



LANDSCAPE CARE INSTRUCTIONS

WATERING:

All landscapes will require different watering schedules depending on different factors such as but not limited to, climate, sun exposure, soil conditions, sprinkler head type, and topography.

In the first two weeks it is nearly impossible to over-water your landscape if done correctly. The aim in this establishment period will be to keep the root mass that is wholly contained within the soil media that it was delivered in, wet. The nursery soil was created to be very porous to reduce the risk of the fresh nursery stock contracting root rot. This soil type however works against us when we plant these plants out in the sun and exposures that your yard presents. What we will find is that often the prepared soil appears to be very wet, yet the root ball made of that nursery soil will be bone dry. This is true with all types of plants including sod.

Therefore the initial watering schedule should be frequent and in short durations. However, before we outline the initial scheduling in detail, I must first point out that, after this initial healing in period, it is equally important that we change our watering habits away from this philosophy, because the well drained soil media that the plants were delivered in to protect the new plants from root rot will be of no consequence in a landscape with water logged soil. You see all soils are infested with root rot, however if a plant is healthy it will withstand infection from these diseases. The pathogen infects roots most effectively if it can just swim around in free water and welcome itself into the root at its own leisure. In the well-drained nursery soil, free water does not persist long enough to allow this to happen. This effect works well enough for us in the first few weeks to protect our newly planted landscape from infection. But almost immediately after planting, the new plants will begin to set new roots into the prepared soil of your yard. For this reason we must insure that these new roots do not encounter waterlogged, rot facilitated soil.

WATER SCHEDULE

First week- two to three watering cycles daily, (9:30am 12:30pm 3:30pm), for two to three minutes each valve station. Shady areas might only require one to two minutes. Valves with Hunter type rotor heads will require ten to twenty minutes per cycle. Never water so long that the water runs off. You'll know that you are watering too much if there persists standing water for long periods of time (more than twenty minutes), or the soil never appears to dry down slightly.

If your yard allows you to water less frequently do so. Never however allow your landscape plants to dry out to the point of wilt. Some plants act as indicator plants to the effects of under-watering, such as;

Azaleas (if Azaleas wilt they abort their flowers), Sod (will turn a blackish color and become dull in appearance as it begins to wilt), Annual color (will begin to drop their flowers or the flowers will burn if they wilt).

Second week- one to two watering cycles daily, (10:00am 3:00pm), for three to four minutes each valve station. Shady areas will probably still require only one to two minutes per valve station. Valves with Hunter rotor heads will require fifteen to twenty minutes per valve station. During this week if the plants wilt between watering cycles, before you add back the 'start time' we took off, try giving a few more minutes of 'watering time' to the watering cycle. We want the plants to start the weaning process from the presence of constant moisture. New plants require three things to sustain life, water, a growing media, and air. In super saturated soil there is an absence of air in the growing media. Without air in the new soil, the plants will never send roots into the new soil, and the plants will never allow you to wean them from over-watering and root rot will eventually take over.

Third week: By now the plants should be starting to set roots into the new soil in earnest. Reduce the 'start times' to once daily (1:00pm). Lawn areas with spray heads will require seven to eight minutes per valve station. Planter areas will require four to six minutes per valve station. Shady areas will require two to four minutes per valve station. Lawn and planter areas with Hunter rotor heads will require twenty to twenty five minutes per valve station. Slope areas will require the same durations as other areas with like conditions and heads, but the watering cycle may need to be broken in half and administered in two cycles rather than one. The determination for this application will be the result of whether or not the slope can absorb the duration in one watering cycle without running water off. In this week regular mowing of lawns will be needed so keep the clock off on the day mowing is scheduled. If the yard needs it, initiate a semi-automatic watering cycle when you are done mowing and cleaning up.

Fourth week: this is the week that wholesale changes in the watering program need to be instituted. As you can tell, the schedule thus far has been a little vague and open to a lot of interpretation. Well now it gets worse! The reason for the vagueness is because every house has different conditions and plants. Plus here in California the weather is very unpredictable. One week it's winter and the next is summer regardless of the calendar seasons. Therefore you must look at your Irrigation Controller as a tool and not as a failsafe. We must attempt to come up with a program that is general enough to sustain our landscape with minor tweaking yet specific enough to take into consideration our landscape's specific needs. No problemo!

