

BEE BETTER CERTIFIED PLANT LIST INSTRUCTIONS

Temporary Habitat Plant List

1. Each Habitat Location must correspond to a row in the table in Section 2.1 of your Bee Better Certified Plan

Permanent Habitat Plant List

1. Each Habitat Location must correspond to a completed table in Section 2.2 of your Bee Better Certified Plan
2. Approximate the early, middle and late bloom periods based on your local growing season
(the growing season typically occurs between the last frost of the late winter/early spring and the first frost of the late fall/early winter)
3. Estimate abundance of each species in each habitat area.

Abundant (51-100%)

Common (11-50%)

Sparse (1-10%)

Absent (0%)



Local plant books, native plant nurseries, University Extension programs and Conservation Districts may have information on plant characteristics.

There are also many online resources for bloom periods and nesting resource characteristics by species including:

Xerces Society Plant Lists by Region: <https://xerces.org/pollinator-resource-center>

USDA PLANTS Database: <https://plants.usda.gov/home>

Ecoregional Revegetation Application (ERA): <http://www.nativerrevegetation.org/era/>

Lady Bird Johnson Wildflower Center: <https://www.wildflower.org/plants/>

Optional Checklist for Permanent Habitat --- *This information must also be completed per habitat area in Section 2.2 of your Bee Better Certified Plan*

**Production
Standard section**

Bloom across all permanent habitat sites

	Season	Flowering species (must be at least 3)	Abundance category (must be common or abundant in each season or sparse or common for desert regions)
1.2	Early growing season		
	Mid growing season		
	Late growing season		

Pollinator Habitat Planting Stock and Seed

	Number of Native Species	Number of Total Species	Percentage of Native Species (must be 70% in new plantings and 35% in mature/remnant)
1.2.b			

Nesting Features

	Number of plants in the <i>new</i> permanent pollinator habitat plantings	Number of plants in the new permanent habitat plantings comprised of pithy-stemmed or nest cell plants	Percentage of plants with pithy-stemmed or nest cell materials (must be at least 5%)
1.3			

Buffers

		Yes/No
2.3	All permanent habitat areas meet the buffer requirements	
	If vegetative buffers are used they...	
	are designed to maximize drift capture, including ensuring optimal airflow	
	are comprised of densely planted, small-needed evergreen species.	
	are designed to grow above spray release height.	

Reference Number	Production Standards section	Habitat term	Definition
1	1	Pollinator habitat	<p><i>Pollinator habitat</i> is defined as areas containing flowering plants and/or nesting sites. Remnant natural habitat, mature created and newly created habitat are all considered pollinator habitat. New habitat is defined as habitat that is less than 3 years old or habitat created following initial certification. Areas dominated by invasive or noxious species cannot be considered pollinator habitat.</p> <p>The Operation must have at least 5% of the farm in pollinator habitat at all times. Of the 5% required, at least 1/5 (1%) must be in permanent habitat. If mass-flowering, pollinator-attracting crops are identified as part of the temporary habitat, they may only account for 1/5 (1%) required acreage in habitat. If certified parcels are disconnected, pollinator habitat should be distributed throughout the parcels, and the sum of the habitat established on all parcels must meet the Bee Better habitat requirements.</p>
2	1.1	Permanent habitat	<p><i>Permanent habitat</i> is present year-round, although the plants may be in a vegetative or dormant state during the winter. Examples of permanent habitat: Hedgerows, perennial or re-seeding wildflower strips, riparian forests, filter strips.</p> <p>A minimum 5% of new permanent pollinator habitat plantings must be comprised of pithy-stemmed plants, plants that are used for nest cell materials, and butterfly host plants, and some of each category must be included.</p> <p>As long as some permanent habitat is within 1 mile of a certified crop field, the remaining required permanent habitat may be situated up to 100 miles of at least 1 certified crop field.</p> <p>If no permanent habitat is situated within 1 mile of at least 1 certified crop field, habitat may be established farther away in conformance with the incremental increase in acreage outlined in standard 1.1.a.ix.</p>
3	1.1.a.ii	Temporary habitat	<p><i>Temporary habitat</i> may die back annually or be moved around the certified parcels (as is the case with rotating cover crops). Examples of temporary habitat: Cover crops, insectary strips, mass-flowering crops (MFC).</p>
4	1.1.a.iv	Mass flowering crops	<p><i>Mass flowering crops</i>, of which the primary purpose is revenue, provide abundant floral resources during their bloom period, which is often short. Examples of mass-flowering crops: almond, blueberry, canola and sunflower.</p>
5	1.2	Bloom	<p><i>Bloom</i></p> <p>In permanent habitat areas there must be at least three (3) flowering species in each season (spring, summer, fall). Flowering species can include trees, shrubs or forbs known to provide pollen and/or nectar to pollinators.</p> <p>In temperate and tropical regions (receiving greater than 25 cm [10"] of precipitation a year on average), the combined vegetative cover of the plant species in bloom should be classified "abundant" or "common" in each season.</p> <p>In desert regions (receiving fewer than 25 cm [10"] of precipitation a year on average), the combined vegetative cover of the plant species in bloom should be classified "common" or "sparse" in each season.</p> <p>Abundance categories: Abundant: Numerous individuals of the flowering species are present (51 – 100%). Common: Several individuals of the flowering species are present (11 – 50%). Sparse: Only a few individuals of the flowering species are present (1 – 10%). Absent: No flowering species are present (0%).</p>
6	1.2.b	Native Plants	<p><i>Native plants</i> are defined as species that are indigenous—and occurred historically in the area without human intervention—to a region. Please review the USDA PLANTS database for information on native plants in North America. Please review other regional resources on the website.</p>
7	1.3	Nesting Features	<p>At least 5% of plants in new permanent pollinator habitat plantings must be comprised of pithy-stemmed plants and plants that are used for nest cell materials; some of each category must be included. Operations are encouraged to prioritize larval host plants for species of butterfly shown to be in decline, such as, in appropriate areas milkweed for monarch butterflies. See Appendix F and G for plant species that use these materials.</p>

8	2.3	Boundaries and buffers	<p><i>Boundaries and Buffers</i></p> <p>All permanent habitat areas must be protected from chemical drift. The operation must establish pesticide-free spatial buffer around permanent pollinator habitat. Buffers must be established for the following:</p> <ul style="list-style-type: none"> 40 foot buffer for most ground-based applications 60 feet for air blast and aerial applications <p>Herbicides must not be applied to plants in bloom (including weeds). Herbicides—except paraquat dichloride—may be used within permanent habitat areas and in buffer areas on non-blooming plants.</p> <p>When spatial buffers are not feasible, a vegetative buffer can be planted to capture chemical drift. See Appendix P for guidance.</p> <p>Minimum width buffers are required within your own property. Where new permanent pollinator habitat is installed on your property a minimum 30-foot buffer must be set aside between the habitat and neighboring farms or land where insecticides are known or suspected to be applied not on your property (including insecticide treated seed).</p> <p>If insecticide application practices change on adjacent properties following habitat creation, buffer requirements can be waived, although a vegetative buffer is recommended when feasible.</p>
9	2.3.c.ii	Vegetative buffer	<p><i>Vegetative buffer</i> is a border of plants not attractive to pollinators, such as conifers, grown between pollinator habitat and crop fields. It is designed to capture pesticide drift.</p>