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CropWatch No. 2003-26, November 21 , 2003

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CROP WATCH

University of Nebraska Cooperative Extension
Institute of Agriculture and Natural Resources

UNIVERSITY OF
Nebraska
Lincoln

No. 2003-26, November 21, 2003

YieldGard Plus approved

Planning for resistance management

The EPA announced the registration of Monsanto's YieldGard Plus corn hybrid on November 3. This hybrid is a cross between the YieldGard Corn Borer hybrids containing the Bt Cry1Ab protein (active against caterpillars) and YieldGard Rootworm hybrids containing the Bt Cry3Bb1 protein (active against beetles).

The YieldGard Plus hybrids provide effective control of both the European corn borer and corn rootworm. These hybrids are fully approved for food and feed use in the United States and Japan; however, they are not currently approved in the European Union.

As with other Bt corn hybrids, the EPA has established Insect Resistance Management (IRM)

plans for YieldGard Plus as a condition of its registration. For YieldGard Plus corn, the EPA requires that growers plant a corn refuge with corn hybrids that do not contain Bt technologies for the control of corn rootworms or corn borers. In Midwestern corn growing areas, the refuge area must represent at least 20% of the grower's YieldGard Plus corn acres.

Growers planting YieldGard Plus hybrids will have two refuge planting options. One option allows them to plant a common refuge for both corn borers and corn rootworms, following the YieldGard Rootworm refuge requirements, which are the more restrictive (*see page 243*). The second option allows growers to plant separate refuge areas for corn borers and for corn

rootworms, following the appropriate refuge requirements for each (*see page 243*).

It's important that growers and everyone in the agricultural community avoid confusion about the Insect Resistance Management plans required for each type of hybrid (Bt corn for corn borers, Bt corn for rootworms, and the combined YieldGard Plus). Remember that the goal of IRM plans is to maintain the presence of susceptible insects near the transgenic hybrid to serve as a source of mates for any potentially resistant insects that emerge from the resistant hybrids. The IRM plan is designed to delay or prevent the development of insect resistance to these hybrids and thus extend their useful life to growers.

(Continued on page 243)

Inside

Get out your calendar!
This final 2003 issue features
a wealth of winter meetings.

| | |
|----------------------------------|-----|
| Briefs | 242 |
| Corn Expo | 242 |
| Resistance Questions | 243 |
| Soybean Expo | 244 |
| Crop Management | 245 |
| Southwest NE Meetings | 247 |
| Pesticide Applicator | 248 |
| Irrigation Conference | 248 |
| Women in Ag | 248 |
| Crop Protection Clinics | 249 |
| Corn/Soybean Profitability | 249 |
| Agronomy Highlights | 250 |

Market Journal to feature year-end tax planning strategies

This weekend's *Market Journal* broadcast on NETV will feature year-end tax advice for farmers and ranchers.

Whether annual income is high or low, an informed and well-organized tax strategy can help farmers and ranchers minimize their tax burden, said Tina Barrett, Nebraska Farm Business Association director. Barrett will be speaking with Doug Jose, Market

***Market Journal* is now
available on NETV and
NETV2.**

Journal host, during the 30-minute show which will be aired at 6:30 a.m. Saturday on NETV and re-broadcast at 9 a.m. Sunday on NETV2.

(Continued on page 244)

UNIVERSITY OF NEBRASKA, COOPERATING WITH COUNTIES AND THE U.S. DEPARTMENT OF AGRICULTURE

The University of Nebraska-Lincoln does not discriminate based on gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation.

Updates

Paul Hay, Extension Educator in Gage County: Fall fertilization applications are underway.

Farmers are starting to realize that manure purchases from larger livestock operations are very positive to crop production. Winter wheat planting on par with last year and looks good. A few wheat fields reporting some rust.

USDA Nebraska Agricultural Statistic Service: Corn harvest reached 96% complete, ahead of last year at 86% and average at 94%. Sorghum harvest also made good progress with 96% completed, ahead of last year at 92% and near average at 97%. Wheat condition rated 5% very poor, 12% poor, 36% fair, 42% good, and 5% excellent, below last year and average.

Corn Expo Dec. 4

The Nebraska Corn Expo will provide producers and agribusiness representatives production and marketing strategies to remain competitive in the complex corn industry. The program is free and will be held Dec. 4 at Christensen Field in Fremont. Registration will begin at 8 a.m., with the program beginning at 8:30 a.m. and continuing until 3 p.m.

Program topics will include: using the right equipment for irrigation; successful no-till; using aerial imagery in crop production; caring for stored grain; high-tech farm service agency maps; commodity market signals from abroad; new seed technologies; and updates from local and state corn commodity organizations.

