Training Session to Focus on Asian Soybean Rust

Producers, agribusiness dealers, and crop scouts are invited to participate in an “Asian Soybean Rust” workshop on June 7 in DeKalb County. The workshop will be conducted at the Crops Training Center at the Northern Illinois Agronomy Research Center, 14509 University Road, Shabbona, and is sponsored by University of Illinois Extension.

The workshop will focus on scouting, identification, and current status of soybean rust and soybean rust look-alike diseases. In addition, requirements for effective soybean fungicide application will be discussed and illustrated. Dr. Dean Malvick, Extension plant pathologist, and Scott Brethauer, Extension specialist in pesticide safety, will be the discussion leaders. The workshop will include presentations, handout materials, hands-on samples, and in-field activities (weather permitting).

Three continuing education units have been applied for for Certified Crop Advisers.

Registration begins at 8:30 a.m., and the workshop will be conducted from 9:00 a.m. to 12:00 noon (lunch not provided). The cost is $25.00 per person, and reservations are due by May 26 to the Quad Cities Extension Center, c/o Dave Feltes, 4550 Kennedy Drive, Suite 2, East Moline, IL 61244, telephone (309)792-2500. Make check payable to University of Illinois Extension. A minimum of 20 reservations is needed to conduct the workshop.

Additional workshops will be held June 27 and August 10 focusing on soybean aphids and nutrient management/managing tough weeds, respectively. — Jim Morrison

Weed Science Field Tour

We invite you to attend the 2005 University of Illinois Weed Science Field Day, which will be held June 22 at the Crop Sciences Research and Education Center (aka South Farms). The center is located south of the main campus and north of Windsor Road. Registration begins at 8:00 a.m. at the Seed House, and we’ll begin the tour at 8:30 a.m. with a few introductory remarks before carpooling to the field. The tour will provide ample opportunity to look at research plots and interact with weed science faculty, staff, and graduate students. Participants can compare their favorite corn and soybean herbicide programs to other commercial programs and get an early look at some new herbicides. The tour ends with lunch at noon. The fee for the Weed Science Field Day tour is $15 per person and includes a tour booklet and lunch ticket. If you have any questions or would like additional information, please call (217)333-4424. — Aaron Hager, Dawn Nordby, Doug Maxwell, and Jim Moody

Why So Much Bird Damage to Early-Planted Corn? How Can It Be Prevented During Replanting?

We have been able to identify several causes for this year’s excessive bird damage on early-planted corn. Most of them have been encountered in previous research attempts to minimize this annual problem. What needs to be done during replanting to prevent reoccurrence may be the toughest question.
The two most common blackbirds causing corn plant stand reduction include the common grackle (Quiscalus quiscula) and the red-winged blackbird (Agelaius phoeniceus). Spring planting season is nesting season for blackbirds. Their peak energy and food requirement needs to raise their young coincide with corn crop emergence. They are constantly looking for readily available food.

Insects appear to be the food preference for female blackbirds during nesting because of their high protein content and the ease of feeding to young birds. However, male grackles and red-wings, while eating insects, appear to feed on seeds just as readily.

Nesting habits are also important to know. The common grackle primarily nests in the trees of windbreaks and shelterbelts, including pine tree plantings. The red-winged blackbird nests close to the ground in or near small-grain fields, hayfields, areas with common reed, marshes, and ditches. While nesting, both prefer food sources close to their nesting sites. Planting an attractive food source near a common nesting site always offers a potential for crop injury.

In general this spring, most of these events occurred across Illinois:

- Tillage and corn planting occurred early, interrupting habitat development for insects (common bird food source).
- Numerous cornfields were planted shallow (<2 inches deep) because of cool soil temperatures and adequate moisture. Shallow planting makes the kernels easier for birds to find and pull.
- Planted corn sprouted and began to emerge just before 2 weeks of cold weather returned to prevent further development or decay of planted kernels. This made them an available food supply for foraging birds.
- Weather prevented additional planting to spread out the potential feeding area. Birds learned where the food was and returned time and again to feed.
- Very low moth flight migration into the area prevented the adequate development of an alternative food source for nesting birds. In past years, when armyworms or other insect problems developed, it was easier for birds to use the insects for food.
- Birds had plenty of time to become successful at finding and pulling planted corn kernels for food before warmer weather returned to encourage rapid plant growth. The less time plants take to reach about 4 inches in height, the less time birds have to utilize the kernels for food.
- Seed treatments that enhance early emergence of a corn planting near a primary nesting site seemed to actually concentrate bird depredation into those fields. Birds feed where they first find food and where they can be successful. If surrounding fields had emerged at the same time, the available food supply would have been larger and damage usually diffused across the area.
- No current seed treatment, concentration of the seed treatment, or soil insecticide acted as a deterrent to bird depredation after being in the soil for weeks prior to seedling emergence. No current seed treatments or insecticides are labeled or have been effective in our research at deterring bird depredation of planted corn kernels over an extended period of time when adequate rainfall occurs.

What can be done to help prevent the same stand reduction in the replanting? Our research experience has shown us the following:

- One heavy rain can negate the potential benefit of the use of almost any repellent utilized on the seed or sprayed on the emerging plant. We have several opportunities for a rain of 1/2 inch or more during each spring planting season.
- As soil temperatures increase, deeper planting (~2 inches) can help make birds less successful at getting to the planted kernels, provided the planter slot is closed.
- Warmer soil temperatures will encourage faster emergence and plant growth regardless of the planting depth. This reduces the time for birds to be successful feeding in the field.
- Replanting with a proven early-growth hybrid will also help minimize the amount of available time for bird depredation before plants get 4 inches tall.
- As the season develops, more food sources (insects) usually become available for blackbirds in field borders and small-grain and hay fields. This will naturally diffuse the bird feeding if these areas are not mowed until after good corn crop emergence.
- Any planting practice that reduces the amount of available time for birds to work a corn planting (and be successful) before it reaches about 4 inches tall can reduce the chance for reoccurrence of bird damage.
- Sometimes a field is located so close to a major nesting site that planting a less attractive feeding crop such as soybean may be the best alternative until something else can be done.

Blackbirds, including grackles, are classified as migratory birds and are under the protection of the Migratory Bird Treaty Act, enforced by the U.S. Fish and Wildlife Service (USFWS). Because of the extent of agricultural damage these birds have historically caused, the USFWS has issued a blackbird depredation order, which allows for the control of these birds without a federal depredation permit when they are causing, or are about to cause, damage to agricultural resources. **Despite a federal control permit not being needed, these birds are also under state protection. Therefore, a Nuisance Animal Removal Permit is needed from the Illinois Department of**
Natural Resources (IDNR). You should contact your District Wildlife Biologist or Conservation Police Officer from the IDNR to obtain this permit and a list of acceptable control options. For additional information, you may contact USDA’s Wildlife Services office in Springfield at (217)241-6700.—Ron Hines

INSECTS

Insecticides, Fungicides, and Insecticidal Seed Treatments for Soybeans—What Do Our Data Tell Us?

In 2004, concerns about the future occurrence of Asian soybean rust and soybean aphids in soybean fields at the same time prompted recommendations for the application of a fungicide–insecticide combination. It both pests are present, such an application makes sense. However, some people have suggested that applying this pesticide combination would provide yield benefits even if the pests are not present. Obviously, from a pest management standpoint, this type of application does not make sense, and we have addressed this issue before (“Insects Infesting Soybean? Or Not?” in issue no. 18, July 23, 2004, of the Bulletin).

The recent registration of Cruiser insecticide as part of soybean seed treatment also has generated considerable interest. We wrote an article about the use of Cruiser in a soybean seed treatment, too (“Cruiser Registered for Use on Soybeans” in issue no. 3, April 5, 2005, of the Bulletin). Fortunately, we were able to conduct some research trials in 2004 to determine the impact of fungicides, insecticides, and insecticidal seed treatments on insect densities and soybean yields. Unfortunately, the target insects (bean leaf beetles and soybean aphids) were virtually inconspicuous in our trials last year. Nonetheless, we generated some yield data that might shed some light on the issue. Following are descriptions of the data that might shed some light on the issue and soybean aphids) were virtually inconspicuous in our trials last year. Nonetheless, we generated some yield data that might shed some light on the issue. Following are descriptions of the data that might shed some light on the issue.