Lets begin by discussing the philosophy of watering. When you water what you are doing is attempting to replenish the reservoir of water within the soil profile that is available to the plant for uptake. The reservoir is depleted by evaporation off the soil surface by the sun, and by what the plants uptake by absorption, to use to sustain life. This combined process is called Evapotranspiration (ET). Any water applied in excess of the amount needed to replenish what ET used; either becomes run-off or flows beyond the root zone in the soil profile, carrying your soluble fertilizer (read money) with it. If we were to take a look at what a cross section of the entire soil profile your plants are living in looks like, and observe the available water in the soil, it would appear like a column of water saturating the soil. The finer the grains of the actual soil particles (clay content) are, the longer the column would be. When you apply water by irrigating, you are actually filling up this column. As the Irrigation water percolates into the soil profile and past the root-zone a certain amount of water remains in the soil profile as a column of saturated soil. Saturated soil has no air. The thickness of this saturated soil area, depends on the percentage of clay your soil has. The clayer the soil the thicker the saturated soil column dominates the soil profile. As the soil dries down through ET the column of saturated soil shrinks. As the profile dries down it actually sucks air down into the soil profile by a vacuum type action. The roots will only live in the soil area that has both air and water. Also remember that roots don't seek water they follow water. If you water too frequently the saturated soil column extends too high in the soil profile and the roots won't penetrate beyond the top of the saturated water column, so you must sustain the plants in a very shallow root zone. If you don't water enough the shallow rooted plants (annual color and ground covers) can't extend deep enough to follow the water and will dry out. So what we want to accomplish in this fourth week is to begin to train the roots of all the plants, to survive in a root zone that has periods of saturation followed by periods of air penetration. That is not easy, and if done accurately will require some keen observations and much tinkering with your Irrigation controller. However if done properly will result in a very healthy landscape that will be able to sustain periods of drought without drying out, and require less

money spent on water, fungicides and fertilizers. Because the deeper we can train the roots to grow, the greater the root mass the plants will produce, in a larger soil volume, giving the plants a greater soil volume from which to grab available nutrients and water from.

Specifically we want to water long enough to fill up the water column (reservoir) each time we water and not water again until the plants begin to show the initial signs of 'lack of water' stress. How long are we to run each valve station to accomplish this? If I knew the exact answer to that question I wouldn't have to write this to you, but because each yard is different, it's going to be your job to come up with the specifics with the help of some good coaching from me. First a few do's and don'ts. Never water your landscape to the point of run-off. This practice causes slope erosion, excess standing water which gives rise to root rot, and is a good waste of money. Observe each area by manually turning on each valve area and timing how long you can run that valve until runoff begins. Manually run the valves in the same sequence that they appear on the controller cycle because some valves may water the same area but from a different direction and this will effect the time before runoff occurs. This gives you the 'maximum run time' for each valve. On your controller chart note the maximum run time for each valve. If any existing run times programmed into the controller exceed these times make the adjustments. When adjusting the controller never exceed this run time for each valve. Note, these 'maximum run times' will change from time to time as your landscape matures and the seasons change. Now lets try to get your landscape to survive on watering every other day. Begin by setting the watering start times to begin and finish before you get up in the morning.

If we start on Monday set the program to not water on Tuesday, Thursday, and Saturday, and each valve station to its respective 'maximum run time' we noted on the controller chart. Watering will occur on Monday morning. If when you get home on Monday or Tuesday evening and you observe water stress, note in what areas it is occurring. If the stress is severe water those plants immediately by hand if isolated, or by the controller if wide spread. Then reprogram those water stressed valve stations areas an additional start time to water Monday, Wednesday, Friday, and Sunday morning on program 'B', the new run time shall be a percentage of the 'maximum run time' in proportion to the degree of water stress not exceeding the maximum, the new start time should be coordinated to finish one hour before the program 'A' start time begins. This is giving those areas more water without over watering the entire landscape. When you get home on Wednesday observe for water stress again. Increase the station run times in program 'B' using the same principals as before. Repeat this process as often as necessary, but never exceed the 'maximum run times'. If the landscape need water in excess of the 'maximum run time' in the program 'B' use program 'C'. When you get the every other day watering cycle dialed in without having to make any further adjustments pat yourself on the back. Don't forget that the opposite principals are true for areas that don't seem to dry down. Remember that we are trying to get to the point of applying the least amount of water as possible, so don't be afraid to reduce the run times until you can't reduce them further without causing water stress. Most normal people stop at this stage, but if you are a real thrill seeker or just plain concerned about your ballooning water bill, use the same principals to get your landscape to go two days between watering. This may require using program 'C'. Don't be afraid to experiment. If you can use these principals to go three days without watering (it really is possible) call me immediately and I'll get your name in the Hernandez Book of World Records.

