

Newsletter Renewal Time

It's that time of the year again! Time to gear up for the new crop production season and time to re-subscribe to the Northeast Nebraska IPM-Crop Production Newsletter.

The subscription rate for 2004 is once again only \$20.00. For this reasonable sum you can expect objective information on pest management, fertility, irrigation scheduling, crop development, and other crop management information on a weekly basis during the growing season. This newsletter is designed **specifically for Northeast Nebraska**. The subscription fee basically covers our costs for supplies and stamps.

If you have access to the Internet, the newsletter can be **read free of charge** at <http://nerec.unl.edu/ipm/ipm1.htm>. If you do access the newsletter regularly on the Internet, we do ask that you call Pat Bathke at 402-584-2837 or email her at pbathke1@unl.edu so we can get a handle on how many people are using the information. Also, if you want an e-mail reminder of when the newsletter is on the web you can subscribe to a listserve that will automatically contact you when the letter is ready. To subscribe to the listserve, send an e-mail message to: LISTSERV@UNL.EDU and in the Message Field (Not subject) type SUBSCRIBE IPM. Do not include a signature, as LISTSERV will try to interpret each line as a command. If you have any problems, contact Pat.

For another option for subscribing to the IPM newsletter reminder or other agricultural listserves, go to <http://nerec.unl.edu/aglistserv.htm>. Just click the listservs you would like to receive and fill in the form. You'll receive any newsletters, ag notices, etc., that are sent.

Please fill out the accompanying form and get it to us as soon as possible so you can receive our weekly update on conditions influencing crop production in northeast Nebraska. The second newsletter will come out during the week of April 13. (KJ)

Army Cutworms Active in Alfalfa In Southern and Western Nebraska

Army cutworms are the first pests usually reported in crops. While not a common pest in northeast Nebraska, we have had occurrences in the past (1999 in Boyd Co.) where they have held back the initial green up of alfalfa in the spring. Reports of activity have already been coming in from southern

and western Nebraska where they are preventing green-up in alfalfa fields. Weather conditions could have favored the moths flying back from the Rocky Mountains where they spend the summer, then lay eggs in alfalfa and wheat in the fall. The early winter was very mild which could have helped overwintering larvae survive. Snow cover before the cooler temperatures in late January – February provided plenty of insulation. Lack of green up could very well mean an insect problem instead of weather- related winterkill or drought. What few wheat fields we have should also be scouted.

Army cutworms can be serious pests of wheat and alfalfa. The eggs are laid in the fall. The eggs hatch, the larvae feed for a short time and then overwinter in the soil. They begin feeding as soon as their host crop comes out of dormancy and starts to grow. Army cutworms are brownish-black without any distinguishing markings and will be found in the soil around the crowns of the plants during the daytime. They feed on the foliage above the surface of the ground at night. After completing development the adult moths fly to the Rocky Mountains before returning to complete the cycle.

In established alfalfa fields, stand loss is rarely observed, but the delay in green up may reduce yields of the first cutting if cutworms are numerous. Consider treatment in established fields when four or more cutworms per square foot are found. In fields less than a year old, food reserves in the roots are limited and feeding may be enough to kill individual plants and produce stand loss. Treatment should be considered if 2 or more cutworms are found per square foot in newly seeded alfalfa.

Wheat recommendations are similar, with stressed wheat at the lower level of 2 per square foot.

Ambush and Pounce (generic name permethrin), Warrior, Baythroid, Mustang and Lorsban (generic name chlorpyrifos) are compounds that should control army cutworms in alfalfa. Warrior and Mustang are registered for use on wheat. If surface moisture is adequate use the lowest labeled rates, they should work fine. (KJ)

Controlling winter annuals

Winter annuals are species that germinate in the fall, over winter and then continue growing in early spring. Dry fall weather usually reduces the number of winter annuals due to lower germination rates because of lack of moisture. Long, cold winters with snow cover less than 3 inches deep can also reduce their survival rate. However, more than 3 inches of snow cover can increase their survival rates. The rapid growth of winter annuals starts as soon as the soil temperatures reach around 50-55 F. They also consume moisture, which has negative effects on crop seed germination and early growth. The list of the most commonly known winter annuals includes: field pennycress, shepherds purse, henbit, blue mustard and treacle mustard (bushy wallflower). You may want to watch for those species. They make the green patches that are commonly seen during late parts of the year (October, November) and early spring (March-April). In addition, dandelion and curly dock, which are not winter annuals, can be also seen in early spring and at the time of corn and soybean planting.

