k-state extension AGRONOMY e-Updates

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1. Fertilizer price/supply situation

Supplies of nitrogen (N) fertilizers, as well as phosphorus (P) and potassium (K) fertilizers, are very tight now throughout the U.S. and Kansas. In fact, it is currently very difficult to purchase fertilizer N for winter wheat topdressing and/or this spring's row crops unless the supply has already been lined up – regardless of what the posted prices are.

The tight supply situation applies to all the main N fertilizer sources – UAN solution, urea, and ammonia - as well as other P and K fertilizers. Fertilizer prices are continuing to increase and supplies will likely remain very tight for the foreseeable future. Therefore, producers should keep in close contact with their fertilizer supplier in order to line up their anticipated fertilizer needs. Waiting until it is time to apply crop nutrients to make arrangements for fertilizer needs could leave producers on the outside looking in.

Why the sharp increase in price and accompanying fertilizer N shortage? This is not a sudden development. Unprecedented market forces have markedly changed the fertilizer industry over the past decade and this has set the stage for the current supply/demand imbalance and resulting high prices.

Over the past decade, much of our U.S. fertilizer N manufacturing capacity has shut down in the U.S. as a result of sharp increases and fluctuations in natural gas costs, lower-cost foreign competition, domestic environmental regulations, etc. In most cases, the domestic fertilizer manufacturing plants that have ceased operations will likely never come back on line despite the current higher fertilizer N prices. And it is unlikely that new manufacturing plants will be built, considering the strict environmental regulations and volatile natural gas prices that would affect the construction and operation of any new manufacturing plant.

As a result, more and more of the domestic supply of N fertilizer is now imported from countries in the Middle East, South America, the former Soviet Union, and other low-cost natural gas areas. Over 50% U.S. fertilizer N supply is imported annually – and our dependence on foreign imports continues to increase. Also, global demand for this supply of fertilizer N continues to increase, especially in countries such as China and India with rapidly expanding economies. This tightening of global supply/demand affects the availability and price fertilizer-N in Kansas and the U.S.

The basic raw material of most N fertilizer production is natural gas. Natural gas is the source of hydrogen needed to make ammonia (NH_3). The main exception is the N fertilizer production facility located in Coffeyville, Kan., which uses a by-product of the oil refining process as its source of hydrogen. The demand for natural gas, the price of natural gas, and the volatility of natural gas prices have all increased in recent years - which has eventually made it more difficult for American agriculture to obtain needed supplies of N fertilizers.

Additionally, several unscheduled maintenance shutdowns at remaining U.S. production facilities have added to recent tightening of supplies.

Unfortunately, producers can do little about this situation except keep in constant contact with their local fertilizer supplier and commit to needed products as soon they know what their needs are. Prices for N and other fertilizers are high, but supply may be an even greater concern right now.

There are already sound agronomic reasons for not waiting too late to make wheat topdress applications on most of our non-sandy, well-drained soils in Kansas. The possibility being unable to locate a supply of fertilizer N later in the season adds an additional reason for making wheat topdress decisions early.

-- Dale Leikam, Nutrient Management Specialist
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2. Web Soil Survey 2.0: Access to soils data in all Kansas counties

Extension personnel, producers, landowners, agricultural service businesses, and others now have easy, on-the-spot access detailed soil survey information for every county in Kansas. Keeping with current technology, the USDA-Natural Resources Conservation Service (NRCS) has launched an online version of soil surveys called the Web Soil Survey. The change came in recognition for the need of a better, more self-serviceable system for users of soil survey information.

This web-based mapping program is available online at:
http://websoilsurvey.nrcs.usda.gov/app/

Web Soil Survey 2.0 does not install any programs on the user's computer. Web Soil Survey 2.0 is similar to Google Maps because anyone can use it and no data is needed to begin scanning any place in the country, using zoom and pan tools. Currently, more than 95% of the U.S. counties are available, and all 105 Kansas counties are online. NRCS anticipates having all of the U.S. counties available within the next year. Similar to Google Maps, the new Web Soil Survey can be updated and redefined constantly as new survey information is gathered. This is a huge advantage over paper surveys that could not be updated frequently, and are no longer being printed or distributed by the NRCS.

To use the new online system, there are a few simple requirements. The system works adequately on most operating systems and in all the common internet browsers. However, a pop-up blocker may cause a few problems if not deactivated first.

The first step to operating the soil survey is to define an area of interest (AOI). Areas of interest can be defined by a street address, by latitude and longitude, or by section, township, and range. After finding a general area, use the rectangular or free-form AOI tool to define a more specific area.

Figure 1. Result of first step.

After defining an area, the next step is to check out the soil map. This is the information previously found in the back portion of the soil surveys. These maps will display the soil types on a backdrop of aerial photographs. All of the soil types in Kansas have been

assigned a 4-digit-number, and these numbers on the map coordinate with the numbers on the legend and identify the type of soil, slope of the land, and acres of that particular soil type. At any time during the process, clicking the "Add to Shopping Cart" button (there is no cost involved) will save the map on screen for printing or reviewing later.

