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Crop Watch No. 2004-25, November 12, 2004

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CROP WATCH

University of Nebraska Cooperative Extension
Institute of Agriculture and Natural Resources

UNIVERSITY OF
Nebraska
Lincoln

No. 2004-25, November 12, 2004

Outbreak 'significant' in western Nebraska

Rust primary cause of yellow wheat

Numerous wheat fields in western Nebraska are exhibiting severe to moderate yellowing of the older leaves. The incidence of these symptoms in many areas of the Panhandle is very high, especially in Cheyenne County where symptoms are particularly prevalent. Symptoms also are occurring in southwest and west central Nebraska, but have not been reported east of North Platte.

Several scientists at the Panhandle Research and Extension Center recently addressed this problem. We believe that the yellowing of the wheat is due primarily to leaf rust, caused by *Puccinia recondita*. Fortunately, this is not expected to have a major impact on the wheat crop, as the first severe freeze should kill the pathogen.

Even though we expect little impact from this disease, we do not understand potential interactions with other factors that we also observed in various fields including low nitrogen fertility, eye spot, wheat streak mosaic, root and crown rot, or aphid infestations. Fungicides can be used to control rust, but we feel that it is not worth the investment to spray fields at this time. Fortunately, the extra moisture this fall in many wheat-growing areas will reduce further stress in crops, lessening the chances of mortality from winter-kill.

The appearance of rust in fall is very unusual for Nebraska wheat production, but can easily be explained by the cool damp weather

over the last four to six weeks. The increased moisture and cooler temperatures combined with the lack of a hard freeze allowed unusually good vegetative wheat growth. This type of weather (60-75°F) coupled with free moisture or high humidity, is ideal for the development and spread of rust. There does not appear to be a relationship between disease incidence and the use of different wheat cultivars, but UNL is currently investigating the identification of the particular races of the rust pathogen causing disease in different fields throughout the state.

Robert M. Harveson
Plant Pathologist
Panhandle REC

Soybean rust confirmed in U.S.

The U.S. Department of Agriculture's Animal and Plant Health Inspection Service Wednesday (Nov. 10) confirmed the presence of soybean rust on soybean leaf samples taken from two plots associated with a Louisiana State University research farm on Saturday.

While this is the first instance of soybean rust to be found in the United States, the detection comes after most soybeans have been harvested. The impact of the fungus should be minimal this year.

CropWatch will feature further information on this development and what it means for Nebraska soybean producers in the next issue.

Soybean rust is caused by either of two fungal species, *Phakopsora pachyrhizi*, also known as the Asian species, and *Phakopsora meibomia*, the New World species.

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Soybean rust, water limits, and transgenics: Winter meetings tackle current topics in ag

Making informed, well thought out decisions for your farming operation can be easier if you've got timely, research-based information tailored to Nebraska conditions and farming issues.

University of Nebraska Cooperative Extension is hosting a number of fall and winter meetings to provide the latest information on new and developing technologies as well as practices that can help you conserve your water supply and improve your pest management and bottom line.

This issue of *CropWatch* includes information on many of these opportunities. Review the meeting topics and your calendar and develop a personalized winter curriculum that provides the information you need to make the

Ag update

Ralph Kulm, Extension Educator in Holt and Boyd counties:

Turning the calendar to November has seemed to remind producers that winter conditions could be approaching. All of a sudden a lot of corn has come out of the field in this area. We are probably at about 80% completion of the corn harvest as of today. Irrigated corn yields are slightly below last year on average but last year was a record year in this area. We are seeing a lot of 200+ bushel yields.

