

# PLANT PEST *Newsletter*

MINNESOTA EXTENSION SERVICE

UNIVERSITY OF MINNESOTA

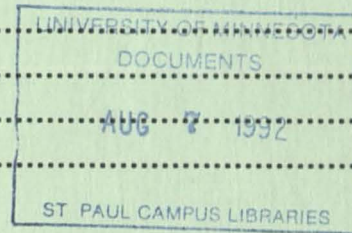
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## IN THIS ISSUE

PAGE

CORN .....	101
CORN INSECT CONTROL AND HONEY BEES .....	101
SUNFLOWER .....	102
SUNFLOWER SEED INSECTS .....	102
SWEET CORN .....	102
EUROPEAN CORN BORER (ECB) .....	102
PICNIC BEETLES .....	102
MISCELLANEOUS .....	103
BLACK LIGHT TRAP CAPTURES .....	103
DIAL U .....	103



## CORN

### CORN INSECT CONTROL AND HONEY BEES—

Honey bees will forage in commercial vegetable crops (peas and corn), particularly for pollen, when other forage is reduced. The two insecticides applied to corn during pollen shed which cause greatest concern to beekeepers are PennCap-M (methyl parathion) and Sevin (carbaryl). These can be carried back to the colony, stored with pollen, and kill bees months later.

Work Dr. Furgala and I did some years ago however, shows that all labeled pesticides when applied to corn will kill bees which forage on the treated corn pollen. Further-

more if you examine pollen within the hive there can be found traces of almost all insecticides used on sweet corn.

If at all possible insecticides other than PennCap and Sevin should be used on pollinating corn. Those involved with corn insect control, when treatment is required should apply insecticide when bees are not foraging the corn pollen (ie late in the day or very early in the morning). Whenever possible pollinating corn should not be treated with insecticides.

*Dave Noetzel  
Extension Entomologist*

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

## SUNFLOWER

**SUNFLOWER SEED INSECTS**—Some sunflowers will begin to bloom next week (finally) and with that event comes three questions. The first is to determine whether the field needs treatment for seed insects, the second the best timing of such an application, if needed, and the third is how to protect pollinators using the sunflowers as a pollen and nectar source.

You should begin monitoring the field for seed insect damage potential at the onset of bloom. Treatment needs to go on between the time 3 of 10 heads come into bloom and 7 of 10 heads come into bloom. This is very early in the bloom phenology of the field so that a field that has 7 of 10 heads with a complete ring of florets in bloom will still have a green appearance to it. Also on a 90° day the field can proceed of 3/10 in bloom to 7/10 in bloom in 2 days or less.

An action level for seed weevil in oil sunflower is probably about 15/head this year. In confection sunflower, I would not exceed 4 seed weevils/head. We have run a lot of trials in both oil and confection sunflower over many years and find that we have great difficulty keeping seed insect infestations below 2%. Confection flowers have

higher seed infestation with the same seed weevil numbers/head as compared to oil cultivars. Confection flowers, most years will require seed insect control.

The above timing provides the best control of not only seed weevil but banded and sunflower moth as well. Once you pass the 7 out of 10 in bloom point, the efficacy of the insecticide begins to drop.

If the field is treated at the proper time the insecticide risk to the pollinator (honey bee) is very much reduced. Even so aerial applicators should spray sunflower very late in the day or very early in the morning.

I would encourage all aerial applicators, however, to continue to inform beekeepers with bees adjacent to the field being treated to take necessary steps to protect their bees. I really believe that proper timing of applications would greatly reduce the potential risk to honey bees foraging sunflower.

*Dave Noetzel*  
*Extension Entomologist*

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## SWEET CORN

**EUROPEAN CORN BORER (ECB)**—This week's Blacklight trap captures are lower than last week with none of the locations reporting significant numbers of moths captured. The only areas of potential concern this week should be silking corn in Waseca county, Randolph and St. Peter areas, where trap catches last week averaged 20-25 moths/night. The only way to be sure as to whether a field requires treatment is to scout for egg masses. Our current threshold for tasselling silking corn is 4-5% of the plants infested with egg masses and/or locations should be checked for egg masses by examining the undersides of leaves, and/or ear leaves for silking corn. Check at least 40-80 plants/30 acre field, unless, of course, you are finding >4% infestation in fewer samples. At other locations where we are following development of the older 1st generation larvae, and not catching moths, we are also not finding new egg masses nor significant first-instar larvae—which we would expect.

