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PLANT PEST *Newsletter*

MINNESOTA EXTENSION SERVICE UNIVERSITY OF MINNESOTA

PPST04 **May 10, 1991**

IN THIS ISSUE PAGE

CORN

BLACK CUTWORM FLIGHT DETECTED—The black cutworm monitoring project detected the first major flight of moths into Minnesota between April 26-28. This influx concentrated primarily in counties bordering the Minnesota River Valley in western Minnesota. The following counties reported significant captures (>8 moths in two nights): Stevens, Swift, Chippewa (2 traps), Yellow Medicine, Renville, Redwood, Martin and Stearns. Several counties also had captures approaching significant levels: Brown, Cottonwood, Goodhue, Mower.

While significant captures do not guarantee black cutworm outbreaks, they do indicate the moths were present. Barring adverse weather to the black cutworms (e.g. hard frost or hot, dry soil environment), the potential exists for black cutworm infestations to develop. Infestations are likely to be scattered. Fields with greatest risk of cutworm attack include any unworked fields with crop debris on the surface when the moths arrived, ridge-till fields, or no-till corn following soybean. The risk is not great enough to warrant preventative use of selected soil insecticides with cutworm activity (Lorsban, Force and, to a lessor extent, Dyfonate II). Rather we encourage farmers to use a rescue approach. Be vigilant, scout fields and, if cutworm infestations are detected, a rescue spray of Ambush, Asana, Lorsban or Pounce offers effective control.

The projected date for black cutworms from this flight to reach sufficient size to cut corn is approximately June 6-7. We'll keep you posted on how weather affects projected cutting date from this flight and if subsequent flights are detected into Minnesota.

Ken Ostlie
Extension Entomologist

For more information regarding the Plant Pest Newsletter contact Extension Plant Pathology at 612-625-6290

UNIVERSITY OF MINNESOTA, U.S. DEPARTMENT OF AGRICULTURE, AND COUNTIES COOPERATING

MISCELLANEOUS

WEED IDENTIFICATION—It is again time to begin thinking about weed identification. Accurate weed identification is important for effective, economical control (and should be the first step in an effective weed control program). Local authorities, such as county agents, crop consultants, Vo-Ag teachers, or agricultural inspectors, can help with identifying most weed species. However, if there is a weed identification problem that cannot be solved locally, you can mail plant specimens to Bev Durgan, Extension Agronomist—Weed Control, 411 Borlaug Hall, University of Minnesota, St. Paul, MN 55108. I will identify them and give control recommendations as soon as possible. Please observe the following suggestions for preparing your weed samples so that I will have a good specimen to examine.

1. **Do Not** put weeds into plastic bags or wrap in plastic wrap.
2. **Do** put the weeds in a fold of paper towel or fold of newspaper. Press overnight (under a heavy book, etc.), and mail them in the paper. Plants can be folded, if necessary, to accommodate the envelope.
3. **Send** in an identifiable portion of the weed, usually top growth with flowers and/or fruits, if available. If sending weed seedlings or vegetative plants, please send the entire plant, including the roots. Roots are not normally needed for identification of older plants.
4. **Provide** the following information on the weed to be identified or use the prepared Plant Identification forms available from the Agronomy Extension Office or your local county extension office:
   - ✓ Type of root system (tap root, fibrous root, rhizomes, etc.).
   - ✓ Does the plant have milky juice in the stem or leaves (yes or no)?
   - ✓ Where plant is growing.
   - ✓ Type of growth (erect, prostate, viny, etc.).
   - ✓ Write on the outside of the envelope "Plant Identification Sample."
   - ✓ If you want weed control recommendations, please indicate the area where the weed is to be controlled. For example: roadside, pasture, corn, small grains, etc.

Beverly R. Durgan
Extension Agronomist —Weed Control

TELEPHONE MARKETING OF HERBICIDES—It is happening again. The telephone marketers are calling Minnesota farmers selling herbicide products. A recent case seems to follow last year's scenario where a Florida company is selling a product with 0.9% bromacil in 99.1% petroleum oil for anywhere from $60 to $100 a gallon. Bromacil is sold under reputable trade names such as Hyvar-XL with 2 lbs. of bromacil per gallon, not 0.9 lbs. Needless to say the telephone product is not an economical buy. As always, **ask a lot of questions**, and if you don't get good answers, don't buy the product. Besides, who is going to help service the product if you have questions or complaints. **Ask** for an address with street numbers, not just a P.O. Box number, **ask** for the active ingredient and concentration per unit sold, **ask** for a label and EPA registration number of the product. **Watch out for** claims about being better or as good as recognized products, only this product is offered at a price too good to be true, because it probably is.