The soybean harvest has been complete for several weeks with irrigated yields in the 55-65 bushel range depending on white mold, aphids etc. People with livestock have been anxiously awaiting the completion of harvest so that cattle can be moved to the stocks. Potato yields were excellent this year with the cooler weather probably being the difference. Dry beans also did very well and were harvested earlier than usual.

best choices for your operation. For further details, contact your nearest Cooperative Extension office or check the *CropWatch Events* page on the Web at <http://cropwatch.unl.edu/Events.htm>

Following are just a few of the topics to be discussed at winter meetings described in this or the next issue of *CropWatch*:

- Not all Bt corns are equal in their coverage or their efficacy. Which is best for your pest pressures and your farm operation?
- Soybean rust -- how to identify it and what to expect in 2005.
- Learn how to make a smooth transition in your family when junior graduates and wants to return to the farm or ranch.
- Corn seed treatments -- new options and trial results to guide your selection.
- Results from skip-row rainfed corn trials -- west central Nebraska yields under limited water conditions are promising.
- Recommendations for improving soybean production and marketing.

Ag briefs

Crop condition

At the start of this week harvest was a week-and-a-half behind average due to high grain moisture content, capacity of grain drying facilities, and available storage space, according to a Nov. 8 USDA Nebraska Agricultural Statistics Service report.

Corn harvest was 73% complete, a week behind last year at 88%.

Soybean harvest was nearly complete at 98%, behind last year at 99% and the same as average.

Sorghum harvest was 75% complete, a week to ten days behind last year and average at 91%.

Dry bean harvest, at 97%, continued to lag behind last year and average by at least a week.

Wheat conditions rated 0% very poor, 3% poor, 33% fair, 51% good, and 13% excellent, above average.

Ag salute

U.S. corn yields have increased an average of 1.74 bu/A per year since 1965.



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Lisa Jasa, Editor; Email: ljasa1@unl.edu

Crop protection clinics address 'hot' topics

Recommendations for managing problem weeds in Roundup Ready crop production systems will be one of the featured topics at the 2005 Crop Protection Clinics. The clinics will be held at 12 sites across the state in January and feature Extension specialists in agronomy, weed science, entomology, plant pathology, and pesticide application. Pesticide applicator recertification also will be conducted at the meetings.

The programs, sponsored by the University of Nebraska Cooperative Extension, will provide updated information on a variety of current topics in crop protection, including: soybean rust and other soybean foliar diseases and what to

expect in 2005; advantages and disadvantages of new insecticide seed treatments; control of the western bean cutworm; managing bacterial diseases of corn; and agrosecurity and the Great Plains Network.

The cost of the clinic is \$30, payable by cash or check at the door. The fee includes registration, the *2005 Crop Protection Proceedings*, *2005 Nebraska Guide for Weed Management* and lunch. There is no preregistration.

Clinics start at 8:15 and are expected to end at 4 p.m. For more information, contact your local Cooperative Extension Office or call 402-472-1547.

Commercial/noncommercial pesticide applicator recertification will be conducted at the 2004 Crop Protection Clinics in the following categories: Ag Plant, Regulatory, and Demonstration and Research. Larry Schulze, UNL Extension Pesticide Education Specialist, will send additional details to those applicators who need recertification or for more information, visit the Web site at <http://pested.unl.edu/2004schedulebooklet.pdf> for study materials.

Clinic sponsors have applied for 4.5 CEUs in pest management for certified crop advisors. (Your CCA number will be required.)

Crop Protection Clinics

January 5, Wednesday, Fremont, Christensen Field (Main Arena), West Linden and Ridge Rd.

January 6, Thursday, Auburn, Arbor Manor, 1617 Central Ave.

January 7, Friday, Beatrice, Holiday Inn Express, 4005 North 6th St.

January 11, Tuesday, York, Chances "R", 124 West 5th St.

January 12, Wednesday, Hastings, Garden Cafe (Holiday Inn) Convention Center, 2201 Osborne Drive East.

January 13, Thursday, O'Neill, Blarney Stone Restaurant, 5th and Douglas streets.

January 14, Friday, Norfolk, Life Long Learning Center, 601 East Benjamin St.

January 18, Tuesday, Scottsbluff, Panhandle Research and Extension Center, 4502 Avenue I

January 19, Wednesday, Ogallala, Grey Goose Lodge, 201 Chuckwagon Rd.

January 20, Thursday, Broken Bow, Bum Steer, 625 South 10th Ave.

