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CROP WATCH

University of Nebraska Cooperative Extension
Institute of Agriculture and Natural Resources

No. 2003-7
April 25, 2003

Recrop options following winter wheat

A mostly warm, dry winter with little snow cover and plenty of wind has taken its toll on some western Nebraska wheat fields, particularly in the western Panhandle. Wheat growers will need to decide soon if they want to destroy fields with poor wheat stands and plant them to a summer crop. In many cases, wheat has not yet removed soil water to any great depth and just one or two moderate rainfall events should be sufficient to re-wet the surface soil and permit successful seeding of a summer crop. To minimize water loss, consider using a burndown herbicide containing glyphosate or Touchdown to kill the existing wheat crop and then no-till seed the summer crop into the wheat residue.

A larger obstacle to successfully seeding a summer crop into a destroyed wheat field may be herbicide residues in the soil. Many of the herbicides used in winter wheat have long rotation interval

restrictions. The following table lists recrop options following many of the most commonly used wheat herbicides. Many of the sulfonylurea herbicides have rotation interval restrictions longer than one year.

If herbicide rotation restrictions do not permit seeding a summer crop this year, consider summer fallowing the destroyed wheat field and planting a summer crop in the fields you were planning to summer fallow this year. Research conducted in the Nebraska Panhandle found that seeding proso millet into summer fallow fields as a catch crop following hail resulted in significantly better yields than seeding it back into the destroyed wheat field.

Cropping alternatives

Several alternatives are available to those who have lost their winter wheat, including proso millet, sunflower, corn, or a summer annual forage such as foxtail or pearl millet. NuSun oilseed sunflowers are in demand because the snack food industry has made a commitment to improve the health characteristics of their products and NuSun oil has been identified as a healthy product with desirable characteristics for the industry. Confection type sunflowers also can be grown with a premium price for quality production. However, sunflowers use soil water and

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Conditions good for chinch bugs

In the past few years in southeastern Nebraska chinch bug numbers have been increasing. The trend is likely to continue since the dry weather this winter and spring is providing favorable conditions for chinch bug survival.

This insect overwinters in bunch grasses and migrates early in the spring to wheat or other small grains. There they lay eggs and a first generation develops. As the grain matures, chinch bugs will migrate out of that crop and can damage adjacent fields of corn and grain sorghum.

If wheat or other small grains border areas where corn or grain sorghum is to be planted, scout these areas for chinch bugs. KSU entomologists suggest that if one adult or four

to five nymphs per row foot are found in wheat borders, there is potential for damage to corn or grain sorghum planted in adjacent fields.

There are a variety of management options if chinch bugs are a problem in your area. Avoid planting corn or grain sorghum immediately adjacent to infested wheat fields. Soybeans are not a chinch bug host and would be a better choice in these areas.

If corn or grain sorghum is planted next to infested wheat, a seed treatment such as Cruiser or Gaucho would provide early season protection against low to moderate populations of chinch bugs. In cases

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Field reports

Gary Hein, Extension Entomologist at the Panhandle REC: Pale western cutworms in the Panhandle are expected to have an increased potential for damage to winter wheat this spring. These insects have developed to the stage where they will start to cut wheat tillers.

If they are present, damage will begin to become apparent over the next few weeks. High moth catches last fall in the southern Panhandle indicated that their damage potential is elevated this spring.

Ralph Anderson, Extension Educator in Buffalo County: The planters are rolling in Buffalo County. Most of the ground is working well and is in good shape for planting. Depending on where you are, soil surface moisture is marginal and subsurface moisture is scarce. We lost time for field work last week with the bad weather. There was some moisture, but the high winds soon dried fields, including valuable moisture from the top soil.

Soil temperatures are considerably above long-term averages. Weeds are starting in non-tilled fields and need to be watched and managed as corn is planted. I did not find any army worms, alfalfa weevils, or grasshoppers in a scouting tour last week. Wheat and alfalfa in Buffalo County appear to be in good condition generally and growing well.

Roger Elmore, Extension Crops Specialist at the South Central Ag Lab: Wheat here is jointing and canopies are closing over the row.

USDA Nebraska Agricultural Statistics Service: Rainfall and wet soil conditions limited fieldwork activities but improved soil moisture supplies and producer outlook, according to USDA's NASS report of April 21.. Subsoil moisture supplies, although slightly improved last week, continued to be rated mostly

short to very short and unchanged from last fall. Producer activities included spring tillage operations, planting, fertilizer applications, and livestock care.