Roger Becker
Extension Agronomist—Weed Control

ATRAZINE BMP UPDATE—The Minnesota Department of Agriculture's Voluntary Best Management Practices (BMP's) for atrazine are to be published in the state register and sent to interested parties this week. The atrazine BMP provides guidelines for a voluntary effort to reduce and alleviate ground water contamination and is specifically targeting sensitive areas of Minnesota such as sandy soils with shallow water tables and areas with fractured rock aquifers such as karst areas of SE Minnesota. Key points of the voluntary program include voluntarily limiting atrazine use to 1.6 qts of the 4L, 2.0 lbs of the 80W, and 1.8 lbs of the 90 DF or WDG formulations in sensitive areas. IPM concepts, mixing and loading guidelines, and rinsing and disposal of containers are covered. A more complete description of atrazine BMP's will be included in next weeks newsletter after the official document is published.

Roger Becker
Extension Agronomist —Weed Control

POAST PLUS CLEARED FOR ALFALFA USE— Poast Plus has received supplemental labeling for use on alfalfa for grass weed control. For those of you not familiar with Poast Plus on soybeans, Poast Plus is similar to Poast, but has 1.0 lb ai/gal vs. 1.5 for Poast. Poast Plus has some of the components of the BASF adjuvant DASH pre-package mixed in the formulation, but still requires the same additives as Poast, the use of 2 pts/A of DASH or COC, and in specified situations, UAN (2-4 qts/A) or ammonium sulfate (2.5 lbs/A). Both formulations are labeled for tank mixing with 2,4-DB, the Poast Plus label limiting 2,4-DB to 0.75 lb ae/A (3 pts of Butyrac 200) while the Poast label refers to individual product label rates (1-6 pts Butyrac 200). Both labels state to use only DASH or COC when tank mixed with 2,4-DB, not UAN or ammonium sulfate.

The labeled lb ai/A rates of the two formulations are roughly equivalent. The "special rate for early treatment" that has been on soybean labeling is now on the alfalfa labeling for Poast Plus, but not for Poast on alfalfa. For Minnesota, this lower rate applies to barnyardgrass, green and giant foxtail (not yellow), and fall panicum when 1-4 inches tall, use 1.125 pt/A (18 fl oz) of Poast Plus, but use the higher 1.5 pt/A rate (24 fl oz) when these grasses are 3-8 inches in height.

Roger Becker
Extension Agronomist—Weed Control

ASSERT USE IN SUNFLOWERS—There has been alot of confusion about whether or not Assert is or will be labeled for use in sunflowers in 1991. The Assert label in sunflower was discontinued by Cyanamid this winter. However, because of the increase in sunflower acreage, Cyanamid applied for and received a supplemental label for Assert in sunflowers. Therefore, Assert can be used for wild mustard and wild oat control in sunflowers in 1991.

The supplemental label is very similar the previous labels. The use rate for wild mustard control is 0.6 to 0.8 pts/A. Apply Assert when the majority of wild mustard plants are in the rosette stage and prior to bloom. The use rate for wild oat control is 1.0 to 1.2 pts/A. Apply Assert when the majority of wild oat plants are in the 1-4 leaf stage. Use the low rate (1 pt/A) when the wild oats are in the 1-3 leaf stage.

There have been several cases of sunflower injury due to Assert applications in sunflowers. To decrease the crop injury potential use the following precautions:

1. Use the lowest use rate possible.
2. Apply Assert to small sunflowers. Apply Assert to sunflowers in the 2 to 8 leaf stage. Sunflower injury potential increases as sunflower size increases.
3. **DO NOT** apply Assert to sunflowers growing under stress, such as drought or heat stress.
4. **DO NOT** tank mix Assert with any other herbicides or crop oil concentrates.

Read the label for additional restrictions and precautions. Even if you have used Assert on sunflowers in the past, be sure to read the supplemental label.

Beverly R. Durgan
Extension Agronomist—Weed Control

POAST RECEIVES SECTION 18 IN CANOLA— Poast (sethoxydim) herbicide has received a Section 18 (Emergency Use Exemption) for postemergence volunteer grain and grass control in canola for 1991.

