## Be Careful - The Fire Danger is Real!

## **AGRI-VIEWS**

by Chuck Otte, Geary County Extension Agent

Over the past several years I have become accustomed to periodic high fire danger warnings and red flag warnings. However, last week I saw something from the National Weather Service that I had never seen before. They were calling the fire danger catastrophic. I do not feel that it was an exaggeration!

The past two springs we have seen very large scale catastrophic wildfires in southcentral and southwest Kansas. When the number of acres burned exceeds even 50,000 and the loss of livestock, wildlife and structures is as great as it was in 2016 and 2017, catastrophic is the only word you can use. When you look at where we live, with the vast amount of tall grass prairie we have around us, with the moisture conditions what they are, we are just one spark away from catastrophe ourselves.

March and April are probably our highest fire hazard months of the year under normal circumstances. All of the native vegetation (native prairies, roadside areas, even woodlands) that grew last year has had all winter to dry down. It's dry in a normal year but now we've had a winter when we have had only 50% of our normal precipitation. It is tinder dry! Then we add to that mix daytime highs in the 50s or 60s or even 70s, temperatures that are easily 20 degrees above normal for early March. As the temperature goes up, relative humidity (the amount of moisture in the air) drops lower and lower. Low humidity means that fuel (dry grass) contains very little moisture and is much easier to start on fire.

Then we add the final part of this equation, which is wind speed. Wind speed is what makes a wildfire spin out of control and into a firestorm. In dead calm winds a fire will move out from it's center of origin in a uniform pattern as there is fuel available. It can create it's own wind currents, but it will be a meandering fire. As you add wind you start to direct where the fire will go. The wind blows the generated heat from the fire out ahead of the fire. As the wind speed increases, it becomes harder and harder to "control" a fire and increasingly difficult to extinguish a fire.

Fifteen mph is often considered the maximum wind speed when controlled burns can still be "controlled". In some cases, with plenty of firebreaks and buffers, you can burn up in winds up to 20 mph. Once winds start to exceed that, you no longer have control. When winds get into the 30 and 40 mph range, or higher, you have very little chance to catch the fire and put it out. Under those conditions the fire will even create its own wind and move faster than the wind speed. The wind also makes fires hotter to the point that cedar trees will explode in flames before the actual fire gets to them.

We are one spark away from a catastrophe. It doesn't take much to start a fire under these conditions. A hot vehicle exhaust from a parked car. A spark from a mower blade hitting a rock. Anything that has fire involved, including camp fires, barbecue grills even industrial welding, can start a fire. One of the most common sources are cigarette butts tossed out car windows. If you go down the road and see a burned area next to the road, with no evidence of a burned vehicle, it's safe to assume that the fire was caused by discarded smoking materials.

We have an abundance of very dry fuel and since it is March we can expect more rounds of high winds. Unless we start to receive lots of rain, we will continue to be at a very high fire risk. Please be careful with anything involving fire. Don't discard smoking materials out of your car window. You don't want to be the cause of the next 100,000 acre wildfire.