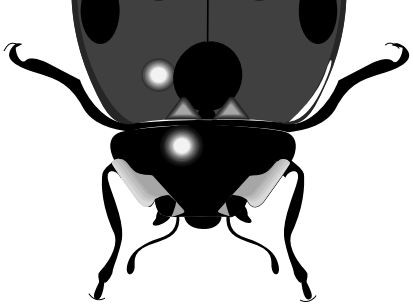

PEST MANAGEMENT & CROP DEVELOPMENT

BULLETIN

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Executive editor: Kevin Steffey, Extension Entomologist

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For subscription information, phone 217.244.5166, or e-mail acesnews@uiuc.edu

In This Issue

Field Crop Session to Focus on Drift

Crop producers, agribusiness dealers, and crop scouts are invited to participate in a workshop titled "Managing Herbicide Drift and Injury" on June 7. Sponsored by University of Illinois Extension, the program will be conducted at the Northern Illinois Agronomy Research Center, 14509 University Road, Shabbona.

The focus of the workshop will be on strategies to reduce herbicide drift on agronomic and ornamental plants. Some of the topics include new and nifty nozzles, herbicide drift injury symptoms, checklist to reduce drift, determining who is responsible for drift, and the drift complaint process. In addition, weed seed bank dynamics will be discussed, and a spray nozzle demonstration table will be illustrated. Speakers will be from the University of Illinois and the Illinois Department of Agriculture.

We have applied for continuing education credits for certified crop advisers.

Registration begins at 8:30 a.m., and the program will be presented from 9:00 a.m. to 3:00 p.m. The cost is $25.00 per person; reservations are due by May 29 at the Quad Cities Extension Center, 4550 Kennedy Drive, Suite 2, East Moline, IL 61244, telephone (309)792-2500. We need a minimum of 20 reservations to conduct the workshop. A brochure describing the workshop is available on the Web at http://www.extension.uiuc.edu. Click on "Find an Office," then on "Search for an Office," and finally on "Quad Cities Center."—*Jim Morrison*

INSECTS

Will 2001 Be the Year of Lepidoptera?

Thus far in 2001, we have experienced a major outbreak of the so-call true armyworm *(Pseudaletia unipuncta)* and a more recent and less widespread outbreak of variegated cutworms *(Peridroma saucia)*. Both of these situations are discussed in more detail in other articles in this issue of the *Bulletin*. We have had more than a fair share of reports of problems with black cutworms *(Agrotis ipsilon)* this year. In addition, Matt Montgomery, Extension unit educator in Springfield, and some of his colleagues have found some yellowstriped armyworms *(Spodoptera ornithogalli)* in a few fields. And to top this off, people are finding moths everywhere—in their yards, around crop fields, in traps, and on windshields.

Although we may never know all of the reasons for the success of moth pests to date this year, it's obvious that conditions have been conducive for survival and development of these Lepidoptera, the insect order that includes moths and butterflies. Adult armyworms, black cutworms, variegated cutworms, and yellowstriped armyworms do not overwinter, for the most part, in Illinois; rather, they fly into our state on prevailing winds and weather fronts during the spring. Obviously the moths found conditions suitable for egg laying after they arrived. And their progeny, the larvae causing all of the damage, have found conditions to be to their liking.

So what's next? Observers already have found European corn borer *(Ostrinia nubilalis)* adults in traps throughout most of the state, and people are beginning to report that they have seen quite a few moths in "action sites," the grassy, weedy areas around crop fields. Although the first reports of whorl-feeding injury have not been submitted, injury caused by first-generation European corn borers will occur soon. Ron Hines, senior research specialist at the Dixon Springs Agricultural Center, reported his first capture of adult southwestern corn borers *(Diatraea grandiosella)* in traps on May 18, 2001. And he continues to capture black cutworm adults. Captures of corn earworm *(Helicoverpa zea)* and fall armyworm *(Spodoptera frugiperda)* adults will occur soon. And we're not even done with "true" armyworms yet—the larvae continue to cause serious concern, and adults are still prevalent.

