EXTENSION CONNECTION

Agriculture & Horticulture

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K-STATE Research and Extension | Finney County

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Newsletter

The agriculture and horticulture newsletter is back! It will be available on a bimonthly basis. If it is an even month, look forward to a new newsletter. If you want to receive the newsletter or have questions, email jstoss@ksu.edu

Horticulture Programs Success

Several horticulture programs happened recently including: Watering Your Lawn, Irrigation & Your Business and Identifying Common Garden Insects. Between the three programs, over 60 people attended!

Soil Temperature & Planting Dates

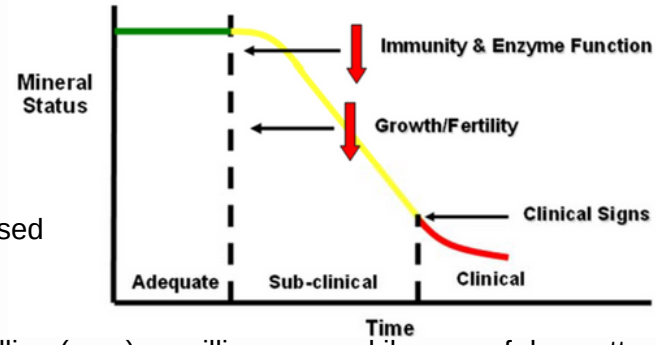
Every summer row crop has an optimal soil temperature for emergence. A minimum for corn is 50 degrees F for germination and early growth. However, uniformity and synchrony in emergence is primarily achieved when soil temperatures are above 55 degrees F. Uneven soil temperatures around the seed zone can produce non-uniform crop germination and emergence. Lack of uniformity in emergence can impact corn potential yields. This is particularly true for corn, since it is the earliest summer row crop planted. When soil temperatures remain at or below 50 degrees F after planting, the damage to germinating seed can be severe.

Selection of the optimal planting date is one of the most critical factors in the decision-making process for producers. In making this decision, producers should consider soil temperatures rather than just calendar dates. After a very warm start to March, air temperatures across Kansas declined this past week. For the week of March 30 to April 5, average weekly soil temperatures at 2 inches among crop reporting districts overall ranged from 45 to 53 degrees F. For example, in the northeast region, soil temperatures ranged from 45 to 47 degrees F; while in the southwest region, soil temperatures varied from 53 to 47 degrees F. Soil temperatures were around 44-47 degrees F for the northwest region.

Differences in soil temperature were related to the large variations in air temperatures experienced last week, from 38 degrees F in northern portions of the state to 58 degrees F for areas in southern Kansas. Projections for the coming weeks are for increasing air temperatures – but cooler-than-normal state wind, which will slow soil temperature increases. Current soil moisture status across Kansas is quite wet, despite the relative low precipitation for the week. If saturation is above 50% at the 2-inch soil depth, this reflects wet soil conditions with a low probability for field work. Projections for coming weeks are for precipitation to be above-normal for all of Kansas, which will slow down soil warming and impact potential plans for an early start to planting.

The Basics of Mineral Nutrition

Beef cattle producers recognize that mineral nutrition is important. However, a mineral program is only one component of an operation's nutrition and management plan. An exceptional mineral program will not compensate for deficiencies in energy, protein or management. Additionally, the classic signs associated with clinical deficiency (wasting, hair loss, discoloration of hair coat, diarrhea, bone abnormalities, etc.) are not often or are rarely observed in production settings. The production and economic losses attributed to mineral nutrition in many situations are the result of sub-clinical deficiencies, toxicities and antagonisms between minerals which are often less obvious (reduced immune function, vaccine response, and sub-optimal fertility). The figure below, adapted from Wikse (1992), illustrates the effect of trace mineral deficiency on health and performance and the margin between adequate mineral status and clinical deficiency.



Seventeen minerals are required in the diets of beef cattle. However, no requirements have been established for several minerals that are considered essential (Chlorine, Chromium, Molybdenum, and Nickel). Minerals may be broken down into two categories. 1. The macrominerals whose requirements are expressed as a percent of the total diet (calcium, phosphorous, magnesium, potassium, sodium, chlorine and sulfur). 2. The microminerals or trace minerals whose requirements are expressed as parts per million (ppm) or milligrams per kilogram of dry matter consumed (chromium, cobalt, copper, iodine, iron, manganese, molybdenum, nickel, selenium and zinc).

