



# PEST MANAGEMENT & CROP DEVELOPMENT

## BULLETIN

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Extension Entomologist

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## INSECTS

### Field Crop Session to Focus on Insects

Crop producers, agribusiness dealers, and field scouts are invited to participate in an “Insect Management—Past, Present, & Future” workshop on July 26. Sponsored by University of Illinois Extension, the program will be conducted at the Crops Training Center located at the Northern Illinois Agronomy Research Center, 14509 University Road, Shabbona.

The focus of the workshop will be on management strategies and tactics for insects currently affecting field crops and for those that may affect crops later in the season. Some of the insects to be discussed include armyworm, corn rootworms, soybean aphid, and potato leafhopper. The workshop will include classroom discussion and in-field demonstrations. Dr. Michael Gray, University of Illinois Extension entomologist, will be the principal speaker.

Certified Crop Adviser continuing education units have been applied for.

Registration begins at 8:30 a.m., and the program will run from 9 a.m. to 12 noon. The cost is \$15 per person (lunch is not provided), and reservations are due July 19 to the Quad Cities Extension Center, 4550 Kennedy Drive, Suite 2, East Moline, IL 61244, telephone (309)792-2500. A minimum of 20 reservations are needed to conduct the workshop. A brochure is available at Extension offices.—*Jim Morrison*

### Soybean Aphids Are Becoming More Prevalent

Survey teams coordinated by David Onstad, Department of Natural Resources and Environmental Sciences, continue to “discover” soybean aphids in soybean fields in northern and east-central Illinois. As of July 2, the soybean aphid had been found in the following counties: Boone, Bureau, Champaign, Cook, DeKalb, Grundy, Kane, Kendall, Lake, LaSalle, McHenry, Peoria, Stephenson, Vermilion, and Will. Entomologists in adjacent states are reporting similar findings of soybean aphids in an increasing number of counties.

Densities of soybean aphids in some fields also seem to be increasing. In one field in Kendall County sampled on July 1, the survey team found aphids on 49 of 50 plants sampled. The surveyors found as many as 400 aphids per plant on a few plants and 50 to more than 200 aphids per plant on the rest of the infested plants. They also noticed a fair number of lady beetle adults and larvae munching on the aphids.

Now that we are finding soybean aphids in soybean fields, we will focus on some other research objectives. Entomologists will continue to survey for soybean aphids in soybeans, with some efforts to determine whether the aphids are present in soybean fields south and west of Champaign. However, a new focus will be to monitor aphid population dynamics weekly in selected fields to determine whether densities are increasing or decreasing and to assess the impact of natural mortality factors, including predators, parasiti-

toids, and pathogens. Plans are in place to conduct insecticide efficacy and timing trials in Champaign and DeKalb counties to assess the effects of insecticides on beneficial insects and to determine the effect of aphid injury on soybean growth and yields. In addition, plant pathologists are examining the potential for soybean aphids to transmit viruses in the field and searching for potential sources of resistance among soybean cultivars. Entomologists and plant pathologists in other states also will be conducting research as soybean aphids become more prevalent. We will try to keep you apprised of as many developments as possible.

We still believe it is too early to consider insecticide applications to control soybean aphids. However, it's not too early to start looking for them. The relatively large numbers of aphids found in some fields suggest that threatening densities could occur soon.

Remember what to look for when you search for soybean aphids. The soybean aphid is a small, yellow to yellow-green aphid with distinct black cornicles ("tailpipes" on the tip of the abdomen). They can be found on stems and young leaves of growing soybean plants and on the undersides of leaves of mature plants. Because there are no other aphid species that develop colonies on soybean in North America, it is safe to assume that colonies of tiny yellow aphids on soybean are soybean aphids. Colonies will consist of different size aphids (nymphs and adults), and white cast skins will be obvious in larger colonies. Plants infested with aphids may begin to show symptoms of injury. Heavily infested plants may be stunted, and leaves may become yellow and distorted.

Excellent photographs of wingless and winged soybean aphids, nymphs and adults, and eggs on *Rhamnus* (buckthorn) are located at <http://www.inhs.uiuc.edu/cbd/aphid/photos.html>. The photographs were taken by David Voegtlin, aphid specialist in the Center for Economic Entomology at the Illinois Natural History Survey.