Average temperatures ranged from normal to five degrees above normal for the week. Precipitation across the state ranged from trace levels to over two inches.

Wheat condition continued to improve last week and rated 1% very poor, 11% poor, 44% fair, 39% good, and 5% excellent. Thirteen percent of the crop had jointed, which compares to 8% last year and 10% average.

Oat seedings progressed to 76% complete, behind last year at 79%, and ahead of average at 68%. Thirty percent had emerged, which compares with 40% last year.

Sugar beet planting progressed in the Panhandle and Southwest districts to 25% complete. A year ago 55% had been planted.

Corn planting made limited progress last week with a total of 4% seeded. This compares to 7% last year and an average of 5%.

Alfalfa conditions rated 5% very poor, 18% poor, 37% fair, 32% good, and 8% excellent.

Management tips

◆ **Clearfield sunflowers have been approved** for production this growing season. If you have severe weed problems in your no-till sunflowers, this offers another tool for weed control.

◆ **If planting and field work are beginning to pile up and you'd like to give your pastures a little more time to improve, try grazing alfalfa.** It will delay the first cutting of alfalfa by a couple of weeks, depending on how much grazing is allowed. You might even stagger grazing across several fields so each field will be ready for cutting on different dates. Avoid grazing when soils are wet and soft, otherwise hoof damage might severely injure alfalfa crowns and hurt your stands. Also, young alfalfa can cause bloat very easily. Manage grazing to avoid large meals of young alfalfa and consider adding a daily supplement that contains a chemical bloat preventer.

◆ **A good means of checking subsoil moisture is to use a 3-foot soil probe with a 15-inch tube.** This can help assess available water and aid in planning for irrigations.

CROP WATCH



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

Recrop options (Continued from page 61)

nutrients from deep in the soil profile. Recent dry conditions have resulted in poor recharge of deeper soil water and sunflowers may struggle to produce good yields without timely in-season rainfall. Dryland corn faces a similar concern with limited soil water at planting time.

Proso and foxtail millet are shallow-rooted, short-duration crops that may be good choices given the limited soil water at planting time.

Producers who own livestock or market to the livestock industry also have the option of growing pearl millet, sudangrass, and sorghum x sudangrass hybrids. The drought conditions have supported higher forage prices than in recent years. These summer annual forages can produce a large amount of plant material by effectively using available soil water and summer rainfall. As is the case with proso and foxtail millet, these dryland forages can

convert water into plant material very efficiently, making them good choices when replacing wheat.

Before destroying any crop, and or planting another crop, contact your Farm Service Agency and crop insurance company.

Drew Lyon, Extension Dryland Cropping Systems Specialist
David Baltensperger, Extension Crop Breeding Specialist
Both at the Panhandle REC

Late spring-seeded crops that may be planted within four months of applying selected winter wheat herbicides.

<i>Herbicide</i>	<i>Crop options</i>	<i>Rotation interval</i>
Ally	None	
Amber	None	
Banvel	All	45 days/pint
Clarity	Field corn, grain sorghum, soybean	Rate and crop dependent – see label for details
Curtail	None	
Express	All	45 days
Finesse	None	
Harmony Extra	All	2 months
Maverick Pro	Millet, IR-corn	3 months
Peak	Field corn, grain sorghum, proso millet	1 month; Clearfield, IR or IMR field corn hybrids may be planted anytime.
2,4-D	Field corn, grain sorghum, soybean	7 to 30 days, see label for details

Chinch bugs

(Continued from page 61)

with high chinch bug populations, postemergence application of foliar insecticides may be needed, especially on the field borders next to wheat. Repeat applications may be necessary.

For more information see the NebGuide, *Chinch Bug Management* (G806), available from NU Cooperative Extension offices or online at <http://www.ianr.unl.edu/pubs/insects/g806.htm>. For a list of registered insecticides, visit the NU Department of Entomology web site at <http://entomology.unl.edu/fldcrops/pestipm.htm>

Bob Wright
Extension Entomologist
South Central Ag Laboratory

Market Journal broadcast examines wheat disease outlook for 2003

NU plant pathologists say much of Nebraska’s wheat looks good, but, they warn, diseases appear to be gaining a foothold in some areas. Wheat streak mosaic has been spotted in west central Nebraska and in the Panhandle, and soil-borne mosaic is beginning to show up in the south and southeast. Stripe rust also could be a problem this year. The May 2 “Market Journal Extra” will examine some of the diseases common to wheat, how they spread and how they can be controlled.

