Apparently a Good Year for Japanese Beetles

The reports of significant infestations of Japanese beetles in corn and soybean fields throughout Illinois continue to mount. We have received word of heavy infestations from border to border in every direction. This is not to say that Japanese beetles have blanketed the entire state (although some people in some areas may feel otherwise), but this pest certainly is more problematic over a larger area this year than it was in 2007. A lot of people have made the decision to control the beetles by having corn or soybean fields, or both, sprayed with an insecticide, often tank-mixed with a fungicide. We suspect that some of the applications are unnecessary (e.g., where Japanese beetles are only along field edges or are not causing much injury), but as we have indicated ad nauseam, higher commodity prices have triggered a “protect the investment” response. It is clear that we need some research to address this insect’s behavior in and effects on soybeans and corn.

In correspondence we had with Kevin Black (insect/plant disease technical manager, Growmark, Bloomington, Illinois) and John Obermeyer (IPM specialist, Department of Entomology, Purdue University), the consensus was that populations of Japanese beetles in Illinois and Indiana in 2008 are highly variable from one location to another. Evidence for one extreme is the 417,102 Japanese beetles captured during the week ending July 22 in a trap in Marion County (Alan Mosler, Effingham-Clay Service Company), part of a five-trap network in southern Illinois (refer to “The Hines Report,” www.ipm.uiuc.edu/pubs/hines_report). This is a record catch, eclipsing (to use Ron Hines’s word) the 2007 capture of 300,000+ Japanese beetles in the trap in Massac County. On the other hand, all of us have heard from people in other areas that their problem with Japanese beetles is much reduced from last year. Regardless, this insect is capturing a lot of attention.

In previous articles in the Bulletin this year, we have written quite a bit about Japanese beetle biology and making management decisions in both corn and soybeans. Not much has changed over the years, although we might expect some developments that will aid our management of the pest in the future (refer to the related article in this issue of the Bulletin). In the meantime, I’ll highlight once more some important information about Japanese beetles and their control:

• Pyrethroids (Ambush, Asana, Baythroid, Capture, Mustang Max, Pounce, Proaxis, Warrior) kill Japanese beetles on contact, but they also are repellent to beetles.

• High temperatures may reduce the efficacy of some pyrethroids.

• Tank-mixing different insecticides should not be necessary in most situations. However, we are aware that some people want to add malathion with their “primary” insecticide for quick knockdown. Remember that the residual activity of malathion is about 24 hours.

• Assess the situation for the entire field. Most people report the heaviest infestations along field edges, with only pockets of heavy infestations in the
rest of the field. Depending on field size, an insecticide may not be necessary for the entire field.

- Japanese beetles essentially become a non-issue in cornfields after pollination is complete.

If anyone takes the opportunity to leave an area of a field untreated to assess the effectiveness of an insecticide application, please let us know. We have very little data associated with Japanese beetle injury and yield loss. Obtaining some preliminary information might help us refine some of the management guidelines, or at the very least provide a foundation for future research efforts.—Kevin Steffey and Mike Gray

**Japanese Beetle Management: What’s on the Horizon?**

Over the past several years, the Japanese beetle has become a key insect pest, one that corn and soybean producers dread and have come to expect by midsummer. The pest’s very large host range also means that homeowners across Illinois encounter Japanese beetles feeding on many of their ornamental plants. In short, a pest once characterized as occasional is now seemingly a perennial threat. Since 1916, when Japanese beetles were first found in southern New Jersey, they have spread throughout much of the eastern half of the United States. However, isolated pockets have been found as far west as California. With the great diversity of crops in California at potential risk, this insect pest is monitored every season, and entomologists are prepared to implement eradication efforts if necessary.

A paper recently published (online on June 25, 2008) offers some hope for the future regarding a novel management technique for this important insect pest (Proceedings of the National Academy of Sciences of the United States of America, “Chiral Discrimination of the Japanese Beetle Sex Pheromone and a Behavioral Antagonist by a Pheromone-Degrading Enzyme,” by Yuko Ishida and Walter S. Leal; www.pnas.org/content/105/26/9076.full).

