

## How Much Rain Did You Keep?

Living in the Hill Country in low to average rainfall times can be frustrating. In the old days you didn't get too excited about coming rainfall unless you heard thunder or saw dark clouds approaching, so the storm had to be close to you. Nowadays, with TV weather reports and Doppler radar 24 hours a day on your tablet or smart phone, you can track the progress of a rain cloud from many miles away as it approaches your property.

Unfortunately, it also shows you how the clouds suddenly evaporate just before they get to you, or maybe they just bypass your place while your friend down the road gets a good soaking! It seems like more often than not, lots of other people get rain but it always misses us. We are all jealous when others get rain that we didn't get.

But when you do get rain, it is not so important how much rain fell on your property as how much rain did you keep?

What we want to happen when it rains is for the water to soak into the ground where plant roots can take it up to nourish the trees, grass and flowers as well as seep into local water tables and flow underground down to the riparian areas of local creeks and rivers where it contributes to the base flow of the river between rains. Some water may even seep deep underground to replenish the aquifers.

What we don't want it to do is to run off the land carrying some of our soil with it where it flows into local creeks and rivers polluting them with muddy water and silting up reservoirs. The long-term steady flow of clear water into our streams is preferable to the short-term high-flow of muddy water and the resulting erosion of our soil.

So what can we do to make sure we keep the rain we get? On native rural areas, the best thing we can do is to maintain a good stand of native grasses. Any vegetation is better than bare ground, as the latter is most susceptible to having raindrops dislodge small soil particles and carry them away. Vegetation of all kinds covering the ground, including trees and shrubs, break the fall of the raindrops, thus greatly reducing the amount of soil dislodged. Native grasses stop or slow down the flow of water over the land reducing the amount of runoff and the soil it carries. Native grasses also maintain a porous soil structure so more water soaks into the ground under native grasses.

The opposite of native grassland, in terms of capturing rainwater, are any kind of impervious surfaces. Impervious surfaces include anything that no rainfall soaks into; specifically roofs, driveways, roads and parking lots. All the water that falls on these surfaces runs off immediately and is concentrated into smaller areas than would be the case with natural areas. These concentrated mini-rivers can lead to the formation of small gullies or large eroded ditches along roads.

In the city, most of the water that falls on impervious surfaces eventually finds its way to storm sewers where it flows into the river, but only after it has picked up fertilizers, pesticides, herbicides and other chemicals as well as gasoline, oil, rubber and whatever trash and debris it collected from the streets and parking lots.

The people who capture rainwater from their roofs and then use the water later to water their lawns, flowerbeds or vegetable gardens are not only using the water as Mother Nature intended, and keeping more of the rainfall they get, but they are also reducing the storm water runoff and the accompanying pollution of the river.

As the population increases and more and more of our natural areas are converted from native grasses and other vegetation to impervious surfaces, we are going to be keeping less and less of our rainfall. And a prudent person would say that the amount of rainfall we are likely to be getting in the future may well be somewhat less than past averages would predict. All of which says we should be looking for ways to keep more and more of the rainfall we do get, and be judicious in its use.

Until next time...

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