

## The Changing Seasons

### AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

Tomorrow, Monday the 23<sup>rd</sup>, fall officially arrives very early in the morning. The autumnal equinox is that magical point when the sun crosses the plane of the earth's equator. The amount of daylight that we receive has been decreasing daily since the summer solstice on June 21<sup>st</sup>. Currently we are losing about two and a half minutes of daylight per day. From now on we will have more hours of dark than light (well, technically starting on the 26<sup>th</sup>). This will continue until the vernal equinox on March 19<sup>th</sup> when daylight becomes the majority!

The natural world around us has no choice but to abide by these changing seasons. As much as we may try to isolate ourselves from nature, we too are bound to and forced to abide, at least in some sense, to the ebb and flow of the changing seasons. For some species fall and the approaching winter are a time to go into dormancy to survive the cold temperatures and long nights until the next growing season.

For other species, fall means the end of their life span. Annual plants are in a rush to produce a few more seeds as seeds are the only way that they can have their genetics present for another year. Many insect species overwinter only as eggs. Some insects have already laid their eggs as their end draws nigh. Others rush to perhaps produce one more generation. Some species migrate south to where they can survive. We know that many bird species migrate, but many insect species migrate as well. Butterflies and dragonflies are well documented for their southern migrations. Others don't migrate south, but the only way they are here next year is that individuals do survive further south and move back next spring on the warm southern winds.

Perennial plants, like trees, started preparing for winter weeks, even months ago. Most of these have already stored up all the food reserves they need to survive the winter and start growing next spring. We don't worry about late season defoliation by insects or leaf diseases because trees are already "shutting down". Abscission layers have already formed where leaves attach to trees. This layer seals the leaf off from the tree. Leaves are now slowly dying.

While this may sound harsh, many of us long for this day. What happens when a tree leaf dies is that the first thing to disappear is the chlorophyll. Chlorophyll is what makes a leaf green. As the chlorophyll fades away we finally get to see all the other pigments in the leaf. Those pigments are what we see as the yellows, reds, browns or oranges of fall. In the weeks ahead, to maximize those colors, we need warm sunny days and cool clear nights. Time will tell how that will work out for us this year!

Some creatures, taking their cue from the shortening hours of daylight, start trying to find shelter from the winter or a place to go into hibernation. This sounds all well and good if we are talking about a bear or a groundhog, but less attractive if we are talking about snakes, spiders or crickets. Snakes overwinter in old hand dug wells or cracks and crevices around rocks including old rock foundations, even inside of buildings which may include the basement of your house. Insects and spiders will often try to enter our homes (insects first and then spiders follow the food) but surprisingly, most that do make it inside rarely survive more than a few weeks as they dehydrate or starve to death. But that three weeks until the cricket dies can seem awfully long, especially at night time.

Fall is here and the weather will be changing. Nature changes right along with it. Some of the changes we may not like, but everything cycles around and all we can do is go with the flow.