Researchers at the University of California at Davis, led by Walter Leal, a professor of entomology and chemical ecology, have “isolated, identified, cloned, and expressed an antennal-specific pheromone-degrading enzyme” from Japanese beetles. Their research indicates that the enzyme quickly inactivates the sex pheromone of Japanese beetles. As Leal’s team indicates, the olfactory system of this insect is quite sophisticated. Two olfactory receptor neurons are located on the antennae of male Japanese beetles. One neuron is sensitive to the sex pheromone emitted by Japanese beetle females [(R)-japonilure]. The second is sensitive to (S)-japonilure, a sex pheromone released by the Osaka beetle, Anomala osakana. The ranges of these beetles overlap in Japan, their native habitat. When the sex pheromone of the Osaka beetle was blended with (R)-japonilure in synthetic formulations, captures of male Japanese beetles declined.

Ultimately, this exciting research is aimed at reducing or preventing detection by Japanese beetle males of the sex pheromone emitted by females. I believe it holds promise for improved management strategies. As we learn more about these studies, we will share the findings with our readers. For now, continued vigilance in scouting corn and soybean fields is recommended for the next several weeks.—Mike Gray

**Soybean Aphids Are Slowly Making Their Presence Known in Some Soybean Fields**

Although the numbers of soybean aphids in the vast majority of soybean fields in Illinois are very low (in fact, aphids have been absent in many fields, too), the numbers on individual plants are beginning to increase in some fields. We initiated our regular sampling of 24 commercial soybean fields during the week of June 23 (the survey is supported by the Illinois Soybean Association), and the average numbers of soybean aphids per plant were mostly zeros during the first four weeks of the survey. But numbers have begun to creep up in some fields. For example, on July 22, our surveyor recorded an average of 75.5 aphids per R2-stage plant in one field in Stephenson County, an increase from 6.15 aphids per plant on July 15. Of the 20-plant sample in this field, one plant supported 298 aphids, and a nearby plant supported 402. Four other plants had triple-digit numbers of aphids, but six plants had 10 or fewer, or none. Results from these surveys should be accessible on our Web site by next week.

An infestation of soybean aphids obviously begins when individual winged females alight on a soybean plant and give birth to living young. For a time, if environmental conditions are favorable, the numbers of aphids on individual plants increase rather rapidly, and eventually more plants become infested. So finding a significant number of aphids on a few plants in the field should qualify that field for more intense scrutiny. The increase in numbers of soybean aphids in soybean fields this year is occurring later than usual. (But then, what hasn’t occurred later than usual this year?)

It is likely that we will have to stay vigilant for soybean aphids well into August. I recall from our survey in 2006 that numbers of soybean aphids increased significantly from late August to mid-September in a few of our fields. The increase in numbers during that year, however, occurred when soybean fields were well beyond being affected by soybean aphids. We may not be able to count on that this year. We will keep you apprised of the development of soybean aphid populations in Illinois and elsewhere in the Midwest.—Kevin Steffey

**Corn Rootworm Damage Trials Begin in Earnest**

Our annual corn rootworm digs began last week at the University of Illinois
Research and Demonstration Centers near Perry and Monmouth. This week our root evaluations have been focused on experiments located near Champaign-Urbana. In spite of concerns that delayed planting this spring due to water-soaked fields would lead to lack of corn rootworm injury in our trials, we are seeing respectable levels of pruning in our experiments.

Over the past two years, we have established corn rootworm trials at the Orr Research and Demonstration without much success due to inadequate corn rootworm pressure. However, this year we have moderate levels of pruning at this location in our check plots. Root pruning in check plots at our Urbana experiments is generally about 2 nodes of roots destroyed. Next week we intend to evaluate our corn rootworm efficacy trial at the Northern Illinois Agronomy Research Center near Shabbona. Last week, I evaluated roots from some of the treatments at this location and observed severe pruning in many of the check plots. Later this summer, we will share the preliminary root rating results from these trials with our readers. If you are experiencing severe corn rootworm damage this summer, please share your observations with us.—Mike Gray

Numbers of Western Bean Cutworm Adults Captured in Pheromone Traps

Numbers of western bean cutworm adults captured in some pheromone traps in Illinois recently increased noticeably. On July 22, Dave Feltes, University of Illinois Extension IPM educator, captured 176 moths in his trap near Morrison, a marked increase over his previous weeks’ captures. A glance at the data submitted to Iowa State University’s Western Bean Cutworm Monitoring Network (www.ent.iastate.edu/ent/westernbeancutworm) reveals that triple-digit numbers of western bean cutworm adults have been captured in other traps recently, too. These numbers still pale in comparison with Iowa’s past data, but the sudden upsurge bears watching.