If you believe you have encountered soybean aphids as you scout soybean fields, let us know. We are very interested in keeping track of where and when the aphids appear throughout the season. Likewise, we'll keep you informed about the aphid's activities.—*Kevin Steffey*

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### Twospotted Spider Mites Are Noticeable in Some Areas

The hot, dry weather that has predominated in some areas of Illinois has enabled twospotted spider mites to gain a foothold in some soybean fields. We shared our first report of the occurrence of spider mites in southern Illinois (Hamilton County) this year in issue no. 9 (May 25, 2001) of the *Bulletin*. Now we've learned that some fields are being treated for control of spider mites. Dennis Epplin, crop systems educator at the Mt. Vernon Extension Center, reported on July 1 that fields in Gallatin and White counties have been sprayed for control of spider mites. Robert Bellm, crop systems educator at the Edwardsville Extension Center, was in a field in White County that had been treated for spider mites on June 28. And spider mites are showing up elsewhere, too. Russ Higgins, IPM educator at the Matteson Extension Center, found twospotted spider mites in a no-till soybean field on sandy soil in Grundy County on July 1. The plants were suffering from a lack of moisture.

Unless we get some rainfall in dry areas of the state, twospotted spider mites probably will become established and their population densities will increase. Therefore, we strongly encourage you to start looking for these pests that are notoriously associated with droughty conditions. Spider mites have tremendous reproductive capabilities and can go from "0 to 60" rather quickly. A few mites here and there can explode into a noticeable infestation in a very short time.

Start watching for spider mites in soybeans along field margins and in especially dry areas of fields. Plants

injured by spider mites will be stunted, and leaves will appear stippled and then entirely yellow. Another telltale sign of the presence of spider mites is webbing on the undersides of the leaves. Although spider mites are extremely small (0.3 to 0.4 mm), you can see them fairly easily with a good hand lens. Also, if you tap infested leaves over a sheet of paper, you will be able to see mites crawling on the paper.

The treatment guideline for twospotted spider mites in soybeans is somewhat cryptic and not based on extensive research. However, a miticide may be warranted if 20 to 25% of the plants are discolored and mites are present. Products suggested for control of spider mites in soybeans are dimethoate (see product label for rate) and Lorsban 4E at 1/2 to 1 pt per acre. The use of Lorsban 4E is restricted to certified applicators.—*Kevin Steffey*

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### More Reports of Odd Lepidoptera Creatures

In last week's issue of the *Bulletin* (no. 14, June 29, 2001), I discussed thistle caterpillars (the adults are painted lady butterflies) and whitelined sphinx caterpillars being found in some crop fields in Illinois. Wouldn't you know it, others have found these odd creatures, too. John Obermeyer, IPM specialist at Purdue University, is aware that sphinx caterpillars have been found in a couple of counties in Indiana, and I read an article about sphinx caterpillars in a newspaper from Arkansas. Neither John nor Arkansas entomologist Don Johnson identified the species. In fact, I am not certain about the species found in Illinois either; I used my occasionally questionable taxonomic skills to pinpoint the whitelined sphinx as the culprit. However, my identification has not been verified. If we learn the species, we'll let you know.

In virtually all instances where the whitelined sphinx (tentative ID) caterpillars have been found, they were feeding primarily on weeds—purslane

in Indiana, cutleaf evening primrose in Arkansas, and a couple of species of weeds in Illinois. So let 'em chomp! Their numbers are intimidating, but no one has detected significant feeding on either corn or soybeans.

The thistle caterpillar may be another matter. Dave Harms, a private consultant in northern Illinois, learned about a field of soybeans in DeKalb County that had spotty infestations of these spiny caterpillars. They had completely defoliated Canada thistles in the field (a good thing) and were beginning to work vigorously on the soybeans (not a good thing). Dave indicated that defoliation in some areas within the field was extensive enough that spot treatments might be necessary.

