Site Preparation for Pollinator Gardens

Source: The Xerces Society for Invertebrate Conservation https://xerces.org/pollinator-conservation/habitat-restoration/site-prep

Overview

The importance of site-preparation cannot be overstated. Before planting, you will need to eliminate existing undesirable vegetation, eradicate weeds, remove plant debris, and ensure you have a clean surface that will facilitate good seed to soil contact or be cleared for using transplants.

Tilling or cultivation should be avoided as part of any site-preparation strategy. Tilling kills ground nesting insects and brings weed seeds to the surface where they will germinate and negatively impact wildflower establishment. Additionally, repeated cultivation damages soil structure, speeds erosion, and releases carbon dioxide into the environment.

Smothering and Solarizing

For gardens or smaller plantings (1000sf or less) smothering is an ideal, chemical free site preparation method. Prior to the active growing season, cover the area completely with cardboard or a heavy layer of newspaper - overlapping this material to ensure the entire area is covered. Then cover the material with compost, leaves, yard trimmings, or other material that will naturally break down. Allow the site to smother for an entire growing season before planting for best results.

Left: This garden area is being smothered with cardboard and compost in spring and will be planted in fall. This organic farm chose solarization to avoid the use of herbicides. The site was solarized during the summer and winter and seeded in spring. By the end of the first growing season, the site had only 5% weed pressure and abundant blooms (Photo: Mari Lee-Mäder, Northwest Meadowscapes LLC.)

Similar to smothering, solarizing is our preferred method of organic site preparation and has proven to be more than 90% effective at eradicating existing weeds. As with smothering, the entire area is covered in clear plastic prior to a growing season (this can be done in fall or winter where the ground is workable.) Edges of the plastic are buried to keep the plastic in place and to keep heat in. By trapping heat and limiting oxygen and room to grow, unwanted vegetation is smothered. This method is effective at killing annual, perennial, and biennial weed species without herbicides.