“Market Journal Extra” is a 30-minute NU Cooperative Extension video program hosted by Doug Jose, NU farm management specialist. John Watkins, NU Extension plant pathologist, will be the featured

guest. Watkins will show examples of wheat diseases and talk about how each is detected and treated. He also will address how soil moisture, precipitation, and other factors affect the spread of wheat diseases.

“Market Journal Extra” can be seen on the Dish Network’s University House Channel (NAUHS) 9411, at noon CT May 2. It also will be broadcast via satellite (NEB*sat channel 102). The public is invited to view the program at Cooperative Extension offices in the following counties: Boone, Cass, Holt, Madison, Saunders, Sioux, Valley, Washington, and York. Audio and video clips from the program will be available on the Web at marketjournal.unl.edu

Conserve soil moisture in soybeans with early season weed control

With corn planting in full swing it may be hard to think about soybeans right now. However, in what little spare time you have it would be good to plan your weed management strategy for this year's soybeans. Let's look at some of the factors you may want to consider.

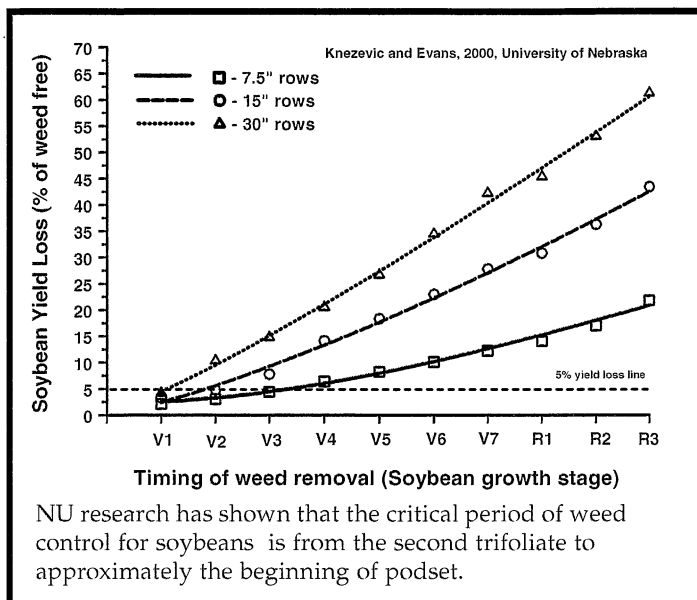
Depending on how you look at it, weed management strategies for these tillage types will either be very similar or worlds apart. Of course, while the concepts are still the same, the goals are somewhat different. Management strategies for each still focus on the bottom line of yield.

Conventional tillage soybeans

Under a conventional tillage operation, a good portion of weed management is removed from the equation. Many of the early emerging summer annuals, including giant ragweed, kochia, crabgrass, lambsquarters, and Russian thistle are removed during tillage, allowing the crop and any new weeds to emerge together.

Under this system, a preemergence herbicide can really work well for producers. A preemergence treatment can remove a lot of the weeds that would emerge with the crop and compete heavily with the soybeans. This gives the crop an advantage by several weeks, removing competition during the first portion of the critical period of weed control.

Research at the University of Nebraska has shown that each crop has a critical period during which weeds must be controlled to maintain maximum yields (*Figure 1*). For soybeans, this period is from the second trifoliolate to approximately the beginning of podset. This is roughly the 10th to the 40th day of crop growth. This figure indicates that while you may save some money by going with a single postemergence program in your Roundup Ready



NU research has shown that the critical period of weed control for soybeans is from the second trifoliolate to approximately the beginning of podset.

beans, you also are hurting yields by delaying weed control. This means that you may need to consider using two applications of glyphosate or including a preemergent herbicide in your Roundup program to widen the window of application.

While this suggests that weeds in front of this window need not be controlled, other factors such as reduced soil moisture and unsightly field clutter also need to be considered. Given the recent dry years, controlling these early season weeds may be very important to maintaining valuable soil moisture.

No-till soybeans

In dry years no-till farmers may be ahead of the game due to conservation of soil moisture; however, this moisture can be a yield-limiting factor in a drought year too since it may allow for the germination of early summer annuals and support winter annuals that emerged last fall.

Burndown treatments will eliminate soil moisture loss from early summer annuals and existing winter annuals. Many herbicide strategies exist to accomplish this while still providing some residual

control before the crop is planted.

One strategy is to apply an early preplant treatment with the burndown 10 to 30 days before planting. This removes weed competition up front while providing the necessary early season residual control.