The economic thresholds for thistle caterpillar in soybeans are the same as they are for all defoliators of soybeans—treatment may be warranted when defoliation reaches 30% before bloom and 25% between bloom and pod fill. However, these thresholds should be adjusted upward (very likely) or downward according to the value of soybeans. If an insecticide is needed for control of thistle caterpillars, consider \*Ambush 2E at 3.2 to 6.4 oz per acre; \*Pounce 3.2EC at 2 to 4 oz per acre; Sevin XLR Plus at 1-1/2 qt per acre; or \*Warrior at 1.92 to 3.2 oz per acre. Use of products preceded with an asterisk is restricted to certified applicators.—Kevin Steffey

### Japanese Beetles Are Making Their Presence Known

We have received many reports of very large numbers of Japanese beetles in cornfields and soybean fields in several areas of Illinois. On June 28, Dale Burmester, Gateway FS in Red Bud, reported heavy infestations in cornfields in Monroe County, although he had not observed a lot of crop injury at that time. Several people in east-central Illinois have called in reports of Japanese beetles in crop fields and around homes where they are feeding on fruit trees and orna-

mentals. During a recent (June 28) drive through Douglas County, Aaron Hager, University of Illinois weed scientist, conducted an “unofficial windshield survey” and counted many pops as he tried to reduce densities of Japanese beetles there. However, Rick Reed, an aerial applicator stationed in Mattoon (Coles County) and a veteran of the “Japanese beetle wars” for many years, indicated on July 2 that he had not seen very many Japanese beetles yet, although he had sprayed one cornfield to prevent excessive silk-clipping injury. He expects to find more Japanese beetles in the near future, and I think he’s right.

During the next few weeks in pollinating cornfields, watch for Japanese beetles (and corn rootworm adults) that might clip silks and interfere with pollination. If silks are clipped to less than 1/2 inch in length, less than 50% of the plants have been pollinated, and you find three or more adults per ear, an insecticide application may be warranted. Consider \*Capture 2EC at 2.1 to 6.4 oz per acre; \*PennCap-M at 2 to 4 pt per acre; Sevin XLR Plus at 1 to 2 qt per acre; or \*Warrior at 2.56 to 3.84 oz per acre. Use of products preceded by an asterisk is restricted to certified applicators.

As almost everyone knows, Japanese beetles also will defoliate soybeans. Although the injury almost always looks worse than it actually is, large numbers of Japanese beetles can cause significant damage if defoliation exceeds 30% (field average) before bloom or 20% between bloom and pod fill. Again, adjust these thresholds according to the value of soybeans. If treatment is warranted, consider \*Ambush at 6.4 to 12.8 oz per acre; \*Asana XL at 5.8 to 9.6 oz per acre; \*PennCap-M at 3 to 4 pt per acre; \*Pounce 3.2EC at 2 to 4 oz per acre; Sevin XLR Plus at 1/2 to 1 qt per acre; or \*Warrior at 3.2 to 3.84 oz per acre. Use of products preceded by an asterisk is restricted to certified applicators.—Kevin Steffey

### Another Weird One to Watch For: False Chinch Bugs?

On June 28, Dale Burmester, Gateway FS in Red Bud, reported that he had to visit with a homeowner who had indicated he had found “millions of chinch bugs crawling on and around the foundation of his house.” When Dale told me that, I recalled a similar situation from way back. I looked through some past issues of the *Bulletin* and came across some articles we had written about the false chinch bug (probably *Nysius raphanus*) in 1988. Sure enough, the situation was much the same—millions of false chinch bugs annoying homeowners and producers alike. Although I have not confirmed the report of these bugs with Dale, their possible occurrence is worth a mention.

We learned in 1988 that although false chinch bugs are content to feed on a number of different weed species, they will feed on field crops when their weed hosts dry up. Obviously this can occur in areas of the state that have been hot and dry for an extended period.

False chinch bugs often occur in enormous numbers when environmental conditions favor their development and survival. The adult is 1/16 to 1/8 inch long and is black with clear wings. The nymphs vary in size depending on their stage of development. Fully grown nymphs are about 1/16 inch long and appear gray-brown, without the aid of magnification. Under magnification, the nymphs have irregular brown and white stripes or mottling on the head and thorax, a broken white line along the center of the head that continues onto the thorax, and reddish mottling apparent on the abdomen.