For more information contact Dave Varner, Extension educator in Dodge County, at 402-727-2775 or dvarner1@unl.edu. Exhibitor space is available.

Nebraska 2003 corn production higher: Corn production in Nebraska is forecast at 1.12 billion bushels, up 1% from last month and 19% above 2002, according to USDA's Nebraska Agricultural Statistics Service. Based on conditions as of November 1, yields are expected to average 145 bushels per acre, up 2 bushels from the October forecast, and 17 bushels above last year's drought-reduced yield. Farmers expect to harvest 7.75 million acres of corn for grain, unchanged from October and 5% above a year ago.

Soybean production is forecast at 175.5 million bushels, unchanged from last month and slightly below last year. Yields are expected to average 39 bushels per acre, unchanged from last month and just above the 38.5 bushels per acre of 2002. Area for harvest, at 4.5 million acres, is unchanged from October and down 2% from 2002.

Sorghum production is forecast at 31.6 million bushels, more than double the production of last year. Yields are expected to average 62 bushels per acre, up 3 bushels from last month and 12 bushels above last year.

Sugar beet production of 875 thousand tons is up 15% from 2002. **Potato** production of 9.2 million cwt. is up 7% from last year.

U.S. November 1 Crop Report: U.S. corn production is forecast at 10.3 billion bushels, up 1% from last month and 14% above 2002. Based on conditions as of November 1, yields are expected to average 143.2 bushels per acre, up 1 bushel from October and up 13.2 bushels from last year. Acreage harvested and to be harvested for grain is forecast at 71.8 million acres, unchanged from October but up 4% from 2002.

Soybean production is forecast at 2.45 billion bushels, down 1% from October and 11% below 2002. Yields are expected to average 33.8 bushels per acre, down 0.2 bushel from October and down 4.2 bushels from 2002. Area for harvest is forecast at 72.5 million acres.

Sorghum grain production is forecast at 400 million bushels, virtually unchanged from the October forecast but up 8% from 2002. The U.S. yield forecast is 51 bushels per acre.

CROP WATCH

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

Resistance *(Continued from page 241)*

The EPA has established the following resistance management requirements for Bt corns active against European corn borer:

1. On each farm, growers may plant up to 80% of their corn acres with Bt corn. At least 20% of their corn acres must be planted with non-Bt corn and treated only as needed with insecticides. Decisions to treat the refuge must be based on economic thresholds. Conventional Bt products (liquids or granules) must not be used on the non-Bt refuge.

2. Plant non-Bt corn refuge within, adjacent to, or near the Bt cornfields. The refuge must be placed within 1/2 mile of the Bt field, preferably within 1/4 mile.

3. If refuge is established as strips within a field, the strips should not be narrower than four rows.

For more information see NebFact 425, Resistance Management for European Corn Borer and Bt Transgenic Corn: Refuge Design and Placement, available at your local Cooperative Extension office or on the Web at <http://www.ianr.unl.edu/pubs/insects/nf425.htm>

The EPA has established the following resistance management requirements for YieldGard Rootworm corn:

- Growers must plant a structured refuge of at least 20% non-YieldGard Rootworm corn that may be treated with insecticides (e.g., seed treatments, liquid or granular insecticides) as needed to control corn rootworm larvae.

- Growers will not be permitted to apply corn rootworm labeled insecticides to the refuge for control of insect pests (either rootworm beetles or other insects, e.g., western bean cutworms, grasshoppers, etc.) while adult corn rootworm are present unless the YieldGard Rootworm field is treated in a similar manner.

- Refuge planting options

include blocks in or adjacent to YieldGard Rootworm cornfields or as in-field strips.

- External refuges must be planted adjacent to YieldGard Rootworm fields.
- When planting the refuge in strips across a field, refuges must be at least 6 rows wide, preferably 12 consecutive rows wide.
- Insecticides treatments for control of corn rootworm larvae may be applied to the refuge area.

In addition, the refuge must be planted in similar ground as the YieldGard Rootworm corn, that is, if the YieldGard is planted in ground that was corn the previous year, so must the refuge. General management of the YieldGard Rootworm corn and the refuge should be similar, e.g., planting dates, irrigation, fertility programs, etc.

Bob Wright
Extension Entomologist

Common grower questions on resistance management

Q: *My neighbor isn't going to plant YieldGard corn on his farm. Why can't I use his neighboring corn fields as my refuge?*

A: Each grower is responsible to follow the IRM plan for his or her farm. Your neighbor may change plans and plant soybeans where you thought they were going to plant corn. The planting dates may vary greatly between your fields and your neighbor's fields, thus decreasing its value as a refuge for your fields.

