Pest & Crop

July 27, 2001 - No. 19

In This Issue

Insects, Mites, and Nematodes

Soybean Foliar Insecticides, Perhaps a Big Mistake

- (*John Obermeyer, Rich Edwards, and Larry Bledsoe*) –

- Insect defoliation to soybean may be approaching treatment levels
- Insecticides affect all arthropods in the field, good and bad ones
- An outbreak of plant suckers is possible after treating soybean fields

Foliage defoliating insects, e.g., Japanese beetle, grasshoppers, bean leaf beetle, are active in most soybean fields throughout the state. Some fields, but mostly areas of fields, are looking pretty tattered and producers may desire to put an end to this attack on their crop that has gone on for weeks. We are aware that some seed producers are treating soybean fields for western corn rootworm beetles to reduce the rootworm threat to next year's inbred corn. Applying insecticides from now until crop maturity may lead to devastating results.

Lurking in most soybean fields are spider mites and soybean aphid. Most populations of spider mites have been subdued with the recent rains and high humidity of recent weeks. This was addressed in *Pest&Crop* #16. Soybean aphid continues to be found with regularity in northern Indiana, albeit low populations. Reports concerning soybean aphid continue to substantiate that natural predators, mainly lady beetles, are keeping this potential pest in-check.

Treating soybean with an insecticide for the remainder of the season may tip the balance in the favor of spider mites and/or soybean aphid. In other words, natural enemies (a.k.a., good bugs) recover slowly from broad-spectrum insecticides compared to mites and aphids. In general, toxic levels of insecticide are absorbed by ingestion (eating treated leaves) and/or contact (walking over treated areas). Mites and aphids are both sucking insects and ingest only internal plant fluids. Except for mature females, they are relatively stationary on the bottom sides of leaves; obviously a difficult location to get thorough coverage. As well, surviving mites and aphids can repopulate fields at break-neck speed, certainly outpacing natural enemies.

Even if a field is at or approaching a treatment threshold, carefully consider the impact on other potential pests and their natural enemies. Gee, this advise sounds like integrated pest management. Happy scouting!

Lady beetle larva feeding on soybean aphid

• • P&C • •

Potato Leafhopper Numbers High, Natural Reductions Are Possible - (*John Obermeyer, Rich Edwards, and Larry Bledsoe*) -

- Leafhopper populations should be evaluated after higher humidities and cooler temperatures
- Fungal pathogens may flourish and naturally control leafhoppers

Potato leafhopper populations have been high in most alfalfa fields this summer. Hopefully pest managers have been carefully monitoring leafhopper numbers before yield and quality have been lost. Yellow alfalfa indicates poor management of this pest!

Good news may be forthcoming. With "cooler" temperatures forecasted after this stifling spell of heat and humidity, insect disease may come to our rescue. The fungal pathogen *Zoophthora radicans* is favored by cool and wet conditions to multiply and spread throughout leafhopper populations. Once the environment favors the disease, leafhopper populations may crash within days. Typically the conditions that favor this pathogen occur in later July or August. Watch for discolored and / or slow moving leafhoppers while obtaining sweep counts. Should you suspect the presence of diseased leafhoppers, consider holding off treatment and re-evaluating in a couple days.

• • P&C • •

Black Light Trap Catch Report
(Ron Blackwell)

County/Cooperator	7/10/01 - 7/16/01							7/17/01 - 7/23/01						
	VC	BCW	ECB	GC	CEW	FAW	AW	VC	BCW	ECB	GC	CEW	FAW	AW
Clinton/Blackwell	0	1	2	5	0	0	0	0	4	11	5	0	0	0
Dubois/SIPAC	5	10	0	22	0	0	3	3	14	4	6	0	0	2
Jennings/SEPAC	12	6	0	13	0	0	3	0	0	1	11	0	0	5
LaPorte/Pinney Ag Center	20	10	0	8	0	0	2	18	10	8	1	1	0	1
Lawrence/Feldun Ag Center	2	2	0	8	0	0	1	0	5	1	0	0	0	0
Randolph/Davis Ag Center	9	5	2	54	0	0	12	24	9	15	30	0	0	10
Whitley/NEPAC	15	7	0	35	0	0	16	3	2	0	15	0	0	2

BCW = Black Cutworm ECB = European Corn Borer GC = Green Cloverworm CEW = Corn Earworm
AW = Armyworm FAW = Fall Armyworm VC = Variegated Cutworm

Bits & Pieces

Indiana Pesticide Clean Sweep Project – (*Kevin Neal, Office of Indiana State Chemist*) –

On Thursday, September 6, 2001, licensed pest control operators, golf courses, ag facilities and farmers will be given the opportunity to dispose of unwanted, suspended, or cancelled pesticides through a program sponsored by the Office of Indiana State Chemist (OISC) through a grant provided by the U.S. EPA.