The advantage

of this strategy is that most summer annuals have not emerged yet, rendering the residual herbicide very useful. Another advantage is that there is more time for rainfall to occur and provide for herbicide incorporation and activity. Finally, depending on the weed spectrum, the early preplant may eliminate the need of an additional burndown, saving money. However one disadvantage is that the herbicide will lose residual activity earlier in the growing season and post treatments must be planned more carefully.

A second strategy is to apply a burndown alone ahead of planting, such as glyphosate at 32 oz/a equivalent rate. When combined with 1.0 pt/a 2,4-D ester, glyphosate can be reduced to 24 oz/a. Keep in mind that there is a seven-day interval between application of 1 pint of 2,4-D and soybean planting. Any application greater than 1 pint of 2,4-D requires 30 days before planting. A disadvantage to this strategy is the window between the burndown treatment and the planting time treatment. The bigger the

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New herbicides now available

Several new herbicides recently received registration for use in Nebraska.

Expert from Syngenta contains s-metalachlor, atrazine, and glyphosate and is for use preplant and preemergence in corn plus early postemergence in Roundup Ready corn.

Rosen's Inc has acquired a new business position with several existing active ingredients. Their three new products, which are currently being marketed in Nebraska and the Midwest, include: Volley, Priority and Blanket.

"Volley" products contain the active ingredient acetochlor with or without atrazine. They are labeled for preplant, pre-emergence in corn.

Volley contains 6.4 lbs of acetochlor per gallon

Volley ATZ contains 3 lbs of acetochlor and 2.25 lbs of atrazine per gallon

Volley ATZ lite contains 4 lbs of acetochlor and 1.5 lbs of atrazine per gallon

Priority (carfentrazone + halosulfuron) is labeled for post-emergence for all types of corn. It contains 12.5% carfentrazone and 50% halosulfuron per gallon

Blanket (sulfentrazone) is labeled for preplant and preemergence in soybeans. Blanket contains 75% sulfentrazone per pound.

Landmark MP and **Landmark II MP** from DuPont contain sulfometuron methyl and chlorsulfuron. These herbicides control many annuals and broadleaf weeds in non-cropland.

Camix correction -- In a previous issue Camix from Syngenta was incorrectly listed as a new herbicide. Camix is NOT registered for use in Nebraska and is being marketed only in the eastern Cornbelt. However the active ingredients from Camix -- mesotrione and metalochlor -- can be tank mixed according to their respective Callisto and Dual II Magnum labels.

Brady Kappler
Weed Science Educator

Who to contact for what in Extension Plant Pathology

On July 1, 2003 Dr. Jim Stack, extension plant pathologist at the South Central Ag Lab, will join the faculty of the Department of Plant Pathology at Kansas State University. With Jim's leaving, the following changes in UNL's extension plant pathology programming responsibilities will occur:

- Loren Giesler (75% extension/25% research) will assume responsibility beginning in July for prioritized programs on corn diseases until the corn pathology position is permanently filled. His principal responsibility will continue to be statewide extension programs on soybean diseases with minor responsibility for ornamental diseases.

- John Watkins (75% extension/25% research) will be responsible for statewide extension programming on small grains, turfgrasses and forages (primarily alfalfa) with minor

responsibility for sorghum diseases.

- Jennifer Chaky (100% extension) will continue as the Plant and Pest Diagnostic Clinic coordinator and plant disease diagnostician. Extension educational responsibilities will include diseases of trees and home garden fruits and vegetables and coordination of extension plant pathology involvement in Master Gardener Training, Field Crop Scout Training, Crop Management and Diagnostic Clinics, Winter Integrated Crop Management Programming and Crop Protection Clinics.

Jim's move to KSU was precipitated by the closing of the South Central Research and Extension Center due to University budget cuts.

John E. Watkins, Loren Giesler, Jennifer Chaky
Extension Plant Pathology

Soybean weed control (Continued from page 61)

gap, the more likely it is for additional weeds to emerge ahead of planting.

Still another technique is to apply a two-thirds rate of residual herbicide with the burndown followed by another third residual at planting. This allows for a longer window between the burndown and planting in case the planting gets delayed. In addition it provides another dose of residual at planting time to increase weed control at crop emergence by a few days. This system allows more flexibility in your postemergence herbicide applications since environmental conditions

such as rainfall or wind may occur at your normal time of postemergence application and delay spraying operations.

With each management strategy, producers should remember two things. First, early season weed competition can reduce yield, especially in a dry year. Second, use a strategy that will provide the most flexibility for your management style. Each strategy will have its own shortcomings, so be able to recognize them and adjust.

