



# PLANT PEST Newsletter

MINNESOTA EXTENSION SERVICE

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## APPLES

The Rohm & Haas fungicide "Nova" recently received label for Apple Scab, Powdery Mildew and Rust. This product along with other systemic products: Bayleton, Funginex and Rubigan are good choices for apple disease control. These "Sterol" inhibitor products are longer lasting than the standard product a contact fungicide—Captan and also have a "kick back" activity that stops infection up to 96 hours or 4 days after infection has occurred. These systemic products can be used in protectant or curative control programs. A spray saving of 2 or 3 applications per season can result with a curative program.

**FUNGICIDE UPDATE—CAPTAN** —This product was first registered in 1951 in the U.S. In 1980 Captan was RPAPed (Rebuttable Presumption Against Registration). A RPAP is now known as a Special Review. Since 1980 many events have occurred and at present the following crops, uses and formulations are/will be defended with new data.

- A) Foliar Application on: apples, almonds, apricots, cherries, grapes, nectarines, peaches, pears, plums, prunes, strawberries, cantaloupes, cucumbers and tomatoes.
- B) Post Harvest Dip on: apples, cherries and pears
- C) Seed Treatment on all seeds except rice and
- D) Formulations to be included:
  - 1) wettable powder, flowables for foliar and post harvest dip applications.
  - 2) all formulations including dusts for seed treatments.

A major reason for Captan receiving the RPAP is the fact that it had over 80 crop uses with tolerances and thus was judged to have a very high exposure to consumers through the diet. ADI (Allowable Daily Intake) was calculated using

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## APPLES/Continued

an unrealistically high tolerance rather than actual residue data. Data development in the areas of toxicology, environmental fate, worker exposure, plant and animal metabolism and residue chemistry will probably cost over 5 million dollars. In the process actual residue on crops was shown to be about 1/10 of the levels used for diet risk assessment in the earlier review. The final decision is expected early in 1989 regarding the risk/benefit of Captan uses.

Captan does now have a re-entry period for workers. This means those entering fields within 4 days of treatment are to wear protective clothing and gloves. Data is being gathered now to provide needed information to indicate what exposure/risk is associated with re-entry. The 4 day rule was agreed to since data was not now available to determine an appropriate re-entry period.

Label use with old products should be "off shelves" by March 1989 (not available for sale). New labels contain the necessary revisions. A copy of the 50% WP label is available at my office (612) 625-6290. It is available to those who need a photo copy (it is 10 pages long).

—Ward C. Stienstra, Extension Plant Pathologist

**AGENT IN-SERVICE TRAINING**—Agricultural Agents of the Minnesota Extension Service will be attending the In-service training on Diagnosis of Root Rot Pathogens, in Plant Pathology on March 22, 1989 in room 295 Borlaug Hall.

## SOYBEANS

**Pursuit and Pursuit Plus Receive Label Registration**—Pursuit and Pursuit Plus received federal registration by the EPA on March 8, 1989. Both herbicides are products of American Cyanamid Company. Pursuit is labeled for use in soybeans at a rate of 4 oz/A. Pursuit may be applied preplant incorporated or postemergence. Pursuit Plus is a package mixture of Pursuit and Prowl and must be applied preplant incorporated. In Minnesota, it appears that most of the Pursuit will be applied postemergence and is labeled as far north as the North and South Dakota border.

Under proper conditions, Pursuit can control foxtails and many broadleaf weeds. Over 3 years of research at the University of Minnesota indicates that Pursuit, postemergence, gives excellent control of cocklebur, pigweed, and mustard and good control of eastern black nightshade. Control of common ragweed, velvetleaf, smartweed and foxtail is fair to good and is very dependent upon weed size and growing conditions. For best results apply Pursuit early postemergence to weeds three inches in height or less, under favorable growing conditions. The major weakness of a postemergence application of Pursuit is lambsquarters, the major weakness of preplant incorporated applications is cocklebur.

In order to achieve good postemergence weed control with Pursuit you must apply it to small weeds less than 3 inches in height. For best results preplant incorporated, you must incorporate Pursuit twice, in a manner similar to Treflan.

Labeled crop rotation restrictions following the application of Pursuit are as follows: alfalfa—18 months, wheat—4 months, corn—9.5 months, oats/sorghum—18 months. All crops not listed on the label default to the 18 month restriction. Because Pursuit is chemically similar to Scepter, there is concern about the carryover potential of Pursuit. Research was conducted at the University of Minnesota by the Agricultural Experiment Station and the Minnesota Extension Service to investigate Pursuit's carryover potential to corn. Results from 1985/1986 at Waseca, MN indicate that in a dry year an application of twice the labeled rate of Pursuit (8 oz/A) resulted in approximately a 20% corn yield loss. In 1987/1988, evaluations by an independent crop consultant indicated that at the labeled rate of 4 oz/A of Pursuit, approximately a 10% yield loss occurred at several locations. These locations were dry the summer of application. The bottom line is that in a dry year Pursuit does appear to have the potential to carryover to corn. Research conducted under wet or normal rainfall conditions showed no Pursuit carryover to corn, even at twice the labeled rate.