These weeds can be controlled both by mechanical means and herbicides. If you are in a conventional tillage situation, the herbicide application may not be necessary. In most cases soil preparation prior to planting will disturb and provide adequate control of winter annuals.

In no-till fields, winter annuals can be effectively controlled with various herbicides. In corn and soybean they can be controlled 0-45 days before crop planting depending on the herbicide or after crop planting but before crop emergence. The same is true for the fields that are planted with herbicide tolerant crops (e.g. Roundup-Ready or Liberty-Link crops). The use of pre-plant or pre-emergence herbicides with residual activity in Roundup Ready crops would also provide a longer comfort zone in which to

apply Roundup (glyphosate). Winter annuals are usually controlled in the first two weeks of May, before they become too large for herbicide efficacy.

Examples of burndown herbicides that can be used in corn and grain sorghum include: 2-4-D Ester (1.0 pt/acre); 2,4-D Ester + Banvel (1.0 pt + 0.5 pt); Atrazine (2.0qt); Atrazine + Banvel (2.0 qt + 0.5 pt); Atrazine + 2,4-D ester (2.0 qt +1.0 pt); Balance Pro + atrazine (see label); Banvel (0.5 pt); Expert (3.0 qt); Field Master (4.5 qts), Gramoxone Max (1.3 pt); Gramoxone Max + Atrazine (1.3 pt + 2.0 qt); Landmaster BW (54 oz); Glyphosate (24-32 oz); Glyphosate + 2,4 D ester (24 oz + 1.0 pt) and Glyphosate + atrazine (24 oz + 1.5 pt). Glyphosate is the active ingredient in many products. The rates provided here are based on a 4 lb ai or 3 lb ae formulation. Pre –emergence herbicides include Atrazine, Axiom, Balance Pro, Bladex, and Prowl. Additional information can also be found on page 30 of the “2004 Guide for Weed Management in Nebraska.”

Examples of burndown herbicides in soybean that can be used from 0-30 days before crop planting include: Aim (0.3 oz/acre), Canopy XL (2.5-8 oz); Extreme (3.0 pt); Gauntlet (co-pac); Gramoxone Max (1.3 pt); Pursuit (4 oz); Pursuit Plus (2.5 pt); and Scepter (0.66 pt). Also, Glyphosate can be used alone or with 2,4 D ester, Canopy XL, Pursuit or Sencor (see labels for rates). Also, 2,4 D ester can be used alone at 1.0 pt per acre. The pre-plant interval if 1.0 pt or less of 2,4 D is used is 7 days. The list of pre-emergence herbicides in soybean includes Axiom, Pursuit, and Prowl.

Also, consult the label direction for additives and for the pre-plant and post-plant intervals. For example, corn should not be planted 5 days before or after application of 2,4-D. Also 2,4-D can be used for burndown in soybean but at least 7 days prior to crop planting. More details on these herbicides and their use rates can be also found in the University of Nebraska Guide for Weed Management. It is a publication that is updated annually, and it can be purchased in every county extension office for the nominal fee of \$3. On the internet, the latest updates can be found on <http://weedsience.unl.edu/newsreleases> or <http://cropwatch.unl.edu>.

Concerns About Herbicide Residues

Drought affects efficacy and persistence of herbicides in the soil, which directly influences replant options and rotational restrictions for this year’s crop. Therefore, before making the final decision what to plant this year, consider re-crop and re-planting restrictions listed in the Guide for Weed Management. There is also additional information on herbicide carryover and a table on crop tolerance in the Guide. Also check compliance with herbicide labels.

Soil sampling and herbicide bioassays can also be done before crop planting to confirm presence of herbicide residues at your field. Soil samples can be sent to local labs for analysis (example: Midwest Laboratory, Omaha, 402-334-7770, 402-748-3261; or Ward Laboratories Inc., Kearney, 308-234-2418).

A simple herbicide bioassay can be also conducted. Take 5-10 soil samples from the top 5 inches of soil and place it in pots (or flat trays). Plant 10-20 crop seeds per tray, water daily as needed and monitor crop germination and early growth. Seeds should germinate within 10 days at room temperature. Abnormal growth of crop seedling is a likely indication of herbicide residue presence. (SK)

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