So, add this one to a growing list of oddball insect occurrences that have characterized 2001. We have no idea whether others will encounter this insect, but keep it in the back of your mind whenever you happen to investigate an unknown insect source of aggravation.—Kevin Steffey

## PLANT DISEASES

### Diseases?

Corn is tasseling or starting to tassel. This is the time (2 weeks prior to tasseling and up to 2 weeks after tasseling) to scout for foliar disease in corn. Fortunately for the grower, but unfortunately for the pathologists, the weather has been too dry in most areas for much disease development this year. Leaf blights and rust on corn were prevalent last year. If foliar diseases develop in the next few weeks, remember that a threshold exists. For leaf blights, including the rust fungi, it is not the individual identity of the blight that is important but rather the percentage of leaf area blighted as a whole on the entire plant. Control considerations may be justified when whole-plant infection reaches 15%. This will depend on the price of corn and the price of the fungicide. Fungicides are more useful and cost-effective in hybrid seed production. It is also important to remember that the type of symptoms or size and coloration of lesions for leaf blights on corn can vary with the genetic resistance of the hybrid that you plant. Refer to issue no. 13 of the *Bulletin*, "Plant Disease Musings," for more information and considerations about fungal leaf blights.

Figure 1 illustrates the percentage of leaf area blighted by southern corn leaf blight. Regardless of the leaf spot or blight, this should help with assessing the percentage of leaf tissue infected.

It is good once in a while to realize just how well a crop can yield in the absence of disease. Omar Koester, Monroe and Randolph counties, reported 80 bushels per acre yield from 'Clark' wheat, in the absence of wheat leaf rust. This helps keep in perspective all those management practices for disease control that we strongly encourage. Disease will develop given the appropriate amount of *time*, if the

### SOUTHERN CORN LEAF BLIGHT

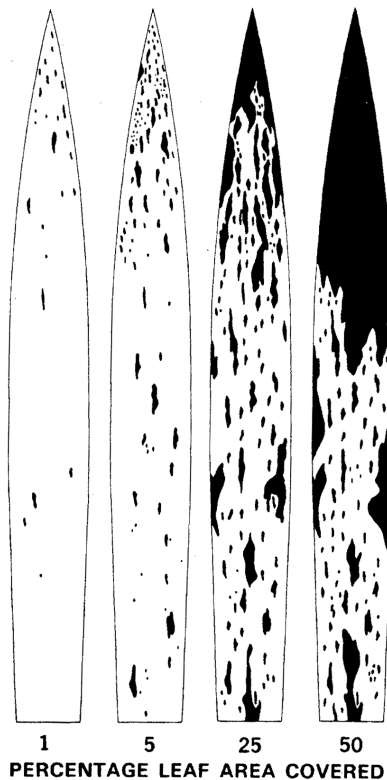


Figure 1. Percentage of leaf area blighted by southern corn leaf blight. (Figure courtesy of Clive James, "A Manual of Assessment of Keys for Plant Diseases," *The American Phytopathological Society*.)

*pathogen* is present on a susceptible *host*, under favorable *environmental* conditions. When management practices or Mother Nature removes one of the four criteria necessary for disease development, disease is absent and yield is good.—Loretta Ortiz-Ribbing

## WEEDS

### Callisto Corn Size Limits

We have had several questions about applying Callisto with drops for control of large broadleaf weed species. Callisto is labeled for use in corn up to 30 inches in height or up to the 8-leaf stage. It is not labeled for applications when the corn is tasseling, as some have asked about.—Aaron Hager and Christy Sprague

### It's Back Again in 2001

This time of year, we typically encounter several traditional events, such as fireworks displays, cookouts, baseball games, and soybean fields with cupped or "puckered" leaves. The 2001 season is proving to be very similar to previous seasons, in that many soybean fields are demonstrating this strange phenomenon. Looking back to last season, we discussed this subject in issue no. 13 of the *Bulletin* (June 23, 2000), so it appears that cupped soybeans are right on time in 2001. Let's review some information related to soybean leaf cupping.