January 21, Friday, Holdrege, Ag Center, 1308 2nd St.

January 24, Monday, Lincoln, Lancaster Extension Education Center, 444 Cherrycreek Rd.

Soybean rust *(Continued from page 233)*

The Asian species, the one found in Louisiana, is the more aggressive of the two species, causing more damage to soybean plants.

USDA will dispatch its soybean rust detection assessment team, composed of scientific experts and regulatory officials, to the site within 24 hours. The assessment team will work closely with Louisiana State Department of Agriculture representatives to assess the situation and conduct surveillance around the detection site to determine the extent of the disease spread.

Soybean rust is spread primarily by wind-borne spores capable of being transported over long distances. At this time, based on predictive models, APHIS believes that the detection in the United States is related to this year's very active hurricane season. While the harvest for this year is complete, growers will need to watch for symptoms in next year's crop. These would include small lesions

on the lower leaves of the infected plant that increase in size and change from gray to tan or reddish brown on the undersides of the leaves. Lesions are most common on leaves but may occur on petioles, stems, and pods. Soybean rust produces two types of lesions, tan and reddish brown. Once pod set begins on soybean, infection can spread rapidly to the middle and upper leaves of the plant.

Soybean rust can be managed with the judicious use of fungicides. However, early detection is required for the most effective management of soybean rust. Monitoring soybean fields and adjacent areas is recommended throughout the growing season.

Fungicide applications can reduce yield loss, depending on the plant developmental stage, time when soybean rust is detected, and fungicide application method.

For more information, visit APHIS' soybean rust "hot issues" Web site at <http://www.aphis.usda.gov/lpa/issues/sbr/sbr.html>.

Sorghum seminars: marketing and production issues

The 2005 Sorghum Seminars will update producers on recent sorghum-based research and address timely marketing and production issues.

"Limited water availability, managing risk in uncertain weather conditions and heightened producer interest in water-conserving crops have us returning to the southwestern part of the state with our meetings," said Gerald Simonsen of Ruskin, NeGSPA president. "Farmers are looking for crop alternatives that will reduce production risk, yield well under

stressful growing conditions and enable them to make the most of available moisture."

"The one-day program is packed with valuable information including a marketing outlook and pricing strategies, a long-range look at the weather, and soil analyses and nitrogen application recommendations, adds Kenneth Herz of Lawrence, chair of the Grain Sorghum Board.

Industry and University of Nebraska Extension specialists will share grain sorghum production information, irrigation and water

management techniques; new risk management tools; and hybrid advancements for higher yield and improved quality. The program also includes a safety demonstration on grain entrapment and a presentation by the Nebraska State Patrol on methamphetamines, a growing concern in the countryside.

Sponsored by the Nebraska Grain Sorghum Producers Association (NeGSPA), Grain Sorghum Board, and University of Nebraska Cooperative Extension, the programs will begin at 8:30 a.m. and end at 3:30 p.m. The noon meal will feature the traditional sorghum pancake feed with all the fixings. Agribusiness representatives will have exhibits to showcase new products and production/management information.

Sorghum Seminars

Monday, January 10 at the Red Willow County Fair Board Community Building in McCook

Tuesday, January 11 at the Harlan County Ag Building in Orleans

Wednesday, January 12 at the Auditorium in Hardy

Thursday, January 13 at the City Auditorium in Milligan.

Research poster sessions featured at Dec. 2 Agronomy/Hort Highlights

In addition to the speakers on current research, teaching and extension topics presenting at this year's Agronomy and Horticulture Highlights (see the Oct. 22 Crop-Watch), a number of poster presentations on cutting-edge research will be included.

The annual one-day seminar will be held from 8:15 a.m. to 3 p.m. Dec. 2 at the Cornhusker Hotel in Lincoln. A complimentary lunch will be included, but reservations are required by Nov. 22. For more information or to make a reservation, contact JoAnn Collins at the UNL Department of Agronomy and Horticulture at 402-472-2811.