A third trial to determine the impact of 12 different treatments on soybean aphids and yield was established in Kendall County in 2004. The treatments included fungicides, insecticides, and insecticidal seed treatments, alone or in combination. The trial was planted late (in June) purposely to enhance the likelihood of development of economically threatening densities of soybean aphids. The trial was established in an area in which infestations of soybean aphids had been relatively common, and occasionally significant, since 2000. Unfortunately, no economically threatening densities of soybean aphids, or any other insect pest, developed throughout 2004. However, all plots were sampled for insects several times throughout the season, and the plots were harvested in October. Yield data are presented in Table 2.

Densities of all insects in the trial established in Kendall County were extremely low in 2004. Nonetheless, there was a significant difference between the average yield of Apron Maxx + Warrior + Quadris–treated plots (64.99 bushels per acre) and the Apron Maxx–treated plots (55.24 bushels per acre). However, the aver-

### Table 1. Results from two bean leaf beetle trials established in Stephenson and Whiteside counties, Illinois, 2004.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stephenson County</td>
</tr>
<tr>
<td>Cruiser</td>
<td>52.14 a</td>
</tr>
<tr>
<td>Cruiser + Warrior</td>
<td>57.78 a</td>
</tr>
<tr>
<td>Gaumbo</td>
<td>53.58 a</td>
</tr>
<tr>
<td>Gaumbo + Warrior</td>
<td>48.71 a</td>
</tr>
<tr>
<td>Lorsban 4E³ (applied twice)</td>
<td>54.16 a</td>
</tr>
<tr>
<td>Mustang Max³ (applied twice)</td>
<td>44.94 a</td>
</tr>
<tr>
<td>Warrior³ (applied twice)</td>
<td>49.67 a</td>
</tr>
<tr>
<td>Untreated check</td>
<td>50.58 a</td>
</tr>
<tr>
<td></td>
<td>41.34 a</td>
</tr>
</tbody>
</table>

¹Yield estimate based on 160 feet of row (2 rows x 80 feet).
²Application of Warrior in mid-July.
³First application of Lorsban, Mustang, and Warrior shortly after soybean emergence. Second application of Lorsban, Mustang, and Warrior in mid-July.
⁴Application of Warrior in mid-July.
Table 2. Results from the soybean aphid trial¹ in Kendall County, Illinois, 2004.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield (bu/A)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated check</td>
<td>63.60 ab</td>
</tr>
<tr>
<td>Apron Maxx</td>
<td>55.24 b</td>
</tr>
<tr>
<td>Apron Maxx + Warrior</td>
<td>59.27 ab</td>
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<tr>
<td>Apron Maxx + Warrior + Quadris</td>
<td>64.99 a</td>
</tr>
<tr>
<td>Apron Maxx + Quadris</td>
<td>58.32 ab</td>
</tr>
<tr>
<td>Apron Maxx + Cruiser + War- rior</td>
<td>62.30 ab</td>
</tr>
<tr>
<td>Apron Maxx + Cruiser + Warrior + Quadris</td>
<td>60.68 ab</td>
</tr>
<tr>
<td>Apron Maxx + Cruiser + Warrior + Quadris</td>
<td>59.04 ab</td>
</tr>
<tr>
<td>Apron Maxx + Mustang Max</td>
<td>64.14 ab</td>
</tr>
<tr>
<td>Apron Maxx + Lorsban 4E</td>
<td>62.30 ab</td>
</tr>
<tr>
<td>Allegiance + Rival + Gaucho + Baythroid</td>
<td>61.96 ab</td>
</tr>
</tbody>
</table>

¹Plots were 8 rows wide x 30 ft long. All treatments were replicated three times. Reportable numbers of soybean aphids were not found throughout the season.

²Average yield estimates based on 50 ft of row (2 rows x 25 ft) per plot.

age yield in the untreated check plots (63.60 bushels per acre) was not significantly different from the average yield of the Apron Maxx + Warrior + Quadris–treated plots.