The most frequently reported scenario is that symptoms are noticed after the soybean field has been sprayed with a postemergence herbicide. We've observed leaf cupping in as few as three days following a postemergence soybean herbicide application, but in other cases no symptoms were evident for up to 3 weeks after the postemergence soybean herbicide application. And yes, entire soybean fields that have not received a postemergence herbicide application have shown leaf cupping.

The symptoms that have frequently been reported include the following:

1. Extreme cupping of trifoliolate leaves is observed, usually most pronounced on the upper trifoliolates.
2. Veins of affected leaves tend to assume a parallel orientation instead of the usual net veination pattern.
3. Tips of cupped leaves with parallel veins are often brown.
4. Plants are stunted as compared with plants not demonstrating the aforementioned symptoms; these plants may remain stunted the remainder of the season, but this does not always happen.

The most difficult issue to determine with respect to cupped soybeans is

identifying the cause or causal agent(s). Several theories have been put forward by weed scientists across states in the north-central region and are presented here. (*It is very unlikely that only one of these possibilities will explain the cause of puckered soybeans in all instances.*)

**Theory 1. Somehow, the soybeans have been exposed to a growth regulator herbicide used for weed control in corn.**

The growth regulator herbicides tend to mimic the effects of endogenous plant hormones, in particular, auxins. Plant hormones control many developmental processes affecting the growth of the plant. These hormones are physiologically active within the plant at extremely low concentrations (parts per million or billion); exposing a soybean plant to a synthetic type of hormone (i.e., a plant growth regulator herbicide) can induce a wide range of responses within the plant, ranging from slight morphological modifications (leaf abnormalities, for example) to plant death. The degree or severity of response is partially dependent on the concentration of herbicide the plant was exposed to as well as environmental conditions and crop variety. The literature has many references to research conducted on the response of various crops to exposure of sub-lethal amounts of various growth regulator herbicides. Most of these studies were conducted more than 20 years ago, but the symptoms of exposure these studies describe are similar to those encountered during this and previous growing seasons.

How much (concentration) growth regulator does it take to induce symptoms? Dicotyledonous plants can and do vary in their sensitivity to growth regulator herbicides. In field demonstration studies, leaf cupping/distortion was observed when soybean plants were exposed to Banvel at a rate of 1/10,000 of the field-use rate. Stage of plant growth when exposure occurs can also influence the amount of injury induced. Several studies in the literature report that soybeans were more tolerant to exposure to growth regulators when in early vegetative development as compared to exposure when the plants were larger and nearing the reproductive stage.

The herbicide most often discussed or implicated in the cupping response of soybeans is dicamba (see Table 1 for products containing dicamba). How would soybeans be exposed to this corn herbicide? Three possible avenues of exposure are as follows:

**(a) Residues remaining in/on the spray equipment from previous applications in cornfields are detached and applied with the soybean herbicide at low concentrations.**

Labels of products containing dicamba provide techniques for cleaning application equipment to remove residues. The procedure from the label of Banvel states the following:

1. *Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Flush by operating the sprayer until the system is purged of the rinse water.*

2. *Fill tank with water while adding one quart of household ammonia for every 25 gallons of water. Operate the pump to circulate the ammonia solution through the sprayer system for 15 to 20 minutes and discharge a small amount of the ammonia solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.*
3. *Flush the solution out of the spray tank through the boom.*
4. *Remove the nozzles and screens and flush the system with two full tanks of water.*

(Even though Clarity contains the same active ingredient as Banvel, the spraying equipment cleaning procedure outlined on the Clarity label does not go into as much detail as the Banvel label.)

If these cleaning procedures are not followed exactly, how much residue would remain in the application equipment, and would it be enough to cause injury to soybeans? Many producers and applicators who reported puckered soybeans in the past indicated that the symptoms appeared to follow the spray equipment “to the row.” Drift (discussed next) generally does not stop at a selected row in a field. Rather, there is often the feathering effect—symptoms are most severe on the side of the field closest to the source of drift and lessen with increasing distance. Unfortunately, failure to thoroughly clean the application equipment does not appear to explain the reported cases of “. . . the soybeans sprayed with the first load puck-