Among all the other concerns about growing crops in Illinois, we need to pay particular attention to lepidopteran pests this year. Given our experiences thus far, we should keep our guard up for other caterpillar assaults.—*Kevin Steffey*

The Armyworm Saga Continues

The armyworm outbreak of 2001 has been one for the record books. According to most observers who have spent more than a couple of decades in Illinois agriculture, this has been the worst armyworm outbreak they have ever seen. The numbers of reports of serious damage to pastures, grass hay fields, no-till corn, wheat, and both corn and soybeans adjacent to wheat fields or pastures have been innumerable. People in towns in rural areas have seen armyworm larvae invade yards, stripping the turf to the ground and defoliating gardens. Reports of 30 to 70 or more armyworm larvae per square foot have not been uncommon. Most reports during the first couple of weeks came from southern and central Illinois. More recently we have become aware of infestations as far north as Kankakee, Knox, and LaSalle counties.

Many people who have called on the telephone or sent e-mail messages have asked the same questions about armyworms, among which are the following:

- Why have armyworms been so bad this year?
- How much longer will armyworms be around?
- How will the recent cool temperatures affect the armyworms?
- Are natural enemies slowing armyworms down any?
- Will we have to deal with armyworms any more this year?
- What insecticides are effective against armyworms?

I'll attempt to address all of these questions in this article. In addition, when I discuss insecticides, I'll offer strongly worded advice about which insecticides can be used for different crops.

Why have armyworms been so bad this year? As I indicated in the previous article, we probably will never know all of the reasons why the armyworm outbreak occurred this year. It's apparent that a lot of adults flew into the Midwest from southern states this year, and it's just as apparent that environmental conditions have been conducive for armyworm survival. Until recently, the parasitoids and pathogens that often suppress armyworm populations have been most noticeable by their absence. So the combination of a major moth flight, favorable conditions for survival and development, and the low impact of natural control factors have made life pleasant for armyworms this year. Some of the older literature indicates that cool, wet spring weather the year following a drought increases the potential for an armyworm outbreak and that high temperatures are not favorable for armyworms. I've always had great faith in the older literature, but these forecasts have not panned out this year.

How much longer will armyworms be around? This question is not always easy to answer. When people report finding armyworms that are 1-1/4 to 1-1/2 inches long, we can assume that the larvae are fully mature, or nearly so, and will finish feeding within a few hours to a couple of days, depending on how recently they molted to become the sixth instar. An armyworm larva has six instars and requires about 3 to 4 weeks to complete development, depending on the temperature. The sixth instar usually requires about 7 days to complete development, and this instar consumes about 80% of all the foliage eaten during larval development.

In search for answers to this question, we checked out a couple of articles published in the scientific literature in the early 1960s. Both of the articles, which were published by Canadian entomologists, included information about the lengths of time required for development of the six (occasionally seven) instars. Citations of these articles are:

- Guppy, J.C. 1961. Life history and behaviour of the armyworm, *Pseudaletia unipuncta* (Haw.) (Lepidoptera: Noctuidae), in eastern Ontario. *Canadian Entomologist* 93: 1141–1153.
- Pond, D.D. 1960. Life history studies of the armyworm, *Pseudaletia unipuncta* (Lepidoptera: Noctuidae), in New Brunswick. *Annals of the Entomological Society of America* 53: 661–665.

Guppy (1961) measured the durations of the larval instars in field rearing cages from 1957 through 1959. He examined 25 to 30 groups of 50 to 100 larvae each to obtain the data. However, because he reared them in the

field, he provided no information about the effects of different temperatures on the duration of each stage. He reported the following mean duration of development of the six instars in the first generation: first instar—4.8 days; second instar—3.3 days; third instar—3.3 days; fourth instar—3.8 days; fifth instar—4.4 days; sixth instar—10.3 days. The duration of the sixth instar ranged from 7 to 13 days during the 3-year study.

Pond (1960) reared armyworms in an insectary and a greenhouse, and measured average maximum, average minimum, and mean temperatures to determine the effect of different temperatures on duration of development. He reported the following ranges of duration of development at mean temperatures that ranged from 62.7 to 72.6°F: first instar—12.8 to 5.5 days; second instar—6.2 to 3.16 days; third instar—5.7 to 2.71 days; fourth instar—7 to 3.5 days; fifth instar—7 to 4.19 days; sixth instar—8.57 to 5.94 days. He also reported some seventh instars (only at the lower temperatures) that ranged in development from 9.4 to 11 days. In general, for all instars, duration of development decreased as the temperature increased.

How will the recent cool temperatures affect the armyworms? Related to the preceding question, cooler temperatures will slow down armyworm development, so the larvae will persist for a longer time. At this point, a good spell of hot weather will get us through this first generation of armyworms more quickly.