Q: *I buy my hybrids from more than one company. Who's going to know if I follow the Insect Resistance Management (IRM) requirements or not?*

A: EPA has required the seed company registrants to hire inspectors who will be visiting grower fields and checking to see that IRM requirements are being met.

EPA also requires companies to report their sales data. This can be combined for a locality to check if more than 80% of the corn acres are being planted to Bt transgenic corn.

Q: *Why should I follow the IRM plan? If resistance does occur the companies can just find another toxin to add to corn.*

A: When you bought the seed, you signed a contract with the company agreeing to comply with the IRM plan requirements. Failure to comply may result in the company not selling these hybrids to you in the future. Also, we do not know the characteristics of resistant insects that may evolve; they may have cross-resistance to other Bt proteins, or other toxins, making it harder to find a replacement for the original Bt toxin used.

Bob Wright
Extension Entomologist

Soybean Day and Machinery Expo Dec. 12

This year's Soybean Day and Machinery Expo is looking at local soybean production and marketing from a buyer's perspective. The expo will be held from 8:30 a.m. to 2:15 p.m. Friday, December 12, at the Saunders County Fairgrounds in Wahoo.

Growers may be surprised to learn about the results of a report funded by the national soybean checkoff program to research the quality and competitiveness of U.S. soybeans, said NU Cooperative Extension Educator Keith Glewen. The protein and oil content of American soybeans has gradually declined to the point where U.S. soybeans are virtually equal to South American beans, he said.

Several major Asian importers have stopped or decreased purchases

from the United States. South America produces cheaper soybeans and now has been working to increase the protein and oil content of their beans.

While this sounds like a "world problem" — the solution starts at the local level. Growers can learn how to counter these trends at the expo.

The event will begin with a Quality Counts Forum presented by Bart Ruth, Rising City soybean grower and past president of the American Soybean Association. Ruth will review the Asian perspective on protein and oil.

Li Zuansheng, an Asian soybean buyer with East Ocean Company Limited -- the largest oilseed processor in China -- and Peter Burke from ASA International Marketing will address soybean quality concerns.

They will look at the problems of declining and inconsistent quality of Nebraska soybeans and the impact it has on export markets.

Richard Galloway, a contractor with the United Soybean Board, will discuss the select yield and quality initiative.

A panel including seed and processor industry representatives from Monsanto, Cargill, and AGP will review what steps are being taken in the United States to meet the world demand for higher protein and oil.

The expo also will include presentations on the grain markets by Roy Smith, a Plattsmouth soybean grower, and on soybean aphids by Tom Hunt, NU Extension entomologist.

(Continued on page 246)

Market Journal *(Continued from page 241)*

"One of the things we hear a lot is 'I didn't make any money this year so I don't need to do any tax planning.' It's actually more important to do it in low income years than in high income years," Barrett said. "For one thing, we can maximize the earned income credit. We can also make sure we don't lose personal exemptions and deductions."

Barrett stresses the importance of maintaining an income level at least high enough to be covered by social security, which is crucial to maintaining federal disability and survivorship benefits.

"Another thing we can do," Barrett said, "is manage your tax bracket and spread income out so when it's time to retire or get out of farming for whatever reason, it's not nearly as costly."

Farmers and ranchers also need to be aware of recent changes in federal tax code, said Barrett. The changes affect filing status, capitol gains rates, income deferral, and the

limit on total capitol purchases. Barrett describes some of these changes and the opportunities they permit.

Market Journal Extra, available Fridays at 12:30 p.m. on Dish Network channel 9411 and Time Warner Cable (Lincoln) channel 21, will focus on a series of educational programs designed to help rural Nebraskans make better use of computers and evolving information technologies.

"Connecting Nebraska Technology Training" courses illustrate why technology is important, said Dennis Kahl, Seward County extension educator. One course focuses on teaching people basic computer and Internet skills. Another course targets county governments.

"It's a training package that lets local officials see what other county governments are doing to make and utilize Internet access in their offices," Kahl said. "They see they now have the opportunity to be a

county government offering services 24-7."

"Our 'Nebraska Electronic Main Street' course targets businesses," Kahl said. "It was introduced with the idea that technology has the ability create and expand markets for some businesses. The course provides people with the tools they need to put together an e-business plan. We help them look at the components of that and get it going."

A new course planned for next year will benefit farmers interested in using computers to help them run their businesses more effectively and efficiently. On the upcoming "Market Journal Extra," Kahl will talk about course goals, schedules and registration.

Both *Market Journal* and *Market Journal Extra* are produced by the University of Nebraska Institute of Agriculture and Natural Resources and presented by NU Cooperative Extension and the UNL Department of Agricultural Economics.