FERTILIZING

Once you get your watering down to where you are watering every other day, usually this takes about four to five weeks after planting, you are ready to begin a comprehensive fertilization program. Fertilization of your landscape is like feeding your children, if you don't feed your kids correctly they won't grow and will succumb to disease readily. The same is true with plants. First a few do's and don'ts.

Never fertilize dry plants. Fertilizer is a salt, and when you add salt to a dry plant, the salt will accelerate the drying process. If you are scheduled to fertilize on a day that the landscape is relatively dry, water that day instead, and fertilize the next day, or at least four hours later. Never over-fertilize your landscape. Applying too much fertilizer will only cause plants to burn or grow so rapidly that they will be susceptible to disease and insects. If you miss a fertilizing just resume your schedule as soon as possible where you last left it. When using granular fertilizer, never pile the granules around the base or trunk of the plant. The best technique is to throw a measured amount of granules at the plants, with enough force, that the granules are dispersed around the base of the plant.

Always use a mechanical type, fertilizer spreader, to fertilize turf. If you fertilize turf by throwing the granules by hand, you run the risk of creating real neat patterns of very green turf and yellow unfertilized turf.

Always water in fertilizer after application of any type of fertilization. With granule fertilizers the key is to wash the granules off of the surface of the leaves, and out of any crotches that leaves form that can trap the granules. Being a very concentrated salt, granule fertilizers will burn holes or yellow spots into the leaves. New leaves are especially susceptible. Soluble fertilizers are equally dangerous to leaves if not washed off of the leaf surface immediately after application. It is recommended that one should wash down all the plants you intend to fertilize with soluble fertilizer, prior to fertilizing. Then follow-up with a through washing after fertilizing is completed.

Always follow the directions written on the label. Never assume that if the label says a certain amount of fertilizer is recommended, that double that amount, or any amount above the recommendation is better. In fact it will always be detrimental to your landscape. As a matter of fact, if for instance, the recommendation reads, one pound of fertilizer per 100 square feet once a month, it would be better to apply one half a pound per 100 square feet every two weeks.

All fertilizers and insecticides that will be recommended here are available at Orange County Farm Supply 714-978-6500.

FERTILIZER RECOMMENDATIONS

TURF: Summer - fertilize with Best Turf Supreme
Winter - fertilize with Best NitraKing

PLANTER AREAS: Alternate applications of Gro-power regular, and 15-15-15 on a monthly basis. Apply one half of the recommended dosage if applied monthly. Note, on Gro-power, even though it is an organic fertilizer will burn just as easily as any other fertilizer.

ANNUAL COLOR: Soluble fertilizer on a two week interval. Almost any type of soluble is ok, the key being consistent usage. The most common types being; Peters 20-20-20, Super Bloom, Terro-vite, Rogers Flower Food, Miracle Grow.

TOP DRESSING: Top dressing is a vital operation that will maintain your landscape in a vigorous growing condition. During the initial installation, your yard was prepared with a combination of organic materials and fertilizers. This effort was a futile attempt to simulate the natural decomposition processes that takes place back east, when the trees loose their leaves year after year, in one application. Therefore subsequent applications of organic materials will simulate this life giving process, by supplementing the life of your soil. Planter areas can be top dressed with redwood compost on a yearly basis, usually in the spring after the rainy season. Nitrohumus is an excellent top dress material for top dressing roses, annual color beds, and fruit trees.

PEST CONTROL

Pesticides are very specific in their applications. For specific recommendations it is recommended that you consult a licensed pest control advisor or the Agriculture Department.

SNAILS: 'That's it' is absolutely the best snail bait there is. Although it is not pet safe, 'That's it' uses wheat flower as an attractant instead of cornmeal, so it is less sweet and therefore tasteless to dogs and cats, plus it is rolled onto a grain of sand which makes it very small. Small granules cover a larger area per pound. Application of snail bait is best done in the early evening. Hose every thing down, including walkways and walls, shake That's-it over the entire landscape, concentrating where snails like to live (agapanthus, day lilies, Clivia, cold wet walls) and eat (annual color, vegetables, roses). The moisture brings out the snails and the bait does the rest.

