



**PLANTERS' CHOICE NURSERY**  
Connecticut's Premier Grower and Wholesaler of Nursery Stock



## How to Effectively Establish Native Plant Plugs

Native herbaceous plants are frequently sold as plugs because their compact size allows for the creation of masses and drifts to better emulate how they grow in nature. Once the plants leave the plug tray, their roots can expand more freely in the soil and they rapidly fill in the space between plugs. However, achieving dense stands of each species requires planning and preparation.

### Site Selection and Assessment

Decide how and where you want to use plugs, whether for new border gardens, massing among shrubs in existing foundation beds, pollinator or other wildlife habitats, or replacing portions of lawn with small meadows. Assess the space where you will be planting to determine the quality of sunlight, moisture, and soil. Survey existing vegetation to determine what does and does not thrive. **In particular, identify the type and number of existing weeds.**

### Site Preparation

Successful establishment requires that the plugs not get outcompeted by existing weeds and their seed banks. **We suggest keeping any soil tilling to a minimum since doing so results in the germination of previously dormant weed seeds.** However, if choosing a site overrun by weeds and invasive plants, plan appropriate site preparation weeks – if not months - before planting, especially when using organic methods for killing existing vegetation.

### Map the Area to Be Planted

Outline the area to be planted whether with rope, hose, or stakes. Since most planting spaces have round, irregular edges, measure the length and width as best you can to determine the rough square footage. While each species spreads at different rates, **an easy rule of thumb for estimating the number of plugs needed to achieve dense stands within a year is one plug per square foot.**

### Preparing to Plant

Plugs require planting a greater number of plants than most landscaping projects. Therefore, it's important to develop an easy, uniform, and effective planting method.

- **Keep plugs moist before planting**

Because their compact roots leave them susceptible to drying out, it's important that plug trays stay well-watered and out of direct sun from the moment they're brought home up until they're planted. Make sure to thoroughly water them two to three hours before planting. This makes it easier to remove them from their trays and loosen their roots before putting them in the ground. In addition, by deeply watering the plugs just before planting, they can be removed from their trays and laid in the spots they'll be planted without drying out, saving time.

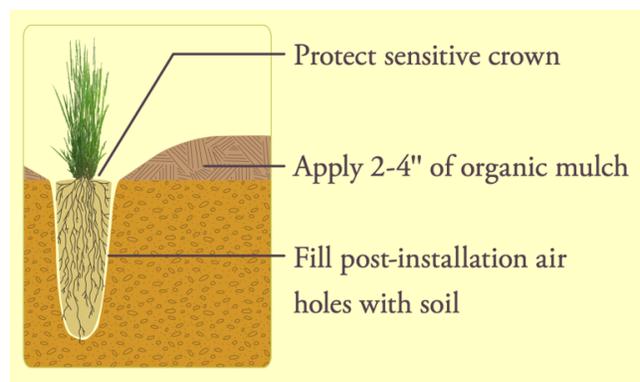
- **Recommended tools**, starting with those we deem most convenient to use, include:
  1. ProPluggger 5-IN-1 Lawn Tool and Garden Tool, Bulb Planter, Weeder, Sod Plugger, Annual Planter, Soil Test (available through Amazon)
  2. 3" bulb & bedding plant auger drill attachment
  3. Bulb planter tool
  4. Small spade
  5. Hand trowel

- **Determining spacing and groupings**

Taking time before planting to determine the spacing of the plugs will ensure uniform density and that your supply of plugs cover the desired area. When planting larger areas, use a grid pattern with plants 12" off center from each other.

If you're creating smaller groups of a variety of species, be aware of the differences in mature heights when arranging each group. If planting against a structure, make sure the tallest species are in the back along the structure to ensure shorter species receive proper light.

### Planting in the Ground



Plant plugs to a depth that allows the plant's crown to lie at soil level. If the plugs are heavily rooted, gently pull apart the roots to encourage them to move into the native soil. Backfill soil between the plug and the hole.

**Water in plugs immediately after installation to fill soil air holes around root systems. During the first three weeks, water plantings for about 60 minutes every four days on mild spring days**

**or every three days on hot summer days. A one-hour watering will soak more deeply than 15-minute ones. Soil should be consistently moist about 4 inches down in the soil, the immediate surface is not a solid indicator.**

Mulch helps conserve soil moisture and reduces weed pressure. We recommend immediately after planting 2-4" of mulch. **Preferred mulches include weed-free wheat straw, dried grass clippings, cocoa bean hulls, or dried shredded leaves.** Avoid cocoa bean hulls on heavy or wet soils or in dense shade to prevent fungus build-up. Avoid using bark mulch, especially large pieces. Mulch should not be placed in excess on top of the crown of the plant.

### Proactive Weed Prevention

Vigilant weed control the first year will ensure effective establishment over the long term. By preventing weeds from outcompeting herbaceous native plants, the plugs will fill in the spaces between plants, resulting in dense stands and few weeds the following years.

**For more detailed resources, visit the Ecotype Project website at: <https://ctnofa.org/ecotypeproject/>**