Winter Extension meetings

Pursue indepth studies, update your expertise, or learn how to implement the latest research results

Crop Management Winter Programs

A series of University of Nebraska Cooperative Extension programs starting this month will provide up-to-date information on a variety of agricultural topics. NU's Integrated Crop Management Winter Programs, offered at several locations across the state, provide in-depth and detailed information from NU specialists and private industry representatives about crop production, management and diagnostics, soil and water quality, soil fertility and pest management.

Participants will expand their knowledge base, earn continuing education CCA credit (except where indicated) and ultimately increase profits. Last year, participants estimated the value of attending a workshop at an additional \$3.38 per acre.

For more information or to register, contact Keith Glewen, Extension educator, at (402) 624-8000, e-mail kglewen1@unl.edu or visit the Web site at <http://ardc.unl.edu/training.htm>.

Those who register at least one week before the program will receive a discount. Fees include lunch, refreshment breaks, workshop materials and instruction manual. All workshops begin with registration at 8:30 and will conclude by 4:30 p.m. CST.

Registration for the Nov. 25 workshop is \$40. Registration for each of the other workshops is \$65 for early registration (up to 1 week in advance) or \$75 after that date. Participants can register for four classes for \$250.

Individual program information follows.

Crop Production Through Soil Microbiology

November 25, 8:30 a.m. - 4:30 p.m., NU Agricultural Research and Development Center near Mead.

Program topics: introduction to soil microbiology; microorganisms and their relation to soil fertility; cover crops; soil organic matter; cover crops and soil fertility; soil quality indicators.

Presenters: Dr. Rhae Drijber, associate professor of agronomy and horticulture; Keith Glewen, Paul Hay, and Jim Peterson, Extension educators; Tim Schaaf, Natural Resources Conservation Service (NRCS) conservation agronomist at York; and Charles Wortmann, Extension nutrient management specialist.

Credits: 6.5 CCA credits (4.5 in soil and water management and 2 in crop management)

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPNov25.htm>.

Irrigation -- Soil and Water Management

December 5, 8:30 a.m. - 4:30 p.m. at the NU Agricultural Research and Development Center near Mead.

Program topics: assembling soil water information; soil water measurement techniques; estimating crop water use; effect of tillage on water conservation and soil erosion; irrigation scheduling using spreadsheets; sprinkler system design and management; irrigation system case studies-economics; furrow irrigation system management.

Presenters: Tom Dorn, Extension educator; Paul Jasa, Extension Engineer; Steve Melvin, Extension Educator; and Bill Kranz, Extension Irrigation Specialist.

Credit: 5.5 total CCA credits (5.5 in soil and water management)

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPDec5.htm>

Soil Fertility Basics

December 8, 8:30 a.m.-4:30 p.m. at College Park in Grand Island

Program topics: how soils develop and vary; physical and chemical characteristics of soils; relationship between soil and fertilizer nitrogen; relationship of soil and fertilizer phosphorus; macronutrients (potassium, calcium, magnesium and sulfur); micronutrients (seven essential elements); and soil sampling principles.

Presenters: Jim Peterson, Paul Hay, Keith Glewen, and Gary Zoubek, Extension educators.

Credit: None available..

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPDec8.htm>

Soil Fertility Training (Intermediate Level)

December 9, 8:30 a.m. - 4:30 p.m., College Park at Grand Island

Program topics: plant growth and development; fertilizer recommendation philosophies; the use of manure in soil fertility; choosing a yield goal; soil management with tillage (compaction and tillage systems); and precision agriculture in soil management (yield data processing and yield maps).

(Continued on page 246)

Crop management programs *(Continued from page 245)*

Presenters: Richard Ferguson, David Tarkalson, and Charles Wortmann, all Extension soils specialists.

Credit: 6.5 total CCA credits (2.5 in soil and water management and 4.0 in nutrient management)

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPDec9.htm>.

Precision Agriculture -- Major Components (Intermediate Level)

December 10, 8:30 a.m. - 4:30 p.m. at the Lifelong Learning Center in Norfolk

Program topics: a comprehensive review of tools and methods involved in precision agriculture; current issues on Global Positioning Systems and vehicle guidance; potentials and limitations of yield mapping commodity crops; sensor technology for precision agriculture; and understanding the multilayer approach for spatial data management.

Presenters: Viacheslav Adamchuk, Extension precision ag

Soybean expo

(Continued from page 244)

Growers will be able to visit with representatives from seed, herbicide, fertilizer and equipment companies and view new farm equipment in the fairground's heated pavilion during a 30-minute break at 10 a.m. Complimentary lunch and soy doughnuts will be available.

No preregistration is required. For more information call Glewen at (800) 529- 8030 or e-mail kglewen1@unl.edu.

