



The First Year: Getting Plants Established

Theodore Payne Foundation for Wild Flowers and Native Plants

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The establishment period is the time during which a new plant is developing its root system—the deeper the better! Even drought-tolerant plants need frequent deep watering until they are established.

When getting established, plants need to be checked frequently, watered often and watched for signs of stress. Establishment can take one year for perennials and shrubs, and two years or more for trees.

Following fall or early winter planting, the establishment period runs through that fall, winter and spring. Plants installed in spring must be monitored and watered through the following summer, fall, winter and spring and are not established until the second summer.

Though you may not see rapid growth above ground, the root system is developing. *Native plants need no soil amendments at planting time and no fertilizers or compost, ever.*

Watering

The most common reason for plant loss during the establishment period is improper watering. Knowing how and when to water is critical to establishing a healthy drought-tolerant plant.

- Native plants prefer **deep** and **infrequent** water. One 30-minute soak every 7-10 days is better than 10 minutes three times a week. How often you water depends on your soil type, sun exposure and the weather, as well as the age of the plant.
- During the establishment period, water according to soil moisture—not the calendar (water requirements on TPF plant tags are for established plants).
- Know your **soil**.
 - Heavy clay soils take longer to saturate and retain moisture longer than sandy soils.
 - Sandy soils drain rapidly and dry out quickly.
 - Therefore, clay soils require less-frequent irrigation than sandy soils, but long slow watering is necessary to completely wet the root zone.
- **When:** Use a trowel or your finger to check soil moisture. Do not water if the top 3"-4" are still moist.
 - Never allow the entire rootball to dry out during the establishment period.
 - Note: Very small root balls, such as those from 4" pots, dry out quickly and need more frequent irrigation than those from larger pots. Water smaller root balls when the top 1-2" of soil are dry.
- **How:** For each one-gallon plant, apply 3-4 gallons of water. After watering, the entire root ball, as well as the surrounding soil, should be saturated. Avoid wetting the crowns, stems and trunks of plants—this can increase the risk of disease.



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Watering (cont'd)

- If runoff is a problem, several short applications on the same day may be needed for adequate saturation.
- If watering during summer, water on relatively cool days (below 85°F), as opposed to extremely hot days (above 90°F). Water at night or in the early morning.
- Light winter rains do not soak deeply. Be sure to supplement with deep irrigation, as needed.
- If using drip irrigation, check regularly for clogged or damaged emitters, especially if a plant is looking stressed. As plants grow, move emitters away from the plants to encourage root development and avoid rotting the crown, and add emitters to accommodate the expanded root system.
- If using a berm to confine and direct water to a new plant (see our Planting Guide), it should be at least twice as wide as the original root ball. Dismantle berms after one year (except those used for slope plantings).

Stress

Shallow or uneven watering is dangerous for plants and predisposes them to disease. Signs of stress include: dull or wilting foliage, brown or yellow foliage, and leaf drop. These symptoms can be caused by watering too often or not often enough.

Check plants regularly (daily during warm dry spells) and water as needed. Do not wait until a plant wilts. Do not water if the top few inches of soil are still moist. Always water deeply.

Sensitive Plants

Certain native plants need special attention during the establishment period.

- *Fremontodendron* (flannelbush), *Dendromecon* (bush poppy) and *Trichostema* (woolly blue curls)
 - These do not want any summer water. Plant only in fall and early winter, water them through the cooler months, and apply no summer water during establishment period.
- *Arctostaphylos* (manzanita) and *Ceanothus* (California lilac)
 - These mostly chaparral shrubs are prone to disease when watered during the summer months. Plant them in fall or early winter to get established before summer arrives. (There are less-sensitive exceptions, e.g. *Arctostaphylos* 'Howard McMinn' and *Ceanothus* 'Ray Hartman'.)

Mulch

Mulch is material laid on the soil surface after planting. A 3"-4" layer of organic matter (leaves, bark or wood fibers) or inorganic rocks or gravel will help conserve soil moisture, discourage weeds and insulate the root zone. When roots are cool, there's less chance of disease.

- No mulch should touch any part of a plant. This can encourage disease. Leave at least 2"-3" clear around the stems, crowns or trunks of new transplants.
- A thick layer of mulch should be added at installation and maintained for the life of your garden (or until plants fill in and provide their own mulch).



The Theodore Payne Foundation, established 1960, operates a year-round retail nursery offering the region's largest and most interesting selection of California native plants. Our Education Center and Outreach programs offer classes and field trips for adults and children. We are located on 22 acres of canyon land in Sun Valley (in the northeast corner of the San Fernando Valley). More information on gardening with native plants at theodorepayne.org.