Some of the yield data gathered from the three trials in 2004 lend some credence to the suggestion that a fungicide + insecticide application would provide a yield benefit, even in the absence of pests. However, the data were not consistent among trials. And it’s difficult to gain any perspective on the utility of an insecticidal seed treatment from the one trial in 2004. Previous experiments have revealed that insecticidal seed treatments are quite effective against early-season bean leaf beetles. Consequently, more data will be necessary to either support or refute the claims of yield benefits attributed to fungicides, insecticides, and insecticidal seed treatments. Ultimately, economic and environmental consequences of such treatments must be estimated/assessed.

Plant pathologists and entomologists at the University of Kentucky have published some interesting information regarding the use of insecticides and fungicides. For summaries of their efforts, we direct you to two articles in the Proceedings of the 2005 Illinois Crop Protection Technology Conference (http://www.ipm.uiuc.edu/education/proceedings/icptcp2005.pdf):

- “Management of Soybean Foliar Diseases with Fungicides,” by Donald Hershman (pages 67–69)
- “Where Is the IPM in Treating Soybean With a Fungicide/Insecticide Combination in the Absence of Pests?” by Douglas W. Johns and Donald E. Hershman (pages 96–99)

We encourage our readers to view numerous sources of information before making a pest management decision. Interpretations from different perspectives are healthy and usually result in informed decisions. — Kevin Steffey, Mike Gray, and Ron Estes

**WEEDS**

**Considerations for Weed Control in Corn**

Weed control considerations in the Illinois corn crop range all over the board, from postemergence applications being made for control of grass and broadleaf weed species to replanting fields that were excessively damaged by cold temperatures. We offer the following comments for your consideration.

If a cornfield will be replanted, hybrid selection for the replanting operation should be taken into account, especially if the field has been previously treated with certain soil-applied or postemergence herbicides that require a particular herbicide resistant/tolerant corn hybrid. For example, if a Clearfield corn hybrid was initially planted and received a preemergence application of Pursuit Plus or already has been treated postemergence with Lightning, the replanted corn must also be a Clearfield hybrid. If a nonresistant/tolerant hybrid is replanted instead, the potential exists for the herbicide to cause a great deal of crop injury. If you initially planted a glyphosate-resistant corn hybrid and have areas of a field that need to be replanted, either replant these areas with a glyphosate-resistant hybrid or take special precautions during the postemergence glyphosate application if you replant with a conventional hybrid.

Is there an interval between when a herbicide was applied and when corn replanting can occur? For soil-applied and most postemergence corn herbicides, replanting can proceed whenever field conditions are feasible. However, for a small number of postemergence corn herbicides, there are intervals between application and replanting. For example, if a cornfield previously treated with Spirit, NorthStar, Permit, or Yukon is lost and must be replanted, there is a 4-week, 14-day, 1-month, or 1-month interval, respectively, that must elapse between the herbicide application and corn replanting.

While most soil-applied herbicides allow more than one application per season, a few can be applied only once per season. For example, the Epic label indicates that only one application per year can be made; Prowl can be used as a soil-applied or postemergence treatment, but if a previously treated corn crop must be replanted, do not make another application or till the ground prior to replanting. In instances where small areas of a field will be replanted, some may elect to simply replant without applying any additional herbicide. If, however, you elect to make a second application of a particular corn herbicide, keep in mind that many product labels indicate a maximum per-acre rate that can be applied during one growing season.

Questions have been posed about how to control emerged corn from the first planting before the field is replanted. Tillage is an effective option for control of the first planting, but some farmers may not want to disturb the soil prior to replanting and so seek a herbicide alternative. Glyphosate is very effective for controlling emerged corn, and there is no waiting interval between application and planting specified on the label. The postemergence...
grass-control herbicides used in soybean can effectively control emerged corn, but each of these product labels carries rotational intervals between application and planting corn. Poast Plus is labeled for preplant applications, but applications must be made at least 30 days before corn planting. The labels of Select, Fusion, Fusilade DX, and Assure II indicate rotational intervals of 30, 60, 60, and 120 days, respectively, between application and corn planting.