Brady Kappler, Extension Educator
Weed Science

Climate products offer information at a glance

Daily precipitation reports are now available on the High Plains Regional Climate Center (HPRCC) web site. The nation's six regional climate centers have spent several years developing the Applied Climate Information System (ASIS) to create a seamless environment for transferring data between centers.

With the inception of ASIS, the regional climate center web sites will offer new climate-derived products. Since drought has been the major topic across many regions of the United States, graphical products have been developed to analyze precipitation over defined times. These products use over 5,000 reporting sites across the United States and are updated daily.

To view these products, visit the High Plains Regional Climate Center web site at <http://hprcc.unl.edu/>. Precipitation graphics are available in the "Quick Links" section of the home page by clicking on "Current Climate Summary Maps" or "Current Maps" under the "Climate Products" section.

Graphics for the nation or a particular region can be downloaded for accumulated precipitation in inches, departure from normal in inches, or percentages of normal. This will allow users to focus on particular regions to analyze the impacts of recent storm events without having to rely on doppler radar estimates.

Soil temperatures

Soil temperatures were generally above normal for April 16-23 for the sites reported at cropwatch.unl.edu/weather.htm. Average soil temperatures for the week ranged from 47.0°F at Gordon to 59.6°F at Havelock. Departures from normal ranged from -0.1 at Smithfield to +8.0 at Monroe and +8.6 at Havelock.

Numerous precipitation periods are available, including the most recent 7-day, 30-day, 60-day and 90-day periods. In addition, 12-month, 24-month, and 36-month periods are available, as well as October 1 to date (soil recharge), Jan. 1 to date, and April 1 to date (growing season). Many of the time periods available on-line correspond to time scales used by the U.S. Drought Monitor to determine drought status.

In addition to precipitation, average temperatures and departures from normal are available in graphical form for the last 7- and 30-day periods. You also can view graphical maps of seasonal Heating Degree Day and Cooling Degree Day accumulations, along with departures from normal. During the next six months, the regional centers will be adding maps related to phenological development, growing degree day

accumulations, and thermal unit accumulations to track insect development.

After you view these maps and graphical products, feel free to share any constructive criticism or suggestions. In addition, if there are additional precipitation or temperature products that you would like to see developed, don't hesitate to contact me at 402-472-5206.

Also check out our on-line *CropWatch* weather information which is available at <http://cropwatch.unl.edu/weather.htm>. It includes daily updates of graphical and statistical data on precipitation and soil temperature at sites across the state. As the season progresses, daily updates of growing degree day and evapotranspiration rates also will be added.

Al Dutcher
State Climatologist

On corn rootworm potential

Q: My dryland corn died last summer before tasseling. I am planning to plant corn back into that field this year. Do I need to worry about corn rootworm injury in that situation?

A: If the corn died before it tasseled, the field was likely not very attractive to rootworm beetles, and there is a low probability of damage from rootworms this year. Ideally it would be desirable to have scouting information from last summer to confirm that rootworms did not exceed the threshold level. However, some insecticide should be used at planting time to control other soil insects. There are several lower cost options; including seed treatments such as ProShield, Cruiser or Gaucho, or wireworm rates of granular or liquid insecticides. See the NU Department of Entomology web site at <http://entomology.unl.edu/fldcrops/pestipm.htm> for details on insecticide rates.

Plan to check this field at cultivation time for rootworm larvae. Cultivation time application of a rootworm insecticide would be another control option if rootworms were found to be damaging the plants.

Bob Wright, Extension Entomologist
South Central Ag Lab

NU Plant and Pest Diagnostic Clinic offers range of tests and services to the public

If you have plant or insect problems, remember that the NU Cooperative Extension Plant and Pest Diagnostic Clinic is here to help. The clinic offers services related to identifying plant diseases, insects, horticultural plants, weeds and herbicide injury.

The charge for service is the same as in previous years. The standard sample fee of \$10 is applied to all samples that can be diagnosed with only visual and/or microscopic examination. There are additional charges for other services such as culturing for pathogen identification. The \$10 fee helps cover the cost of media plates and the time involved in identifying the causal agent. Fees also are added for the following:

- SCN Assay - \$10
- Plant Parasitic Nematode Assay - \$15
- Goss's Culture - \$10
- Stewart's Elisa - \$15
- Misc. Elisa Test - \$15
- Bacterial ID - Biolog System - \$20
- Virus Screen - (Protein based) - \$15
- Rare Species ID - \$10
- Insect Culture - \$10

