FIELD & FEEDLOT

NORTHWEST AREA EXTENSION JANUARY 2008 ISSUE

Soil Surveys Go High Tech

By Mark Licht, ISU Extension Field Agronomist

The National Cooperative Soil Survey is a joint effort of federal, state and local entities. Over the last several years the soil survey has been moving into the high tech realm and further away from the traditional bound version. The newest soil survey to be completed in northwest Iowa is for Crawford County. This release was in the form of a printed copy consisting of the narrative and tables along with color printed maps in a 3-ring binder. And only 150 copies were printed. In addition to the limited printed edition there was a production of SoilView in an unlimited quantity.

SoilView is a CD or DVD that has both a static (pdf) and interactive version of the soil survey. Before I mentioned that SoilView may not be new to everyone because they have been developed for nearly every county in Iowa regardless of when the last soil survey was published. The best way to get a copy of a SoilView CD or DVD is to contact your local Natural Resources Conservation Service or Soil and Water Conservation District.

Web Soil Survey provides yet another interactive opportunity to access soil data and information and again is produced by the National Cooperative Soil Survey. It provides access to the largest natural resource information system in the world…Alaska to Hawaii to Maine. To date soil maps and data is available for over 95% of the nation's counties. To use the Web Soil Survey go to: http://websoilsurvey.nrcs.usda.gov.

So you might ask, "What's the difference between SoilView and Web Soil Survey?" SoilView is on CD or DVD; it can be taken and used anywhere there is a computer available. SoilView has the ability to determine a weighted average Corn Suitability Rating (CSR) for a field as defined by the user. While the Web Soil Survey does have CSR values they are not calculated into a field weighted average. However, the Web Soil Survey is easier to use and is available to anyone with access to the World Wide Web.

Machinery & Labor Sharing Workshops

By Ron Hook, ISU Extension Farm Management Specialist

Rapidly increasing machinery costs and the shortage of skilled labor is affecting some farming operations in northwest Iowa. Some farmers are sharing these resources to reduce costs and increase efficiency. However, producers need to consider a number of factors before entering sharing arrangements.

To help producers evaluate such arrangements, Iowa State University (ISU) Extension and University of Missouri Extension economists have developed the Machinery and Labor Sharing Arrangements Workshop.

William Edwards, professor and ISU Extension economist, coordinates the annual Farm Machinery Custom Rate survey. "Feedback from our custom rate survey indicates that many producers are concerned about the significant rise in machinery costs and are looking for strategies to deal with this ever increasing challenge," said Edwards. "Producers who want to use their resources more efficiently can gain a greater understanding of the benefits and challenges of co-owning equipment and sharing labor by participating in these workshops."

The workshop will address:

- Benefits and drawbacks of sharing equipment and labor
- Tax, liability and farm payment eligibility issues associated with equipment and labor sharing
- Planning for sharing resources
- Available resources for planning and implementation of resource sharing

Workshop presenters will be Dr. William Edwards, Dr. Frayne Olson, ISU Scientist, and Ron Hook, ISU Extension Farm Management Specialist. More information about the program can be found online at http://www.machinerysharing.info.

Two Machinery and Labor Sharing Arrangements Workshops will be offered in Northwest Iowa this winter. The workshops will be held at the Northwest Iowa Community College in Sheldon on February 5 and at the Cherokee County Extension Office in Cherokee on February 6, 2008. The workshops will begin at 10 am and conclude by 3:00 pm. The registration fee is $15 which includes lunch and materials. You can register for either workshop, by contacting Kristin Pedley, at the Osceola County Extension Office, (712) 754-3648, kpedley@iastate.edu. Pre-registration by January 31 is required due to limited class size.

P and K Fertilization When Costs Increase

By Joel Dejong, ISU Extension Field Agronomist

Crop prices and phosphorus (P) and potassium (K) fertilizer prices have changed significantly in the last two years, and there is considerable uncertainty about future prices. Profitable crop production requires appropriate soil P and K levels, so careful fertilization planning is required. Iowa State University (ISU) soil-test interpretations and fertilization guidelines in extension publication PM 1688, A General Guide for Crop Nutrient and Limestone Recommendations in Iowa were last updated in November 2002. Some important changes were to recommend higher soil-test K (STK) levels for all crops and to update default yield levels for calculating P and K fertilizer rates needed to maintain desirable soil-test levels.