The poster session will be open all day and staffed at identified breaks so that you can stop by and visit with the researchers about their findings. Following are just some of the crop production topics to be presented through poster:

Corn Responses to Early & Mid-season Wind: Leaf Placement & Greensnap, *by Roger W. Elmore.*

Glyphosate's Influence on Chlorophyll Content in Glyphosate Resistant Soybean, *by Lori Abendroth,*

Roger Elmore, and Fred Roeth.

Soybean Drought Tolerance: Some Phenotypic and Genomic Insights, *by James E. Specht.*

What growth analysis reveals when the management goal is soybean yield potential *by Angela M. Bastidas, A. Doberman, R. W. Elmore, and James E. Specht.*

Site-Specific Hybrid Management for pH-Induced Iron Chlorosis, *by Richard Ferguson, David Tarkalson, Gary Hergert and Roger Elmore.*

Field-Scale Variability of Physical, Chemical, and Biological Soil Properties in the Western Corn Belt *by Susanna Grigera, Rhae Drijber, and Brian Wienhold.*

Description of a High-Clearance Applicator For Making Variable Rate N Applications To Corn Using Active Sensor Readings *by J. F. Shanahan, R. Inamasu, J. S. Schepers, D. D. Francis, M. R. Schlemmer, R.E. Caldwell.*

Hybrid-Maize: A Simulation Model For Improving Corn Management, *by H.S. Yang, A. Dobermann, K.G. Cassman, D.T. Walters.*

Ordering seed?

Don't forget to check out the 2004 hybrid and variety test results from the University of Nebraska field trials at

varietytest.unl.edu

Nebraska Soybean Day, Machinery Expo Dec. 10

Soybean growers will receive the latest information to enhance their profits, yields and practices at the 2004 Nebraska Soybean Day and Machinery Expo Dec. 10.

The expo runs from 8:30 a.m.-2:30 p.m. in the pavilion at the Saunders County Fairgrounds in Wahoo. Presenters include university researchers and specialists, Nebraska Soybean Board representatives, soybean growers and private industry representatives.

Producers will be able to visit with representatives from seed, herbicide, fertilizer and equipment companies and view new farm equipment during a 30-minute break at 10:10 a.m. Free lunch and soy doughnuts will be available.

Sue Martin of the agricultural marketing program, "Market to Market," will discuss the corn and soybean futures outlook for the next six months. Martin is president and owner of Ag & Investment Services Inc. With 30 years of experience in the brokerage business, she was among the first women in her field. Active on the speaking circuit, Martin has addressed national audiences on marketing strategies and futures trends.

Paul Jasa, extension engineer, will use a tractor and mechanical sled to demonstrate ballasting, front wheel assist, dual wheels and traction.

Gregg Fujan of the Nebraska Soybean Board, Steve Wellman of

the Nebraska Soybean Association and Dennis Fujan of the Saunders County Soybean Growers will provide updates.

There also will be a live demonstration by the Nebraska State Patrol's Carrier Enforcement Division on grain truck mechanical compliance.

Registration is available the day of the expo at the door. For more information, call (800) 529-8030 or e-mail kglewen1@unl.edu.

This free program is sponsored by Cooperative Extension in the University's Institute of Agriculture and Natural Resources, the Nebraska Soybean Board, Saunders County Soybean Growers Organization and private industry.

Nov. 18 insurance workshop focuses on livestock risk protection insurance, drought

A Nov. 18 workshop will help producers, lenders and insurance agents learn more about drought's effect on insurance and the U.S. Department of Agriculture's Livestock Risk Protection program.

The workshop, jointly sponsored by Cooperative Extension at the University of Nebraska, Kansas State University and Colorado State University, will be at the I-80 Holiday Inn in Grand Island.

"This workshop will examine the reintroduction of the Livestock Risk Protection program since it was taken off the market last year after the bovine spongiform encephalopathy incident in the United States," said Doug Jose, university farm management specialist. "There also will be a focus on the weather with a discussion on the outlook for 2005."

Other topics include availability or reinsurance to make insurance programs work and the Geographic

Information System used by the Farm Service Agency.

