HOW MUCH SHOULD YOU WATER YOUR SHRUBS and TREES?

STARNOTE 900A
June 2009

Why is the answer so complicated?

This question is the most asked in Nurseries today. Without adequate questioning of the customers soil condition, type of emitters and plant variety, any answer provided has little chance of being correct. This Star Note discusses Shrubs and Trees, NOT Lawns.

Lawn watering is covered in Star Note # 900B

Frequency of Watering vs. Quantity of Water. Know the difference. Days per week represents "frequency", while "minutes of run time" represents quantity. Change your frequency of watering throughout the seasons, and attempt to leave the minutes unchanged.

The following recommendations for appropriate typical watering amount and frequency are not specific guidelines. These are provided to the reader as a convenience, in order to compare typical with their individual situation. Soil, Sun, Slope and Plant type differ greatly, and so will water requirements. Star Nursery understands that our customers are only looking for a starting point and general guidelines for watering. We only seek to satisfy this request, while providing some background information regarding various landscape environments and plant types.

HOW OFTEN SHOULD YOU WATER YOUR SHRUBS and TREES ?

These recommendations are only typical – Conditions may differ for individual landscapes.
Please consult with a qualified professional to make certain proper watering is selected for your landscape.

Typical watering frequency	**Winter**	**Spring – Fall**	**Summer**
Bedding plants and vegetables.	Once per week	Twice per week	Three times per week
Trees	Twice per month	Once per week	Twice per week
Shrubs	Once per week	Twice per week	Three times per week
Desert Plants	Once per month	Twice per month	Once per week

HOW MUCH SHOULD YOU WATER YOUR SHRUBS and TREES

(how many minutes / gallons**)**
Remember "how many minutes" varies with the emitter you use.
Most are rated in gallons per hour, so for convenience…
this chart will use a "one gallon per hour" drip as example to determine minutes.
Please consult with a qualified professional to make certain proper watering is selected for your landscape.

Typical Watering Amount	**Winter**	**Spring – Fall**	**Summer**
Bedding Plants and Vegetables	20-30 minutes	30 minutes	45 minutes
Trees (1 emitter* per sq. yd.)**	1-2 hour	2 hours	2 hours
Shrubs (1 emitter* per foot in size*)**	45 minutes	1 hour	1 hour
Desert Plants (1 emitter* per 2 foot size)	45 minutes	1 hour	1 hour

* With all your trees, shrubs and desert plants larger than 1 foot in height, you should have a minimum of 2 drips on each plant. This makes certain that you have adequate coverage around the root system, and not just on one side.
** "per sq. yd." refers to the area beneath the trees' canopy. A tree with a canopy that spread 10 ft. in width would have approximately 9 sq. yd. root area. Check with our Nursery Advisors if you need help calculating.
*** "per foot in size" refers to the height or width of a shrub, which ever is greater.

Soil type. Clay, sand and loam all have different water holding capacities and drainage rates. Most of the landscapes in Las Vegas are very slow to drain, but not all! Know the characteristic of your soil, and in particular the soil where you intend to plant. Slow draining soils should be watered 'less often'.

The SNWA *Watering Guide* Plant Watering is covered by the Watering Guide or Drought Watering Restrictions Guide published by the Southern Nevada Water Authority (SNWA) and available at any Star Nursery location. The Drought Watering Restrictions assign specific days for shrub and tree irrigation in winter, spring and fall. During summer only 3 days a week is recommended. This guide offers additional suggestions for seasonal watering of desert and traditional plants. Ask for a copy at any Star Nursery location. Remember that watering frequency and duration is based on many variables. Things like time of year, soil type (sand, clay or loam) and plant location (sun, shade or slope) all play a part in your decision. For best results, get in touch with your soil and experiment! An inexpensive Moisture Meter (available at all Star Nurseries) is a great help in determining content and distribution of water.

Location. On a slope ? Some slopes will drain quite a bit faster, while others (due to clay) do not. Does water run to this location, or away from it. Does this area get extreme heat and reflected sun in the summer ? All of these thing will affect water requirements. If plants in a unique location do not have a different zone or valve than the other, you will very likely have a hard time keeping them all healthy.

Cover under canopy of plant. Mulch insulates the soil and keeps it from drying out as quickly as it would under normal conditions. Proper use of mulch can minimize the water frequency requirements.

Different Seasons. Plants need water less often in the winter months. Most often in the summer. Try to leave the quantity of water, or minutes you run your drips, nearly constant throughout the year. This helps to keep salts build-up to a minimum, and helps to develop deeper roots.

Bedding plants and vegetables are often on the same zone as the lawn and so watered the same as lawn. If this works for you and you're happy with the results, then stick with it. If you don't have excellent drainage in your beds, frequent watering will cause the soil to become soggy causing chlorosis and root rot. Overhead sprays will cause problems like misshapen fruit, blossom rot, stem rot, leaf spot and other fungus problems, especially in hot weather. It also encourages plant pests like aphids. Plants with large leaves may shed the water and prevent the roots from getting a sufficient amount of moisture.

Consider switching to soaker lines, drip or bubbler irrigation. Consult our Certified Nursery Advisors for specific information depending on your situation. In any event, applying water directly to the root zone and using surface mulches will reduce watering frequency for most flowers and vegetables. Winter flowers need even less since soil evaporation is greatly reduced by colder temperatures. Keep your soil evenly moist for the first few weeks after planting so these shallow-rooted plants can become established.

Shrubs and trees have a deeper, more extensive root system and different water requirements. If possible have them on a different valve or time zone in your irrigation system. Sprinklers can work but drip irrigation is a much more efficient and less costly way to care for your landscape plants. A good rule of thumb is 1-2 gallons of water for smaller accent plants, 3-5 gallons for larger shrubs and 10 gallons of water for a 15 gallon plant each time you water. Boxed trees will need even more water but it doesn't have to be applied every day. Consult StarNote 001, *Planting Guide,* for new plants. For established plants, once a week should be sufficient (twice a week in summer).

Desert plants need thorough, widely spaced watering to look their best. Follow StarNote 001 to establish new plants and use the same amounts recommended for shrubs and trees above. When established, once a week, even less in winter, will work well for most desert trees and shrubs. Cacti need water even less often. A good soaking every 2 weeks should be sufficient. Don't water landscape cactus at all from mid November through February.

Container plants have small amounts of soil and generally need more water than those in the landscape, especially during our hot summers. If watering by hand, keep a close watch on your plants. Low humidity and hot winds dry them out quickly. A one-inch layer of bark or coarse mulch will conserve moisture in these conditions. On the other hand, empty your saucers and drain trays. If the pot remains in standing water, the soil will become waterlogged and your plant will suffocate. Drip emitters and soaker lines can be adapted to hose bibs on porch or patio and do a good job on container plants. See a Star Nursery irrigation consultant for details.

As you can see, watering in desert climates is not an exact science, nor is it as simple as it might seem. Understanding the water needs of different plant groups and the nature of your soil will help you be successful. Lastly, please choose the right irrigation system for your landscape and learn how to run it correctly. Don't let it run you!