



Hill Horticulture, Inc.

Complete Landscape Design, Installation and Maintenance • Serving San Antonio Since 1983

Basic Watering & Fertilization Guide

Here are some basic caring instructions that will help you get years of enjoyment out of your new plants and sod.

New plants are just out of the nursery and need some special care and extra attention for the first 4-8 weeks.

Daily hand watering may be needed for the larger trees (15 gallon & greater sizes) as the irrigation will not water deep enough. A slow trickle out of the hose for 2-3 hours is best, but flooding the tree basin to insure about 2-3 gallons per trunk inch will also work.

We like to hand water the smaller plants (1-5 gallon size) three times per week until established (about 2 months).

All plants & trees have feeder roots that occupy the top 6" of soil immediately surrounding the plant and out to the drip line. The average drip line is approximately twice the size of the area which forms the canopy of the plant (i.e. If the canopy is 10 ft. in diameter the drip line is 20 ft. in diameter). When these areas around plants are disturbed or "cultivated", the most important parts of the plant are damaged or destroyed. Instead of disturbing these areas, install a 2" layer of mulch over them to keep them moist and protected from direct sunlight.

Early morning is considered the best time to water. The wind is usually calm and the temperature is low so less water is lost to evaporation. The worst time to water is late evening because the lawn stays wet all night, making it more susceptible to disease.

If you note any stress on the plants or sod, please call or email our office

Our number is 210-494-6469

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Turfgrass Establishment Water Schedule

Recommendations are made assuming all the following horticultural best management practices have been followed:

- Turf grass should be planted only when 4 or more inches of soil is present. Deeper soil ensures better success. If possible two inches of compost should be incorporated into the soil.
- When installing, ensure full contact of the sod back to the top soil by using a roller or other method. Air pocket between the sod and the top soil will generally cause grass to die regardless of how much water you put down.
- Ground should be thoroughly saturated at the time of planting, or shortly thereafter.
- Choose the right grass for the job: The varieties listed have been tested for drought tolerance capability. These are the most popular varieties that Builders are allowed to use in the City of San Antonio and its ETJ.
 - Bermuda: *Common, Tifway 419* Full sun, heavy traffic, dormancy capable
 - Buffalo grass: *All varieties*. Full sun, no traffic, no regular irrigation or cutting (regular irrigation promotes weeds), dormancy capable
 - Zoysia: *Jamur, Palisades* Light shade, moderate traffic, dormancy capable
 - St Augustine: *'Floritam'* only. Shade, moderate traffic, better suited to deep soil.

Establishment Water Schedule

The following schedule applies only when rainfall is absent. If normal rainfall occurs, you may reduce or eliminate watering during that portion of the Establishment or Maintenance Phase.

- 1st Week:** ¼ inch 2-3 times a day depending on the weather during permitted hours for a maximum total of ¾ inch a day (gallon equivalent per day: ¾ inch = 0.467 gal per square foot (Generic: 8 min for sprays, 20 min for rotors)
- 2nd Week:** ¼ inch twice a day during permitted hours for a total of ½ inch a day. (Generic: 8 min for sprays, 20 min for rotors)
- 3rd Week:** ½ inch once every day during permitted hours. (Generic: 15 min for sprays, 30 min for rotors)
- 4th Week-On:** ¼ inch every 2-3 days depending on grass type & local site conditions. (Generic: 10 min for sprays, 25 min for rotors)



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Maintenance Schedule

- Grass will not be fully established for about 2 months, so a slow reduction in the watering schedule is needed as the rooting system grows deeper. Grass that has been well established on deep soils can survive with minimal supplemental irrigation in a residential landscape setting if allowed to go dormant.
- Each of the grass varieties listed above have physiological abilities to withstand drought and have significantly survived 60 days without any precipitation.
- During the growing season (April to October) the above varieties can survive with twice a month deep watering and proper cultural practices (i.e., mowing high, aeration, compost).
- To maintain grass during hot weather and infrequent rain, an additional two and one half (2.5) inches per month can be applied. Grass in shade requires less water than grass in full sun.

Watering less amounts and more frequently encourages fungal diseases and creates stress by keeping your turf grass' roots too close to the surface. If standing water is observed in this process, reduce the minutes but not the frequency.

It takes about 1/2 inch of water to achieve the desired wetting depth if the soil is high in sand, and about 3/4 inch of water if the soil is a loam. For soils high in clay, an inch of water is usually necessary to wet the soil to the desired depth.



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Shrub & Perennial Establishment Water Schedule

Recommendations are made assuming all the following horticultural best management practices have been followed:

- One (1) inch of compost should be incorporated into the soil, if possible; or directly in the hole.
- Plants have been grouped together with similar water requirements, i.e. hydra zoning
- Planting holes are 1.50 the width of the root ball and have sloping sides
- The root ball is planted at grade or no more than 1 inch above grade
- Water the entire planting site until soil is saturated
- Two (2) inches of hardwood chip or pine bark or similar substance has been placed evenly over the entire bed.

Establishment Water Schedule

The following schedule applies when rainfall is absent. If normal rainfall occurs, you will reduce or eliminate watering during that portion of the Establishment or Maintenance Phase.