Following guidelines when sampling and sending samples to the clinic can help ensure that samples arrive in good condition for an accurate diagnosis. When you have a plant or pest problem, first consult with your local Extension Educator who often can provide a diagnosis. They also have copies of the specimen identification form that is used when submitting samples to the P&PDC. The forms and samples should be sent to the following address:

University of Nebraska-Lincoln
Plant & Pest Diagnostic Clinic
448 Plant Sciences
P.O. Box 830722
Lincoln, NE 68583-0722

Quality samples lead to better results

Tips for collecting samples

1. Collect sample representative of symptoms and include healthy tissue for comparison. For turf samples, collect a portion that includes a margin between healthy and diseased areas.
2. Send as much of the sample as possible. If feasible, send the entire plant including the root ball. Also send multiple plants or multiple branches from a tree or shrub showing a range from healthy to unhealthy for identification.
3. Provide as much information about the sample as possible (age and variety of plant, moisture availability, soil type, disease history of site, chemical history of site, description of symptoms, plant part(s) affected, time of symptom development, distribution of symptoms, occurrence of severe weather, and any other information that may be helpful in diagnosing the problem).
4. Include a picture of the distribution of symptoms.
5. Plants submitted for horticultural and weed identification should include flowers and/or fruit, leaves and roots.

Tips for sending samples

1. Keep sample cool before sending.
2. Place sample in a plastic bag and include a dry towel if the sample is damp. If the roots are in soil, enclose them in a separate plastic bag with the soil intact. Place the sample into a sturdy box with packing material to take up excess space. A padded envelope can be used for relatively small and flat samples, such as some tree branches.
3. Do not mail samples late in the week, as the sample can deteriorate if the package sits in the post

office over the weekend.

4. Include all sample information (listed in previous section), photographs if possible, and contact information such as phone numbers and mailing address.

Insect samples that are sent for identification are handled differently than plant samples. Send insect specimens in a rigid container. Soft-bodied insects, such as insect larvae and small insects, should be placed into a tightly sealed bottle with a liquid preservative such as alcohol or vinegar. Rubbing alcohol works well because it is 70% alcohol. Hard-bodied insects, such as beetles, ants and flies should be wrapped in tissue and placed in a crush-proof container. For living insects, place the host plant or damaged material along with some loose tissue into a ventilated container.

By following these guidelines, the samples received at the PPDC will arrive in good condition. All of us at the PPDC look forward to helping with your diagnostic questions this summer. We hope that your plant and insect problems are minimal and your harvest is plentiful.

Jennifer Chaky, Plant and Pest Diagnostic Clinic Coordinator

The *CropWatch* web site includes archived issues of the newsletter from 1998 to 2002, as well as this year's issues. It is available at:
cropwatch.unl.edu

Nebraska EQIP funding at \$16 million

Nebraska will receive more than \$16 million in funding this year for the USDA Environmental Quality Incentives Program, according to Don Thober of the Nebraska office of the Natural Resources Conservation Service. Funding for the EQIP portion includes \$11,346,500 for direct financial assistance to farmers and ranchers for conservation measures and \$4,765,900 for funding related to ground and surface water conservation.

During the last round of EQIP funding in Nebraska, NRCS received \$230 million in applications for the \$12 million in available funding. Approximately 5% of the applications were awarded. Unfunded applicants from that process will be contacted by letter to see if they would like to review their application and amend it according to the current ranking criteria, Thober said.

EQIP was reauthorized in the 2002 farm bill to provide a voluntary conservation program for farmers and ranchers, offering financial and technical assistance to help eligible participants install or implement

structural and management practices on eligible agricultural land. Incentive and/or cost-share funding for conservation practices is provided, based on a priority ranking system.

Some changes are expected in the 2003 program rules and cost-share rates, Thober said. Program details, eligible practices and ranking information are expected to be available from the NRCS by mid May. Producers are expected to have approximately four weeks after program rules are finalized to apply and should contact their local NRCS for deadlines and details as the date approaches. The NRCS EQIP web site includes a copy of the 2003 application form (CCC-1200) and is expected to have more program details as they become available. It is at <http://www.nrcs.usda.gov/programs/eqip/>

Some cost-share rates will be lower in 2003. While many irrigation practices may be funded at 50%, two practices — replacing gravity irrigation with a sprinkler pivot or subsurface drip irrigation — are expected to be funded at 30% cost

share, Thober said. The cost-share for practices related to livestock facilities is expected to be at 50%.

The farm bill stipulates that, during the current farm bill period, an individual participant can receive up to \$450,000 from this program. In Nebraska contracts will be limited to \$150,000 for 2003. Participants will be eligible to apply for additional funds in future years.

