

## And Then The Rains Came!

After a very hot, dry summer the native vegetation was in pretty sad shape in early September. Many trees were showing signs of stress, either dropping leaves or wilting. Most grass had long since gone dormant brown, and many wildflowers had either died or were in an extremely wilted or browned out condition. It was not like we hadn't seen this before, in fact it is getting to be somewhat common, but nonetheless, it is painful to watch.

And then the rains came!

At our house, we had almost three inches in one day in early September! We were seeing changes in less than 24 hours and on the second day major differences were noticed. The shrubs that were showing obvious signs of wilting before were now looking bright and healthy. The buffalograss went from brown to green overnight.

Two or three days after the rain I took a walk around the pasture, looking at the changes the rain brought. There was green grass to be seen in many places, but it was mostly under trees that the greenery was most notable. One could see green circles under trees and brown or gray grass outside of those circles. As the days went on and we got a few more showers, more of the grass in the open areas began showing new growth. In some cases green growth could be seen even among the dead gray leaves of some bunchgrasses.

Why this pattern of grass greening up? The greener grass under trees can be explained as follows. The shade provided by the trees kept the soil under them cooler and thus reduced the amount of evaporation of water from the soil. This is in spite of the amount of water the trees were taking up. The cooler, wetter soil conditions under the trees allowed the grass there to be less affected by the hot dry days and, even though it had gone dormant, it was in better condition than the grass in open areas. So it was in better condition to respond to the rain.

In the open areas, much of the grass had turned from brown to gray, an indication that the leaves at least, if not the whole plant, were no longer just dormant, but dead. In general, grass that has turned brown is assumed to be dormant, but grass with gray leaves either means that those leaves are dead and will not green up again or possibly that the whole grass plant is dead. If a grass plant with gray leaves is easy to pull up, it is probably dead, if not, the growing points near the ground and the roots may still be alive. Obviously some of the grass plants in the pasture were not totally dead as they began to show new growth in a few days, but still much less vigorous than the grass under the trees.

A number of wildflowers and perennials that hadn't had a bloom on them in a long time suddenly burst into bloom. A partial list includes rose pavonia, zexmenia, various salvias, gayfeather, Lindheimer senna, bush sunflower, mealy blue sage, straggler daisy, cowpen daisy, Greggs mist flower, fall obedient plant, passion vine and lantana.

While the trees were obviously helped a lot by the good rain and seem to have stopped dropping their leaves, they were undoubtedly stressed during the summer and this could lead to the loss of some trees in the next year or two.

The important lesson here is that native vegetation, having evolved to be here with our frequent dry spells as well as our wet spells, is extremely resilient and can usually bounce back from all sorts of extreme conditions. The fact that the native grasses have quickly begun to put up seed heads and reproduce so the species will prevail even if the individual plants do not demonstrates why these plants have survived here for so long. That the forbs have begun to flower shows the tenacity of these plants to produce seeds and reproduce even under less than ideal conditions as well.

Not every species will do well all the time, some will do better under the conditions of one year and others may do better under different conditions another year, but as long as we protect the diversity of native species, they will be with us for a long time.

Native Plant Sale at Riverside tomorrow, 8 to 3.

Until next time...

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