Obviously, glyphosate will not control emerged glyphosate-resistant corn. With the aforementioned limitations regarding the use of the postemergence grass herbicides, few herbicide options exist to control the first planting of glyphosate-resistant corn before replanting. Potential options to control a first planting of glyphosate-resistant corn include (1) products containing isoxaflutol can cause significant damage if applied to emerged corn, (2) replanting with a glufosinate-resistant hybrid would allow for the postemergence use of glufosinate, and (3) replanting with a Clearfield hybrid would allow for the postemergence use of products such as Lightning.

Labels of postemergence corn herbicides often indicate a maximum crop stage beyond which broadcast applications cannot be made. Frequently, these label restrictions refer to plant height, crop growth stage, or both. For products whose label indicates crop height and growth stage, it is important to follow the more restrictive of the two for each particular field. This is very important given the adverse (i.e., cold) weather that the corn crop recently experienced. When air temperatures are cool, corn usually remains relatively small in regard to plant height; however, it continues to advance developmentally. Loss of leaves and leaf tissue from the recent frosts will make determining corn development stage more difficult with respect to herbicide applications. Application restrictions based on corn developmental stage are usually stated with respect to the number of leaf collars present on the plants. Many agree that the leaf collar method is a more accurate method to determine physiological plant age than is plant height.

So, if a corn plant had two leaf collars before losing those leaves to frost, what “number” should the next leaf collar be considered with respect to a postemergence herbicide application? The safest recommendation is to consider it as the third collar. What if you can’t really determine how many collars may have been lost because of frost? You might get some idea based on when the field was planted and how many growing degree-days have accumulated (assuming 80 to 85 growing degree-days are needed for each leaf collar). An additional safety factor would be to count the existing leaf collars and add one. In issue no. 7 of the Bulletin (May 6, 2005), Table 4 summarized a large amount of information for postemergence corn herbicides. The column titled “Apply over the top of corn” indicates the maximum corn growth stage at which broadcast applications can be made.

While corn height appears self-explanatory, some ambiguity often exists with respect to where on the corn plant you measure to. In general, many people determine corn plant height by measuring from the soil surface to the top of the whorl or to the arch of the uppermost leaf that is more than 50% emerged. This should be done on a number of plants and then averaged to account for variability among corn plants in the field.—Aaron Hager and Dawn Nordby

Some Corn Stands Struggle

The warmer temperatures of the past 4 or 5 days (through May 8) have helped the corn crop recover from the cold temperatures of the first few days of May. On the morning of May 9, the corn planted on March 30 in our planting date study at Urbana showed a lower than expected percentage of plants growing back from the low temperatures of May 3 and 4. At least 30% of the plants from that planting date are dead or at least unlikely to regrow. While the growing point may still look like it is alive, the absence of any new leaf tissue by the time 70 growing degree-days accumulated after the frost means that these plants will probably not grow back.

There was some effect of position in the field on survival, with plants next to grass borders and in slightly lower places in the field less likely to survive, because of either slightly less growth when the frost occurred or slight differences in wind speed during the lowest temperatures. There is less unevenness than I expected, mostly because those plants that were more badly damaged died and will not grow back to experience competition. Still, at that level of loss, replanting would be called for. We will make the third planting in the study this week, so we will have a direct comparison between keeping and replacing the damaged stand.

As I indicated previously, most farm fields seemed to have survived the low temperatures better than the corn planted in late March in our trials. Even so, if early-planted fields were checked just after the frost last week and the growing point was alive but most or all of the leaf tissue was dead, the assumption that these plants would grow back might not be accurate. Such fields need to be revisited immediately and counts taken of stands that are clearly alive and adding new, green leaf area. That will likely be the final stand if the field is not replanted.

Why would plants with living, protected growing points not grow back? One reason is that such plants had very little reserve from which to regrow, especially after they were frosted for the second time in a week. Most of the remaining seed contents were lost to microbes that invaded the seeds after the plant stopped drawing on the reserves stored there. The regrowth of green leaf area after the first frost thus came mostly at the expense of stored reserves in the crown of the plant. The second frost event occurred before the new leaf area had produced much, and plants simply did not have reserves to grow new leaf area.
for the second time, even if the growing point was still intact.