In any corn that does not have the Herculex 1 Insect Protection trait, scouting for western bean cutworm eggs and larvae is strongly encouraged. Remember to look for eggs and larvae on the upper surfaces of leaves, from the ear to the tassel. The current threshold suggests that insecticide application may be warranted if 8% or more of the plants are infested with eggs and small larvae. Timely application before the caterpillars get into corn ears is essential for good control.—Kevin Steffey

WEEDS

Considerations for Late-Season Herbicide Applications in Soybean

Many areas of Illinois experienced later-than-normal soybean planting due to the frequency and excessive-ness of precipitation. The delays in soybean planting also have caused postemergence herbicide applications to be delayed later into the season. This, coupled with the seemingly ubiquitous occurrence of waterhemp in Illinois soybean fields, suggests that postemergence herbicide applications in soybean may continue throughout the remainder of July. However, late-season herbicide applications are not without some risks.

First, larger weeds can be expected to be more difficult to control than smaller weeds because they are older plants and because spray coverage can be limited. Application rate, volume, and spray additives are important factors to keep in mind, especially if you are attempting to achieve good spray coverage on larger weeds. The possibility of herbicide drift that can injure sensitive vegetation is ever-present.

Almost every postemergence soybean herbicide specifies on its label a preharvest interval, or a soybean developmental stage beyond which applications should not be made. Labels of some products, such as Pursuit and Extreme, indicate both a developmental stage (before soybean bloom) and a preharvest interval (85 days). Preharvest intervals indicate the time that must elapse between herbicide application and crop harvest. These intervals are established to allow sufficient time for the herbicide to be broken down or metabolized in the plant. Additionally, the preharvest interval reduces the likelihood of herbicide residues’ remaining on the harvested portion of the crop. Failure to observe the preharvest interval may result in residue levels in the crop in excess of established limits. In addition to preharvest intervals, there are restrictions on many postemergence soybean herbicide labels about whether the soybean crop may be used for livestock feed or if treated fields may be grazed as forage. Table 1 details preharvest intervals and grazing restrictions for a number of postemergence soybean herbicides.

Another interval that is important to observe is the rotational crop interval. Nearly all herbicide labels (soil-applied and postemergence) specify the time that must elapse between herbicide application and planting a rotational crop. This becomes particularly important with late-season herbicide applications. These intervals are established to reduce the likelihood that sufficient herbicide residues will persist in the soil, which could adversely affect the rotational crop. Some restrictions are based solely on time, while for other products additional factors, such as soil pH and the precipitation received after herbicide application, can influence the length of the crop rotational interval. Rotational intervals for many soybean herbicides can be found in Table 5b of the 2008 Illinois Agricultural Pest Management Handbook.

Another potential risk of late-season postemergence soybean herbicide applications is crop injury. Much of the soybean crop across Illinois is in bloom, and a small percentage has begun setting pods. Many postemergence soybean herbicide labels caution about
making applications after the crop has begun to bloom, as crop injury during this time could potentially reduce soybean yield.—Aaron Hager

**PLANT DISEASES**

**Common Rust of Corn Arrives in Illinois a Bit on the Early Side**

Common rust of corn, caused by the fungus *Puccinia sorghi*, is a relatively common disease that is generally observed every summer in Illinois. This year, it seemed to arrive a little earlier than usual. In late June and early July, observations of common rust were beginning to be reported in the state.

Common rust is generally most severe when cool to moderate temperatures are present, and it does not spread well when temperatures exceed 80°F. Conditions that keep leaves wet for an extended period (frequent rains, dew, etc.) are also favorable for common rust development. Similar to other rust diseases in Illinois, spores of the common rust fungus are blown in from the south. Symptoms of common rust appear as raised pustules on the leaves. These pustules may appear in “bands,” which is due to infection that occurred while the leaf was in the whorl.

Some hybrids have good specific and/or general resistance to common rust. Hybrids with specific resistance provide high levels of resistance to specific races of the rust fungus, but not against all races that may be present. Hybrids with general resistance may slow the progression of common rust, but they do not provide complete resistance; however, general resistance is not limited to particular races of the rust fungus.

