

“It’s Not How Much Rain You Get, But How Much You Keep”

When two Texans greet each other, especially when they haven’t talked since the last rain, the conversation usually begins with, “Hi. How are you? How much rain did you get?” We all have rain gauges, many of us keep records of rainfall, it’s just part of being a landowner in semi-arid country. But asking how much rain did you get is not the most important question, what’s important is how much did you keep?

I was reminded of the old quote above recently when I read a 1960 article by Clarence Rechenthin, an agent with the Soil Conservation Service (now called the Natural Resources Conservation Service), entitled “How Much of It Soaks In?” The point was brought home even more vividly last week when we received over 4 inches of rain in about 4 hours as we watched huge volumes of water running out of the pasture into our yard, around the house and down the hill, while our rainwater tanks were overflowing.

We clearly did not have 4 inches of rain soaking into the ground around our house. We don’t really know how much ran off, but it was certainly a significant fraction of how much fell that night. And we live on what by Hill Country standards would be considered a fairly level property.

Of course, what ran off our land flowed to a little wet-weather draw behind our house, which in turn flows into a creek and helps to fill up several small lakes on the creek. Eventually the water makes its way to the river, perhaps then into a major lake and finally into the Gulf. Unfortunately it will be taking some of our soil with it and silting up the lakes.

If more of the rain had soaked into the soil, then the moisture level of the soil would have been higher and available to the trees, grasses and other vegetation for a longer time. Some of the water in the soil would have seeped slowly downhill through the soil to come out as seeps or springs which contribute to the base flow of the creek. Having higher base flows makes more water available than when it is lost during storm flows. Also some of the water may have seeped down into deep underground aquifers to replenish that critical resource.

We have of course had big thunderstorms in the past and have seen water run off the land, but the amount of runoff seemed greater last week. That was not unexpected because, as I discussed in a column a few weeks back, we have more bare ground now than in the past due to last year’s drought and lack of grass growth. Water soaks into the soil under bare ground much more slowly than under native grasses, so until we regain the grass cover we had before last year, we can expect greater amounts of our major rainstorms to run off instead of soaking in.

And, because of the increased amount of bare ground, we undoubtedly lost more soil with the runoff than we would have in normal times.

It is easy to see the evidence of water running off by simply walking around and noticing places where litter dams were formed in which the flowing water picked up leaf litter and carried it floating, downhill, even if on a very gentle slope, until something caught the debris and caused it to build up in small piles.

If you have piles of leaf litter built up downstream of bare soil in your yard, you might want to rake it back to cover the ground. Mother Nature's "mulch" helps shade the ground and prevent water from evaporating, both of which are important even when we are not in a drought.

Areas that had the greatest amount of grass cover before the drought of last year still have more ground cover than areas where the grass had been grazed too short. Consequently areas that started with a lot of grass would have had less runoff and erosion after a big storm than places that started with little grass. This is just another way of saying that well-managed ranges are better able to survive droughts and to capture and hold more water than less-well managed properties.

The quality and quantity of water available to everyone is determined by the condition of the land on which the raindrops fall.

Until next time...

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