Thomas County, Kansas (KS193)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1125	Bridgeport silt loam, occasionally flooded	11.9	3.4%
1580	Colby silt loam, 5 to 15 percent slopes	119.1	33.6%
1619	Keith silt loam, 0 to 1 percent slopes	38.9	11.0%
1857	Ulysses silt loam, 1 to 3 percent slopes	81.6	23.0%
1858	Ulysses silt loam, 1 to 3 percent slopes, eroded	0.0	0.0%
1859	Ulysses silt loam, 3 to 6 percent slopes	60.2	17.0%
2236	Roxbury silt loam, occasionally flooded	2.1	0.6%
9983	Gravel pits and quarries	41.0	11.6%

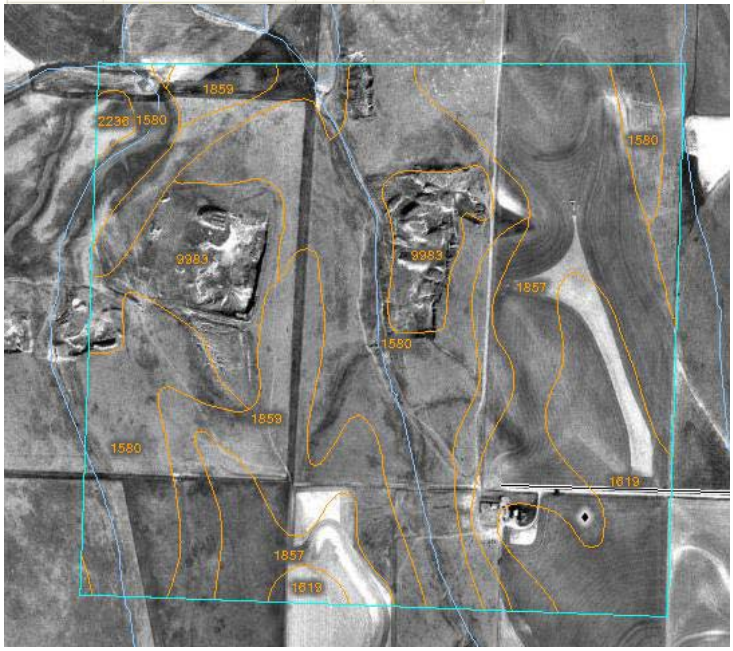

Figure 2. Result of second step.

The third and final feature of the new web survey system is the soil data explorer. This feature allows the user to view qualities of the land such as building site development features, land management options, recreational development availability, waste and

water management, as well as sanitary facilities. For example, the user could use this feature to map suitability rating maps, or to create maps of land capability classification, etc. In the following example, the user created a suitability rating map for playgrounds. Again, after manipulating the map as desired, the "Add to Shopping Cart" button will save the map for printing or reviewing later.

Summary by Map Unit — Thomas County, Kansas

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (rating values)	Acres in AOI	Percent of AOI
1125	Bridgeport silt loam, occasionally flooded	Somewhat limited	Bridgeport (100%)	Flooding (0.60)	11.9	3.4%
1580	Colby silt loam, 5 to 15 percent slopes	Very limited	Colby (100%)	Slope (1.00) Dusty (0.50)	119.1	33.6%
1619	Keith silt loam, 0 to 1 percent slopes	Somewhat limited	Keith (100%)	Dusty (0.50)	38.9	11.0%
1857	Ulysses silt loam, 1 to 3 percent slopes	Somewhat limited	Ulysses (100%)	Dusty (0.50)	81.6	23.0%
1858	Ulysses silt loam, 1 to 3 percent slopes, eroded	Somewhat limited	Ulysses, eroded (100%)	Dusty (0.50)	0.0	0.0%
1859	Ulysses silt loam, 3 to 6 percent slopes	Somewhat limited	Ulysses (100%)	Slope (0.88) Dusty (0.50)	60.2	17.0%
2236	Roxbury silt loam, occasionally flooded	Somewhat limited	Roxbury (100%)	Flooding (0.60)	2.1	0.6%
9983	Gravel pits and quarries	Not rated	Pits (100%)		41.0	11.6%
Totals for Area of Interest (AOI)					**354.8**	**100.0%**

Tables — Playgrounds — Summary by Rating Value

Summary by Rating Value

Rating	Acres in AOI	Percent of AOI
Somewhat limited	194.7	54.9%
Very limited	119.1	33.6%
Null or Not Rated	41.0	11.6%
Totals for Area of Interest (AOI)	**354.8**	**100.0%**

Figure 3. Result of the third step.