Nationally, about \$1.8 billion is being released through NRCS to provide technical and financial assistance to producers for several conservation programs, including EQIP, the Wetlands Reserve Program, and the Wildlife Habitat Incentives Program according to an April 22 USDA news release. Special emphasis has been placed on conservation practices and programs to help landowners recover from the drought.

In total, Nebraska is receiving \$24,017,400 for financial assistance through several conservation programs.

Lisa Jasa
CropWatch Editor

CRP general signup set for May 5-30

Conservation Reserve Program general sign-up will be May 5-30, according to an April 22 USDA news release. Producers can sign up at local USDA service centers. The 2002 Farm Bill authorized USDA to maintain CRP enrollment up to 39.2 million acres.

Aside from the general sign-up, CRP's continuous sign-up program is ongoing. USDA has reserved two million acres for the continuous sign-up program, which represents the most environmentally desirable and sensitive land. USDA is making a special effort to help enhance

wildlife habitats and air quality by setting aside 500,000 acres for bottomland hardwood tree planting. Continuous sign-up for hardwood planting will start after the general sign-up.

Current participants with contracts expiring this fall — about 1.5 million — can make new contract offers.

Contracts awarded under this sign-up will become effective either at the beginning of the next fiscal year, Oct. 1, 2003, or the following year, Oct. 1, 2004, whichever the producer chooses. One other general sign-up will be offered through 2007.

The Farm Service Agency will evaluate and rank eligible CRP offers using the Environmental Benefits Index (EBI) for environmental benefits to be gained from enrolling the land in CRP.

Decisions on the EBI cutoff will be made after the sign-up ends and after analyzing the EBI numbers of all the offers. Those who would have met previous sign-up EBI thresholds are not guaranteed a contract under this sign-up. For more information, visit or contact your local FSA office.

USDA News Release

Soybean Management Field Days to target increased profitability, experience and innovation

“Soybeans American Style” is the theme for the fifth annual Soybean Management Field Days to be held in mid August at four new locations. Presenters will include University specialists, educators and industry consultants who will provide research-based, objective information on applying innovation and experience to increase profitability.

This year field days will be held in four new locations:

August 12 - Overton

August 13 - DeWitt

August 14 - Shelby

August 15 - Dakota City

Each field day will include four field stop, each with demonstration plots and presentations, lunch and a time for questions. The program will be held from 9 a.m. to 2:30 p.m. with registration at the door.

Soybean Management Field Days is funded by soybean checkoff funds and sponsored by the Nebraska Soybean Board in cooperation with the University of Nebraska Cooperative Extension.

Field stops will focus on:

- Weed management
- Improving your financial decisions
- Managing soil water and irrigation

- Unlocking the mysteries of high soybean yields

The soybean checkoff program strives to help producers achieve greater profits from quality crops. By participating in Soybean Management Field Days, producers will see their checkoff dollars at work bringing leading technology and ideas to producers. CCA credits are also available for those needing them.

The field days will cover the following areas: weed management, financial decisions, improved yields and irrigation and soil water management.

Weed management

This presentation will focus on: turbocharging your glyphosate, early weed control-easy money, glyphosate resistant weeds, and conventional systems. Presenters include: Alex Martin, NU Extension Weed Specialist; Brady Kappler, NU Extension Weed Science Educator; and Bob Klein, NU Extension Cropping Systems Specialist

Improving your financial decisions

This presentation will focus on: competing globally and acting locally, cost of production, improving marketing skills, and alternative financial strategies. Presenters are

Steve Johnson, ISU Extension Farm Management Specialist, and Gary Bredensteiner, Former Director, Nebraska Farm Business Association.

Managing soil water and irrigation

This presentation will focus on: managing soil water warehouses, how tillage reduces the size of your warehouse, when warehouse deliveries are critical, and restocking the warehouse with irrigation. Presenters are Bill Kranz, UNL Extension Irrigation Specialist, and Paul Jasa, UNL Extension Engineer.

Unlocking the mysteries of high soybean yields

This presentation will focus on: knowing your soils and maximizing yield potential, estimating nutrients your soil can supply, elements essential for high yields, liming acid soils, harnessing sunlight for maximum yields, managing soil moisture, organic matter, variety interactions in the field, and relationship of nitrogen, phosphorus, potassium, and micronutrients. Presented by Roger Elmore, UNL Extension Crops Specialist, and Dale Flowerday, Dalmar Consulting.

For more information, call 1-800-529-8030 or 1-800-852-BEAN.