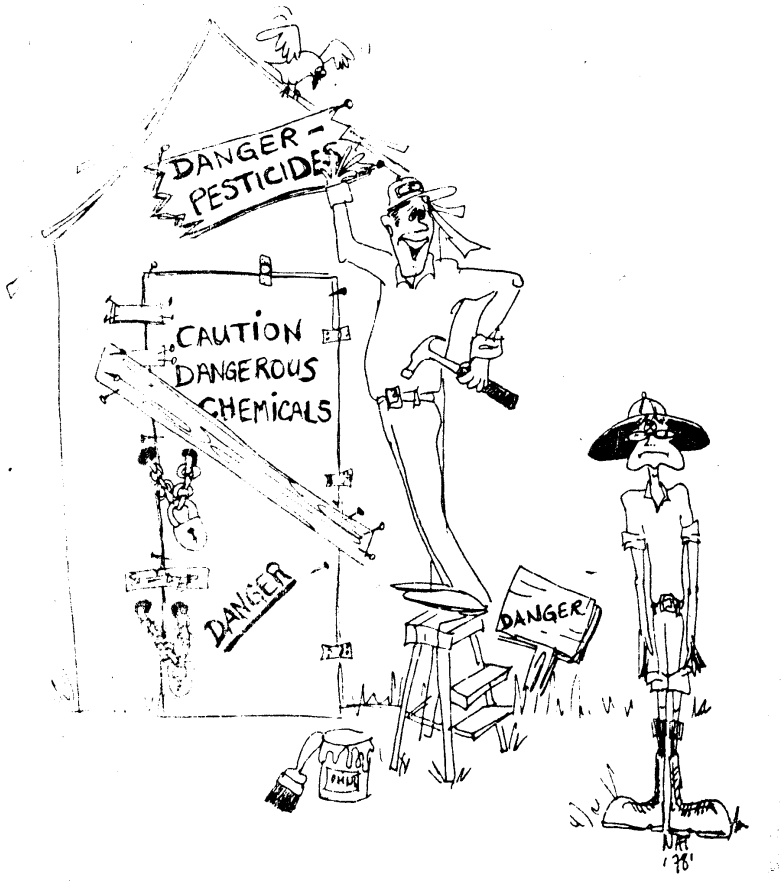
The Indiana Pesticide Clean Sweep project will accept any currently registered, cancelled/suspended, opened, unopened, usable, unusable herbicides, insecticides, rodenticides, fungicides or miticides. You should only bring containers which are labeled, leak-free, and safe to transport. Materials should be left in their original containers - DO NOT mix materials. In case of an emergency, we ask that you bring a list of products you are carrying and phone number of a responsible party to be contacted. Pesticides brought in leaking and unlabeled containers will not be accepted.

To assist in planning, we are requesting information on the type and volume of materials you will be delivering to West Apple Orchard located at 9470 County Road 500 West in Brazil, Indiana. Directions to West Apple Orchard: North off of State Road 340 on County Road 500 West. Orchard is located 1.5 miles north of State Road 340 on west side of the road. We will accept deliveries between 9:00 a.m. and 3:00 p.m. We must have your form returned by August 30th to the Office of Indiana State Chemist attention Kevin W. Neal.

This service is provided free of charge up to 200 pounds. Over 200 pounds there will be a $2.00 per pound charge up to 250 pounds. If you were to dispose of 250 pounds of pesticide on your own the charge would be approximately $2,500.00. The most you will pay under the "Clean Sweep" program is $100.00.

This is a great opportunity for you to dispose of unwanted products at little or no cost. If you have any questions please call me at (765) 494-1585.