Producers are concerned about increasing fertilizer prices, but some forget that grain prices also have increased significantly. Study of economic return from yield responses with current grain to P and K fertilizer price ratios confirm that fertilization rates recommended in PM 1688 for soils testing "Very Low" or "Low" (deficient soil-test levels) are appropriate. The rates recommended for these soil-test categories are based on yield response data, attempt to optimize long-term profitability by avoiding yield losses where yield responses are large and very likely, and provide a high probability of large profits at current price ratios. At the same time, application of the suggested rates will increase soil-test levels from deficient to optimum levels over time. The recommendations suggest maintenance fertilization rates based on crop removal for the "Optimum" interpretation class, and as publication PM 1688 indicates, the provided default rates should be adjusted for actual yield levels. This is very important because of increasing corn and soybean yields in most areas of the state.

Conversations with producers and consultants strongly suggest that many are not adjusting their maintenance fertilization rates to the higher yields. Long-term Iowa research shows no difference between annual or biannual P and K fertilization for corn, soybean, or other crops but only as long as the right amount is applied. The table below gives the current interpretations and fertilizer recommendations for corn and soybean for one example group of soils. The rates for the "Optimum" soil-test class shows how the maintenance rate increases significantly from yield levels common five or six years ago to levels common today. In fact, nobody should be surprised if at very high yields the rate for the "Optimum" class is similar to the rate for the "Low" category, as the example shows for P with corn and K with soybean. Field research indicates a very high probability of yield response to K in low-testing soils, on average less than 25 percent probability in soils testing "Optimum" and less than 5 percent in soil testing "High." Due to the low probability of response (and small yield increase if it occurs) in soils testing "Optimum," for example, producers can adjust maintenance rates for their economic situation, land tenure, and management philosophy. Due to a low proven probability of crop response in soils testing "Optimum," a reduced fertilizer rate (even as low as a starter rate) might be appropriate for a tenant with uncertain land tenure or a producer having a cash flow issue. On the other hand, producers with certain land tenure for two or more years into the future can minimize yield and economic losses by applying recommended maintenance rates. Research continues to show, however, that all producers can save money by withholding P and K fertilization in high-testing soils, except for small starter rates for corn in some conditions.

Iowa research has demonstrated that use of variable-rate P and K fertilization is a good option to improve P and K management in fields that have significant variation in soil-test and yield levels. Therefore, this technology can be used to target applications to the most deficient field areas to get the highest possible return when price ratios are unfavorable and also to improve maintenance fertilization by considering yield variability. Yield maps from the past two to four years (not just the last one) should be used together with soil-test values to help define P and K application rates.

Nutrient	Soil-Test Category	Soil-Test Range	Corn Yield Level		Soybean Yield Level	
			150 bu	200 bu	50 bu	60 bu
		ppm	----- lb P2O5 or K2O/acre -—			
P	Very low	0-8	100	100	80	80
	Low	9-15	75	75	60	60
	Optimum	16-20	55	75	40	48
	High	21-30	0	0	0	0
K	Very low	0-90	130	130	120	120
	Low	91-130	90	90	90	90
	Optimum	131-170	45	60	75	90
	High	171-200	0	0	0	0

Livestock Update

By Dennis DeWitt, ISU Extension Livestock Field Specialist

There are several upcoming beef and sheep meetings you may want to attend. Please contact the person listed for each meeting to register.

Thursday, January 10: The final sheep educational presentation through Iowa State University Extension internet web based programming will begin at 7:00 p.m. Dr. Dan Morrical, ISU

Extension Sheep Specialist will give an overview of the British Sheep Industry. Dennis DeWitt, ISU Extension Livestock Field Specialist, will give an introduction to the Livestock Risk Management Lamb program (LRP-Lamb) which is a price risk management program.

Friday, January 18: Feeding Alternatives to Reduce Feed Costs and introduction of new ration analysis software incorporating the latest nutrient guidelines will be discussed by Dr. Dan Morrical, and Dennis DeWitt. Dr. Larry Holler, South Dakota State University Diagnostic Veterinarian, Brookings, SD will discuss health implications from alternative feedstuffs in sheep rations. Since this is lambing season, Dr. Holler will address any of your health questions during the session also. The meeting will be at Red's Café, downtown Hartley with registration at 9:45 a.m. and program from 10:00 a.m. -3:00 p.m. Cost is $20 per person. Paid members of Northwest Iowa Sheep Producers Assn. cost is $10. Please email dewitt@iastate.edu with your reservation or contact O'Brien County extension office at 712-957-5045.