Are natural enemies slowing armyworms down any? During most years, a slew of predators, parasitoids, and pathogens suppress armyworm populations, usually keeping them below economically damaging levels. However, the impact of these natural enemies has been minimal thus far this year. But all is not lost. Matt Montgomery recently encountered some diseased and parasitized armyworms (some were both diseased and parasitized), suggesting that natural enemies might begin to help us out a bit. Several types of viruses, a microsporidium, and fungi infect armyworm larvae. Infection of a few larvae with pathogens could result in an epizootic that wipes out armyworm populations, as we experienced a few years ago when a virus caused armyworm populations to "crash," seemingly overnight. Tachinid flies deposit eggs on armyworm larvae, usually on the thorax near the head so the armyworm can't bite the eggs off. Some parasitic wasps also parasitize armyworms, most notably the braconid wasp, *Cotesia marginiventris*. A combination of these natural enemies could eventually have some impact on the current and future generations of armyworms.

Will we have to deal with armyworms any more this year? As suggested in previous paragraphs, the armyworm completes two, and occasionally three, generations in Illinois. Therefore, we will have to watch for armyworms again about 1 month from the time pupation occurs. Our experience over the years suggests that the second generation is far less threatening than the first generation. However, stranger things have happened. The bottom line is that grass pastures, grass hay fields, and corn adjacent to grass waterways or grassy field margins will be at risk when the second generation occurs. We now are well aware of the suddenness and severity of an armyworm attack, so we will have to maintain a vigil. A quote from *Fundamentals of Applied Entomology*, edited by Robert E. Pfadt, says it all: "Shrewd growers inspect crops regularly for armyworms as well as for other insect pests."

What insecticides are effective against armyworms? The answer to this question depends on the crop (what is registered?) and who is reporting. Many people have been spraying pyrethroids (especially Pounce and Warrior), and most people have been satisfied with their effectiveness. Others have applied malathion or Sevin to pastures, with variable results. I have heard reports of excellent-to-very-poor results from an insecticide application, regardless of the insecticide used. It's possible that the larger armyworms are tougher to kill than the smaller larvae. Interestingly, the Warrior label does not seem to include the "true" armyworm on its label for corn, although other species are listed. For the other species listed, a footnote indicates "For control of first and second instars only." The "true" armyworm is listed on the Warrior label for wheat and wheat hay, but no such footnote about first and second instars is printed. I'm not certain what this means, but it contributes to some of the confusion about insecticides for control of armyworms.

Now for the strongly worded advice. We recognize that there are not many options for control of armyworms in pastures and grass hay fields. So far as we can determine, malathion and Sevin are the only chemical insecticides labeled for control of armyworms in these types of fields. In the past, several other insecticides (for example, Lannate and Penncap-M) were labeled for control of armyworms in pasture. But for whatever the reason, these sites are no longer listed on the labels of insecticides other than malathion and Sevin. *Pounce and Warrior are not labeled for use in pastures and grass hays.* There are no exceptions. Application of either of these products, or others not labeled for use in pastures or grass hay fields, is illegal. Also of note, the harvest interval (required time between application of an insecticide and harvest of a crop) for Warrior on wheat is 30 days. Let's be cognizant that agriculture is under a lot of scrutiny, so we should avoid doing anything foolish.—*Kevin Steffey*

Variegated Cutworms Ravage Soybeans

Contributing to the Lepidoptera madness are variegated cutworms in soybeans. In fact, I suspect that some of the problems in soybeans that have been blamed on armyworms were, in actuality, caused by variegated cut-

worms. The larvae of the two species are similar in appearance. Kevin Black and Howard Brown, both with Growmark in Bloomington, have visited fields in central Illinois that have been seriously damaged by variegated cutworm larvae. Kevin was in a 65-acre field of soybeans in McLean County that had been completely destroyed. Damage in several other fields has been significant, requiring replanting.

The general color of a variegated cutworm larva varies from dark brown to light gray. Although the color of a larva varies considerably, a narrow line of pale yellow dots along the middle of the back is almost always present. However, these dots or spots may not be evident on some larvae. In the final instar (sixth), there is usually a black W-shaped mark on the dorsum of the eighth abdominal segment, followed by a conspicuous yellow or orange area. Also, there is usually a narrow, orange-brown spiracular stripe, which also occurs on armyworm larvae. Fully grown larvae are 1-1/2 inches long.

Like armyworm and black cutworm adults, variegated cutworm adults migrate from southern regions into the Midwest every year. Females deposit eggs in pastures; fencerow grasses; low, densely growing weeds; and debris, often in fields that have not been tilled. Larvae have a very wide host range, including, but not limited to, alfalfa, clover, corn, cotton, soybean, sunflower, tobacco, wheat, fruit trees, garden vegetables, and ornamental flowers. Variegated cutworms complete two to four generations per year in North America north of Mexico.