Foliar fungicides that are registered for use on corn are highly effective against common rust. The window of application is generally considered to begin sometime between VT (full tassel emergence) and R2 (blister). The question I’ve been getting the past two weeks is “Should I spray a fungicide on my corn to control common rust?” I think the answer may depend on a few considerations. With fields that are currently at R1 (silking) and approaching R2 (blister), the benefit with a fungicide may not be as great as what could be observed in late-planted corn. However, one should also consider other risk factors (see “Making Profitable Fungicide Applications in Corn” in issue 15 of the Bulletin, July 3, 2008), and make those part of the fungicide decision-making process. With late-planted fields that may not yet have tasseled or are near tasseling, the risk for yield loss due to rust (and a few other foliar diseases) does increase.

In 2007, a late-planted corn fungicide research trial (planted in early July) was conducted in Urbana at the Crop Sciences Research and Education Center. This late-planted trial had a high level of common rust severity. Applications of Headline fungicide (9 fl oz per acre) were made at V15, VT, and R2. In this trial, the untreated check had a final disease severity rating of 68% and yielded 160 bu/A. The final rust severity in the Headline-applied treatments ranged from 33% to 40%, and yield ranged from 176 to 194 bu/A. Headline was the only fungicide product used in this particular trial, but other products available for use on corn (Quadris, Quilt, Stratego) have good efficacy on common rust as well. The level of yield loss due to common rust in this research trial is not typical, but under high rust severity and late-planted corn, yield losses can occur.—Carl A. Bradley

**CROP DEVELOPMENT**

**Do You Need More Nitrogen?**

The wet conditions for most of the spring this year caused much concern about the need to apply additional

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Preharvest interval</th>
<th>Forage or grazing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aim EW</td>
<td>Broadcast: V10 soybean, Harvest aid: 3 days</td>
<td>No</td>
</tr>
<tr>
<td>Assure II</td>
<td>80 days</td>
<td>No</td>
</tr>
<tr>
<td>Basagran</td>
<td>30 days?</td>
<td>Yes, after 30 days</td>
</tr>
<tr>
<td>Classic</td>
<td>60 days</td>
<td>No</td>
</tr>
<tr>
<td>Cobra or Phoenix</td>
<td>45 days</td>
<td>No</td>
</tr>
<tr>
<td>Extreme</td>
<td>85 days</td>
<td>No</td>
</tr>
<tr>
<td>FirstRate</td>
<td>65 days</td>
<td>Yes, after 14 days</td>
</tr>
<tr>
<td>Flexstar</td>
<td>45 days</td>
<td>No</td>
</tr>
<tr>
<td>Fusilade DX</td>
<td>Prebloom</td>
<td>No</td>
</tr>
<tr>
<td>Fusion</td>
<td>Prebloom</td>
<td>No</td>
</tr>
<tr>
<td>Roundup PowerMax</td>
<td>Broadcast: through R2, Harvest aid: 14 days</td>
<td>Yes, after 14 days</td>
</tr>
<tr>
<td>Harmony GT XP</td>
<td>60 days</td>
<td>No</td>
</tr>
<tr>
<td>Poast or Poast Plus</td>
<td>75 days</td>
<td>Hay</td>
</tr>
<tr>
<td>Prefix</td>
<td>90 days</td>
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</tr>
<tr>
<td>Pursuit</td>
<td>85 days</td>
<td>No</td>
</tr>
<tr>
<td>Raptor</td>
<td>Prebloom&lt;sup&gt;2&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Resource</td>
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<td>No</td>
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<tr>
<td>Scepter</td>
<td>90 days</td>
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</tr>
<tr>
<td>Select or SelectMax</td>
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<td>No</td>
</tr>
<tr>
<td>Sequence</td>
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<tr>
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<tr>
<td>Synchrony XP</td>
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</tr>
<tr>
<td>Ultra Blazer</td>
<td>50 days</td>
<td>No</td>
</tr>
</tbody>
</table>

<sup>1</sup>Data, taken from the Roundup PowerMax label, are for broadcast applications in glyphosate-resistant soybean varieties. Intervals change for applications (spot treatment and preharvest) made to non–glyphosate-resistant soybean varieties. Forage and grazing allowances can vary among glyphosate-containing products. Consult the respective glyphosate product label for specific information on forage and grazing restrictions.

