

Xerces Monarch and Pollinator Kits: California

Thanks for your interest in creating habitat for Monarchs and other pollinators in California. This handout is intended to accompany the application form (<https://forms.gle/MPvRipadmwzLmThF9>), in order to provide you with more information about the kits. Please read it over carefully before completing your application. If you have questions, please email us at: centralvalleypollinators@xerces.org.

Many insect pollinators are declining in California, including bees and butterflies. The Western monarch population has declined more than 99% since the 1980s, likely due to multiple factors including habitat loss and degradation, pesticides, and climate change. One important step we can take to protect these important animals is to increase the amount of habitat available to these species. To this end, The Xerces Society is offering habitat plant kits that contain climate-smart native plants that support monarchs and other local pollinators in California.

This year, we are offering several different kit types. Please take a minute to look through the different kit descriptions as well as the associated geographic regions, so you can determine which kit would be most appropriate for your project.

- 1. Herbaceous Kit.** This kit contains 1600 transplants including milkweed and other plants used by monarchs and pollinators. Each kit will cover 0.15 acre (6,400 ft²) if planted on 2 ft. spacing. Minimum order of 1 kit / project. Additional kits can be requested for larger projects.
- 2. Hedgerow Kit.** This kit contains 17 woody and herbaceous plants (including milkweed), which will provide 100 ft of hedgerow when planted on 6 ft spacing. Minimum order of 5 kits / project. Additional kits can be requested for larger projects.
- 3. Riparian Shrub Kit.** This kit contains 17 woody and herbaceous plants (including milkweed), which will provide 100 ft of linear habitat when planted at 6 ft intervals. This kit contains plants that do well in riparian areas and can tolerate some seasonal flooding. Minimum order of 5 kits / project. Additional kits can be requested for larger projects.
- 4. Riparian Herbaceous Kit.** This kit contains 1600 transplants including milkweed and other plants used by monarchs and pollinators. This kit contains plants that do well in riparian areas and can tolerate some seasonal flooding. Each kit will cover 0.15 acre (6,400 ft²) if planted on 2 ft. spacing. Minimum order of 1 kit / project. Additional kits can be requested for larger projects.

Please note that we are not able to provide partial kits, or smaller quantities per project than listed above. If applying for kits for multiple projects, please fill out a separate application for each project. A note to our RCD partners; Xerces will be counting these acres as part of our Wildlife Conservation Board (WCB) grant deliverables, therefore, RCD's receiving these kits will not be able to count acres for their own WCB deliverables.



These kits are intended to be used in public lands or on working lands. Applicants must be able to use the entire kit in one project area but it can be divided up within the area. For example, several plantings within one county park, or several areas on a farm or ranch. The kits are not intended to be used in home gardens or very small project areas. If you have questions about your project's suitability, email us at centralvalleypollinators@xerces.org.

There are a number of different kits for different geographic regions of California. These regions include the Central Coast and coastal foothill regions, the Central Valley, and the Sierra Nevada foothill regions. Please note that we do not have kits available for other regions of California. Kits are intended to be used by agencies to create or enhance monarch and pollinator habitat on working lands or natural lands, with landowner or land manager collaboration. The cost of the kit will be covered by Xerces. Recipients are responsible for pick-up of the kits. Shrub kits can be picked up in Chico, CA or Lockeford, CA. Herbaceous kits can be picked up in Winters, CA.

We do not currently have source information on all species, but that information will be included at a later date. It will not be possible to source all seed in the same region(s) that kits are planted, but all species included in each regional kits are native to that region. Kits that are within 5 miles of the coast will not include milkweed, but will have the same total number of plants. For more information on why planting milkweed near the coast is not recommended, please see <https://monarchjointventure.org/resources/faq/i-live-near-the-california-overwintering-grounds.-should-i-be-planting-milk>.

To apply for kits, please complete the application form by EOD May 8, 2020. Applicants will be notified by May 29, 2020. Kits will be available in October of 2020.