Variegated cutworms are so-called climbing cutworms, usually climbing host plants and chewing on various plant parts. In the affected soybean fields, the cutworms chewed the plants to the ground rather than cut the plants off. This behavior is more similar to the type of injury caused by armyworms than by black cutworms.

Kevin Black reported that pupation was occurring in some areas, although he could find various sizes of larvae in some fields. The onset of pupation suggests that control measures probably are not warranted. However, if you find midsize variegated cutworm larvae feeding on soybean leaves, consider applying *Ambush at 3.2 to 6.4 oz per acre; *Asana XL at 5.8 to 9.6 oz per acre; *Lorsban 4E at 1/2 to 1 pt per acre; *Pounce 3.2EC at 2 to 4 oz 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*

Soybean Aphids Found in Illinois—This Time for Certain

After my initial questionable report of the first soybean aphids found in Illinois *(Bulletin* issue no. 7, May 11, 2001), I wrote a warning about jumping to conclusions regarding identification of aphids (*Bulletin* issue no. 8, May 18, 2001). Well, now the waiting is over. David Voegtlin, aphid specialist in the Center for Economic Entomology in the Illinois Natural History Survey, has confirmed identification of soybean aphids, *Aphis glycines*, that were collected from *Rhamnus* (buckthorn) in Whiteside County on May 10. He also identified *A. nasturtii*, the so-called buckthorn aphid, from the same sample. So, at long last, after lots of searching, we know that at least some soybean aphids made it through the winter.

All suction traps to sample for flying aphids have been erected at the seven sites I indicated in issue no. 7 (May 11, 2001) of the *Bulletin*. Some collection jars have been sent to David Voegtlin by the volunteers who are keeping their eyes on the traps. As soon as we learn that we have captured soybean aphids (suggesting they are moving from *Rhamnus* to soybean), we will let you know via articles in the *Bulletin* and by a table of data posted at the IPM Web site. As soon as the table is functioning, we will provide the Web address for easy access.

So, now that we know that soybean aphids are "awake," we will increase our vigil. Stay tuned.—*Kevin Steffey*

An Early Warning about Twospotted Spider Mites

The recent rainfall in many areas of Illinois probably has dissipated thoughts of droughts and the problems that frequently accompany hot, dry weather. However, areas in southern Illinois still are lacking moisture, and a return to hotter weather will reinvigorate concerns. That's why it's important to report about the first observation of twospotted spider mites in Illinois this year. On May 16, Dennis Epplin (crop systems educator, Mt. Vernon Extension Center) and Robert Bellm (crop systems educator, Edwardsville Extension Center) observed a red clover field in Hamilton County that had localized (5 to 20 square feet) but very heavy infestations of twospotted spider mites. The mites had killed the clover in the infested areas.

The primary reason I am alerting people about this situation is that similar problems began to show up early in 1988. Noel Troxclair, former IPM educator in Benton, reported to us early that year that he was observing areas of red clover fields that were being killed by spider mites. In fact, he sent us a lot of slides verifying the problems. As we all know now, those early infestations developed into the most devastating outbreak of twospotted spider mites that we have ever encountered. In 1983, another year noted for a widespread outbreak of spider mites, the infestations developed much later in the year (July and August) than they did in 1988.

Now, before anyone begins to freak, the situation in 2001, thus far, is different from the situation in 1988. As I indicated, concerns about drought have been alleviated for now by very

timely and frequent rains. However, in areas where dry conditions still prevail, it's not too early to begin watching for buildups of twospotted spider mites along field margins. As populations of spider mites increase, the mites will move from their overwintering sites (usually undisturbed areas such as clover fields and field margins) into adjacent rows of soybeans. Watch for soybean plants that become stunted and yellow as a result of the mites' feeding activities, and look for webbing on the undersides of the leaves. Twospotted spider mites are extremely small (0.3 to 0.4 mm), green-yellow to dull orange, with two large, irregular-shaped, black spots on each side of the body. Nymphs have six legs, and adults have eight legs.

So, stay alert out there, and let us know if you find infestations of twospotted spider mites developing anywhere under any conditions. Early knowledge of such infestations will help us prepare, if necessary.—*Kevin Steffey*

PLANT DISEASES

What's Causing Spots on My Corn?

