

To: Local News

From: Keith P. VanSike

Agronomy, Natural Resources, District Agent

Twin Creeks Extension District

Farmers will be waiting for a good solid warming trend to get soil temps raised up. Most soil temperatures are still in the mid 40's. There has been some good precipitation to help along with the soil activity and moisture for spring emergence. Farmers should now be getting all their pre-emergent chemicals on and evaluating their wheat stands. Look for tillering being done and how much, and if there is a weed problem in wheat fields.

Experience with wheat stripe rust has taught us that weather conditions in Texas play a critical role in the development of regional outbreaks of the disease. Recent research at K-State is bringing new insights into the weather patterns and which are most conducive or suppressive for the development of stripe rust in the Great Plains region. In general, wetter conditions increase the risk of the rust and drier conditions suppress it. The first time period occurs in the preceding fall when the wheat crop is being planted and beginning to grow. The second time period occurs in the early spring as the crop in Texas moves into the grain filling stage. Stripe rust epidemics in Kansas are often preceded by above-normal moisture conditions in overwintering locations for the rust diseases. However, when these regions are dry, stripe rust severity in Kansas generally remains low. A look at the moisture patterns for 2020 indicates that rainfall in this area was below normal. This pattern suggests that the risk of a severe outbreak of stripe rust in Kansas is low at this time.

Army cutworms feeding, more in alfalfa fields than wheat, is starting to become more noticeable in fields that have not had the best growing conditions throughout some of Northwest Kansas. However, the larvae have not grown much larger, probably due to the cool temperatures over the last couple of weeks. As temperatures warm, expect army cutworm feedings to increase. Fortunately, most fields have enough foliage now and can withstand considerable feeding without significant damage.

Look for borders or edges of fields that don't seem to green up. Cutworms hide below soil surface and come out in evenings to feed. They actually do cut the top foilage growth. Look near a border where the affected area and non-affected areas meet and dig around the base of the plants under the soil surface. In preparing for corn planting, always keep the long-term weather conditions in mind. In a drought year, almost any population is too high for the available moisture in some areas. Although it's not a good idea to make significant changes to seeding rates based only on what has happened recently, it is worthwhile taking into consideration how much moisture there is currently in the soil profile and the long-term forecasts for the upcoming growing season.

When deciding on whether to keep seeding rates at your usual level or increase this year, if the soil profile is wetter than normal, is a little risky. If you think weather conditions will be more favorable for corn this year than the past years, stay about in the middle to upper part of the range of seeding rates. If you do not think growing conditions will improve enough to make up for dry subsoils, you might want to consider going toward the lower end of the range of recommended seeding rates, with the warning that if growing conditions improve, you will have limited your top-end yield potential.

Certainly, each farm manager and production practice is unique. There are many ways to look at seeding rates' effect on the end yield. In very general Kansas State University research has recommended plant population around 16 to 20,000 plants for dryland, and limited irrigation about 24-28,000, and full irrigation 28-34,000 full season. This assumes an 85% germination.