**Table 1. Herbicides containing the active ingredient dicamba.**

<i>Herbicide</i>	<i>Dicamba salt</i>	<i>Amount of dicamba in formulation (lb ae<sup>1</sup>)</i>	<i>If you apply (product/acre)</i>	<i>Amount of dicamba applied is (lb ae/acre)</i>
Banvel 4S	dimethylamine	4	1 pint	0.5
Clarity 4S	diglycolamine	4	8 fluid ounces	0.25
Celebrity Plus 70WDG	sodium	0.424	4.7 ounces	0.125
Distinct 70WDG	sodium	0.5	6 ounces	0.188
Marskman 3.2L	potassium	1.1	3 pints	0.413
NorthStar 47.4WDG	sodium	0.399	5 ounces	0.125

<sup>1</sup>ae = acid equivalent

ered, those sprayed with the second and third loads are fine but the ones sprayed with the fourth load puckered” when all other factors are held relatively constant.

**(b) Herbicide vapors on the plant or soil surface move out of the treated area and are absorbed by soybeans (vapor drift).**

The volatility of a herbicide is a function of several factors: those related to the formulation of the herbicide and those related to prevailing environmental conditions. Vapor pressure is a measure of the tendency of a herbicide to volatilize. As the vapor pressure of a herbicide increases, the potential for volatility also increases. Ester formulations of 2,4-D are generally much more volatile than amine formulations. Banvel is formulated as the dimethylamine salt of dicamba, Clarity as the diglycolamine salt, and Marksman as the potassium salt (see Table 1 for formulations of other dicamba-containing herbicides). Each of these salt formulations differs in their potential to volatilize. With respect to environmental conditions, volatility tends to increase as soil moisture and temperature increase. As soil moisture decreases, the amount of herbicide adsorbed to soil particles can increase and thus reduce the amount of herbicide available to volatilize.

**(c) Spray particles drift during the actual application process.**

This cause of exposure may be the easiest to identify based on field observations. The labels of many postemergence herbicides have statements regarding wind speed and drift. Most specify that applications should not be made when wind speed is in excess of  $x$  miles per hour or moving toward a sensitive crop. Soybeans exposed to growth regulator corn herbicides through drift will usually have been exposed to a much greater amount of herbicide than if the exposure had occurred via the processes outlined previously in *a* or *b*. The symptoms from exposure to high

doses are often different than those caused by exposure to very low doses.

**Theory 2. The soybean plant is expressing a physiological response to somewhat adverse growing conditions.**

This *theory* generally attempts to exclude exposure to a growth regulating herbicide as the causal agent. Rather, soybeans express cupping symptoms due to environmental factors that adversely impact growth. Very few components in the puckered soybean “equation” have held consistent over the past several years except that the majority of cases are not noticed or reported until after the first few days, when air temperatures exceed 90 degrees. Soybeans may be entering into a phase of very rapid growth and development, and some speculate that this phase may disrupt the hormonal balance within the plant. This *theory* exists because there have been cases of puckered soybeans that had not been sprayed with any postemergence herbicide and no cornfields were nearby. There are, however, no data available in the literature to support this theory.

**Theory 3. The response is induced by a postemergence herbicide application.**

The majority of soybean samples received at the Plant Clinic demonstrating puckering were previously treated with a postemergence herbicide, usually a translocated herbicide, such as Pursuit, Synchrony STS, Classic, FirstRate or a glyphosate-containing product but in some instances, a contact herbicide. Many of these applications include spray additives such as oil concentrates (petroleum or vegetable base) and an ammonium nitrogen fertilizer (28% UAN or ammonium sulfate). How can these applications induce puckering? Some *theoretical* explanations include

(a) Translocated herbicides move into the apical meristem, the location of hormonal control, and disrupt the

hormone balance of the plant. Following the disruption of hormonal balance, the plant exhibits some response such as leaf cupping or puckering.

(b) The spray additives are able to remove dicamba residues from the spray equipment (see *1a* above).

(c) If 28% UAN was used, the level of biuret may be high enough to induce the response.

