

WHAT'S HAPPENING IN AG

Dale Helwig Cherokee County Ag. And Natural Resources Agent

Dates to Remember

<u>Date</u>	<u>Location</u>	<u>Topic</u>
Oct. 27	9:00 Edna, Kansas (Registration Required)	Grazing School
Nov. 13	6:00 CK CO 4-H Building	Beef Night
Nov. 29	6:30 CK CO 4-H Building	Predator Calling and Trapping Workshop
March 12	9:00-5:00 CK CO Extension Office	Tractor Safety
March 13-15	1:00-5:00 CK CO Extension Office	Hunters Education

Greetings,

Late summer rains have changed our outlook on the winter and have definitely improved our crop yields and forage supplies. It is amazing how quickly life can change for the better or worse. Trade wars, inconsistent weather, commodity supplies and demands still keep things rather uneasy in the agricultural world, but there is nothing new under the sun. We have seen this before and endured so we will adapt again, though it may be a few nights of uneasy rest.

I would like to mention the opportunity you have to attend the Grazing School. This school will provide valuable information about understanding forage growth and development, effects of grazing, economics of a grazing system, and alternative methods of using your forage supplies. There is a small charge of \$20/person, but the information presented will be useful and valuable and lunch is also provided in that fee. The school is from 9-4. Please contact the office by Oct. 19 to register for the event. Payment can be made the day of the event.

We will conduct some agronomy meetings after the first of the year, but the dates are not definite at this point. I will be sending out notices by email, newspaper and flyers. If you would like to receive updates by email, please send me your information by either calling the office at 620-429-3849 or email me at dhelwig@ksu.edu.

Sincerely,

Dale Helwig, CEA, AG

Correlation of soil test nitrate level and wheat yields

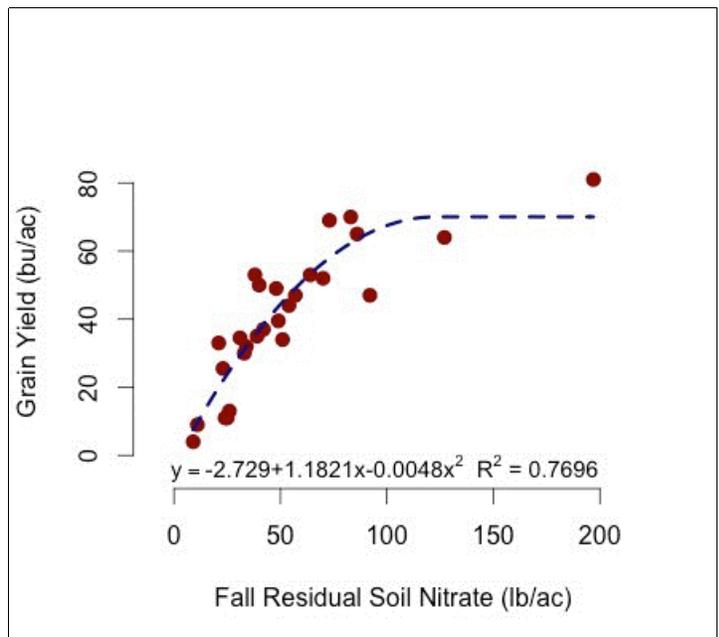
Taking 24-inch soil profile-N samples in the fall has been a recommended practice for making an N recommendation for winter wheat for many years. However, due to the mobility of nitrate-N in the soil, soil test values observed in the fall may be completely different from values observed in the spring, particularly on soils prone to leaching. Because many producers wait until spring greenup to make their N application, does soil sampling in the fall for nitrate-N really provide useful information for N management in wheat? That is a legitimate question.

Analysis of yields taken from K-State research plots that received no N fertilizer shows a strong positive relationship with fall soil profile nitrate-N (Figure 1). Wheat yields increased rapidly as soil N levels increased to about 80 pounds soil N per acre, and then leveled off.

Figure 1. Relationship between fall soil profile nitrate-N level and wheat yield with no N fertilizer applied.

We found that at low soil nitrate levels, wheat yields responded well to applied fertilizer. We also found that when fall soil profile nitrate-N levels are greater than 80 to 100 lb/acre, it is unlikely the site will respond to additional fertilizer N applied in the spring.

In short, a strong relationship was found between wheat yield and fall nitrate-N levels from 24-inch profile soil test analyses when no N fertilizer was applied. Although new practices have been developed to improve N management in winter wheat, soil sampling in the fall for nitrate-N remains an important practice to manage N efficiently and can result in considerable savings for producers.