If the cool temperatures continue, I am not expecting the 2nd ECB flight to significantly "take off" until Aug. 20th or Aug. 15 at the earliest. This nearly one month

later than last year. We are presently 500 degree-days (DDs>50°F behind last year, at about 1360; last year we did not reach 5% oviposition by 2nd-generation moths until 1850 DDs. Of course, much of the corn will be maturing later this year as well. Stay tuned.

*Bill Hutchison*  
*Extension Entomologist*

**PICNIC BEETLES**—Sprays should not be applied to sweet corn for picnic (sap) beetles, unless visible damage is occurring to late-maturing ears (10% of ears). Picnic beetles usually only come in after the ears have already been damaged by birds, or other insects such as ECB or corn earworm. They are attracted to the frass (feces) of these larvae and also feed on pollen. Therefore, if sprays are being applied for ECB and/or CEW, picnic beetles will be less attracted and/or controlled by these treatments.

*Bill Hutchison*  
*Extension Entomologist*

## MISCELLANEOUS

### BLACK LIGHT TRAP CAPTURES

Data collected by: University of Minnesota, Minnesota Department of Agriculture and Private Cooperators  
Traps Reporting 7/29/92

EUROPEAN CORN BORER		+			
District	Location	Total	Aver.	High	Date/Max
NW	CROOKSTON	61.00	8.71	17.00	920723
WC	FERGUS FALLS	10.00	2.50	7.00	920723
WC	MORRIS	50.00	7.14	16.00	920729
C	GLENCOE	49.00	7.00	20.00	920728
C	BIRD ISLAND	48.00	6.86	20.00	920728
C	GROVE CITY	59.00	8.43	15.00	920727+
C	GAYLORD	49.00	7.00	15.00	920726+
C	OLIVIA	4.00	0.57	2.00	920729
C	STAPLES	6.00	1.00	2.00	920725+
SW	LAMBERTON	1.00	0.14	0.33	920727 *-3
SW	WORTHINGTON	6.00	1.50	3.00	920723
SW	MINNEOTA	5.00	1.25	2.00	920729 *-2
SC	BLUE EARTH	2.00	0.40	1.00	920727 *-2
SC	BLUE EARTH	1.00	0.17	1.00	920724
SC	LE SUEUR E	26.00	3.71	7.50	920727 *-2
SC	LE SUEUR W	20.00	2.86	5.50	920727 *-2
SC	WASECA	128.00	18.29	33.00	920727
SC	ST. PETER	72.00	10.29	27.00	920727
SC	SLEEPY EYE	23.00	3.83	15.00	920728 *-2
SC	SLEEPY EYE	17.00	2.42	6.00	920728
SC	WASECA SES	9.00	1.80	5.00	920727
SE	RANDOLPH	78.00	11.14	24.00	920728
SE	CALEDONIA	2.00	0.50	2.00	920728
SE	ROSEMOUNT	9.00	1.29	2.33	920727 *-3

\*-Number of nights...High derived by average over multiple nights.  
+ More than 1 night with maximum value.

Observation dates: 920721 TO 920729

## DIAL U

### County Agents: Please Alert Master Gardeners of the Following Items

**Wasp**—We are receiving an increasing number of calls about wasp nests in and around homes. Wasps are annual insects which means they do not live beyond autumn. During late summer, new queens leave the nest, mate, and hibernate in sheltered areas; they survive until next spring. The workers and old queen die with the onset of freezing weather.

It is not important to control wasp nests that are not close to human activity, e.g. high in a tree. If a nest is in close proximity to people, then it is important to control nests as soon as possible. The later in the season people treat, the larger the nest becomes and the more difficult to control. Also when nests hidden in wall voids, attics, and other place in buildings are still active during fall, wasps may accidentally migrate indoors, especially when sprayed with an insecticide.