Individual applications of between 0.5 and 1.5 pts/A are allowed. A maximum of 2.5 pts/A of Poast may be applied/A during the growing season. A crop oil concentrate at 2 pts/A must always be used with Poast for consistent grass control. Use rates for various grass species are:

Grasses	Poast Rate (pts/A)	Crop Oil Concentrate Rate (pts/A)
wild proso millet	0.5	2 pts/A
crabgrass	0.5	2 pts/A
foxtails (pigeongrass)	1.0	2 pts/A
volunteer cereals	1.5	2 pts/A

Poast must be applied with between 5 and 20 gallons of water/A for ground applications and between 5 and 10 gallons of water/A for aerial applications. **DO NOT** apply Poast within 60 days of canola harvest.

Read the label for additional restrictions and precautions.

Beverly R. Durgan
Extension Agronomist—Weed Control

TILLER RECEIVES SECTION 18—Tiller herbicide from Hoechst-Roussel Company has received a Section 18 (Emergency Use Exemption) for postemergence foxtail (pigeongrass) control in hard red spring wheat for

1991. The Section 18 allows Tiller application until July 15, 1991. The use rate for Tiller is as follows:

— 0.95 pts/A for green foxtail control.

— 1.2 pts/A for yellow and green foxtail control.

— 1.7 pts/A for fields with mixed populations of foxtails and wild oats.

This Section 18 for Tiller is not for wild oat control, therefore Tiller cannot be used in fields for wild oat control only. However, if wild oats are present in the field the 1.7 pts/A rate can be used for control. Therefore, Tiller can be used for wild oat control if foxtail is the primary weed in the field and if there are some wild oats present. However, Tiller can not be used just for wild oat control. I know this is confusing, but we need to remember that the Section 18 is for foxtail control, and if we want to continue to receive Section 18 uses, they must be used according to the label. This confusion will end when Tiller receives a federal label.

Apply Tiller after the spring wheat begins to tiller (4-5 leaf stage) but prior to jointing stage. Tiller will control larger foxtail (3-leaf to 2-tillers) and can be applied later than other postemergence herbicides used for foxtail control in hard red spring wheat. In University of Minnesota research, Tiller has given good to excellent control of both yellow and green foxtail. **DO NOT** apply Tiller to durum wheat, barley, oats or rye. **DO NOT** apply more than one application of Tiller per season, or apply within 70 days of harvest.

Unlike last year, under this Section 18—Tiller is now labeled for tank mixing with Banvel (dicamba), Buctril (bromoxynil), or MCPA ester for additional broadleaf weed control. The use rates are:

— **Banvel:** 2 oz/A of Banvel (4E) or 4 oz/A of Banvel SGF.

— **Buctril:** maximum of 1 pt/A.

— **MCPA ester:** maximum of 1/2 pt/A.

However, tank mixing Tiller with these broadleaf herbicides can decrease the grass control and can increase the potential for crop injury. Banvel and MCPA ester can only be tank mixed with Tiller when applied for the control of green and yellow foxtail. **DO NOT** tank mix Banvel or MCPA ester with Tiller when wild oats are present the field. Also, when tank mixing Banvel with Tiller, proper application timing is important to prevent crop injury. **DO NOT** apply Banvel after the 5-leaf stage, and since Tiller should not be applied until the 4-leaf stage, the time when Banvel and Tiller can be tank mixed is very short. Buctril can only be tank mixed with Tiller when applied for the control of green foxtail. **DO NOT** tank mix Buctril with Tiller when controlling yellow foxtail or wild oats as decreased grass control can occur.

There were several cases of hard red spring wheat injury due to Tiller applications in 1990. The injury was associated with cool, wet weather conditions and late applications. In most cases, the spring wheat recovered from this injury, and there was no yield loss. To decrease the crop injury potential, **DO NOT** apply Tiller after jointing stage.

Read the label for additional restrictions or precautions.

Beverly R. Durgan
Extension Agronomist—Weed Control

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County Agents Please Alert Master Gardeners to the Following Items

Woods roach nymphs are common during spring. They resemble Oriental cockroaches—both are dark-colored and wingless. However, woods roaches are slightly lighter in color with lighter colored edges along the body, whereas Oriental cockroaches are uniformly dark. Looking under a dissecting scope, woods roaches have rounded anal plates (on the posterior end), whereas Oriental roaches have cleft anal plates.