Another important reason why some plants failed to grow back was infection by seedling diseases, which invade plants more easily after they have been weakened by leaf loss and tissue death.

While most seeds planted the last 2 weeks of April are still intact and trying to emerge, soil crusting has turned into a real problem in some fields, and emergence is slow and uneven as a result. Rotary hoeing is helpful but is often not a cure-all, especially when soils are hard enough to resist penetration by the rotary hoe itself. A second rotary hoeing might help emergence, but it will also do some damage to emerged and emerging seedlings, so check carefully to see if the net effect is positive. A good shower would help, but heavy rain could reduce emergence of more recently planted corn and soybean.—Emerson Nafziger

**Lessons from an Unusual Planting Season**

The good news is that corn planting in Illinois in 2005 has been record-early, with 94% planted by May 8 this year compared with 93% on the same date in 2004. In 2004, 63% of the crop had emerged by May 8, compared with 52% of the crop emerged this year. With the return of warm temperatures this week, much of the rest of the crop will emerge, so we should be getting back on track. In fact, the high temperature at Champaign was 90˚ on May 10, so it won’t be long before the worry shifts from cold and wet to hot and dry. We have enough soil moisture to hold off from cold and wet to hot and dry. We’d never dare say this won’t happen again, but having temperatures this low was truly unusual.

Here is a summary of information regarding freeze injury to corn in 2005:

- Low temperatures really were low, with lows in the 20s recorded at 19 of 40 Illinois weather stations during the first week of May, including 20˚ at Mt. Carroll in northwestern Illinois. Another 9 stations reported lows of 30˚ to 32˚, and the rest all had lows in the 30s. All of the stations reported low temperatures in the 30s the last week of April as well, with a few in the 20s. We’d never dare say this won’t happen again, but having temperatures this low was truly unusual.

- Almost all of the corn that was killed or that failed to regrow after the aboveground leaf area was killed was planted before the end of the first week of April.

- While there were few reports of outright death of the growing point, death of stem tissue occurred as far as 1/2 inch down from the soil surface. Such a small amount of tissue left alive can seldom support regrowth.

- Corn planted shallowly was more likely to be injured than corn planted deeper. We normally would not plant corn deeper than 1.5 inches or so when planting in early April, so “shallow” planting was more the rule than the exception. Planting deeper than that carries its own risks, and I do not think that better survival of deeper-planted corn this year should change our approach for next year.

- There is some uncertainty about why deeper-planted corn might have survived better and why certain injury patterns appeared in some fields. Some have reported that the crown (growing point) was located more shallowly as a result of shallower planting and so was more subject to direct freeze injury. This is not normal; in most cases, crown depth is set, usually at about 3/4 to 7/8 inch deep, when the coleoptile tip emerges above ground and gets a signal from sunlight. That usually means that crown depth is more or less independent of planting depth, at least within the normal range of planting depths. Of course, seed planted less than an inch deep cannot set the crown deeper than the seed, so plants can end up with shallow crowns. And we have sometimes seen shallow crowns when planting into very warm soils. It’s possible, when growth is very rapid, that the time of day the plant emerges above ground affects how soon light strikes the coleoptile tip and thus affects how deep the crown gets set. Soils were warm during the first week of April, but emergence and growth were not so rapid that such differences would have been noticeable. Given the pattern of damage, though, I think it’s possible that much of the difference in damage among fields and plants might have been because of small differences in time of emergence. Shallower planting would have emerged slightly earlier, as would some plants down the row. Hybrids that emerged or grew more rapidly would also have suffered more damage. Such differences would have been well within the normal range of emergence and early growth, making such a connection less obvious.
• Even though low temperatures occurred widely, much of the early-planted corn along the Springfield–Jacksonville–Quincy line survived well. Most of the damage serious enough to require replanting was in or near the Lincoln to Macomb to Moline triangle, likely from the combination of early planting, more growth with warmer temperatures, and then low temperatures. North of I-80, there was less planting done that early, and the corn did not emerge or grow as fast, so there was less damage. As an example, the March 30 planting of the same hybrid in our planting date study was much more badly injured at Monmouth than at DeKalb.