Researchers explore benefits of mosquito-killing virus

As surely as swallows return to Capistrano around mid-March each year, mosquitoes will arrive in force again this spring. Mosquitoes, however, have become more than just a nuisance. They can transmit diseases such as West Nile virus.

One mosquito genus, called *Culex*, has been found to transmit West Nile virus and the closely related St. Louis encephalitis. Now

Agricultural Research Service scientists have received a patent for a baculovirus—a virus specific to arthropods—that kills *Culex* mosquitoes. The patent also includes a method for transmitting the baculovirus to them. The baculovirus infects only *Culex* mosquitoes—not other insects, plants, wildlife or people.

Most people who become infected with either the West Nile virus or the St. Louis encephalitis have no symptoms, or only mild ones, but last year West Nile virus killed 277 people and made more than 4,000 clinically ill, according to the U.S. Centers for Disease Control and Prevention.

Gearing up for this year's grasshoppers

Predicting grasshopper populations is difficult because many factors affect population development, but based on the severity of last year's situation, we would expect the potential for problems to be quite high in many areas.

It is important to understand the distinctions between the various grasshopper problems that may develop in Nebraska this year. Two grasshopper problems are likely. First, the spring-feeding grasshoppers may be a problem in rangeland, and second, the summer-feeding grasshoppers may cause problems in both rangeland and cropland.

Spring-feeding hoppers

In rangeland this spring, we are already seeing the first problem grasshoppers. Significant grasshopper populations have been observed in areas of central Nebraska where there were problems last year (Custer/Dawson counties). These grasshopper species overwinter as partially grown grasshoppers and feed through the spring before becoming adults in late spring. Because these grasshoppers usually are not present in high numbers and grass is normally actively growing early in the spring, usually they don't cause significant damage; however, last year the combination of high numbers of grasshoppers and very dry conditions with slow-growing grass resulted in serious economic problems in Custer and Dawson counties. With reports that spring-feeding grasshoppers are again abundant in some areas of the Sandhills, ranchers are urged to evaluate the number of spring-

Significant populations of spring-feeding grasshoppers already have been observed in areas of central Nebraska where there were problems last year.

feeding grasshoppers and the condition of the grass to determine whether treatment is warranted. Because last year was the only year that these early feeding grasshoppers developed into a significant problem, few treatment guidelines are available. Our treatment thresholds for summer-feeding grasshoppers range from 8 to 40 grasshoppers per square yard, based on grass condition, value, and treatment costs.

As with all grasshoppers, treatment decisions should be made as early as possible. Targeting treatments toward immature grasshoppers will significantly improve control. The use of the RAATs (Reduced Agent and Area Treatments) program is recommended to reduce control costs. For more information on this program, check the NU Department of Entomology grasshopper Web site at <http://entomology.unl.edu/grasshoppers/index.htm>.

Summer-feeding hoppers

The second grasshopper problem likely to develop in Nebraska this year will result from the more typical summer-feeding grasshopper species. These grasshoppers, which are likely to be a problem in both rangeland and cropland, normally begin to hatch in May and feed through June before becoming adults. It will be important to watch for development of grasshopper problems so control measures can be carried out early enough to have maximum effect. Treatment of hatching areas around cropland and hay meadows should be targeted while grasshoppers are in the third

to fourth instar stage. The timing for these treatments would normally be mid to late June. The RAATs program should be used to treat rangeland and pasture and perhaps grasslands bordering cropland areas if grasshopper populations exceed thresholds.

Current reports

We already have received reports of 'numerous tiny' early hatching grasshoppers in several parts of the state. It is quite early for our normal hatch of grasshoppers, but because of the mild winter and spring, some of the early hatching grasshopper species could be starting their hatch. These very early hatching grasshoppers are likely species that hatch in the spring (summer feeders) and may not survive well if the spring is cool and wet.

The presence of these grasshoppers needs to be evaluated locally to avoid serious problems. Several years ago in the Panhandle, extreme populations of these early hatching grasshoppers caused serious damage to early seeded crops (sugarbeets, corn, young alfalfa) in early May. Monitor ditchbanks, untilled pivot corners, and other idle areas near cropland that are likely to serve as hatching beds to determine the potential for this early hatching problem. In addition, monitoring grasshoppers in rangeland and around cropland in late May and early June should provide a good idea as to just how severe grasshopper problems will be this year.

Gary Hein
Extension Entomologist
Panhandle REC

For grasshopper updates
and treatment recommendations:

[entomology.unl.edu/
grasshoppers/](http://entomology.unl.edu/grasshoppers/)