So what exactly is the cause of puckered soybeans? In short, no data exist that definitively explain every case of puckered soybeans. It is unlikely that one “blanket” explanation exists—each case may be somewhat unique. Data exist that describe the response of soybeans to exposure to growth regulator herbicides, but other factors may also be at work. If puckered soybean plants were actually exposed to a plant growth regulator herbicide such as dicamba, will yield be adversely effected? The available literature tends to suggest that this type of injury does not always necessarily result in soybean yield loss, but several factors are involved in determining if yield loss will occur. In particular, soybean variety, time of exposure, and dosage are important factors that determine if yield loss will or will not occur. Much of the available literature suggests that if minor exposure occurs during early vegetative development, yield loss is less likely to occur than if exposure occurs when soybeans have entered the reproductive stage of development.

Current research at the University of Illinois is investigating soybean leaf cupping in the field and laboratory. In particular, we are utilizing molecular biology techniques to determine if soybean plants demonstrating leaf cupping have been exposed to various growth regulator herbicides. More information on this topic will be presented at the University of Illinois Agronomy Day to be held August 23.—Aaron Hager and Christy Sprague

## REGIONAL REPORTS

Extension center educators, unit educators, and unit assistants in northern, west-central, east-central, and southern Illinois prepare regional reports to provide more localized insight into pest situations and crop conditions in Illinois. The reports will keep you up to date on situations in field and forage crops as they develop throughout the season. The regions have been defined broadly to include the agricultural statistics districts as designated by the Illinois Agricultural Statistics Service, with slight modifications:

- North (Northwest and Northeast districts, plus Stark and Marshall counties)
- West central (West and West Southwest districts, and Peoria, Woodford, Tazewell, Mason, Menard, and Logan counties from the Central district)
- East central (East and East Southeast districts [except Marion, Clay, Richland, and Lawrence counties], McLean, DeWitt, and Macon counties from the Central district)
- South (Southwest and Southeast districts, and Marion, Clay, Richland, and Lawrence counties from the East Southeast district)

We hope these reports will provide additional benefits for staying current as the season progresses.

### Northern Illinois

Most of northern Illinois could benefit from rainfall, as the corn crop will soon be approaching the critical pollination period. As of today, July 3, scattered thunderstorms are occurring with accumulation unknown at press time.

Concerning an insect update, Russ Higgins, IPM Extension educator, reported spider mite damage on V3–V4 soybeans in a small area of soybeans in Grundy County. Stan Eden, Extension educator, Ogle County,

reported severe potato leafhopper damage in direct-seeded seedling alfalfa. Producers are encouraged to continue to inspect alfalfa for leafhopper infestations and, if the dry weather continues, scout for spider mites in soybeans. Consistent with the last several weeks, little European corn borer damage has been reported or observed.

Just a reminder: the annual Twilight Weed Control Tour at the U of I, Northern Illinois Agronomy Research Center, Shabbona, will be held next Tuesday evening, July 10, beginning at 5 p.m. Dr. Christy Sprague and others will share some of the results of their ongoing weed science research efforts.

### Southern Illinois

Warmer and drier weather has returned. Topsoil moisture is variable across the region; however, much of southeastern Illinois is dry enough to create crop stress.

Favorable temperatures continue to advance crops quickly.

Corn is VT–R2 and regular crop soybeans are R1–R3. Doublecrop soybeans are V1.

Some of the drier areas have made applications to control spider mites. Japanese beetles are still a concern.

SIU Belleville Field Day begins at 9:00 a.m. July 12, 2001.

### West-Central Illinois

Continued good growing conditions have existed during the past week. No major pest problems have been identified.

Many cornfields are now in the R1 stage. Soil and temperature conditions are present at this time for adequate pollination and fertilization.

Many soybean fields are in the early reproductive stages and growing well. Most postherbicide applications have been completed. Among the minor problems reported on soybeans are

dicamba injury, potato leafhopper, and Japanese beetle in Sangamon County.

Wheat harvest is almost complete, with high yields and good quality reported by most farmers. Straw is being baled and soybean double-cropping is taking place in many of those fields.

Potato leafhopper and Japanese beetle have been reported in some alfalfa fields. Insecticide treatments will probably be needed in some of those fields.

Some farmers are already thinking about 2002 corn and inquiring about the possible application of a dry form of nitrogen this fall.

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