<sup>2</sup>The Raptor label indicates there is no preharvest interval for any crop, but applications must be made before soybean bloom.
nitrogen (N). Most of the early symptoms of yellowing and small corn plants were related to wet conditions and cloudy days and not to a lack of N. As the frequency of sunny and dryer days increased, most of those symptoms disappeared, and now the corn crop looks deep green in most places at or near tasseling. This is in part because the root system was finally able to grow and take up nutrients. Additionally, more recent soil conditions have been such that large amounts of N are being mineralized for the crop and will compensate for some of the N that was likely loss due to excessive wetness early on. Last week I examined the root systems of corn plants at various stages of development, and different from the common belief that high soil water content causes roots to grow closer to the soil surface, I saw a lot of downward growth. This growth will be important in tapping into additional N and other nutrients, especially if the soil surfaces start to dry out under limited rainfall.

Despite the generally good fertility status of the corn crop now, for some people with corn not reaching reproductive stages yet, the question remains of whether there will be sufficient N as the corn plant starts rapid growth. Typically corn will accumulate 30% of its N by V12, 60% by silking (R1), and 80% by milk stage (R3). If N was previously applied for this crop and the corn plants are deep green, there should be little concern of lack of N later in the season. If the weather turns dry during critical times of early reproductive stages, coming very soon in many fields, the concern should be more related to the number of kernels that will form than to N availability. It is also important to remember that due to the poor early-season conditions, some yield potential was lost, even if corn was planted early. This means that the crop will not need as much N as in recent growing seasons.

Application of additional N may be considered in fields where corn is at or before tasseling and is looking N-deficient. Most research has shown that application of N after tasseling does not enhance yield unless the crop is severely deficient. If additional N is necessary, high-clearance equipment is likely to be needed. Make sure to check for availability of such equipment before making plans. If N solutions are used, care must be exercised to prevent leaf burning, which can occur when foliage is sprayed. It is recommended that you set up hoses long enough to reach the soil surface and attach a weight to help the hose stay in the middle of the rows as the fertilizer is dribbled in a band on the soil surface. Aerial application of dry or liquid N is another alternative, but rates should be low (less than 10 lb N/acre for liquids) to avoid excessive foliage damage. Also, to reduce the chance of leaf burning, the application should be done when the leaves are dry. The potential for damage using a granular fertilizer increases as the plants get larger and granules have a greater probability of falling into the corn whorl.

Keep in mind that these late-season applications are more effective when rainfall occurs shortly after application, so the N can be moved down to where the roots are growing. Finally, given the factors previously mentioned for this growing season, if additional N is deemed needed at this time, it is unlikely to expect a yield increase with rates above 50 to 70 lb N/acre.

—Fabián G. Fernández

What the Crop Needs Now

The condition of the Illinois corn crop has improved slowly following the slow start, and the latest numbers from the National Agricultural Statistics Service show that 68% of the crop is now rated good or excellent. At the same time, only 55% of the crop was silked by July 20, compared to the 5-year average of 85% by that date, and 94% in 2007. The warm temperatures of mid-July have helped to accelerate development, but growing degree day accumulations since May 1 remain about 100 behind normal.

The fact that GDD numbers have not caught up reflects the fact that temperatures remain at about average levels, which is good news. At this point in the season, 100 GDD is only about 4 days’ worth of GDD. Talk that the crop is two to three weeks behind normal is true only where corn was planted very late; corn planted in late April or early May is only about a week behind normal. As long as temperatures remain average or a little below average, we don’t expect the crop to catch up. We also don’t expect that to be a problem as long as moisture supplies remain good. A week behind today will stretch into two weeks as we get into September, but the crop planted in early May has accumulated about 1,500 GDD since planting, and so it needs only about 1,200 more to reach maturity. It takes roughly 50 days to accumulate 1,200 GDD starting at this time of the season.

Most of the late-planted crop should reach the silking stage by the end of July, except in central and northern Illinois, where the crop might not pollinate until early August. Late-planted corn usually has a decreased total requirement for GDD compared to the same hybrid planted early. This is partly due to some photoperiod response, with corn flowering in response to shortening days. High temperatures also play a part in this, and the lack of high temperatures this year may mean less reduction in GDD than in some years. Much of this reduction applies to the vegetative stage and so results in earlier pollination.

