

2015/16 Drought and Water Conservation (Revised May 2016)

I guess one of everyone's favorite topics is the weather; especially, these days with all of the discussion about whether or not man is behind all of changes we've been seeing in global weather recently. So, this update will be mostly a brief update on weather and water in Costa Rica and refresher course on water conservation.

It may seem silly to be talking about droughts and recommending water conservation in a country that once averaged 77 inches of rainfall per year, but that amount of precipitation hasn't happened recently. And, there are areas of the country already in their second year of severe drought. According to meteorologists, our planet just finished the hottest twelve months in recorded history. Not to get political about climate change and take a position on whether there is or there isn't weather change taking place globally, but the immediate fact is we could be in for some very lean water months or years in Costa Rica. On top of that, some studies done here estimate that as much as 50% of all municipal water is wasted every year. Folks here still behave as if water is in unlimited supply and I hope that attitude changes soon.

I also hope that none of our subscribers are major contributors to water waste, but I suggest we all take a serious look at our water-usage practices. Some water-usage adjustments are simple to implement and my guess is that it won't be too long until Costa Rica begins a water conservation program that includes protecting water sources from pollution, curbing municipal water waste and beginning water conservation education in the community and in the schools. Being a native Californian and veteran of many droughts and perpetual limited water supply, I can attest to the fact that it's never too early to begin to think about ways to conserve water.

Some very scary weather-related things have happened or come to light recently. According to meteorologists, our planet just finished the hottest twelve months in recorded history. Not more than a month ago the strongest hurricane in recorded history, Patricia, touched down not that far north of here in Mexico with wind gusts far in excess of 200 mph. And, it was announced about two months back that the ice at both poles is melting even faster than anyone ever predicted--the resulting rise in the ocean height could be the loss of most of the world's current beachfront and submersion of the world's major port cities in our lifetime--stuff with major economic, social and political implications not just for Costa Rica, but for everywhere if it happens. Let's hope the climate summit in Paris beginning on December 6 reaches some real and enforceable agreements about how deal with our global weather.

A little reality check for us in Costa Rica--an El Nino just left the upper half of the Western Hemisphere brought much-needed rain to the Pacific Coast of North America. However in return, that same El Nino kept us in a drought in Costa Rica. With considerably less rain recorded than normal, officials in San Jose instituted water rationing this past Costa Rican summer in certain parts of the city. Other areas even including parts of the Grecia canton. I know the aquifers in Sarchi did not recharge this past rainy season as hoped.

It may seem silly to be recommending water conservation in a country that once averaged 77 inches of rainfall per year, but that amount of precipitation hasn't happened recently. And, there are areas of the

country already in their second year of severe drought. Not to get political about climate change and take a position on whether there is or there isn't weather change taking place globally, but the immediate fact is we could be in for some very lean water months or, perhaps, years in Costa Rica. On top of that, some studies done here estimate that as much as 50% of all municipal water is wasted every year. Folks here still behave as if water is in unlimited supply and I hope that attitude changes soon.

I also hope that none of our subscribers are major contributors to water waste, but I suggest we all take a serious look at our water-usage practices. Some water-usage adjustments are simple to implement and my guess is that it won't be too long until Costa Rica begins a water conservation program that includes protecting water sources from pollution, curbing municipal water waste and beginning water conservation education in the community and in the schools. Being a native Californian and veteran of many droughts and a perpetual limited water supply, I can attest to the fact that it's never too early to begin to think about ways to conserve water.

Now that I have opened Pandora's Box regarding the weather and climate change, let me be candid and admit that I discovered not every QP subscriber buys into the realities of climate change, at least, the man-made side of it. However, let me talk about how the continuing drought, regardless of its cause, was felt in Costa Rica, was real and directly effected its residents in 2015/2016.

For those of you who are concerned, we're offering water facts and some things that you can do to help lessen the impact to yourself and save water at your house. We're listing them below. If you have ideas or suggestions send them to me at editor@quepasagrecia.com.

Summary of Current Costa Rica Water Facts

Let's review of a few real Costa Rican water facts in the here and now and then, as promised, we'll provide more practical water-saving suggestions:

1. When verano started this past season and for a number of seasons running, most of Costa Rica received less than "normal" amounts of rain during its Green Season. The municipal aquifers serving Grecia, Sarchi and Naranjo all contained less-than-optimum quantities of water to serve their users;
2. the lack of adequate potable drinking water is real and up 700,000 residents in this country were subjected to some form of water rationing this past summer.

When water is in short supply, practicing conservation saves water and saves you donero. So, you've really got nothing to lose. And, there's really no reason not to think about water conversation practices even when it's raining cats and dogs.

Simple, Easy and Obvious Water-Saving Suggestions

The Garden

1. landscape with drought-tolerant plants--surprisingly, succulents including cactus do very well at altitudes well over 3,000 ft. elevation and there are some grasses available that are slow growing (read less irrigation) and only require being mowed twice a year.
2. right alongside drought-tolerant landscaping is don't over water. Find the minimum amount of water

you think each of your plants requires and wean back their thirst even further by giving them less until you see the plant start to stress. This can be challenging here, because in most places the soil is volcanic and quite porous and the water soaks right in and disappears.

