SEED A LEGACY

The Bee & Butterfly Habitat Fund

Pollinator Habitat Program

SEED MIXTURE DESIGN GUIDELINES

Pollinator seed mixtures should be created following the core objectives of The Bee & Butterfly Habitat Fund:

1. Provide the best possible pollinator habitat values from habitat projects.

2. To demonstrate how cost-effective seed mixtures designed with new technology and innovation can offer improved pollinator value, establish quicker, provide increased weed competition support and be supported by agriculture. increased weed competition support, and work with agriculture.

Seed mixtures are designed with several key factors in mind:

1. Pollinator Value: Not all forbs provide high pollinator value. Building seed mixtures using species with a known increased pollinator value is a priority. The use of a seed calculator that produces a 'Pollinator Score' for the entire mixture is used.

2. Value to Honey Bees: Considering the current science that has documented the most important plants for honey bee nutrition, forage and health, those plant species should be strongly considered for use in seed mixtures. Using these species helps to ensure the core objectives of the partnership are being met with the habitat outcomes.

3. Cost-effective: One of the reasons the BBHF was formed was due to a frustration associated with the high cost of pollinator mixes being required in other conservation programs. When built correctly, and with this set of guidelines in mind, overall price is another important consideration in the final design. The use of a seed calculator that provides individual and overall mixture pricing is a tool we use.

4. Using Available New Technology: Designing seed mixtures with a seed calculator that provides detailed information about the number of seed/ft2, species pricing, pollinator values, updated bloom periods, and other information is an important tool we use. Seed mixtures based off traditional PLS pounds per acre will typically inflate costs and restrict options when designing mixtures.

5. Total Seeds/Ft^2 in the Mixture: NextGen Habitat Projects are by nature a short-term project, often just 3 to 6 years in length. Because of this, it's critical to have an established, functioning stand quickly and we build mixtures with a seed count that will assist in this goal. Most seed mixtures are designed with a minimum of 40 seeds/ft^2 in the overall mixture (Minimum of 30 seed/ft^2 of forbs).

6. Designing for the Entire Bloom Period: Seed mixtures are thoughtfully designed to consider bloom periods 1 and 3. These are the most challenging bloom periods to create seed mixtures for. Bloom period considerations follow the more appropriate ranges of: 1 = April and May; 2 = June and July, 3 = August to October

7. Early Establishment: Designing seed mixtures that contain a balance of annual and perennial species help to create mixtures that can better handle early weed competition. Since noxious weed competition is such an important consideration, designing mixtures that establish quicker will help to reduce overall weed competition. This is also an important reason that introduced forage legume species are included in all program seed mixtures.

8. The Balance of Grasses vs. Forbs: When designing pollinator seed mixtures, a general rule of thumb is that grasses should comprise no more than 25% of the seeding rate. In some cases, this rate can be reduced to 10% of the seeding mixture.

9. Adaptability to the Site: Mixtures are designed to use appropriate species in the mixture based on considerations such as: sandy vs. loamy sites; dry vs. wet site sites; geographic distribution; etc. Because this program allows for the use a wide range of forb and grass species, mixtures for this program are not built based on the current limitations of other conservation programs or partners.

10. Always Consider the Three D's: Where high quality pollinator habitat is concerned, it always important to consider the factors of Density, Diversity and Duration (The Three D's) when designing habitat. Collectively, they represent important factors that will strongly influence the pollinator health and habitat outcomes from projects.

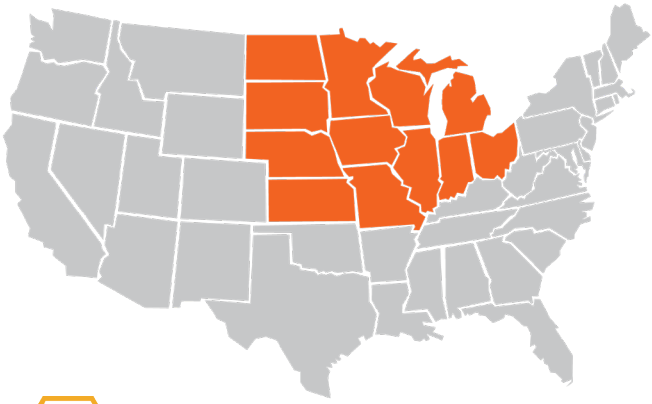
11. Following the High Quality Habitat Standard: The *High Quality Habitat Standard* is a guide that BBHF applies to all monarch butterfly seed mixtures. The use of milkweed in a monarch mixture is an example of a standard that should be applied without variance, regardless of the state or region.

12. Consideration of Local Beekeeper Needs: The BBHF partnership is built with beekeeping and beekeepers as one of its foundations. As such, the financial and organizational support from partners, corporations and individuals requires that the forage and health needs of pollinators remain the primary focus when designing seed mixtures.

SEED MIXTURES ARE FORMULATED TO PROVIDE HIGH POLLINATOR VALUE

HABITAT IS DESIGNED TO ESTABLISH QUICKLY WITH LESS WEED COMPETITION

HONEY BEE AND MONARCH SEED MIXTURES AVAILABLE FOR 12 STATES



The Bee & Butterfly Habitat Fund

A Unique Conservation Solution.

Learn more and speak to a biologist at 800-407-5337.

Or visit our website at BeeAndButterflyFund.org.