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

engineer, Richard Ferguson, Extension soils specialist; and Paul Jasa, Extension engineer

Credit: 7.5 total CCA credits (2.0 in soil and water management and 5.5 in crop production.)

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPDec10.htm>

Precision Agriculture -- Data Management (Advanced Level)

December 15, 8:30 a.m. - 4:30 p.m., UNL East Campus, Lincoln

Program topics: a comprehensive review of tools and methods for spatial data collection; cost-free geospatial data available through the Internet; combining data sources in a GIS package; learning about the most popular data mining approaches; and the development of prescription maps for variable rate application of agricultural inputs.

Presenters: Viacheslav Adamchuk, Extension precision ag engineer, Achim Dobermann, Extension soil fertility/nutrient management specialist; and Maribeth Milner, GIS specialist.

Credit: 7.5 total CCA credits (4.0 in soil fertility and 3.5 in crop production)

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPDec15.htm>.

Pest Management Training

December 17, 8:30 a.m. - 4:30 p.m., College Park in Grand Island

Program topics: plant disease -- common bunt and stripe rust of wheat, soybean rust and soybean cyst nematode management; entomology -- soybean aphid, YieldGard rootworm and grasshoppers; weed science -- glyphosate and RoundupReady crop update; volunteer Roundup Ready corn, control-tank mixes, glyphosate brand comparison and glyphosate salts and formulations; winter

annual weed control -- 2,4-D, and dicamba preplant intervals; diagnostic sample collection; IPM resources; the science behind thresholds and putting thresholds to work in the field.

Presenters: Jennifer Chaky, Brady Kappler, and Ron Seymour, Extension educators; Keith Jarvi, Extension assistant in pest management; and Alex Martin and Fred Roeth, Extension weeds specialists; Loren Giesler and John Watkins, Extension plant pathologists; and Bob Wright, Extension entomologist.

Credit: 5.5 total CCA credits (5.5 in pest management)

For more details, check the program brochure on the Web at

Crop Management Training

December 19, 8:30 a.m. - 4:30 p.m., UNL East Campus

Program topics: basic concepts of crop adaptation and crop growth and development; crop damage, mortality and replant decisions; concepts of hybrid and variety selection; understanding seeds and seedlings; concepts of cropping systems; and crop production economics.

Presenters: Roger Elmore, Extension crops specialist; Keith Glewen, Extension Educator; Bob Klein, Extension cropping systems specialist; and Lenis Nelson, Extension crop variety and seed production specialist.

Credit: 6 total CCA credits (6.0 in crop management)

For more details, check the program brochure on the Web at <http://ardc.unl.edu/ICMWPDec19.htm>

Advanced Weed Identification and Biology

March 9, Agricultural Research and Development Center near Mead

Presenter: Brady Kappler, Extension educator in Weed Science

Details coming soon at <http://ardc.unl.edu/ICMWPMar9.htm>

Southwest Nebraska regional ag meetings

Extension educators in the West Central District in southwest Nebraska are hosting a variety of agricultural educational meetings this winter to help farmers and livestock producers improve their operations or farm income or to update or acquire needed certifications. For specific meeting locations or further information contact one of the educators listed.

Southwest Nebraska Extension educators hosting these meetings and the counties they represent are:

Kent Been, Red Willow County, McCook, (308) 345-3390 or toll-free (877) 674-6947;

Tom Dill, Chase County, Imperial, (308) 882-4731 or (800) 291-5309;

Noel Mues, Furnas County, Beaver City, (308) 268-3105;

Steve Gramlich, Lincoln and McPherson counties, North Platte, (308) 532-2683 or (800) 200-1381; or

Chuck Burr and Chadd Jacobson, Phelps and Gosper counties, Holdrege, at (308) 995-4222.

Getting The Best From Forages

These coffee shop seminars will include information about alfalfa management, irrigated pastures and brown mid-ribbed sorghums for forage. Speakers include Bruce Anderson, Extension forage specialist; Jerry Volesky, Extension range and forage specialist, and Tom Dill, Extension educator. Most of the meeting time will be spent listening to and discussing producer questions. The meeting is cosponsored by Arrow Seed.

For more information, contact Tom Dill, (308)-882-4731 or (800) 291-5309.

| | |
|------------------|--------------|
| Jan. 13, 2 p.m. | North Platte |
| Jan. 13, 7 p.m. | Imperial |
| Jan. 14, 10 a.m. | Palisade |
| Jan. 14, 2 p.m. | McCook |
| Jan. 15, 9 a.m. | Elwood |

Tillage Practices for Water Conservation

Learn how to use limited tillage systems to conserve rainfall and irrigation applications. Research has shown that 3 to 5 inches of water can be saved using no-till vs. full tillage under center pivot irrigation. This program will take a systems approach to successfully adapting limited tillage methods for your farm. While the workshop will focus on irrigated cropland, it also will be useful for dryland systems.