• It remains to be seen if the rough start to the season will have lasting effects on yield, but it’s safe to say that the most critical periods for yield are still to come, in July and August. If the 2005 weather pattern is like that in 2003 and 2004, we can expect good yields.

Soybean planting was already well ahead of the pace in 2004 at the end of last week and is proceeding rapidly this week. Any concern about planting soybean seed into cold soil has evaporated, but the challenge that could come from heavy rainfall after planting remains. Some of the crop may also be planted this week into soils too dry to ensure emergence, so the quandary about whether to plant before or after an expected rain will affect some. It’s more or less a coin toss, in large part because “expected” rains sometimes don’t arrive on time or in the expected amount. If we knew that a gentle inch of warm rain would fall on a dry field just after planting, then we should probably plant. In reality, we have to weigh chances of not getting a stand because of heavy rainfall against the fact that our optimum planting window extends for a week or two yet in Illinois and against the cost of seed if we need to replant.

Wheat has not been damaged to any extent by the low temperatures over recent weeks, but its development has been delayed to slightly behind average. Dry weather is favorable in terms of limiting development of diseases, including Fusarium head scab, and in providing the sunlight the crop needs for best yields. On the other hand, the crop needs 6 to 8 inches of water to fill grain, so some rain is helpful. Our rule of thumb is that maturity follows heading by about 6 weeks. That would put harvest time close to normal, which will be a week or more later than in 2004. This will be speeded up if the weather turns warm but at the cost of some yield potential.—Emerson Nafziger

REGIONAL REPORTS

East-Central Illinois

It has been a week of weather extremes, from subfreezing to 90°. Almost all corn has been planted. As warm temperatures allow the plants to green up, fields are being examined for plants that have been damaged beyond recovery. Some sidedress applications are being made.

The main field activity has been soybean planting. Many farmers are almost finished.

Some reports of weevil damage in alfalfa were received, but first cutting is under way.

Northern Illinois

Frost/freeze the early morning of May 2 and 3 was the big story for the week in northern Illinois. Temperature of 20°F was reported in Mt. Carroll. The majority of the corn that was damaged is regrowing and appears to have survived. Some replanting of corn has occurred, but the extent is limited. Corn not emerged at the time of the frost/freeze has since emerged in good fashion.

The great majority of soybean that had been planted had not yet emerged at the time of the frost/freeze.

Cold weather damage to wheat appears to be limited.

Damage to established alfalfa varies considerably. Limited replanting of new spring alfalfa seeding had occurred.

Considerable soybeans were planted this week. Limited alfalfa weevil damage has been observed. Rain during the early morning of May 11 was very welcome.

Southern Illinois

What a difference a week can make. We probably tripled the growing degree-days last week. Most pale yellow corn is now at least pale green. Some cornfields have had emergence problems as expected. Corn planting will wrap up quickly. Farmers range from not started to finished on soybeans.

Wheat will soon be in full flower, so we are watching rainfall and the chance for head scab. Many forage fields are ready for haymaking.

Bird damage to emerging corn continues to be reported.

West-Central Illinois

Corn planting has essentially been finished, with the exception of a few areas of corn to be replanted because of the frosts of May 2 and 3. Most corn survived the frost in good shape; however, there were isolated fields in west-central Illinois that were or are being replanted. These were the early-planted (first week of April), most mature corn in low-lying fields. Injury was most severe in fields with residue.

Soybean planting is finished for a few, while others have just gotten a good start. With the lack of rainfall, some producers have opted to wait for most soil moisture to arrive, because in some fields, there is not enough moisture to germinate seed. Soybean planting may be finished by next week, without a big push.

Corn insects are few and far between. Still, some black cutworms were found, but the numbers are below threshold.

First cutting of alfalfa has begun, with plants still in the vegetative stage. Alfalfa weevil numbers are still high.
in some fields not treated, although few fields have required treatment. Wheat is beginning to head.

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