- First 30 days:** Three (3) times a week with $\frac{1}{4}$ inch per square foot of bed. Gallon equivalent per week = $\frac{3}{4}$ gallon per square foot or 46 gallons/100 ft²/ week. (Generic: 8 min for sprays, 15 min for drip)
- Second 30 days:** Twice (2) a week with $\frac{1}{2}$ inch per square foot of bed. Gallon equivalent per week = $\frac{2}{3}$ gallon per square foot or 62 gallons/100 ft²/ week. (Generic: 10 min for sprays, 25 min for drip)
- Third 30 days-On:** Once a week with 1 inch per square foot of bed. Gallon equivalent per week = $\frac{2}{3}$ gallon per square foot or 62 gallons/100 ft²/ week. (Generic: 15 min for sprays, 35 min for drip)

Maintenance Schedule

- Native and adapted non-native plants that have been properly planted, established and grouped with similar water needs require little or no supplemental irrigation.
- In the absence of rain, supplemental irrigation is recommended at the beginning and towards the end of a target plant species growing season (March to October).
 - March–October – **twice a month** with $\frac{3}{4}$ inch per square foot
 - November–February – **once** every 30 days with $\frac{3}{4}$ inch per square foot
- When irrigation is necessary, water deeply until at least the first 4 inches of soil are saturated. Cycle and soak may be necessary to achieve this. However, the preferred methods of woody plant irrigation are drip, bubbler, soaker hose, and by hand.
- Whether bubbler, sprinkler or rotor, the head shall not hit the plant canopy and shall be located below the canopy level.
- Annual applications of 1 inch of compost and 2 inches of mulch over entire bed or root zone.



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Tree Establishment Water Schedule

Recommendations are made assuming all the following horticultural best management practices have been followed:

- One (1) inch of compost should be incorporated into the soil or back fill.
- Planting holes are a minimum of 1.50 the width of the root ball and have sloping sides
- The root ball is planted at about 1" – 2" above grade.
- Water the entire planting site until soil is saturated
- Two (2) inches of hardwood chip or pine bark or similar substance has been place evenly over the entire planting site.

Establishment Water Schedule

The following schedule applies when rainfall is absent. If *normal rainfall* occurs, you must reduce or eliminate watering during that portion of the Establishment or Maintenance Phase.

- **Frequency**
 - 1st Month – water three (3) times a week over root ball only
 - 2nd Month – water two (2) times a week over root ball only
 - 3rd Month – water once (1) a week
 - Next six months – water twice a month
 - Next summer – water 1-2 times in March, April, May, June, July, August, September
- **Water Amount (per event)**
 - < 3-inch trunk – one (1) gallon per trunk inch
 - > 3 inches' trunk – two (2) gallons per trunk inch
- **Trees planted in winter** – eliminate 1st Month Schedule & start with 2nd Month Schedule
- **Use of Treegator®** – eliminate 1st and 2nd Months Schedule. Retain the 3rd Month Schedule for the next three months, the six months, and the next year's schedule.

Maintenance Schedule

- Native and adapted non-native plants that have been properly planted, established and grouped with similar water needs require little or no supplemental irrigation.
- If required, supplemental irrigation is recommended at the beginning and towards the end of a target plant species' growing season (growing season = March to October). Thirty (30) day events are preferred.
- When irrigation is necessary, water deeply until at least the first 4 inches of soil are saturated. Cycle and soak may be necessary to achieve this. However, the preferred methods of woody plant irrigation are drip, bubbler, soaker hose, and by hand.
- Annual applications of 1 inch of compost and 2 inches of mulch to the greatest extent possible over the root zone. Less turf and more mulch are always preferred whenever and wherever possible over root zone.



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Seasonal Color Establishment Water Schedule

We **DO NOT** recommend the use of seasonal color in large quantities. Small splashes of color in key areas are preferred. Recommendations are made assuming all the following horticultural best management practices have been followed:

- One (1) inch of compost should be incorporated into the soil or back fill.
- Water the entire planting site until soil is saturated
- Install a very thin layer of mulch max of 1 inch to newly planted area, keeping contact away from plants (deeper mulch may burn the new plants)

Establishment Water Schedule

1st Week: Hand water every day until area is thoroughly wet. Use a watering wand if possible to avoid damage. After watering soil should be wet to a depth of 4 inches.

2nd Week-On: Hand water every other day until area is thoroughly wet. Use a watering wand if possible to avoid damage. After watering soil should be wet to a depth of 4 inches. In the heat of summer, you may have to water every day. Check plants every day for stress.

Maintenance Schedule

- Fertilize the flowers every two weeks to insure that they bloom more consistently and the blooms last longer. Liquid spray fertilizers like miracle grow work well.
- Under no circumstance should you expect your irrigation system to take complete care of your flowers. There are too many variables which can negatively affect the system, and your seasonal color (i.e., clogged nozzles, power outages, etc.)
- Snail, pill bugs, and other small pests sometimes attack newly planted color. Keep an eye out for them and if spotted treat with a broad spectrum insecticide like Sevin.



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Basic Fertilization Guidelines

- Basic fertilization guidelines to be used as a good rule of thumb only and not intended to address every situation possible.
- N=nitrogen (root growth), P=phosphorus (flower growth), K=potassium (hardiness)
- Use well balanced slow release fertilizers instead of cheaper high sodium fertilizers that cause your lawn and shrubs to need more water
- Pre-emergent herbicides in your fertilizer may help to prevent some weeds from becoming a problem in your lawn. Proper watering, mowing height, and fertilization is a better solution than using herbicides. Do not use pre-emergent on newly seeded areas.

Lawn

- Twice per year: End of March – Mid April *and* End of September – Mid October.

Shrubs

- Twice per year: End of March – Mid April *and* End of September – Mid October.

Trees

- In most instances trees get enough fertilizer when the lawn or bed areas are fertilized.
- If drought or other stress factors create a higher demand from your trees, then a professional should be consulted. He/She will be able to assess the situation and make specific recommendations; as, trees require very specialized fertilization when they do need it.

Seasonal Color

- A slow release fertilizer with a 1-2-1 ratio at the time of planting is a good start.
- Fertilize the flowers every two weeks with a high phosphorus, fast release fertilizer to insure that they bloom more consistently and that the blooms last longer. Liquid spray fertilizers like miracle grow bottle feeders work well.