Stay an extra hour and receive re-certification as a Private Pesticide Applicator at the Minden, Arapahoe and McCook sites. Cost for the pesticide applicator training is \$15, payable at the meeting. For more information, contact Chuck Burr, (308) 995-4222.

All meetings will be held from 9 a.m. to 3 p.m. Pre-registration for the tillage workshop is requested. Cost is \$10.

| | |
|---------|--------------|
| Jan. 19 | Minden |
| Jan. 20 | Arapahoe |
| Jan. 28 | McCook |
| Jan. 29 | Imperial |
| Jan. 30 | North Platte |

Low Cost Beef Production

Producers will learn the latest information on matching cattle genetics to feed resources; feeding distiller's dried grains; estrous synchronization techniques; country of origin labeling (COOL); and livestock biosecurity issues. Speakers will include University specialists and others. Producers are encouraged to bring questions for a discussion period. The program at each location will be from 9 a.m. to 3 p.m. Cost is \$10. For more information, contact Noel Mues, Furnas County, Beaver City, (308)-882-4731 or (800) 291-5309.

| | |
|---------|--------------|
| Feb. 10 | Imperial |
| Feb. 11 | North Platte |
| Feb. 12 | Minden |
| Feb. 13 | Cambridge |

Computer Farm Record-keeping with Quicken®

These all-day sessions will give participants a good understanding of financial recordkeeping with computer software. Quicken® will be used to illustrate various concepts. Training will range from beginning to advanced features. Participants will learn a variety of techniques from entering checkbook information to developing written reports.

Sessions will be held from 9 a.m. to 4 p.m. at each location. Pre-registration is required. Cost is \$40. For more information, contact Kent Been at (308) 345-3390 or (877) 674-6947.

| | |
|---------|--------------|
| Mar. 2 | Holdrege |
| Mar. 3 | Arapahoe |
| Mar. 4 | Franklin |
| Mar. 9 | North Platte |
| Mar. 10 | McCook |
| Mar. 11 | Imperial |

Ten Ways to Make Money on 10 Acres

This program is for people looking for a way to make money on a small acreage or a field area too small to farm with conventional methods. It also could be a means for helping children or teens initiated their own farm enterprise and learn the basics of starting a business operation. Discussions will include strategies involving fruit trees, specialty forest products, goats and sheep, and value-added production as well as marketing the unique products. Cost is \$5. For more information, contact Kent Been at (308) 345-3390 or (877) 674-6947.

| | |
|---------|----------------------|
| Mar. 23 | Arapahoe 6:30 pm |
| Mar. 24 | McCook 6:30 pm |
| Mar. 25 | North Platte 6:30 pm |

Chemigation Training

Individuals who apply fertilizers, pesticides, or other chemicals through an irrigation system must

(Continued on page 248)

Southwest meetings

(Continued from page 247)

be certified by the Nebraska Department of Environmental Quality. These workshops provide the training necessary to obtain initial certification or to renew existing certification.

| | | |
|--------|-----------|--------|
| Jan 16 | Minden | 9 a.m. |
| Feb 3 | Kearney | 9 a.m. |
| Feb 23 | Holdrege | 9 a.m. |
| Mar 16 | Palisade | 1 p.m. |
| Mar 18 | McCook | 1 p.m. |
| Mar 23 | Benkelman | 1 p.m. |
| Mar 30 | Imperial | 7 p.m. |

Women in Agriculture Conference: Pocketing 'Change' for Posterity

The fourth *Pocketing "Change" for Posterity* conference for women involved in various aspects of agriculture will be held on February 20 at the Holiday Inn on Interstate 80 near Sidney. The conference will be held from 8:30 a.m. to 3:30 p.m. Topics will include: value added agriculture; water geology; estate planning -- titled property; agriculture loans; and balancing priorities (how to say no).

Commercial booths will be an added feature this year.

Early bird registration before February 13 is \$15 and includes lunch and materials. Registration at the door is \$20.

For more information, contact Karen DeBoer at the University of Nebraska Cooperative Extension Office in Cheyenne County at (308) 254-4455 or toll-free at (866) 865-1703, or contact the Natural Resource Conservation Service at (308) 254-4507, ext. 3.

Nebraska No-till

The Nebraska No-till Conference will be February 5 at the ARDC near Mead and February 6 at Holdrege.

Pesticide applicator training and testing program

The University of Nebraska Cooperative Extension sponsors pesticide applicator training and the Nebraska Department of Agriculture (NDA) sponsors pesticide applicator testing across the state. The state's program accommodates those wishing to become initially certified as a commercial or non-commercial applicator or wanting to add categories to an existing license.