When soil sampling for N is not done, the K-State fertilizer recommendation formula defaults to a standard value of 30 lb/acre available N. In this particular dataset, the average profile N level was 39 lb N/acre. However, the N level at individual sites ranged from 11 to 197 lbs N/acre. Most recommendation systems default to a standardized set of N recommendations based on yield goal and/or the cost of N. Without sampling for N or using some alternative method of measuring the soil's ability to supply N to a crop, such as crop sensing, the recommendations made for N will be inaccurate, resulting in a reduction in yield or profit per acre and increased environmental impact.

Failure to account for the N present in the soil wastes a valuable resource and can result in excess foliage, increased plant disease, inefficient use of soil water, and reduced yield. Soil sampling in fall for nitrate-N can have a significant impact on N recommendations for winter wheat, thus improving N management, and is strongly recommended.

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Control woody plants on rangeland: Basal bark and cut-stump herbicide applications

Late summer and fall can be an excellent time to treat unwanted stands of woody plants. Scattered stands of individual trees should either be treated individually using the basal bark method (for labeled plants less than 4-6 inches in diameter) or the cut stump treatment method. The basal bark and cut stump treatments will not be effective if the plants cannot be treated down to the soil line. Avoid conditions where water (or snow later in the season) prevents spraying to the ground line.

Producers can treat smaller diameter susceptible woody plants individually this fall by spraying the basal stem parts with triclopyr plus diesel fuel. The lower 12-15 inches of the stems or trunks of susceptible small trees should be thoroughly wetted on all sides with a triclopyr-diesel mixture. Triclopyr goes by the tradenames Remedy Ultra and Pathfinder II. Remedy Ultra is a 4 lb/gallon product.

The labeled recommendations for Remedy Ultra are 20-30% solution in diesel. Pathfinder II is a ready-to-use product and does not have to be mixed with diesel. PastureGard HL is a premix of triclopyr and fluroxypyr, and can be applied as a basal bark or cut-stump treatment as a 25% solution in diesel. Crossbow, a mixture of triclopyr and 2,4-D, can also provide control of certain woody plants as a 4% solution in diesel. Milestone, with the active ingredient aminopyralid, is effective on black and common honeylocust. Mix Milestone 5% v/v with a compatible basal oil; e.g. Dyne-Amic from Helena Chemical. Before selecting a basal oil, do a jar test by mixing Milestone and basal oil to determine compatibility.

If the woody plant is greater than 6 inches in diameter, the best method is to:

- Cut it off at ground level.
- Treat the cut surface with triclopyr and diesel fuel within 30-60 minutes, before the sap seals over the exposed area.
- Spray the cambium and light-colored sapwood to insure translocation of the herbicide.
- Treat any exposed trunk or exposed roots.

The stump of ash, cottonwood, elm, oaks, persimmon, and Russian olive can be treated with a 1:1 ratio of dicamba (Banvel, Clarity) in water instead of triclopyr if desired. The stumps of Eastern red cedar do not need to be treated since, unlike many woody plants, this species does not root sprout. Simply cutting Eastern red cedar below the lowest green branch will kill it. Common trees in Kansas that resprout after cutting include ash, cottonwood, elm, oaks, osage orange (hedge), persimmon, black and common honey locust, saltcedar, and Russian olive. In sprouting species, new shoots arise from dormant buds at or below the ground often resulting in a multi-stemmed clump.

Common honeylocust can resprout from a wide diameter area around the main plant because of root suckers. One option is to make a basal bark treatment with triclopyr-containing products to kill the entire plant in the fall. Then the main plant can be cut down in subsequent years once the tree is dead. Cut-stump applications of Milestone as a 10% solution in water has been more effective than triclopyr on common honeylocust.

(Control of Woody Plants (continued))

Table 1. Cut-Stump Herbicides

Herbicide	Active ingredients per	Rate
Crossbow ¹	2 lb 2,4-D + 1 lb triclopyr	4% in diesel
Remedy Ultra	4 lb triclopyr	20-30% in diesel
Pathfinder II	0.75 lb triclopyr	Ready to use
PastureGard HL	3 lb triclopyr + 1 lb flurox-	25% in diesel
Milestone	2 lb amino-pyralid	10% in water
Banvel/Clarity	4 lb dicamba	25-50% in water
Roundup PowerMAX	5.5 lb glyphosate	50-100% in water
Arsenal	2 lb imazapyr	10% in water
Tordon 22K	2 lb picloram	10% in water

¹ Trade names are used to help identify herbicides. No endorsement is intended, nor is any criticism implied of similar products not men-

Tordon RTU and Pathway can be used on cut surfaces in noncropland areas such as fence rows, roadsides, and rights-of-way. However, Tordon RTU, and Pathway are not labeled for use on range and pasture. Glyphosate labels vary on what sites are labeled for cut-stump application on rangeland. Roundup PowerMAX can be applied on any terrestrial site. Roundup ULTRA can only be applied as a cut-stump treatment on non-cropland. Be sure to check the label as rangeland is sometimes included as a site under non-cropland on some glyphosate labels.

