

## The Ogallala Aquifer. Lessons for Us All?

A recent long, detailed, article in the National Geographic brought back memories. It was entitled, "To the Last Drop" with the subtitle, "The Ogallala aquifer turned the U.S. Midwest into the nation's breadbasket. What happens when the water runs out?"

I grew up between Lubbock and Midland on the southern edge of the Ogallala aquifer. When I was 10 years old, I started to work for the cotton farmer who had a farm next to the oil camp where we lived. My first job was to set syphon tubes to syphon water from an open ditch onto the rows of cotton (My hands were almost too small to do that!) A year or two later the farmer bought aluminum pipe with sprinklers that we could move, one joint at a time, to water the cotton.

The water for all of that irrigation came from wells drilled into the Ogallala aquifer. They were what I considered at the time to be huge wells, 6 inch pipes full of water coming out of the ground, powered by old car engines running on propane.

All of the 6 years I worked for that farmer was during the "drought of the 50's", but that cotton got all the water it needed. Granted, I was just a kid, but I don't remember a lot of talk and worry about the drought back then—we had all this water just underground.

The Ogallala spans most all of the Texas panhandle north of Odessa all the way north through Nebraska. For much of the panhandle and all the way into Kansas, the aquifer is severely depleted and is becoming more so every year, including the spot where I worked on that farm. In those areas, the Ogallala is not being recharged to any significant extent—the water they are mining has been there since the last ice age about 15,000 years ago! Much of the aquifer in Nebraska is being recharged.

In the area surrounding Lubbock, 73,000 wells are in use. Some are so weak that no single well can feed the big center-pivot sprinkler systems now in use, so multiple wells feed one sprinkler system. (The record is 21 wells for one system!).

Ground water in Kansas and Nebraska belongs to the state and the state issues water rights to property owners, but many of those areas have greater water rights granted than exist in the ground. In Texas, landowners can pump as much water as they want from under their land.

In a book on the history of the aquifer, "Ogallala Blue" by William Ashworth, he argues that it is not cotton or corn or dairies that are to blame for the decline of the aquifer, but rather cotton and corn and dairies and alfalfa and millet and beef cattle and lawn sprinklers that are to blame.

It takes about 460 gallons of water to raise and process the beef for one quarter-pound hamburger!

Down here in the Hill Country we don't have the Ogallala aquifer, but rather the Edwards and/or Trinity. While the Edwards down in the vicinity of San Antonio demonstratively recharges in large rains, the rest of the Hill Country aquifers recharge

much more slowly. We, of course, don't have the truly large scale irrigated farms of the High Plains, where the green circles of center-pivot farms can be seen from space. We do certainly have some of the same type of irrigated farms seen in the panhandle, but they just are not nearly as numerous or as large as those over the Ogallala. Which is good, because our aquifers are nowhere as massive as the Ogallala once was.

But the folks that live in the areas where the Ogallala is severely depleted are looking at a future that is highly uncertain and for which there are no solutions in sight. We are not facing that kind of problem in the Hill Country, yet. But it should be a wake-up call for all of us that we live in this area of finite water supply as well as increasing population projections, and that there are potential problems on the horizon.

Everyone; farmers, ranchers, country or city dwellers, needs to be aware of the issues and pay attention to any and all proposals for dealing with this problem. And we should remember H.L. Menken's admonition, "For every complex problem, there is a solution that is simple, neat and wrong."

Until next time...

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