Friday, January 18: Lambing Time Workshop at Tim & Janet Lohafer farm, 34337 C60, Hinton. Location: From stop light on US Hwy 75 in Hinton, 7 ¼ miles East on C60, north side (big red barn) OR from LeMars south on K49 to C60 and ¼ mile east. Program 6:30 p.m. – 9:00 p.m. Dr. Larry Holler, SDSU Diagnostic Veterinarian, Dr. Dan Morrical, ISU Extension Sheep Specialist and Dennis DeWitt, ISU will lead discussion and be present to answer your lambing time questions. Cost is $15 per person. Paid members of Northwest Iowa Sheep Producers Assn. cost is $10. Please email dewitt@iastate.edu with your reservation or contact the Plymouth county extension office at 712-546-7835.

Saturday, January 19: Lambing Time Workshop at Tim & Janet Lohafer farm, 34337 C60, Hinton, IA. Location: From stop light on US Hwy 75 in Hinton, 7 ¼ miles East on C60, north side (big red barn) OR from LeMars south on K49 to C60 and ¼ mile east. Program 9:45 a.m. – 11:55 a.m. Dr. Larry Holler, SDSU Diagnostic Veterinarian, Dr. Dan Morrical, ISU Extension Sheep Specialist and Dennis DeWitt, ISU will lead discussion and be present to answer your lambing time questions. Cost is $15 per person. Paid members of Northwest Iowa Sheep Producers cost is $10. Please email dewitt@iastate.edu with your reservation or contact the Plymouth county extension office at 712-546-7835.

Beef Feedlot Meeting – January 15

By Beth Doran, ISU Extension Beef Field Specialist

What will cattle and corn prices be in 2008? How does the type of feedlot facility affect cattle performance? What kind of nutrient value is in beef manure? What is the Small Iowa Feedlot Plan? How can you qualify cattle for export to Japan? These questions will be the focus of a Beef Feedlot Meeting on January 15 in Sioux Center. The meeting will be from 9:00 a.m. to 3:00 p.m. at the Corporate Center. Registration for the meeting is due January 11 and is $20 per person (includes a meal and beef certificate). For more information, contact Beth Doran (712-737-4230).

Cow-Calf Risk Management Workshop – January 31

High corn prices and fluctuating cattle prices are creating tough challenges for cattle producers. Cow-calf producers are faced with how to optimize the value of their feeder calf. ISU Extension is offering a Cow-Calf Risk Management Workshop on January 31 at the Mapleton Community Center from 9:45 a.m. to 3 p.m.

Cost for the workshop is $25 per person. Pre-registration is required by January 28 at the Monona County Extension Office (712-423-2175). For details, contact Beth Doran (712-737-4230).

Land Values Increase Again

By Ron Hook, ISU Extension Farm Management Specialist

The average value of an acre of farmland in Iowa increased by just over $700 during the past year, to an all-time high of $3,908, according to an annual survey conducted by Iowa State University (ISU) Extension. The land boom is being driven by the developing biofuel economy, according to Mike Duffy, ISU Extension farm economist who conducts the survey.

The 22 percent increase recorded this year is the greatest one-year increase since 1976, and marks a new record for the fifth year in a row. Since the year 2000, Iowa land values have increased an average of $2,051 per acre, more than a 100 percent increase over the 2000 average value of $1,857.

Duffy noted that some of the smaller percentage increases occurred in the counties and crop reporting districts along Iowa's eastern and western borders. He said this reflects the impact of local demand for corn from ethanol plants. Counties along the border rivers previously received the best prices for crops due to low transportation costs to gulf port markets, but now those crops are being used locally by the ethanol plants, which is driving up prices in interior counties.

Of the nine crop reporting districts in the state, northwest Iowa reported the highest average value at $4,699 per acre. The lowest average in the state was in south central Iowa at $2,325 per acre. North central Iowa was the leader in percentage increase at 25.3 percent, while east central Iowa had the lowest percentage increase at 14.7 percent.

Low grade land in the state averaged $2,655 per acre, an increase of $460 or 21 percent over the 2006 survey. Medium grade land averaged $3,666 per acre, a $655 increase or 21.8 percent. High grade land averaged $4,686 per acre, an increase of $851 or 22.2 percent.