PLANT PEST Newsletter

MINNESOTA EXTENSION SERVICE UNIVERSITY OF MINNESOTA

PPST10 June 21, 1991

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VEGETABLES

SNAP BEANS—Potato leafhopper (PLH) populations continue to increase throughout southern Minnesota on alfalfa and on beans (lima, snap). Approximate thresholds for snap beans are 20-25/plant. Adults + nymphs are present at these densities on early planted beans (3rd trifoliate) and spraying began this week in southeastern Minnesota. Refer to AG-BU-1880 for insecticide options.

EUROPEAN CORN BORER—A section 18 request was submitted to the Minnesota Dept. of Agriculture-EPA on May 27th for permethrin (Ambush 2E, Pounce 3.2E) to control ECB in snap beans. We are hoping to hear by July 15th or August 1st to deal with 2nd generation ECB, which again should provide significant pressure.

Summary of Black Light Trap catches of European corn borer at Rosemount:

Catches for the week of 6/12—6/19
Average 15.6/night
High - 26

Bill Hutchison,
Extension Entomologist

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

MISCELLANEOUS

BLACKLIGHT TRAP CAPTURES—The following table summarizes the captures made last week. June 13-19.

District/ Location		Nightly Captures: European corn borer Average	High	Max/date	Army Worm Average	High	Max/date
C	Glencoe	19	83	6/12	7	26	6/12
C	Olivia	13	21	6/12	63	227	6/15
SC	Blue Earth (48)	5	9	6/13	15	30	6/18
SC	Blue Earth (49)	7	16	6/13	43	87	6/17
SC	Sleepy Eye (II)	27	57	6/14	11	19	6/19
SC	Waseca	16	30	6/13	13	39	6/19
SC	Sleepy Eye (I)	78	141	6/14	52	108	6/19
SE	Calendonia	17	21	6/16	18	29	6/18
WC	Morris (I)	22	52	6/14	49	91	6/18
WC	Morris (II)	14	27	6/13	36	59	6/16
NW	Crookston	5	9	6/17	6	14	6/13
WC	Fergus Falls	12	14	6/13	25	70	6/18
SC	Le Sueur (W)	16	68	6/12	9	23	6/16
SC	Le Sueur (E)	108	361	6/12	17	47	6/15
	Big Lake	—	—	—	—	—	—
	Lamberton	15	35	6/13	3	5	6/17
	Worthington	13	23	6/14	4	10	6/14
SW	Marshall	229	500	6/15	32	70	6/19

Ken Ostlie
Extension Entomologist

WEED TOUR UPDATE—As I mentioned in last week's newsletter (June 14, 1991), we were assessing the Crookston site to see if enough of the field plots survived the hail to make for an eventful tour. Unfortunately the answer is no. The weed tour at Crookston, MN scheduled for July 2 has been cancelled. The North Dakota weed tour on July 1 will still be held.

Jeffrey L. Gunsolus
Extension Agronomist—Weed Control

WATCH OUT FOR POTENTIAL POSTEMERGENCE HERBICIDE INJURY IN SOYBEANS—Late planted beans and/or hot air temperatures could set up the potential for postemergence herbicide injury in soybeans. Remember the injury problems that occurred with Pinnacle, Pinnacle plus Classic, and Pursuit last year that were set up by hot temperatures (90° F, plus) the week of their application. If postemergence corn injury has been any example, the conditions are right this year for a lot of postemergence herbicide activity on the weeds and the crop. Therefore, read those labels carefully, watch your rates, avoid application to "stressed" soybeans and avoid oil concentrates, Dash, and Sun-It II in mixtures with the previously mentioned herbicides. **Please note**—some labels may allow mixtures with these adjuvants but I feel that it could be a risky proposition this year. Finally, people with row banders should check their calibrations carefully, use only flat-fan nozzles, keep at least a 6 inch distance from the sprayer to the soybean plant, and avoid 3-nozzle configurations.