The three-state workshop has been offered annually for the past five years. The workshop also will be available Nov. 16 in Brush, Colo., and Nov. 17 in Great Bend, Kan.

Presenters include faculty and staff from the three universities, government and industry representatives. Continuing education credits will be available for insurance agents.

For more information or a registration form visit the Web at <http://www.AgManager.info/crops/insurance/workshops> or contact the University's Department of Agricultural Economics, Room 308A Filley Hall, University of Nebraska-Lincoln, Lincoln, Neb. 68583-0922, call (402) 472-2039 or fax (402) 472-0776.

Registration is \$90 and includes all materials, lunch and refreshments.

When beetles become too much of a good thing

As the soybean aphid has extended its domain, so has one of its natural predators -- the Asian lady beetle. While beneficial in the control of soybean aphids, it has become a nuisance for some as it tries to enter homes to find a warmer place to live. These beetles will spend the winter in attics, wall voids and around window frames.

If you've got a few too many coming in along with the perennial boxelder bugs, the best solution is to vacuum them up and dispose of the bag. Avoid swatting or picking up Asian lady beetles because they can release a smelly yellow substance which can stain walls. They also can "nip" homeowners, but the effect should be short-lived.

Learn about benefits of using aerial imagery

Farmers are beginning to look to the sky for more than just rain. More and more growers are using aerial imagery to improve pest management, nutrient application and irrigation uniformity as well as help predict yields.

The Nebraska Agricultural Technologies Association and University of Nebraska Cooperative Extension will sponsor the Using Aerial Imagery in Crop Production Clinic Tuesday, Dec. 7, at College Park, Grand Island. The program is from 9 a.m. to 4 p.m.

"Aerial imagery is a relatively new crop management tool that growers and consultants are using to fine-tune their agronomic practices," according to Extension Educator Dave Varner. Ten Nebraska producers and a couple of Kansas producers cooperated with NeATA to capture imagery of their fields this past year and will be on hand to discuss their experiences at the clinics.

The registration fee of \$50 for non-NeATA members and \$25 for NeATA members includes lunch and program materials. Registration should be sent to NeATA, 1206 West 23rd St., Fremont, NE 68025. Certified Crop Advisor Credits applied for include 4.5 in the crop management category. For further information or to register contact Varner at (402) 727-2775 or dvarner1@unl.edu.

For further updates or to browse or search through the last seven years of issues, visit *CropWatch* on the Web at

cropwatch.unl.edu

Control winter annual weeds now; reduce potential problems in spring

This fall has been great for pennycress, mustards, and downy brome to get started in your alfalfa. Treat them now if you want to avoid heavy weed pressure next spring.

With some moisture and few, if any, hard freezes this has been a beautiful fall in many ways, including for annual weeds that are invading alfalfa. Check your fields for small mustard rosettes or short grass seedlings of downy brome. This density and robust start suggests heavy weed growth next spring if left uncontrolled.

To avoid next spring's weed infestation, spray fields before soils freeze up. Probably the three best herbicides to use now are Sencor, Sinbar, and Velpar. All three do an excellent job of controlling pennycress, mustards, and downy brome.

If you're tempted to wait until spring to address these weed problems, reconsider. While you

can wait and be successful with spring spraying, it must be done before alfalfa greens up or you will injure your plants. Timing is more critical than in the fall, when there are likely to be more "open" days available for treatment.

Usually, there are only a few days in spring where alfalfa is dormant, weeds are actively growing, and it's not too wet or windy. Most of the time, fields don't get sprayed at all or they get sprayed late and alfalfa is injured.

Take advantage of opportunities now to control weeds in your alfalfa.

Bruce Anderson
Extension Forage Specialist

About 25% of Nebraska's corn crop is used in the production of ethanol.