Spray wasp nests in the evening; wasps are much less active then. Treat directly into nest entrances with either resmethrin or Baygon (propoxur). If the nest is hidden, spray the opening where the wasps go in and out. Check the nest several days later; if there

are still active wasps, retreat the nest. Do not seal wasp nests unless you are sure all wasps are dead. If any are alive, they may enter indoors. When wasps are in a difficult to reach area, consider a pest control company. See AG-FO-3732, *Are they wasps or bees?*

Tomato problems aren't typical of those we usually see this time of year. Yes, we're still getting samples and calls about tomatoes that cup and curl because of exposure to herbicide. But so far, we haven't seen any blossom end rot or physiological leaf roll. Both are disorders associated with hot, dry weather, which as everyone knows, has been in short supply this summer.

What we are hearing about are tomatoes with yellowing lower leaves. This may be due to a bit of root rot from excessively moist soil. It could also be a sign of a lack of nutrients due to rain leaching fertilizer too deeply in the soil. Unless the upper part of the plant is already a rich green color, it's a good idea to work fertilizer into the soil in a circle around each plant.

**Bleeding cankers**—Several counties in the Metro have recently reported a foamy, liquid material oozing out of the trunk of oak trees. They report that this material has a yeasty or alcohol-like smell, not a "disgusting" odor like bacterial wetwood would have.

## DIAL U/Continued

The oozing is due to a bacterial canker which seems to be associated with previous stress to the tree. The bacteria in these cankers produce gas and alcohol during the fermentation of the sap resulting in the white frothy substance originating at cracks in the bark. This canker is common on oak in the Midwest and is often referred to as "alcoholic flux." Fortunately, bacterial cankers seldom cause severe damage.

**Birch catkin feeders** are a type of true bug known as seed bugs. Adults are about 3/16 inch long, brownish with clear wings. As the name suggests, they are found on birch catkins. Although they feed on catkins, they are harmless to the health of birch. Sometimes they are circumstantially associated with brown blotches on leaves; they are unrelated to this problem which is caused by birch leafminers. Birch catkin feeders can omit an offensive smell when abundant. A hard stream of water may be enough to reduce the problem. If not, try insecticidal soap.

**If lawns are looking pale**, particularly on sandy soil, you should consider fertilizing again, even though it's mid-summer. Be aware, though, that if weather suddenly turns hot and dry, you'll need to water that fertilized lawn regularly.

If grass is pale and sickly looking on heavy clay soil or in low-lying areas where water collects, it may be from rotting roots. Core aeration may help a bit, but again, you'll have to water if it turns extremely hot soon after you aerate.

**Verticillium wilt on green ash**—Ash leaves with marginal necrosis, minimal yellowing and defoliation of a portion of the

crown of the tree could signal Verticillium wilt. Discolored sapwood is NOT present on green ash. Suspect trees can be cultured at the Plant Disease Clinic to confirm the presence of Verticillium (Routine culture, \$20). Proper management including regular, deep watering as necessary and adequate fertilizer (low nitrogen and high potassium, 10-10-10 would be good) are recommended. Fungicides are not effective.

**Flower gardeners** are looking for general information on drying fresh flowers. We've even gotten some calls about saving bridal bouquets by drying them in the microwave. Our recommendation to anyone thinking of saving a bridal bouquet is to practice drying the individual flowers that will be in the bouquet for weeks ahead of time. Microwave drying is a skill that requires practice.

Of course, the bouquet must be disassembled and all wires removed before the blooms can be dried. Then it must be rewired and reassembled; all in all, probably best done by a floral professional. If you want to save your bouquet this way, let the florist know ahead of time, then dry it or have it dried while it is still in good condition.

For an excellent, reasonably priced book on growing and preserving flowers, check your library or bookstore for *Flowers That Last Forever* by Betty Jacobs, a Garden Way Publishing book.

**Other common calls**—carpenter ants, pruning trees and shrubs, wild fruit and flower ID, lots and lots of trees and shrubs showing signs of environmental stress. (See other July PPN newsletters)

<i>Cynthia Ash</i>	<i>Jeffrey Hahn</i>	<i>Deborah L Brown</i>
<i>Plant Pathology</i>	<i>Entomology</i>	<i>Horticulture</i>

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