This season has started out a little slow as far as diseases are concerned. However, things that might start appearing in the field with the cool wet weather are root rots and seedling blights. These diseases have been covered in *Bulletin* issues no. 2 and 6.

Windy, raining weather that causes leaf tearing can produce significant wounding of leaf tissue and encourage the spread of bacterial diseases. Not many bacterial pathogens infect corn. The most famous, of course, is Stewart's bacterial wilt, whose symptoms are yellow streaking along leaf tissue. Another minor bacterial pathogen of corn causes spotting of leaf tissue. *Pseudomonas syringae* pv. s*yringae* causes holcus spot. Dave Feltes, IPM educator for the Quad Cities area, and Tom Beveroth of Farmers Elevator and Supply in Morrison, reported possible holcus spot in a cornfield. Symptoms reported from Whiteside County were small tan-to-buff-colored spots, with a darker outer edge. The spots started appearing on the lower leaves after storms with heavy winds and rain. The spots looked similar to paraquat drift, but no known application was made in the area. These symptoms are consistent with those that can be observed with holcus spot. Holcus spot lesions initially are dark green and water soaked before the centers turn creamy white to tan. Eventually they dry out and turn brown. Most spots will be surrounded by a reddish or brownish margin. Lesions may be surrounded by a yellow halo.

Look-Alikes

Other things can cause spots to occur on young corn leaves that can be confused with holcus spot. Early in the season, *Anthracnose* can appear during wet weather on the lower leaves of corn that has reached at least 5 to 6 inches in height. These lesions often appear at the base of the plant in places where blowing soil has been hitting the plant. Lesions caused by *Colletotrichum graminicola* appear as small, oval or elongated, water-soaked spots on the leaves. Typically the spots have a tan or light-colored center surrounded by a reddish to purple-brown border. Fruiting bodies (acervuli) form in the centers of the dead tissue and appear as small dark spots. Close examination with a hand lens will reveal the setae, or dark, hairlike structures, that will grow upward out of the acervuli. Symptoms of anthracnose are fairly common early in the season on lower leaves and later in the season on upper leaves. However, it is normally not an economic problem.

Drift or contact from chemicals, such as paraquat or glyphosate, can also cause spots on corn leaves. These spots can also be confused with holcus spot, but an obvious pattern should be visible throughout the field. Disease organisms occur more randomly throughout a field or in hot spots.—*Loretta Ortiz-Ribbing*

WEEDS

Considerations with Postemergence Corn Herbicides

Many parts of Illinois have recently experienced several weeks of very dry soil conditions, but recent precipitation has undoubtedly eased some concerns. In other areas, wet soils have delayed postemergence corn herbicide applications. Dry soil conditions have reduced the effectiveness of several soil-applied corn herbicides and resulted in some postemergence herbicide applications being made sooner than anticipated. Excess precipitation in other areas may have moved soil-applied herbicides too deep in the soil to effectively control weeds. Seems like a feast-or-famine season.

The recent precipitation in dry areas will undoubtedly help crop growth and development but may also result in additional weed emergence, especially in cornfields where the soil-applied herbicide did not receive significant precipitation for several weeks following application. Cornfields should continue to be monitored closely for the next 2 weeks to determine if supplemental weed-management strategies are needed. Following are several considerations for postemergence corn herbicide applications that should be kept in mind whether you've had too little or too much precipitation.

1. We have received some questions about applying postemergence corn herbicides in a liquid nitrogen solution carrier in hopes of saving a trip across fields where nitrogen has yet to be applied. The most common carrier people ask about is 28% UAN solution. While applying high rates of UAN by itself can cause some corn injury, adding a postemergence herbicide can *greatly increase* corn injury. Most postemergence corn herbicide labels restrict application with UAN as the total carrier, but many allow a lower rate (usually 1 to 4 quarts

per acre) of UAN to be added as a spray additive to enhance control of particular weed species, most commonly velvetleaf. *Do not apply postemergence corn herbicides in a liquid fertilizer carrier, as severe corn injury can occur.*

2. The recent problems with armyworms in cornfields may have some growers considering including a foliar insecticide with a postemergence corn herbicide application. Several postemergence corn herbicide labels contain restrictions or precautionary statements about this type of tank mix. Keep in mind that if a particular postemergence herbicide/insecticide tank mix is restricted, there may also be a waiting interval for sequential applications of the individual products. For example, the Distinct label indicates the product should not be applied in a tank mix with Lorsban 4E, Ambush EC, or Warrior EC. However, sequential applications may be made if applications are at least 7 days apart. Consult the respective herbicide and insecticide labels for additional information related to tank-mixing or the time interval required between sequential applications.