The issue of carryover potential of Pursuit to corn is complicated by the difficulty in identifying Pursuit carryover injury. The injury symptoms are often quite subtle and often variable in description. Generally, the symptoms are not present until the 6 to 8 leaf stage of corn development. These symptoms include height suppression, root stunting, and a yellowing of the crop. Unless steps are taken *before* application of Pursuit it would be very difficult to distinguish Pursuit injury from soil compaction, nitrogen burn, and several other environmental stresses. Therefore, my advice is to apply Pursuit to a limited part of your soybean acreage. Evaluate Pursuit's performance and plant corn the next year, over both Pursuit treated and untreated acres and do yield checks at both sites.

A carryover study conducted at North Dakota State University in 1987/1988 found that one year following the application of 4 oz/A of Pursuit, sugarbeets were severely injured. Currently, the Pursuit label indicates a 18 month rotation restriction to sugarbeets. Although more information is needed, this study would indicate that an 18 month recropping restriction may not be long enough.

To summarize, Pursuit is a herbicide with excellent weed control potential. Unfortunately, due to the lack of scientific data and sufficient large-scale field experience, there are still some questions that are unanswered. It would be advisable to go slow in your use of Pursuit and evaluate it carefully. If you're happy with your current weed control program remember, "if it isn't broke, don't fix it."

—Jeffrey L. Gunsolus, Extension Agronomist-Weed Control

**WHEAT**—The preharvest interval for Cygon (dimethoate) has been shortened to 35 days. It is labeled respectively for grasshopper and aphid control on wheat at 3/8 lb (3/4 pt) per acre and 3/8 lb to 1/4 lb per acre. The dosage for grasshoppers will be effective for nymphs but is marginal for good adult grasshopper control. Aphid control should be excellent.

—David M. Noetzel, Extension Entomologist

## MISCELLANEOUS

The newsletter schedule published in last month's newsletter are the dates the information is available on the Extend system. The dates for newsletter mailing are:

### PLANT PEST NEWSLETTER SCHEDULE FOR 1989-90

April 14	July 7	January 19
April 21	July 14	February 16
April 28	July 21	March 16
	July 28	
May 5		
May 12	August 11	
May 19	August 25	
May 26		
	September 8	
June 2	September 22	
June 9		
June 16	October 20	
June 23	November 17	
June 30	December 22	

### **DIAL U HIGHLIGHTS—Period: Through March 16, 1989**

**Pruning for oak wilt**—Avoid pruning or mechanical damage to oak trees between April 15 and July 1, to avoid the threat of oak wilt. For more information on oak wilt see AG-MI-3174.

**Starting veggies indoor**—Mid to late March is a good time to start pepper and eggplant seeds indoors, under fluorescent lights. Hold off a couple weeks on tomatoes, though. They only need six weeks from seeding to transplanting outdoors and it's a mistake to put them out before the end of May, in most of the state. It's also better to plant short, stocky seedlings than taller, larger plants. The little ones take off faster and are most productive in the long run.

**Boxelder bugs (BEB)** remain a common problem. Many people have been finding BEB throughout the winter. Despite their concerns, BEB are not reproducing indoors but are the same bugs that hibernated last fall under siding and cracks and crevices around the house. As the weather gets warmer, BEB will wake up and try to get outside. Those that are trapped indoors will die shortly on their own or can be killed by hand. BEB found in outside walls do not need to be sprayed as they will soon move away to search for food. See AG-FS-0998, *Boxelder Bugs*.

## DIAL U HIGHLIGHTS/Continued

**Damping-off**—To prevent problems with seedlings rotting off at the soil line, treat seeds with a fungicide and avoid cold, wet soils.

**Spring houseplant care**—Repot houseplants that have put on lots of growth the past year. Choose containers only one size larger than those they're in already. Too large a container means soil stays moist much longer, setting up conditions that favor root rot. Wash off accumulated dust and grime from foliage to improve looks and reduce the attractive habitat for houseplant foliage insects.

**Clothes moths and carpet beetles** have been a periodic problem during the winter. When winter clothing is put away in the spring, it is important to properly store woolens and other clothing made of animal fibers to prevent problems during the summer. If possible, clothing should be stored in tightly sealing containers, such as chests. Soiled clothes are more attractive to fabric pests and should be dry cleaned or laundered before storing. This will also kill any insects that may be present. Moth balls can also be added to containers to help protect clothes.

**Snow mold**—Due to the early snow fall and the good snow coverage all winter long over most of the state, snow mold may be present on many home lawns this year. Infected areas should be raked gently to accelerate drying. No chemical controls are recommended. For more information see, *Lawn Diseases*, AG-FO-3386.

**Other common calls** include ants, especially carpenter ants, and pantry pests (such as Indianmeal moths and flour beetles).

*Cynthia Ash*  
*Plant Pathology*

*Deborah Brown*  
*Horticulture*

*Jeffrey Hahn*  
*Entomology*

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The information given in this publication is for educational purposes only. References to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Minnesota Extension Service is implied.

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