Walt Fick

Rangeland Management Specialist

Table 2. Cut-Stump Treatments

Species	Herbicides
Ash	Crossbow, Pathfinder II, Banvel/Clarity, Arsenal
Common honeylocust	Remedy Ultra, Pathfinder II, PastureGard HL, Milestone, Banvel/Clarity, Tordon 22K
Cottonwood	Crossbow, Remedy Ultra, Pathfinder II, Banvel/Clarity, Arsenal
Elm	Crossbow, Remedy Ultra, Pathfinder II, PastureGard HL, Banvel/Clarity, Arsenal, Tordon 22K
Oaks	Remedy Ultra, Pathfinder II, PastureGard HL, Banvel/Clarity, Roundup PowerMAX, Arsenal, Tordon 22K
Osage orange (hedge)	Remedy Ultra, Pathfinder II, PastureGard HL
Persimmon	Remedy Ultra, Pathfinder II, PastureGard HL, Banvel/Clarity, Arsenal
Russian olive	Crossbow, Pathfinder II, Banvel/Clarity, Arsenal
Salt cedar	Remedy Ultra, Pathfinder II, PastureGard HL, Roundup Power MAX, Arsenal

Bigger May Not Be Better

In the cattle industry, beef is sold by the pound. The more pounds of beef, the more money producers take home. Naturally you may assume that producers should raise bigger cows. Larger cows should equal bigger calves and in turn a heavier wallet. However, this philosophy may not be correct.

A cow eats roughly 2.5% of her body weight per day, so simple math confirms smaller cows eat less than large framed cows. Continue that reasoning thru and you understand that you are capable of having more smaller framed cows on the same acreage than larger framed cows because they will consume less forage. Granted when you sell the calves of a larger framed cow you anticipate they will bring more dollars because they should “be bigger”, but when you compare it to return per acre, how does it compute?

A study from North Dakota State University looked at this scenario. The large framed cows averaged 1450 pounds while the smaller framed cows averaged 1050 pounds. Though the larger framed cattle brought more money per head, the feed expenses were greater. The factor that placed the smaller framed cattle on top was the fact they could stock more cattle on the same amount of acreage, thus more calves to sell edged out more dollars per head. This is similar to the scenario of having twin calves. If a cow can raise the twins, they will be smaller than the average of the rest of the calves. But, if the calf weaning weight average for the herd is 500 pounds and the twins wean at 350 pounds per calf, which cow raised more beef? It is all about efficiency, not necessarily being the biggest.

On a side note of this study, looking at a calf’s weaning weight as a percentage of the cow’s weight is a good indicator of how efficient a cow is. If two cows each wean a 500 pound calf, but one cow weighs 1100 and the other 1400 pounds, which cow is more efficient? Which cow do you want to keep and which cow needs to take a one way ride?

If you can increase the stocking rate of your pasture, you can possibly increase beef produced per acre thus improving your bottom line. This study does not insinuate that you should produce the smallest framed cow possible; moderation is the message, similar to eating cookies.

FSA (Farm Service Agency) Programs

- ◆ **Livestock Indemnity Program**— Provide benefits to livestock owners or contract growers for livestock deaths in excess of normal mortality caused by eligible loss conditions, including weather, disease, and attacks.
- ◆ **Livestock Forage Disaster Program**—Producers who suffered grazing losses for covered livestock on native or improved pasture.
- ◆ **Market Facilitation Program**—Provides direct payments to help corn, cotton, sorghum, soybean, wheat, dairy and hog producers who have been directly impacted by illegal retaliatory tariffs, resulting in the loss of traditional exports.

MFP rates -	Wheat \$0.14/bu	Soybeans \$1.65/bu	Corn \$0.01/bu
	Cotton \$0.06/#	Dairy \$0.12/cwt	Sorghum \$0.86/bu

Please contact your local FSA office for more specific details about the programs.