Below are the species lists, region information and additional technical information for each kit that will be available. Exact species and numbers are dependent on nursery availability.

Table 1. Tentative plant list for shrub kits (Hedgerow Kits and Riparian Shrub Kits). Kits within 5 miles of the coast will not contain milkweed. Exact species composition dependent on nursery availability. All species will be included as tree-band sized transplants.

Kit Type and Region	Indian hemp (<i>Apocynum cannabinum</i>)	Manzanita (<i>Arctostaphylos densiflora</i> McMinn)	Indian milkweed (<i>Asclepias eriocarpa</i>)	Narrowleaf milkweed (<i>Asclepias fascicularis</i>)	Showy milkweed (<i>Asclepias speciosa</i>)	Coyotebrush (<i>Baccharis pilularis</i>)	Mulesfat (<i>Baccharis salicifolia</i>)	California lilac (<i>Ceanothus 'Concha'</i> or 'Frosty Blue')	Buttonbush (<i>Cephalanthus occidentalis</i>)	California buckwheat (<i>Eriogonum fasciculatum</i>)	Toyon (<i>Heteromeles arbutifolia</i>)	Hollyleaf cherry (<i>Prunus ilicifolia</i>)	Golden currant (<i>Ribes aureum</i>)	Willow (<i>Salix</i> spp.)	Goldenrod (<i>Solidago velutina</i> ssp. <i>californica</i>)	Pacific aster (<i>Symphoricarpos chilense</i>)
Riparian Shrub Kit: Sacramento Valley/Central Coast/Sierra Foothills	X			X	X		X		X				X	X	X	X
Riparian Shrub Kit: San Joaquin Valley	X			X			X		X				X	X	X	X
Hedgerow kit: Sacramento Valley	X	X		X	X	X		X		X	X				X	X
Hedgerow kit: San Joaquin Valley	X	X		X		X		X		X	X				X	X
Hedgerow kit: Central Coast/Sierra Foothills	X	X	X	X		X		X		X	X	X			X	X

Table 2. Tentative plant list for the herbaceous kits (Herbaceous Kits and Riparian Herbaceous Kits). Kits within 5 miles of the coast will not contain milkweed. Kits that include showy milkweed will receive rhizomes of that species. All other species will be included as transplants. Exact species composition dependent on nursery availability.

Kit Type	Yarrow (<i>Achillea millefolium</i>)	Indian milkweed (<i>Asclepias eriocarpa</i>)	Narrowleaf milkweed (<i>Asclepias fascicularis</i>)	Showy milkweed (<i>Asclepias speciosa</i>)	Bur marigold (<i>Bidens laevis</i>)	Western goldenrod (<i>Euthamia occidentalis</i>)	Coyote mint (<i>Monardella villosa</i>)	California phacelia (<i>Phacelia californica</i>)	Goldenrod (<i>Solidago velutina</i> ssp. <i>californica</i>)	Pacific aster (<i>Symphyotricum chilense</i>)	Western vervain (<i>Verbena lasiostachys</i>)
Herbaceous Kit: Sacramento Valley	X		X	X				X	X	X	X
Herbaceous Kit: San Joaquin Valley	X		X					X	X	X	X
Herbaceous Kit: Central Coast/Sierra Foothills		X	X	X			X	X	X	X	X
Riparian Herbaceous Kit: Sacramento Valley/ Central Coast/Sierra Foothills			X	X	X	X			X	X	X
Riparian Herbaceous Kit: San Joaquin Valley			X		X	X			X	X	X

Counties in each region:

- **Sacramento Valley (0-1,000' elevation):** Butte, Colusa, Glenn, Sacramento, Solano, Sutter, Yolo
- **San Joaquin Valley (0-1,000' elevation):** Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare
- **Central Coast:** Alameda, Lake, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Sonoma
- **Sierra Foothills (1,000-4,000' elevation):** Amador, Butte, Calaveras, El Dorado, Fresno, Madera, Mariposa, Nevada, Placer, Tulare, Tuolumne, Yuba