Seminar aids in developing a strategy for youth returning to the farm

Bringing a young person into a family farm or ranch operation can present a number of challenges, however, with planning, a family can make the transition successfully and accomplish numerous goals in the process. University of Nebraska Cooperative Extension is sponsoring a workshop, Returning to the Farm, to help families develop successful working arrangements and create a financial plan that will meet the needs of multiple families. During the sessions, students and their parents spend time working together to plan for change. The workshops include a financial analysis of the present operation

and alternatives for the future. Families set goals for the business and family, practice communication skills, and learn how to understand and build upon personality differences.

The program is taught in two weekend sessions. The first session will be Dec. 10-11 and the second session will be Jan. 7-8, 2005. Both sessions will be held at the Lancaster County Extension Office. Participants are expected to attend both weekends. Registration is limited to 15 families.

The registration fee is \$200 plus \$10 per person for breaks and meals. To register call 1-800-535-3456.

Manage turnip grazing to avoid health problems

August-planted turnips will be ready to graze soon. This wonderful resource is not without problems, though.

Turnips may be the best grazing option available for late fall and winter, but they can cause problems if not managed well.

Turnip leaves can cause hemolytic anemia, which is a blood disease, oloencephalomalacia, a brain disorder characterized by twitching and incoordination, pulmonary emphysema, a breathing disorder, and even bloat.

These problems generally occur during the first two weeks of grazing. Turnips also affect function of the thyroid gland and, thus, are goiter-genic.

This may all sound scary, but most problems are rare and are reduced or eliminated with careful management. To begin, don't shift cattle onto turnips suddenly. Adjust them by feeding high quality hay or pasture for a couple weeks before turnips to prepare their rumen for the high energy and protein in turnips. Giving them just a few hours access to turnips at the start also helps. Make sure they have access to a dry roughage like corn stalks or a palatable hay. This also helps reduce diarrhea, which is common with turnips. Strip grazing that forces cattle to eat both roots and tops reduces problems and increases carrying capacity. And finally, always provide an iodized

salt-trace mineral mix.

Don't be afraid to graze turnips; they're a wonderful resource. Just manage carefully and be alert so problems don't affect you.

Bruce Anderson
Extension Forage Specialist

Intermediate, advanced training in precision ag

An intermediate level Precision Ag Workshop will be held this Monday, Nov. 15, at the Lifelong Learning Center in Norfolk. Cost is \$75.

Topics will include the scope and trends of precision agriculture in 21st century, Global Positioning System technology and data acquisition equipment, good habits of grain yield mapping, principles of emerging plant and soil sensor technology, common approaches to spatial data interpretation, field investigations using precision agriculture tools and methods, and site-specific crop management in Nebraska.

An advanced level Precision Ag Workshop will be held Dec. 10 at L.W. Chase Hall, University of Nebraska-Lincoln, East Campus. Cost is \$65 before Dec. 3 and \$75 afterward.

Topics will include major sources of spatial data for site-specific crop management, approaching spatial variability management, exercise of Geographic Information System data importing, application of yield maps, site-specific soil nutrients management and exercise of prescription maps development.

For more information or to register call (402) 624-8000, e-mail kglewen1@unl.edu or visit the Agricultural Research and Development Center's Web site at <http://ardc.unl.edu/cmwc.htm>

Resistance management workshop offers indepth training, planning

With the range of pest control options available through chemical application and new hybrids, maintaining pest resistance is a necessary goal for ag producers wanting to keep these new tools viable longer. A two-day Pest Resistance Management Workshop will be held on the University of Nebraska East Campus Dec. 8-9.

This course will address resistance of crop insect pests, pathogens and weeds to pesticides, management techniques, and the evolutionary biology, genetic and pest biology principles underpinning pest resistance and its management. The role of transgenic crops in pest resistance management also will be examined. Students completing this course will be able to evaluate and design pest resistance management strategies.

Instructors will include Alex Martin, Extension weeds specialist; Donald Lee, agronomy professor;

Thomas Hunt, Extension entomologist; Blair Siegfried, entomology professor, and Loren Giesler, Extension plant pathologist.

Attendance at the Lincoln sessions is recommended; however, the workshop will be taped and video delivered to registered students unable to travel to Lincoln. Internet access is required for the course. To receive credit, students will need to complete on-line quizzes, participate in the workshop and complete a comprehensive final exam.

