

Brown revolution taking hold

By Mark Watson

Panhandle No-Till Educator

It's sure been an ugly April and that is exactly what we needed. The majority of us have experienced several days of snow, wintry mix, spring showers, and back to blowing snow. April has been above normal in precipitation and it couldn't have come at a better time.

With this moisture has come an optimism that the drought may be easing and we'll have a chance at producing good crops and hay this growing season. All we need now is for Mother Nature not to forget about us and give us "normal" precipitation the rest of the growing season. Of course "normal" precipitation will bring good rains, high winds, torrential rains, hail, and a few tornadoes, but that's the life of farmers and ranchers in our region.

You might not know it by looking around the countryside or visiting with your neighbors, but there is a Brown Revolution beginning to take hold in agriculture. This revolution isn't a violent one, but one of changing the way producers view their soil.

I don't know if you have noticed but almost every farm magazine published this winter had an article on soil health somewhere in its writings. Some magazines devoted their front cover to soil health and the management changes producers are making across the country to really improve soil health.

No-till crop production meetings have been focusing on soil health for several years now. What we have discovered over the years is that no-till crop production is only one of many tools we need to implement in our management practices to lead us down the road to improving soil health.

Additional tools in improving soil health are adding diversity to our cropping rotations, implementing cover and forage crops into our system, and grazing livestock on our acres where we produce these forage crops.

Producers who have adopted these management practices have found good success in improving their soil's health. Improved organic matter, water infiltration and holding capacity have increased, soil structure has improved, and crops have responded to this improved soil health.

Lower costs of production and improved yields have led to increased profitability in the crops these soils have produced. Increased income has also been realized with the addition of forages and cattle grazing. This type of system has really proven to be more profitable while at the same time it has improved the health of the soil on the producer's farms and ranches.

There are many factors involved in improving the health of the soil. High amounts of residues are left on the soil surface after grazing to feed the livestock beneath the soil surface. The soil livestock consist of all types of soil microbes including bacteria, fungi, nematodes, and protozoa.

Colonies of mycorrhizal fungi attach themselves to plant roots and extract moisture and nutrients from the soil and feed the roots.

Microbiologists are just beginning to understand this complex web of soil microbes and how they relate to the crops we grow.

Producers adopting this soil health initiative on their farms have proven results, and now the scientists are trying to figure out how this improved soil health and improved soil microbial populations provide these benefits to the crops we grow.

I've heard soil microbiologists state that we know more about the universe than we do about the soil that we grow our crops in. Soil health is a new frontier in the scientific community.

Why is improving soil health on our farms and ranches so important?

Obviously as producers we want the best soil possible to grow our crops in. Improving the soil's health only makes sense. I think there is also going to be some real economic benefit to adopting a cropping system that improves the health of the soil.

Next week I'll explain why.