

## Do All of These Drizzly/Foggy Days Do Our Vegetation and Land any Good?

It seems like this winter we have had more than our share of drizzle and fog and maybe a few light sprinkles, but very few actual rains. In fact, at our house, since a good rain the first week of December, we went the rest of December, all of January and most of February without any meaningful amount of rainfall.

And both the Drought Monitor and the Keetch-Byran Drought Index confirm that most of the Hill Country is in a pretty dry condition right now.

But we have had many days in a row of fog, drizzle and maybe a brief light sprinkle, many of which didn't even register in the rain gauge. So the questions are: Do those add up to anything meaningful? Or as is sometimes asked, are they "agriculturally significant"?

And the answer is, maybe a little bit, but not much.

Certainly, days with fog and drizzle keep the surface of leaves and the ground wet and maintain a high humidity which greatly reduces the evaporation rate, both from the ground as well as evapotranspiration from vegetation. So these days help us keep what moisture we have. And, if there are seeds of grasses or wildflowers germinating and just beginning to grow, by keeping surfaces moist these emerging plants are probably more likely to become established.

Plants with roots within a fraction of an inch of the soil surface may be able to use the new moisture from such a drizzle before it evaporates way later in the day.

But that is about the end of the good the fogs and drizzles do for us.

I have heard the question "If we have ten days of 0.1 inch of rain each, doesn't that add up to 1 inch"? And the answer is, in my opinion, no.

The problem is that most the days when we get fog and drizzle, it is usually in the morning, and frequently by midafternoon, the sun has come out and everything has dried off, including what little water may have reached the ground and soaked in a little bit. So there is no moisture left to carry over to the next day.

And in fact, most of the moisture in rains of 0.1 inch, or even up to at least 0.25 inches, never actually reaches the ground, but falls on vegetation and is held on the leaves where it eventually evaporates back into the air. Plants can't use the moisture on the surface of the leaves—the vascular structure and the way a plant functions require water to enter the plant from the fine "feeder" roots in the ground.

So how much rain do we have to get before it begins to be significant? I think the answer to that depends somewhat on the vegetative density of the landscape and to a certain extent just personal opinion. In my opinion, rainfall begins to be meaningful around 0.5 inches and around 0.75 inches one can usually see improvements in the appearance of many plants.

So everything above 0.75 gets to be better and better? Not necessarily. There is an old saying, “It ain’t how much you get, but how much you keep.” Usually, any rainfall over 1.5 or 2.0 inches comes in heavy downpours and thunderstorms, and, depending on the condition of the land and its vegetative cover, much of that rain falls faster than can soak into the ground and thus some of it runs off. In some cases, a lot of it runs off.

The water that runs off your property, doesn’t do your vegetation any good, and may wind up in the Gulf before it can do any good for anyone upstream of the Gulf.

If we had our choice, we would want a Goldilocks rain—not too little, not too much. I have said before that if I could control all of the rainfall, I would choose to get 1 inch of rain every other Monday—26 inches, a little less than the long term average for most of the Hill Country. But in most 1 inch rains, most reaches the ground, most soaks in, but little runs off.

But it is probably good that I don’t control the rain, or that anybody does, since we humans have a way of messing thing up. So if it rains too little, pray for more and if rains too much, pray for less-which I guess is what we have always done.

Until next time...

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