Woods roaches prefer wooded areas, hiding under bark and logs. These roaches may occasionally enter homes and cabins or be brought indoors on firewood. However, they do not establish themselves or reproduce inside and are just nuisances.

Physically remove an occasional woods roach found inside. Large numbers can be controlled by spraying around the building's exterior with chlorpyrifos or diazinon. Remove potential harborages, such as old logs, that are near buildings. Firewood piles should be restacked as far away from homes as possible.

When Plants Don't Bloom—We've received quite a few calls about daffodils that are sending up leaves, but no flowers. On questioning, we learn that most of these are bulbs that didn't do well last year when we had the open winter with poor snow cover and lost so many spring-flowering bulbs in the process. If they didn't bloom last year or this, do fertilize them with a balanced plant food or bulb food, then once the foliage yellows in early summer, dig them up. Sort through the bulbs and keep only those that seem large enough to bloom. Store them on a shelf in the garage or in a mesh bag for good air circulation, then replant them next fall.

We've also heard about PJM rhododendrons and forsythias that bloomed only towards the base, where snow protected them. PJM is the hardiest of the evergreen rhododendrons, but prefers a partially shaded, protected site. Most forsythias bloom only after extremely mild winters; the Minnesota bred variety 'Northern Sun' and the North Dakota bred 'Meadowlark' should bloom reliably, top to bottom, in the Twin Cities area.

Evergreen Tree Problems—Numerous evergreen samples have been received at the clinic. The cause is usually environmental desiccation (wind, sun, lack of rain) although chemicals and diseases can be involved. Here are a few tips to aid in your diagnosis.

1. Environmental drying or burning is worst on the most exposed portions of the branch/needles, i.e. the tips of branches and needles. If you flip over the branch and look at the needles on the bottom side you will find they are much greener.
2. One side of the tree may be more affected than the other.This is usually the result of the prevailing winds or sunburn. Tip burn over the entire tree suggests insufficient water during the last growing season.
3. Cytospora canker on spruce kills the entire branch, and blue to white colored sap is present on dying or dead branches.
4. Rhizosphaera needlecast kills the inner needles on spruce trees. Branches will have green tips--one years worth of growth.
5. Pine needles infected with fungal needlecasts often exhibit banding on the needles and irregular dieback of individual needles. With environmental drying, the dieback of needles from the tip is fairly even.

   Environmental drying often appears worse than it is. If the branches are still pliable and the buds soft and cream to green in color, new growth will resume this spring. Severe needle loss on spruce can take years to mask with new growth, however, pine will recover nicely by mid-summer.

Birch Leafminers—As of May 6, a computer degree-day forecasting program (Forecaster) predicts the first birch leafminer mines will appear in the Twin Cities May 20. If control is desired, insecticides should be applied at that time.

We've received calls about the use of Cygon 2-E in the control of birch leafminer. It is labelled to be painted undiluted on the trunk in a band below the branches. It appears to give comparable control to a foliar application of acephate (Orthene). The label indicates that Cygon should be applied at bud break. Because uptake takes about five days, treatments will still be effective if applied later than bud break, up until full leaf expansion.

Weed control calls have switched from concern about preventing crabgrass to controlling broad-leafed weeds (non-grassy plants). Abundant rain and cool weather has made spraying for weeds difficult in most of the state. Wait until temperatures are in the 60's, 70's, or even low 80's, and the plants are dry. Otherwise the sprays will not prove very effective.

Don't use broad-leaf herbicides where you've planted new grass seed. Even though they won't damage established lawns, young seedlings aren't tough enough to withstand these chemicals. Of course, you must be sure not to let any of the material drift onto young trees, shrubs, flowers or vegetables either. The herbicide can discriminate between grasses and broad-leafed plants, but not between desireable and undesirable broad-leaves.

Wet Weather Favors Diseases—Plenty of rain this week over most of the state will encourage early season diseases such as shade tree anthracnose, cedar apple rust and apple scab. No chemical control is recommended for anthracnose on healthy shade trees. Susceptible apples and crabapples should be sprayed to prevent cedar apple rust and apple scab.

Other common calls include lawn diseases, cankers on shade trees, apple diseases, carpenter ants, transplanting just about anything, lawn renovation, maple trees with cracks up the south side of their trunks, and finally, how to deal with (hopefully eliminate) pesky squirrels, woodchucks, and rabbits.

Deborah Brown
Horticulture

Jeffrey Hahn
Entomology

Cynthia Ash
Plant Pathology

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