Training is available from a number of Cooperative Extension offices and in conjunction with several educational meetings. For information about training opportunities in your area, contact 1) your local Cooperative Extension office, or 2) the NU Pesticide Safety Education web site at <http://pested.unl.edu/pat/>

Testing is available at numerous locations across the state or by **appointment** on Wednesdays at the NDA's Lincoln office, 301 Centennial Mall South, 4th floor, from 9 a.m. to 2 p.m. Appointments may be made by calling (402) 471-2394. The NDA office is the only testing site where the \$90 license fee may be paid

immediately upon completion of exams. Testing also will be conducted at numerous sites across the state. For a full list, visit the NDA Web site at <http://www.agr.state.ne.us/division/bpi/pes/certest.htm> For all locations other than the NDA office, once all exams are successfully completed, a billing statement for the applicator license will be issued. An applicator will not be considered licensed until all necessary exams are completed and the license fee has been collected and processed.

Training is not available at NDA-sponsored testing sites. Initial Certification Meetings, which provide UNL or Association training as well as exams, and Recertification Meetings and Association Recertification Meetings are listed on the Web site. Study material to prepare for exams are available from your local Extension office or from the UNL Pesticide Education Office. For questions concerning testing sites or certification requirements, contact the NDA Office in Lincoln at (402) 471-2394.

Central Plains Irrigation Conference to be Feb. 17-18 in Kearney

The Central Plains Irrigation Conference and Exposition will be held February 17-18 at the Holiday Inn in Kearney.

This two-day event features speakers from Nebraska, Kansas, Colorado and surrounding states. Research results and methods to improve overall water management will be presented. Some of this year's topics include subsurface drip irrigation, center pivot system efficiency, residue management to conserve water, management strategies with limited water supplies and software to evaluate center pivot performance.

In addition to the conference, participants can visit with regional leaders in the irrigation industry at the exposition.

During a period of drought and restricted water supplies, this conference should provide good information for irrigators, agribusiness and government agency personnel, said Dean Yonts, Extension irrigation engineer.

For more information contact C. Dean Yonts, Extension irrigation engineer at the Panhandle Research and Extension Center, Scottsbluff, phone (308) 632-1246 or email cyonts1@unl.edu

Crop Protection Clinics in January

The NU Crop Protection Clinics are a series of one-day programs held across the state for consultants, custom applicators, dealers, farmers, and professional agriculturalists.

The clinics emphasize the development of practical, profitable, environmentally sound crop management programs.

"New technology in crop production is developing rapidly; however, in order to benefit from the new advances, crop managers need to understand how the new technologies fit into their program. The topics for this year's clinics have been selected to help provide that needed expertise," said Alex Martin, Extension weeds specialist.

The clinics cover topics in entomology, plant pathology, weed

science and soil science, including special topics of local interest. The general format for each meeting includes morning presentations with question and answer periods and afternoon workshops that are in-depth and interactive.

Registration will begin at the door at 8:15 a.m. at each site. Clinics cost \$25, which includes registration, proceedings, 2004 Guide to Weed Management in Nebraska and other publications, breaks and a noon meal.

While topics will vary from one site to another, the following topics would be typical: managing Roundup Ready corn; the soybean aphid; seedborne diseases, weed control in irrigated small grain; enhancing herbicide performance safely; root-worm transgenics; soybean disease

update; new herbicides and resources; factors affecting glyphosate performance; resistance management; crop-destroying and yield-limiting rust disease; pesticides and duct tape; and a wrap-up of recertification information. For more information on individual Crop Protection Clinics, contact your local Cooperative Extension office or the Extension educator in the host county.

Commercial/noncommercial pesticide applicator recertification also will be conducted at the clinics in three categories: ag plant, demonstration and research, and regulatory. Attendance at all clinic sessions is required to complete the Nebraska Department of Agriculture requirements. For more information, visit the Web site at <http://www.ianr.unl.edu/weedscience/cpc/> or contact your local Cooperative Extension office.

Schedule

Wednesday, January 7, Lincoln, Lancaster Extension Education Center, 444 Cherrycreek Road

Thursday, January 8, Fremont, Christensen Field (Main Arena-NEW location) West Linden and Ridge Rd

Friday, January 9, Auburn, Arbor Manor, 1617 Central Ave.

Tuesday, January 13, Fairbury, 4-H Building, 56885 PWF Road

Wednesday, January 14, York, Chances "R", 124 West 5th St.