Jeffrey L. Gunsolus
Extension Agronomist—Weed Control

CROP MANAGEMENT WORKSHOP:

A two-day Crop Management Workshop is scheduled for July 9 and 10 at the Northwest Experiment Station at Crookston. The objective of the program is to use in-field demonstrations and exercises to teach crop management principles. Participants will learn to diagnose crop problems, make appropriate recommendations, and understand factors that influence crop growth and yield. Crop emphasized will be small grains, soybeans, sugarbeets, corn, sunflowers, canola, and potatoes.

Who should attend:

The program is designed for people involved with crop management in northwestern and west central Minnesota and eastern North Dakota. This will include agriculture product dealers, crop consultants, extension agents and agency personnel.

Specific Field Sessions Will Include:

- ✓ Herbicide Action and Injury
- ✓ Crop Damage and Diagnosis
- ✓ Crop Development
- ✓ Soil Sampling and Testing
- ✓ Insect Management
- ✓ Disease Diagnosis and Management

Date and Time:

The workshop is July 9 and 10. On Tuesday, July 9, the program will start at 9:00 a.m. and go until 5:30 p.m. On Wednesday, July 10, the program will start at 8:00 a.m. until 3:00 p.m.

Location:

The Northwest Experiment Station at Crookston will host the workshop. Registration and check-in will take place at the Ag Research Center Auditorium.

Registration and Cost:

The cost for this program is $140.00 per person if registration is received before June 24. After June 24, the cost is $160.00 per person. This fee includes reference materials, two noon meals, and refreshment breaks. Make check payable to the University of Minnesota and send to:

Beverly Durgan
Department of Agronomy and Plant Genetics
411 Borlaug Hall
University of Minnesota
St. Paul, MN 55108

Questions:

For further information, please contact: Beverly Durgan, Department of Agronomy and Plant Genetics, 411 Borlaug Hall, University of Minnesota, St. Paul, MN. 612-625-7262.

Beverly Durgan
Extension Agronomist—Weed Control

PLANT DISEASE CLINIC'S TOP THREE

RUST DISEASES—Rust diseases, in general are very prevalent this season. Samples received by the clinic this week include wheat leaf rust, crown rust of oats, geranium rust and late rust of raspberry.

TOMATO SPOTTED WILT VIRUS (TSWV)— TSWV was confirmed to be present, using ELISA techniques, on the following floricultural crops: prayer plant, tiger vine and *Pothos* sp. Occurrence on tiger vine and *Pothos* sp. represents a new state host record. We are investigating whether these are also new national host records.

WHEAT STREAK MOSAIC VIRUS (WSMV)— We have received six wheat and one barley samples from the Red River Valley area which exhibit symptoms suggestive of WSMV and/or barley yellow dwarf virus (BYVD). ELISA testing is underway and we will report test results and county locations next week.

Samples can be submitted to the Plant Disease Clinic for virus testing. Test results will be available in 2-3 days and the fee is $25.00. When submitting plants for virus testing, please follow these guidelines:

1) Collect 10-15 symptomatic plants and include as much of the root system as possible.
2) Wrap plants in plastic (for virus testing it is imperative that plants not dry out).
3) Provide as much background information as possible, including plant variety, a description of symptoms observed and distribution within the field, recent weather conditions, and rates and dates of chemical applications. Sample submittal forms may be obtained from the Clinic directly or from your county extension office.
4) Ship samples early in the week, preferably via a special delivery service, to ensure arrival to the Clinic by Thursday.
5) Submit payment with each sample. Make checks payable to the University of Minnesota.
6) Ship samples to:

Plant Disease Clinic
495 Borlaug Hall
1991 Upper Buford Circle
University of Minnesota
St Paul, Minnesota 55108
(612) 625-1275

Jill D. Pokorny
Director, Plant Disease Clinic

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County Agents: Please Alert Master Gardeners of the Following Items

BLOSSOM LOSS—Cucurbits such as cucumbers, melons and squash may lose the first flowers. Loss of these flowers will not reduce yield. They are usually male flowers which produce only pollen.