For more information on the credit options and costs, visit the class Web site at http://agronomy.unl.edu/distance_ed/2004fall/martin/course_896.htm For more information on other distance education classes being offered by the Department of Agronomy and Horticulture, check their on-line class schedule at http://agronomy.unl.edu/distance_ed/

Events

For details, check stories in previous issues of *CropWatch* or on the Web at cropwatch.unl.edu/events.htm.

November

- **Livestock Risk Protection Insurance Seminars** (*remaining*)
 - Nov. 15, Beatrice
 - Nov. 17, Fremont
 - Nov. 22, Norfolk
- **Odor Management Workshops** for pork producers,
 - Nov. 11, Norfolk
 - Nov. 12, Beatrice
- **Intermediate Precision Agriculture Workshop**, Nov. 15, Norfolk (http://bse.unl.edu/adamchuk/pa_workshop/paw_2004_2.html)
- **National GIS Day**, Norfolk, Nov. 17.
- **Nebraska Corn Expo**, Nov. 23, Fremont

December

- **Agronomy and Horticulture Highlights**, featuring current UNL research, extension and teaching topics, Dec. 2, Lincoln.
- **Using Aerial Imagery in Crop Production**, Dec. 7, Grand Island.
- **Pest Resistance Management Course**, Dec. 8-9, Lincoln (http://agronomy.unl.edu/distance_ed/2004fall/martin/course_896.htm).
- **Nebraska Soybean Day and Machinery Expo**, Dec. 10, Saunders County Fairgrounds, Wahoo
- **Advanced Precision Agriculture Workshop**, Lincoln, Dec. 10 (http://bse.unl.edu/adamchuk/pa_workshop/paw_2004_3.html)
- **Skip-row Rainfed Corn Trial Results**, Dec. 21, 10 a.m. at McCook and 1 p.m. at Imperial
- **Skip-row Rainfed Corn Trial Results**, Dec. 22, 9 a.m. at Ogallala and 1 p.m. at Sidney

January

- **Crop Protection Clinics and Pesticide Applicator Sessions**

Jan. 5, Fremont	Jan. 14, Norfolk
Jan. 6, Auburn	Jan. 18, Scottsbluff
Jan. 7, Beatrice	Jan. 19, Ogallala
Jan. 11, York	Jan. 20, Broken Bow
Jan. 12, Hastings	Jan. 21, Holdrege
Jan. 13, O'Neill	Jan. 24, Lincoln

February

- **Nebraska Agricultural Technologies Association (NeATA)** Conference and Trade Show, Feb. 2-3, Grand Island

University-tested spray technology to aid in cleanup of Utica water

The U.S. Department of Agriculture has announced that it will be working with several state and federal agencies on a project to remove contaminants from groundwater near Utica and help restore 364 acres of historic wetlands in the North Lake Basin Wildlife Management Area.

"This approach to cleaning Utica's municipal groundwater contamination will also provide habitat for waterfowl," said Agriculture Secretary Ann M. Veneman. "Through the beneficial reuse of water, this technique can treat contaminated water, which can then be used for beneficial applications, such as irrigating croplands or creating wetlands."

Concern about contamination in Utica's water and that of other rural areas has focused on fumigants commonly used in the 1940s and 1950s which contained carbon tetrachloride to treat stored grain. A small-scale USDA pilot project was launched in 2000 to clean up Utica's groundwater. Its success led to today's prototype in the North Lake Basin just north of Utica.

This project uses spray irrigation technology and wetland restoration to restore contaminated groundwater through beneficial reuse. The prototype uses specially designed irrigation equipment to "volatilize" or evaporate the carbon tetrachloride contaminants into the air in a manner that will protect public health. The method, which eliminates up to 98% of the contaminants, was first demonstrated by the University of Nebraska under initial USDA and Environmental Protection Agency funding. USDA expects to use a similar approach in other rural areas in Nebraska and Kansas, benefiting public health, wildlife and the environment.