Bug Scout



"What do you mean CLEAN SWEEP, I've got this place all fixed up!"

UNWANTED PESTICIDE DISPOSAL DAY

The following information is needed to plan the Clean Sweep Pesticide Disposal Day. It will be used for determining the capacity and number of collection containers only, therefore, your name and personal information is not needed. Please fill out the form & return to Kevin Neal, Office of Indiana State Chemist, 1154 Biochemistry, West Lafayette, IN 47907 by August 30, 2001. You may call this information into the office but you must talk directly to Kevin Neal, at (765) 494-1585.

1. Trade Name _____
   Active Ingredient _____
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

2. Trade Name _____
   Active Ingredient _____
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

3. Trade Name _____
   Active Ingredient _____
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

4. Trade Name _____
   Active Ingredient _____
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

5. Trade Name _____
   Active Ingredient
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

6. Trade Name _____
   Active Ingredient _____
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

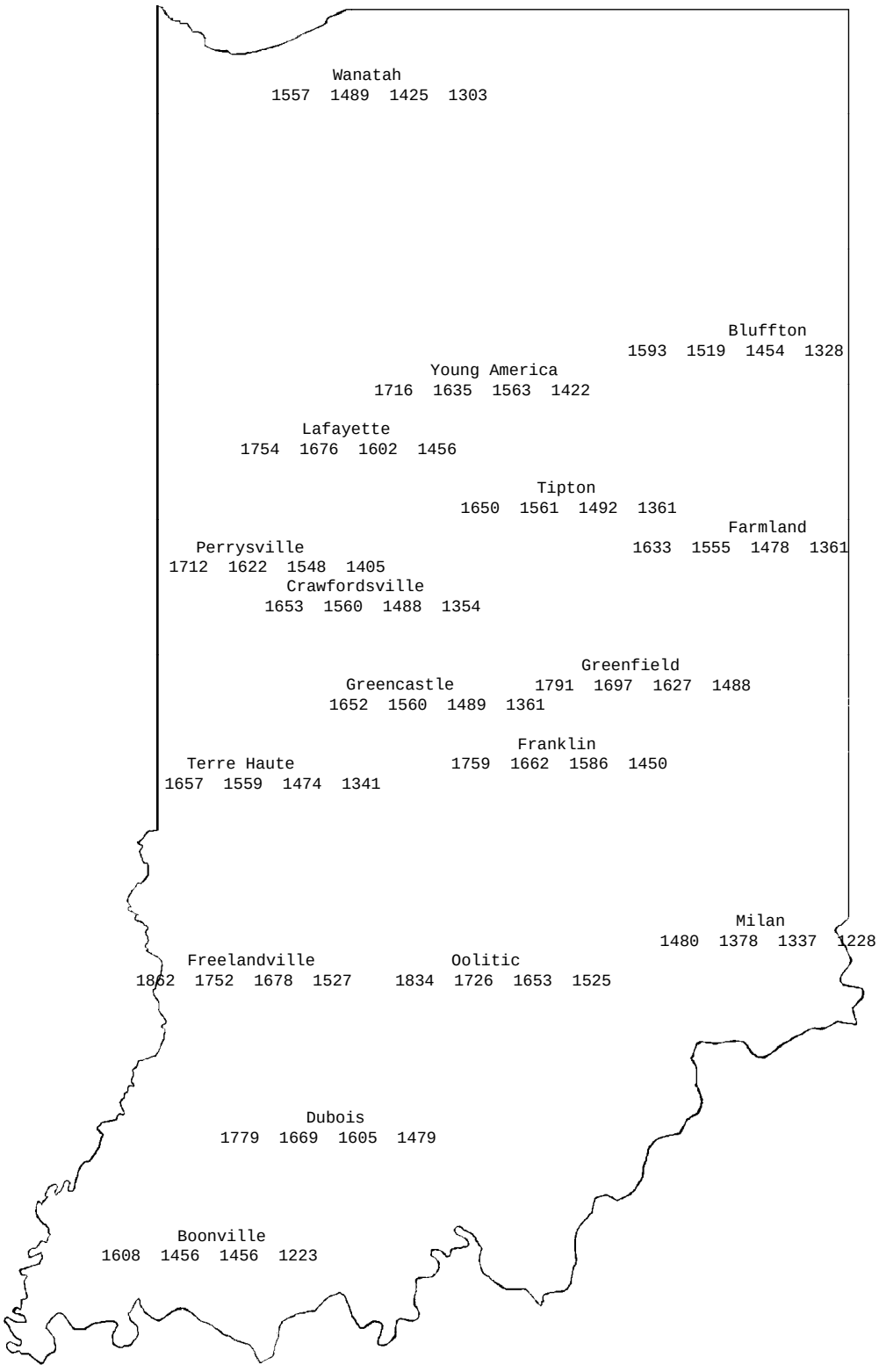
7. Trade Name _____
   Active Ingredient _____
   (Check One)
   _____ Solid
   _____ Liquid
   _____ Aerosal
   _____ Gallons
   _____ Pounds