3. Corn plants under stress conditions may be more prone to injury from postemergence herbicides than when growing conditions are more ideal. Stress can arise from a number of factors, and an increasing number of postemergence herbicide labels are cautioning against making applications under conditions such as low nighttime air temperatures, excess soil moisture, dry soil conditions, and so on. For example, most DuPont postemergence corn herbicide labels indicate applications should be made when minimum nighttime temperatures are above 40°F and the maximum daytime temperatures are below 92°F to maximize performance and minimize the potential for crop injury.

   Why is a crop under stress more likely to be injured from a selective herbicide? In the majority of cases, herbicide selectivity arises from the crop's ability to metabolize (break down) the herbicide to a nonphytotoxic form before it causes much injury. For example, a grass herbicide used in corn cannot discriminate between giant foxtail and the corn crop. It attempts to control the corn just as it does the giant foxtail. When the corn is growing under favorable conditions, it is able to quickly metabolize the herbicide, generally before the corn is injured enough to express injury symptoms. If, however, the corn plant is under stress (which could be caused by a variety of factors), its ability to metabolize the herbicide may be slowed sufficiently to allow the herbicide to cause enough injury for symptoms to be manifested.

4. With the warm air temperatures, keep in mind that some postemergence corn herbicide labels have application restrictions based on air temperature. High air temperatures also increase the potential for certain herbicide formulations to volatilize. Volatilization is the process whereby a herbicide changes from a liquid state to a vapor phase. Vapors are easily moved by air currents and could potentially move out of the treated area and cause injury to nearby sensitive vegetation.

5. The selection of herbicide additives is often specified on the respective product label, but many postemergence corn herbicides allow use of a nonionic surfactant (NIS) or a crop oil concentrate (COC), with or without a nitrogen fertilizer. For many products, NIS is the preferred additive, but COC may be used under very dry conditions to enhance weed control. Using a COC instead of an NIS increases the crop-injury potential for several postemergence corn herbicides.—*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.

East-Central Illinois

Planting has pretty well wrapped up. Some of the first emerging bean fields have been hit by bean leaf beetles.

There was one report of a no-till cornfield in wheat stubble that was being devastated by slugs.

By far the biggest problem has been armyworms, mostly in grass pastures and field borders but also in corn, wheat, and alfalfa.

Northern Illinois

The northwest corner of the state has soybeans yet to plant. Rainfall on May 21 ranged from 3/10 inch in the southeast portion of northern Illinois to 1-1/2 inches in the northwest corner.

Generally, soybean emergence to date has been uniform, following the same pattern as corn. Corn has been doing well all spring. However, cooler temperatures this week and, in some areas, dry conditions will slow corn development.

There have been several reports of insecticide treatments for black cutworms in corn, but it is definitely not a widespread problem. Also, bean leaf beetles have been frequently observed in soybean fields, but there have been no reported treatments.

Southern Illinois

Rains finally arrived in much of the region. Cooler temperatures are also prevailing.

The armyworm calls have not ended, but are fewer in number. Bean leaf beetle feeding can be observed in many soybean fields. European corn borer moths continue to fly.

Corn is VE to V6+ with most of the late April planting at V4 to V5. Soybean planters are running again. Grass and legume hay has been harvested or needs to be. Wheat is GS 11.2 dough and has colored to a lighter green.

West-Central Illinois

Most areas of the region received significant rain. Water is standing in some fields for the first time this spring.

Corn is growing rapidly after the rain; some fields are V6 and beyond. Postemergence herbicides, cultivation, and sidedressing nitrogen are occurring. Armyworms, wireworms, and grubs are the main insect pests reported. One farmer found six armyworms on one corn plant. Some soil-applied grass herbicides were not effective in some fields in dry soils, causing reapplication with a postmergence treatment.

Soybean planting will be completed very soon, now that moisture is available. Those fields planted look good, and postemergence herbicides will be applied very soon. Bean leaf beetle and seedling diseases are being reported.

Although wheat looked excellent early in the season, it has been overtaken by armyworms in some fields. Insecticides are being applied in many fields to salvage the flag leaf and head. One farmer indicated he was going to abandon the wheat crop and plant no-till soybeans now.

Some grass pastures are also being eaten by armyworms. Insecticide applications are being made to ensure recovery of the grass after rain.

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