25% of a seeding mixture can be comprised of grass species based on the number of seeds per square foot and limit state exemptions. In addition, grasses used in pollinator seeding mixtures should be limited to bunch grasses and not include the use of rhizomatous grass species that can outcompete flowering forbs.

3. **Allow the use of a broader range of native and introduced species adapted to a geographic area.** Allowing flexibility to evaluate a broader range of forb plant species when creating conservation program seeding mixtures can improve opportunities to create geographically-appropriate, cost-effective seed mixes that enhance pollinator nutrition and address other considerations for program success.

4. **Allow the use of pollinator seeding mixtures designed with greater than 30 seeds per square foot.** Some programs do not allow the use of seeding mixtures with greater than 30 seeds per square foot. Allowing mixtures designed with greater than 30 seeds per square foot will provide resource professionals an option to outcompete early successional weeds.

5. **Strongly promote the use of milkweed species in USDA program plantings.** Milkweed and other monarch butterfly and pollinator forage plant species can be effectively incorporated into numerous USDA programs – including pollinator-specific practices as well as water quality and nutrient management practices such as buffer strips and edge-of-field technology (e.g., bioreactors, saturated buffers). Promoting the use of milkweed species as well as other pollinator forage species in all practicable USDA programs is critical to enhancing monarch butterfly and pollinator habitat and forage.
6. Increase the minimum requirements for the number of pollinator-friendly forb species in all pollinator conservation programs and encourage the use of highly diverse seed mixtures. Increasing the minimum species requirements in seed mixes will significantly increase the diversity and nutritional value of seed mixes for pollinators. An increase in the minimum required number of species — combined with allowance and use of a broader range of species in the seed mix (above) — will enable the design of diverse mixes that remain cost-effective and regionally-feasible. Recent studies indicate that mixes of twenty or more species tend to produce better establishment (Norland et al. 2015), support greater pollinator diversity and can be cost-effective (Otto et al. 2017). Many members of the Coalition and Collaborative support significant increases in minimum species requirements in pollinator conservation programs to 15 species or more.

7. Improve the bloom period dates currently being used by USDA with the objective of having blooms from April through October. Due to pollinator foraging needs, bloom periods should be designed to require blooms in April and May. Therefore, bloom Period 1 should more appropriately be April to May 31, Bloom Period 2 is June 1 to July 31, and Bloom Period 3 is August 1 to October 31.

8. Encourage a broader range of establishment options in state programs. Examples include: dormant seedings in autumn; establishment with a no-till drill; and discouraging the use of tillage prior to seeding in sites with known weed competition history. While current national guidance includes a variety of establishment options, state seeding specifications and recommendations unduly restrict establishment practices that produce positive pollinator habitat and forage results. National guidance that encourages a variety of establishment practices can have positive impacts for honey bees and other pollinators.

9. Increase flexibility in CRP practices. Examples of management options that help establish and maintain high quality pollinator habitat and forage include: prescribed fire, light disking, managed grazing, managed haying, herbicide application, inter-seeding or a combination of the above. Management of pollinator habitat and forage may require three or more years for site preparation and maintenance. However, encouraging a diversity of land management practices can help produce forage and early-successional habitat and forage that has positive impacts for monarch butterflies and other pollinators. While CRP cost-share rates for mid-contract management may not cover more intensive mid-contract practices, publicizing that cost share with non-federal funds is permissible would be helpful.

10. Encourage states and local offices to minimize geographic restrictions on seed sourcing for forage on agricultural lands to enable increased access to cost-effective and highly diverse seed mixtures. Although geographic restrictions on seed sourcing are not always codified in requirements or specifications, many states in the Midwest have mileage restrictions in their seed specifications or restrictions based on local ecotype sources (for example, Nebraska, Iowa and Missouri). Where the restrictions are not formally codified, they are frequently encouraged and incorporated into seed mix recommendations. Minimizing geographic preferences for local seed sourcing for forage projects on agricultural lands would enable increased access to cost-effective and highly diverse seed mixtures.
Please note that recommendations #1 - #8 have all been put into practice and were evaluated in a USDA commissioned research project with the US Geological Survey that was conducted to document the pollinator value associated with USDA conservation programs. In that recently completed study, USGS included pollinator seed mixtures designed following recommendations #1 through #8 and found:

- Twice the flower abundance than CRP CP-42 mixtures.
- More than three times the honey bee visitation than CRP CP-42 mixtures.
- More than eight times the native bee visits than CRP CP-42 mixtures.

In addition to the increased pollinator value, seed mixtures following these recommendations are significantly more cost-effective than current USDA conservation program seed mixtures. We encourage pollinator-beneficial seed mixes as part of all conservation seed mixes, including grass seed mixes. We support a cost-effective method to provide bee forage/pollinator habitat covering increased acreage. We encourage federal and state agencies (NRCS, FSA, Forest Service, BLM, etc.) to coordinate their land management practices to support the health of all wildlife on the lands, not only pollinators.

Beekeepers welcome the opportunity to discuss these recommendations, the research documenting their improved pollinator outcomes, and how these recommendations could easily be included in future USDA conservation program seeding specifications.

Sincerely,

Michele Colopy
Program Director

1 https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/plantsanimals/pollinate/?cid=stelprdb1263263