At the end of a session, the user can click on the "Shopping Cart" tab to create a custom soil resource report. This will generate a "mini-soil survey" for the area of interest that the user defined, and only include the maps and reports created by the user during the session. Note that the image on the report cover is of the area of interest. Just like the old

paper surveys, it will generate a table of contents, information on how soil surveys are made, references, etc. It is a high-quality, personalized report that an Extension agent or consultant could give to a client, for example, providing them with accurate and up-to-date soil survey information. It takes only a few minutes to create.

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3. Soybean seed supply

The supply of Group IV and Group V soybean seed this year is very tight, according to several seed company sales reps in Kansas. In many cases, the seed is already sold out. The seed supply of Group III varieties is also tight, but seed of some Group III varieties may still be available.

The cause of the soybean seed shortage this year is a combination of production problems last season, especially in the areas where Group IV and V varieties are grown, and an increased demand for soybean seed this year. In areas such as east central and southeast Kansas, there was excessive moisture and even flooding in May and June, which delayed planting or caused re-planting in many cases. The end result is a short supply of good quality seed in these maturity groups.

If producers have not already ordered their soybean seed for this year, they should do so as soon as possible.

-- Steve Watson, e-Update Editor
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4. Cover Your Acres Conference, January 22-23

K-State's Northwest Area Research-Extension Center is once again organizing the annual "Cover Your Acres" Winter Conference in Oberlin, and the agenda is great. The dates this year are January 22 and 23. For more information, see the flyer below or contact Brian Olson, Northwest area Extension crops and soils specialist at: bolson@ksu.edu

-- Steve Watson, e-Update Editor
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Cover Your Acres Winter Conference

January 22 and 23, 2008 at the Gateway in Oberlin, KS

Kansas State University and the Northwest Kansas Crop Residue Alliance

Discussing the latest technology, methods, and conservation practices to improve crop production on the High Plains

Time	Room 1	Room 2	Room 3	Room 4	Room 5	Exhibit Hall
7:45 - 8:15 a.m.	Registration					
8:15 - 8:35	Welcome					
	University Sessions			Industry Sessions		
8:45 - 9:33	New Corn Seed Traits for No-till	Improving Your Success in No-till	N Recommendations for Wheat	Outlook for Sorghum, Bioenergy, Food & Export		Sponsor Displays
9:40 - 10:28	Grain Marketing & Revenue Protection	No-till Wheat 101	P Placement and Rate in No-till and Strip-till	Benefits of Chloride on wheat and row crops	What Precision Ag Can Do For You	
10:35 - 11:23	Improving Your Success in No-till	Managing pH in No-till	Comparing Corn and Grain Sorghum Performance	The State of Fertilizer in 2008		
11:30 - 12:30	Farmer Panel: Crop Rotations	Spray Application Technology*		Noon Meal		
12:40 - 1:40	P Placement and Rate in No-till and Strip-till	Soil Quality Change in No-till				
1:50 - 2:38	Ten Crop Sequences Transition to No-till	Effect of Residue on Crop Water Budget	Managing pH in No-till	Plant Stand Management		Sponsor Displays
2:45 - 3:33	N Recommendations for Wheat	New Corn Seed Traits for No-till	Improving Capture and Use of Water	John Deere Technology Improvements and Growth	National Sunflower Association	
3:40 - 4:28	Comparing Corn and Grain Sorghum Performance	Water Rights and Depleting Water	Effect of Residue on Crop Water Budget	Importance of Long Term Care in Estate Planning for Family Farms	Corn Amylase-An output trait that pays a premium.	
4:35 - 5:23	Improving Capture and Use of Water	Spray Application Technology*	Water Rights and Depleting Water	Cellulosic Ethanol	Avoiding Strip-till Mistakes	
5:30 – 7:30	Industry Sponsored Bull Session (refreshments and heavy hors d'oeuvres provided) in the commercial display area **will be held on both nights of the conference.**					

CEU credits for CCAs have been applied for all university sessions except farmer panels. *CEU credits for 1A for Commercial Pesticide Applicators have been approved.

Diamond Sponsors: Hoxie Implement, Southwest Implement, and the National Sunflower Association

Registration – The conference will be held for two days with the same program each day. **Early registration must be postmarked by January 16. Please register early.**

$20.00	Tues 22	Wed 23	Early registration – Attend all the sessions for one day. **Please mark which day.**
$38.00	Early registration to attend both days which **will have the same program each day.**		
$40.00	**Registration per day after January 16 or at the door.**		

All registrations include proceedings for conference along with refreshments and meals. For questions, please call 785-462-6281.

Mail registration and check, payable to KSU to the following address:

Northwest Area Office, ATTN: Brian Olson, PO Box 786, Colby, KS 67701

Please include the following information:

Name:

Address:

City, State, Zip:

Phone:

Program will be held regardless of weather.

These e-Updates are a regular weekly item from K-State Extension Agronomy and Steve Watson, Agronomy e-Update Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Steve Watson, 785-532-7105 swatson@ksu.edu, or Jim Shroyer, Research and Extension Crop Production Specialist and State Extension Agronomy Leader 785-532-0397 jshroyer@ksu.edu