Mineral status of an animal is a function of the total diet (both water and feed) and stored mineral reserves within the body. Water may be a substantial source of minerals; however, the variation in water consumption makes estimating the contribution of mineral from water sources difficult. Mineral content of forages is influenced by several factors including plant species, soil, maturity, and growing conditions. These factors, and others not mentioned, makes estimating the dietary mineral content of grazing cattle challenging. Most commercial mineral supplements are formulated to meet or exceed the requirements for a given stage of production. This ensures that deficiencies are unlikely, but providing supra-optimal levels of minerals may be unnecessary unless specific production problems exist. A mineral program does not have to be complex or expensive to be successful. For more information, contact Justin Waggoner at **jwaggon@ksu.edu.**

Moving Houseplants Outside for the Summer

It is often helpful to set many houseplants outside for the summer so they can recover from the low light levels endured during the winter months. As soon as night temperatures stay consistently above 55 degrees F, houseplants can be moved to their summer home. Choose a spot that has dappled shade, is protected from the wind and is close to water. A porch or a spot that receives shade from trees or buildings will work well.

Putting houseplants in full sun will cause the leaves to photooxidize or sunburn because the leaves have become adapted to low light levels inside the house. Where possible, sink the pots into the ground to help moderate root temperatures and reduce watering frequency.

If you have a number of plants, dig a trench 6 to 8 inches deep (or deeper if you have larger pots) and long enough to accommodate all of your plants without crowding. Place peat moss under and around the pots. Peat moss holds water, helps keep the pots cool and reduces evaporation from clay pots. About every two weeks, rotate the pots a quarter turn to break off any roots that have penetrated the peat moss surrounding the pot and to equalize the light received on all sides of the pot. Water as needed. If the potting soil is dry a half-inch deep in the pot, it is time to water. (Ward Upham)

Plants Recommended for Kansas

If you have had trouble finding a listing of plants recommended for Kansas, visit our web page devoted to this topic. We have links to a wide variety of plants including annual flowers, perennial flowers (including breakouts for iris and daylilies), fruit, vegetables, turfgrass, low-maintenance roses and tree recommendations that are broken out by areas of the state. We also list recommended low water use plants. Find this page at: http://hnr.k-state.edu/extension/info-center/recommendedplants/

Henbit & Chickweed in Lawns

The plant with the little purple flowers that have been showing up in home lawns is called henbit. If you are not sure this is what you have, check the stems. If they are square rather than round, you have henbit. A plant that also is low growing but has round stems and tiny white flowers is chickweed.

Both these plants are winter annuals and start to grow in the fall. They spend the winter as small plants and so most people do not pay much attention to them until they start to flower in the spring. Trying to kill either one at this late stage with a herbicide usually is a waste of time and money. Though plants may be burned back, they will rarely be killed. So what should you do? Remember, these are winter annuals that will die as soon as the weather turns hot. Keep the lawn mowed until nature takes its course.

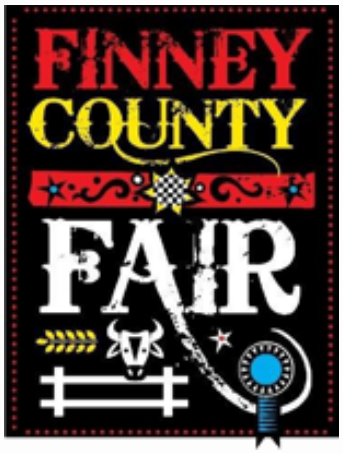
However, you can do something next fall that will help next spring. Henbit and chickweed usually germinate about mid-October. Spraying with 2,4-D, Weed-B-Gon, Weed Free Zone, Weed Out, or Trimec in late October to early November can go a long way toward eliminating these plants as they are small and relatively easy to control. Choose a day that is at least 50 degrees F. These herbicides will work at temperatures below 50 degrees but the weeds are killed at a slower rate.

Spot treating will probably be needed in the spring (March) to catch the few plants that germinate late. Use Weed Free Zone, Speed Zone, Weed Out, Weed-B-Gon, Trimec, or one of the special henbit herbicides early in the spring before they have put on much growth. (Ward Upham)

Extension Events

Upcoming Agriculture Events:

October 29th- This free to attend **Pasture, Rangeland and Forage (PRF)** program will be in the Grandstand Meeting Room at the Finney County Fairgrounds. Attendees will learn more about the insurance that is designed to insure land used in perennial forage production. More information to come!



Mark Your Calendars!
2019 Finney County Fair July 24-27

Upcoming Horticulture Events:

May 16th- We will have a **Master Gardener Informational Meeting and Spring Garden Clean Up** held at the Finney County Extension Office from 5:30 PM to 7:30 PM. A quick meeting informing and updating everyone about Master Gardener program will start the evening off. After the meeting, we will work together to clean up the front extension office.

Thank you!

New events are added daily. Contact us to receive up to date extension news & events!

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