So far, we have to consider the summer a good one in helping overcome the problems of late planting and relatively poor soil, weather, and crop conditions in May. Rainfall has been above average in many areas so far during July, but there have been enough dry days to get soils dried out and to allow some root recovery and growth. One widely observed problem that will not go away is uneven growth, due in most fields to unevenly wet soil conditions early in the season. Root systems there are not likely to be in
good shape, and these areas will show water and nutrient stress more quickly than better-drained areas. There’s not much we can do about this. If there are questions related to staging of the crop in terms of fungicide application and other canopy protection measures, it may be necessary to do some “triage” to determine where in the field the yield potential is highest, hence where to apply protection first.

The story for soybean is not yet as favorable, though the weather has helped the crop to start growing much better in recent weeks. As of July 20, 59% of the soybean crop is rated good or excellent, and only 39% of the crop had flowered, well behind the 5-year average of 73%. The percentage setting pods was reported at only 6%. This delay in development is some cause for concern; as I have noted before, early podding followed by normal or even delayed maturity in soybean is usually associated with high yield. The late onset of flowering and podding may not be a serious problem as long as pod filling can be maintained over a relatively long period and maturity also ends up being late. This will take unusually good September conditions.

Both crops would benefit from continued favorable rainfall and abundant sunshine, with dry days outnumbering wet or cloudy days by a considerable margin. Corn will benefit from daytime temperatures in the upper 80s or (if there’s good soil moisture) lower 90s, and night temperatures in the lower 60s. Soybean plants will set more pods and fill seeds faster if daytime temperatures are in the 80s and nighttime temperatures in the upper 60s to low 70s. Water-use rates are at a peak for corn and will reach peak levels for soybean as soon as canopy formation is complete.

Corn that is silking now will, if temperatures remain normal, require about 55 to 60 days to reach physiological maturity. This means that September will be important this year, for both earlier- and later-planted corn. We have measured yield accumulation rates as high as 10 bushels per acre per day during a week in the middle of the grain-filling period. Most crops do not sustain such rates for a whole week, but stress-free crops with a good canopy can form yield very quickly. It’s critical that canopy health be maintained, and even short periods of water stress will mean loss of yield.

Soybeans have much farther to go, and we’ll watch the crop carefully over the next month to see how many pods it sets and how well they stay on the plant. The highest rate we’ve found for soybean yield accumulation is about 4 bushels per acre per day, and this rapid seed growth rate usually lasts for about 4 weeks for the majority of the pods on the plant. Because of late planting and slow growth before July, wet weather this month has not caused the excessive vegetative growth that we have seen other years. This is positive in terms of producing less internal shading, but there is still some concern—diminishing as we experience moderate temperatures now—that flowering and node-setting might not last as long as normal and that seed numbers per plant and per acre could suffer. For soybean, that almost always means lower yields.

Wheat variety trial results from 2008 are now available at vt.crops.csc.uiuc.edu/wheat.html. —Emerson Nafziger

### 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

Corn began to tassel throughout the region last weekend. Most of the area received at least 1.5 inches of rain during the week of July 14.

Extension educators monitoring western bean cutworm traps in northwest Illinois reported multiple moth captures and some very high counts July 18 through July 22 in Carroll, Whiteside, Ogle, and Lee counties. It is the third year of this monitoring project, and this week had the most consistent and the highest moth trap numbers that have been reported in the northwest portion of the region.

Japanese beetles are abundant in ornamentals and soybeans, and they are beginning to migrate to corn silks, which makes everyone very nervous. Japanese beetle populations are very low in the northeast area and heaviest in the central to southwest portion of the region. Some reports have been received of insecticide treatment in soybeans, which may not be warranted as the economic threshold is 20% defoliation in soybeans at full bloom.

Aerial fungicide application has begun in the southern portion of the region.

### Southern Illinois

Typical July temperatures in the mid-90s are placing stress on the “early”-planted corn fields that are in the pro-
cess of pollination. Late-planted corn won’t begin pollination until early August. Japanese beetles are the primary insect causing problems in both corn and soybean fields. With the advent of hot, dry weather, pasture conditions are beginning to deteriorate.

The Brownstown Agronomy Research Center Field Day will be held on Thursday, July 31, beginning at 9:00 a.m. A free lunch will be provided, and 2.5 hours of CCA-CEU credit have been applied for. In order to beat the heat, the last tour will start no later than 9:30, so be sure to come early. Maps to the research center and the full agenda can be found on the research center Web site (www.cropsci.uiuc.edu/research/rdc/brownstown/).

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