Environmental stress such as a sudden shift in temperatures or moisture level fluctuations can cause blossom drop in tomatoes. Moisture fluctuations in tomatoes also cause blossom end rot. Green tomatoes develop a leathery brown or black spot on the blossom end. The true cause is a calcium deficiency but it is brought about by water stress.

BEETLE LARVAE ON SUMAC—Reports of 'worms' heavily defoliating sumac have been recently received. Samples have identified the insect as a type of leaf beetle (chrysomelid) larvae. Nothing yet has been found in the literature describing such insects nor have any adults been reported to help verify the species. Control, though, should be the same as with other beetle defoliators on ornamentals; spray with acephate (Orthene), carbaryl (Sevin), malathion, or diazinon if control is desired.

TURF PROBLEMS—Large irregular straw colored areas have suddenly appeared in many lawns. In most cases, the lawns are relatively newly-seeded or sodded within the last few years, they were fertilized early in the spring, they were growing so fast and lush that they needed mowing every few days, and then they weren't watered after rains stopped. Most of these browned areas are in full sun—especially south-facing slopes and along drive-ways.

The extremely wet weather encouraged grass to develop shallow roots near the surface or in the thatch layer where they could get air. Deeper roots may actually have rotted in the deeper, saturated soil. Once the rains stopped and the sun came out, the grass dried out and went into summer dormancy, at best, or died, at worst.

Either leave it for now, let it stay dormant (saves on mowing) and then start watering again in mid to late August to revive it for fall, or water now, bring it out of dormancy, and continue to water it as needed throughout the rest of the summer (about 1" of water per week). If areas of the lawn have died, then sod anytime or renovate the brown areas late in August or early in September.

Common Kentucky bluegrass varieties are best able to bounce back from a long dormant period. "Improved" varieties that grow thicker and more lush are often less able to recover from a dormant period.

BEETLES ON ROSES—Rose chafers and false japanese beetles have been reported on roses. Rose chafers are 1/3 inch long, slender beetles with tan bodies and long, spiny reddish legs. Rose chafers particularly are found attacking plants in sandy soil. False japanese beetles are a little smaller and a little more robust with bronze, metallic colored bodies and dark-colored, shorter legs. Besides roses, there are a number of other shrubs and flowers these insects may feed on. Both can be controlled similarly; residual insecticides, such as acephate (Orthene), carbaryl (Sevin), malathion, diazinon. A cheese cloth barrier, higher than the plants, can be erected to discourage rose chafers.

PATHOLOGY NOTES—

** Red spots are common on rhubarb leaves. The leaf spot is common during wet weather but easily controlled by removing the infected leaves.

** Scab is causing severe defoliation of susceptible crabapples.

** Begin spraying roses for rose black spot if this has been a problem before.

** Botrytis blight/grey mold is reducing strawberry yields. Harvest and destroy infected fruits.

** Fire blight is blighting susceptible apple, crabapple and mountain ash. Canker diseases can also kill shoots on these plants.

PLUM CURCULIO ON APPLE—Crescent-shaped marks on apples are the result of plum curculio oviposition damage. Once the marks are seen, it too late to spray for this insect. The correct time would have been at petal fall (after three-fourths of petals have fallen) and again 7 to 10 days later with methoxychlor. However, control is unnecessary because the plum curculio oviposits eggs when apples are still small; as

apples grow they crush the young larvae. No further damage occurs (other than the oviposition damage), and the apples can still be eaten.

In some areas, hail damage may be confused with oviposition damage. Hail damage generally occurs on one side of the apple and is more numerous than curculio damage. Also the damage is not clearly crescent-shaped as the curculio oviposition marks are.

POOR FRUIT SET—The rainy spring may have caused poor fruit set in apples this year. Frequent rains may have limited activity by pollinating insects. Fruits may have started to form from unpollinated flowers but are now dropping.

OTHER COMMON CALLS include carpenter ants, home-infesting ants, post birch leafminer damage, larder beetles, and insect galls.

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