3. cover the soil around your plants with mulch, coconut fiber or moss, which helps to hold irrigation water and slow evaporation.
4. if available, capture or divert runoff and gray water (absent soaps and toxic chemicals) for irrigation.
5. set up watering with drip irrigation and emitter lines, which waste very little water. (Some of these parts can be brought back from Home Depot the next time you're in the States, and there is an irrigation supplier, KAF Internacional, on La Garita Road, 700 meters east of Zoo Ave in La Garita.)
6. above all, to minimize wasted water, DO NOT water your landscaping during the heat of the day--early mornings and late afternoons-early evenings minimize water lost to evaporation.

Water Conservation Tips from the Municipalidad de Velverde Vega for In and Around the House

1. check your faucets and stop the drips. One faucet leaking just two drops per second will waste 175 gallons (662 liters) per week.
2. dial down your faucet's flow a bit and use less water when washing hands, teeth, dishes and cars or when shaving. Don't leave the water running continuously while doing these washing tasks. Tremendous water savings are accomplished by not leaving the water running when you are in the middle of washing anything.
3. put a brick or a plastic soda bottle in your john. Viola--instant low-flow toilets. Or replace your toilets with low-flow models.
4. we've mentioned this before, but always water plants and gardens in the early in the morning or at night.

23 More Water Conservation Tips for Outside the House

Your editor's home sits on one acre and his water usage in el verano has averaged about five times more per month than during the Green Season. The major thing that changes is the requirement to irrigate the lawns, trees and gardens. With that in mind, here are some suggestions that may help you save water in your great outdoors this summer:

1. Avoid overwatering. Signs of overwatering: leaves turn lighter shades of green or yellow, young shoots wilt, and sometimes algae or fungi grow.
2. Set a kitchen timer when using the hose as a reminder to turn it off. A running hose can discharge up to 10 gallons per minute.
3. Reduce the amount of lawn in your yard, which often requires more irrigation than other plants by planting shrubs and ground covers appropriate to your site and region. Native plants may do better in your yard with less water.

4. Use a broom instead of a hose to clean patios, sidewalks and driveways, and save water every time.
5. Plant in the Green Season, when the watering requirements are lower.
6. Group plants with the same watering needs together to avoid overwatering some while underwatering others.
7. If you are considering adding a fountain, trickling or cascading fountains lose less water to evaporation than those that spray water into the air.
8. Water only when necessary. More plants die from over-watering than from under-watering.
9. Don't dump your leftover ice cubes in the sink. Put them in hanging baskets, planters and pots on top of the soil to give your plants a cool drink of water without overflow.
10. Learn how to prune properly. It can help your plants use water more efficiently. There are pruning guides and suggestions on the Internet.
11. Water your plants deeply, but less frequently to encourage deep root growth and drought tolerance. Don't mow or weed wack your lawn areas too often. Leaving lawn areas high allows the grass blades to shade the soil and roots lessening evaporation.
12. Don't water your lawn in the wind when most of the water blows away or evaporates and only water lawns when your footprint shows (when the blades don't quickly spring back up).
13. While fertilizers promote plant growth, they also increase water consumption. Apply only the minimum amount of fertilizer needed during the summer.
14. Remember to weed your lawn and garden regularly. Weeds compete with other plants for nutrients, light and water.
15. Leave lawn clippings on your grass, this cools the ground and holds in moisture.
16. Next time you add or replace a flower or shrub, choose a low-water-use plant and save up to 550 gallons each year.
17. Spreading a layer of 2" to 4" of organic mulch around plants helps them retain moisture, saving hundreds of gallons of water, plus also saving time and money.
18. Leave lower branches on trees and shrubs and allow leaf litter to accumulate on the soil. This keeps the soil cooler and reduces evaporation.
19. When you give your pet fresh water, don't throw the old water down the drain. Use it to water nearby houseplants, trees or shrubs. Wash your pets outdoors, in an area of your lawn that needs water.

20. Instead of letting the water run, use a hose nozzle or turn off the water while you wash your car (or move about with the hose when watering). You'll save up to 100 gallons every time.

21. if you have a leak in your water delivery set up from the municipality, give them a call. They will come and fix it--often at no cost depending on where the leak is occurring. If you spot a leak in your municipality's water delivery system, notify them. (Studies estimate that up to half of all of Costa Rica's municipal potable water is lost annually to connection leaks and broken pipes.)

22. Most new washers and dishwashers use much less water than older models and even less washing by hand. If you need a replacement, a new model is apt to save you water (and electricity).

23. store rainwater runoff in a tank or underground reservoir for non-potable use. It is admittedly difficult to do here, because when it rains everyday you don't need to store water. And, when it doesn't rain for six months there is no water runoff to be stored. However if we begin to experience the kind of drought they are experiencing now in Guanacaste, it will become much more appealing to save water every time it rains.