Weather Update

Temperature Accumulations from Jan. 1 to July 25, 2001

MAP KEY
Location
GDD(3) GDD(11) GDD(40) GDD(90)

GDD(3) = Growing Degree Days from April 14 (3% of Indiana's corn planted), for corn growth and development
GDD(11) = Growing Degree Days from april22 (11% of Indiana's corn planted), for corn growth and development
GDD(40) = Growing Degree Days from April 28 (40% of Indiana's corn planted), for corn growth and development
GDD(90) = Growing Degree Days from May 6 (90% of Indiana's corn planted), for corn growth and development

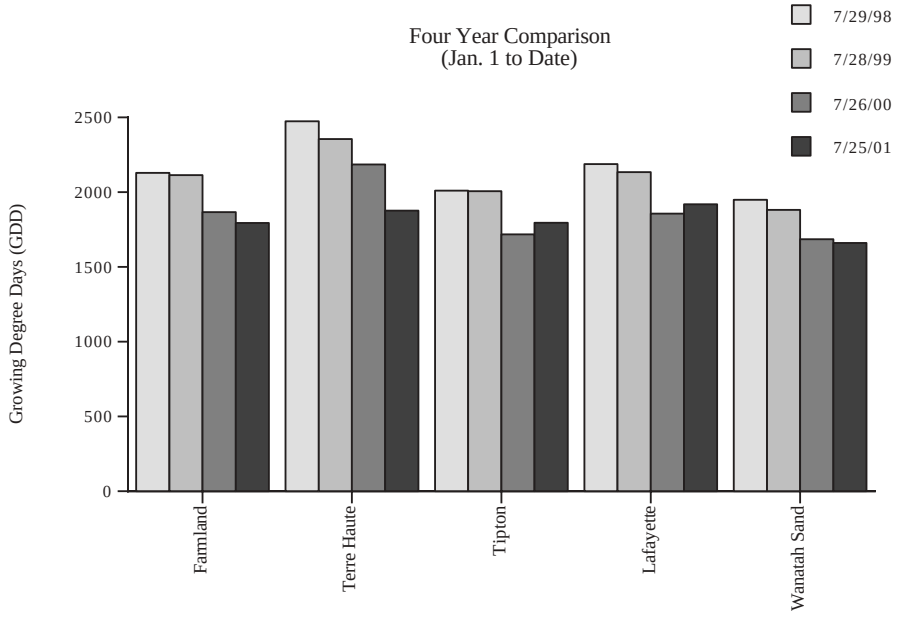


4" Bare Soil Temperatures 7/25/01

Location	Max.	Min.
Wanatah	90	76
W Laf Agro	90	70
Tipton	83	76
Farmland	87	73
Perrysville	86	79
Crawfordsville	85	80
Trafalgar	85	81
Liberty	84	78
Terre Haute	86	79
Vincennes	90	74
Oolitic	85	79
Dubois	101	76

Pest&Crop
Extension Entomology Office
Department of Entomology
Purdue University
1158 Smith Hall
West Lafayette, IN 47907-1158

http://www.entm.purdue.edu/Entomology/ext/targets/newslett.htm



The ***Pest Management and Crop Production Newsletter*** is produced by the Departments of Agronomy, Botany and Plant Pathology, and Entomology at Purdue University. The Newsletter is published monthly February, March, October, and November. Weekly publication begins the first week of April and continues through mid-September. If there are questions or problems, contact the Extension Entomology Office at (765) 494-8761.