Thursday, January 15, Hastings, Garden Cafe (Holiday Inn) Convention Center, 2201 Osborne Drive East

Friday, January 16, O'Neill, Blarney Stone Restaurant, 5th and Douglas streets

Tuesday, January 20, Scottsbluff, Panhandle Research and Extension Center, 4502 Avenue I

Wednesday, January 21, Ogallala, Grey Goose Lodge, 201 Chuckwagon Road

Thursday, January 22, Broken Bow, Bum Steer, 625 South 10th Ave.

Friday, January 23, Holdrege, Ag Center, 1308 2nd St.

Tuesday, January 27, Norfolk, Life Long Learning Center, 601 East Benjamin St.

Corn/soybean profitability meetings

Improving Corn and Soybean Profitability for 2004 — a series of NU Cooperative Extension meetings — will be held in February at five locations in central and eastern Nebraska.

At each meeting registration will begin at 9 a.m. with the program expected to conclude at 3 p.m. Lunch is included. The general program is as follows but will be modified in some locations to better fit the needs of those attending.

9:10 a.m. Combine Modifications and Crop Residue Distribution, *Robert Klein, Extension cropping systems specialist*

10 a.m. Planting in Heavy Crop Residues, *Paul Jasa, Extension engineer*

11 a.m. Nutrient Management in Corn/Soybean Rotation, *Dale Flowerday, agronomist, DalMar Consulting*.

11:50 a.m. Lunch

12:30 p.m. Variety and Hybrid Selection, *Lenis Nelson, Extension crop variety and seed production specialist, and Roger Elmore, Extension cropping systems specialist*.

1:20 p.m. Weed Management and Application, *Alex Martin, Steve Knezevic, Robert Klein, Fred Roeth, Brady Kappler, and Gail Wicks, all Extension weed specialists*.

2:10 p.m. Soil and Water -- Irrigation, *Paul Jasa*

Schedule

Monday, February 16
Beatrice, Gage County Fairgrounds, 4-H Building; contact: Paul Hay at (402) 223-1384.

Tuesday, February 17
Seward, Fairgrounds; contact: Dennis Kahl at (402) 643-2981

Wednesday, February 18
Pender, Pender Fire Hall; contact: Del Hemsath at (402) 584-2234

Thursday, February 19
Grand Island, Hall County Extension Meeting Room at College Park; contact: Tom Drudik at (308) 385-5088

Friday, February 20
Broken Bow, Custer County Fairgrounds, 4-H Building; contact: Troy Walz at (308) 872-6831.

Five CCA credits have been applied for in the following areas: nutrient management, 1; soil and water management, 2; pest management, 1; and crop management, 1.

Certified Crop Advisors:

Many of the NU Cooperative Extension programs described in this and the previous issue of *CropWatch* offer credits for the Certified Crop Advisor Program. Be prepared to present your CCA number -- not your Social Security number -- with your registration to apply for CEU credit.

This requirement was implemented, beginning in 2002, by the International CCA Board to add continuity to the process and privacy for CCA's.

Agronomy Highlights Dec. 11

Faculty in the UNL Department of Agronomy and Horticulture will present the latest information on their research, teaching and Extension programs during the 2003 Agronomy Highlights. The program will be from 8:15 a.m. to 3 p.m. Dec. 11 at the Cornhusker Hotel, 333 S. 13th St., Lincoln.

Guests will be invited to submit written questions to be addressed by the panel at 1 p.m. A complimentary lunch will be provided to those who preregister by Dec. 3 with JoAnn Collins at (402) 472-2811.

Program

- 8:15 Refreshments
- 8:45 Welcome, *Kenneth Cassman, department head*
- 9:00 The New South Central Ag Lab, *Fred Roeth, Roger Elmore, and Richard Ferguson*
- 9:30 Alfalfa in Nebraska --

Past, Present, and Future, *Bruce Anderson*

10:00 Poster Viewing and Discussion with Speakers

10:45 Professional Golf Management Major, *Terry Riordan*

11:15 Mutual Benefits of International Work -- INSTORMIL, *Tom Crawford*

11:45 Lunch

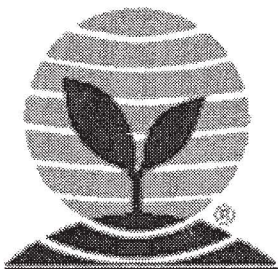
1:00 Audience Questions Answered

1:30 Growing Corn in a Computer: The Hybrid-Maize Simulation Model and its Application to Production Agriculture, *Achim Dobermann and Haishun Yang*

2:00 Pesticide Use Patterns on Recreational Turf, *Anne Streich*

2:30 Range Grazing Management -- Work at the Barta Brothers Ranch, *Walter Schacht*

3:00 Closing discussion Support for Agronomy Highlights is provided by BASF, Monsanto, Bayer CropScience, and Pioneer/DuPont Crop Protection.



CROP WATCH

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