POWDERY MILDEW: Attacks roses, begonias, crepe myrtles, and Nandina. The fungus presents itself

as a powdery type of mold on the surface of the leaf. The only way to stop the spread of the fungus is to spray the infected plants with 'funginex' (active chemical is Triflorine). It is perfectly acceptable to spray a preventative application of this chemical before the fungus presents itself in the early spring. In most instances the infected leaves will die or burn up after the chemical is applied because the fungus is actually inside the leaf and the powdery stuff you see is the spore producing bodies of the pathogen poking through the surface of the leaf. So when the fungus living inside the leaf dies the leaf goes with it.

SUCKING INSECTS: a good systemic insecticide such as Orthene can eradicate Aphids, Thrips, scales, and mealy bugs.

Aphids are watery little bugs that can be green, black or red in color. They appear on the new growth of many types of plants. They have a symbiotic relationship with Ants. The Ants harvest the honeydew that the Aphids produce. Ants will actually move the Aphids from plant to plant and protect them from the Aphid's natural predators like Lady Bugs and Parasitic wasps. Check the Aphids by squishing them before you spray to see if they are in fact still alive or all dried up. If they are dry the natural predators have done their job, or the previous spraying has worked, don't spray again because you will only succeed in killing the beneficial insects.

Thrips are small black sucking insects that turn the leaves of the plants such as Azaleas a silvery gray color with black spots.

Scales are sucking insects that encapsulate them-selves in a hard shell, usually on the soft stems of plants. They can also be identified as dead or alive, by squishing. If they are dry inside they are dead.

Mealy Bugs are sucking insects that are very white and almost cottony in appearance. They look like small, soft, 'roley polley bugs'

CATERPILLARS: Caterpillars can be eradicated by the application of actual living bacteria (Bacillus Thuringiensis) sold by different trade names. The caterpillars must ingest the bacteria while eating a leaf, so spray the infested plants at the first sign of damage (rounded holes on the leaves usually emanating from the edges). The bacteria, then kills the caterpillar from the inside by giving it a real bad stomach ache. Death is usually realized in about 4-7 days.

TRIMMING

The next most important aspect of horticultural practices, necessary to maintain the overall appearance of your yard, is the proper trimming of the plants and trees. Most people are afraid to trim their plants for fear that they might permanently damage or destroy their plants. When in fact some plants need trimming to stay alive and bloom correctly, such as Azalea, Hydrangia, and all annual color.

Azaleas will bloom next year on the new wood produced this year, so the greater number of branches they produce this year the more flowers they will have next year. Regular tipping of the new growth will promote branching. As the new branches start growing after the flowers fall in the spring, let the shoots grow out to six inches in length. Then cut the new growth back half way. From each cut branch the plant will produce six to ten new branches. Repeat this procedure through out the year until August, at which point the plant will start forming the flower buds for the spring. Pruning after August will remove the flower buds that stay dormant until spring.

Hydrangeas must be trimmed down to the trunk (6" high) after the growth/bloom stage is complete. Usually at that time the plant starts looking real bad anyways so this type of severe treatment will be welcomed. After pruning give a good shot of 15-15-15 fertilizer and the plant will grow back to its original splendor within weeks. This treatment is also good for dwarf Alstromeria (cut back to the ground), and Hibiscus (cut back to 6-12" in the spring after all possibility of frost has past).

Annual color must be 'dead headed' (cutting off the old flowers) weekly. If regular dead heading of annual color is not done, the plants will produce seeds and their internal biological clock will turn the plant off and it will die. Flowering perennial plants will need to be deadheaded only when the accumulation of dead flowers is detrimental to the appearance to the plant. NOTE- annual color plants are those plants that, bloom vigorously for one season then die, perennial plants are all the rest.

Large trees should all be trimmed yearly, in the early fall before the Santana winds start. Fruit trees can be pruned on the spring or fall.

Roses should be trimmed in the late winter before the spring buds emerge. All the leaves should be removed when you cut back the roses so that no fungal diseases can over-winter in the old leaves or flowers. Remove and replace all remaining mulch and clear the area of all leaf and flower litter and dispose. Mulch the roses with Nitrohumus, fertilize and spray with a good dormant spray.

CONCLUSION

The most important thing to remember about this care sheet is this, 'if something does not look quite right it is always better to call me ASAP'. That way we can nip a potential catastrophic problem in the bud before it develops, rather than trying to fix a situation after the damage is done.