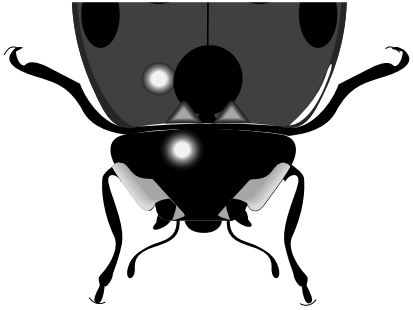

PEST MANAGEMENT & CROP DEVELOPMENT

BULLETIN

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In This Issue

WEEDS

Herbicides for Sorghum

Wet holes in corn fields continue to persist across much of Illinois. Many fields have been replanted to corn, some to soybeans; and standing water remains in others. Some producers may consider replanting some of these areas to sorghum instead of soybeans when field conditions permit. The herbicide previously applied may influence this replant decision.

What soil-applied or postemergence corn herbicides allow sorghum as a recrop option? Table 1 contains information about recropping restrictions for corn herbicides. If the field was previously treated with products containing acetochlor, flumetsulam, imazethapyr, simazine, nicosulfuron, rimsulfuron, or primisulfuron, sorghum would not be a recrop option. Other corn herbicides allow recropping to sorghum but may have a 1- or 2-month rotational interval. Additionally, some herbicides that allow recropping to sorghum also require that the seed be treated with Screen or Concep safener.

What are other postemergence herbicides that can be used in sorghum? Table 2 lists several postemergence herbicides that may also be applied to sorghum. All products containing atrazine must be applied before sorghum reaches 12 inches in height. Consult the respective herbicide labels for additional application information and restrictions. Pay particular attention to specified crop rotational intervals for many of these herbicides, as applications late in the 1998 growing season may influence planting during 1999.

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PLANT DISEASES

Septoria Brown Spot of Soybeans

We have received several calls during the past few days concerning the presence of Septoria brown spot disease on soybeans. This fungal pathogen is commonly seen only during the latter parts of the growing season, when plants are almost fully mature and beginning to drop leaves.

With warm and humid conditions occurring throughout Illinois, brown spot is appearing earlier than normal. The fungus, *Septoria glycines*, requires very high moisture to release spores. The sporulation structure absorbs water and swells; spores are then pushed out the top to infect adjacent leaf tissue. It is also not a very aggressive parasite, which accounts for infections being seen primarily on the older, lower leaves. However, if conditions are favor-

Table 1. Corn herbicide recropping restrictions, months

Herbicide[a]	*Comments*	*Corn*	*Sorghum*	*Wheat*	*Oats*	*Rye*	*Alfalfa*	*Clover*	*Soybeans*
Acetochlor and its premixes									
DoublePlay	w/EPTC	NY	NY	4	2Y	2Y	2Y	2Y	NY
FulTime	w/atrazine	NY	NY	15	2Y	2Y	2Y	2Y	NY[b]
Harness	acetochlor	NY	NY	4	2Y	2Y	2Y	2Y	NY
Harness Xtra 5.6L	w/atrazine	NY	NY	15	2Y	2Y	2Y	2Y	NY
Surpass, TopNotch	acetochlor	NY	NY	4	2Y	2Y	2Y	2Y	NY
Surpass 100	w/atrazine	NY	NY	15	2Y	2Y	2Y	2Y	NY[b]
Atrazine and its premixes; simazine									
AAtrex/Atrazine	pH < 7.2	AT	AT	NY	2Y	NY	2Y	2Y	NY[b]
Bicep II	w/metolachlor	AT	AT[c]	NY	2Y	NY	2Y	2Y	Ny[b]
Bicep Lite Magnum	w/metolachlor	AT	AT[c]	NY	2Y	NY	2Y	2Y	NY[b]
Buctril + atrazine	w/bromoxynil	AT	AT	NY	2Y	NY	2Y	2Y	NY
Bullet	w/alachlor	AT	AT[c]	NY	2Y	NY	2Y	2Y	NY[b]
Extrazine	w/cyanazine	AT	1	15	15	15	18	18	NY[b]
Guardsman	w/dimethenamid	AT	AT[c]	NY	2Y	NY	2Y	2Y	NY[b]
Laddok S-12	w/bentazon	AT	AT	15	15	15	18	18	NY
Marksman	w/dicamba	AT	AT	10	10	10	2Y	2Y	NY[b]
Princep	simazine	AT	NY	NY	2Y	NY	2Y	2Y	NY
Flumetsulam and its premixes; clopyralid									
Broadstrike + Dual	w/metolachlor	AT	12	4.5	4.5	4.5	4	26[Fba]	AT
Hornet	w/clopyralid	AT	12	4	4	4	10.5	26[Fba]	10.5[e]
Python	flumetsulam	AT	12	4	4	4	4	26[Fba]	AT
Scorpion III	w/clopyralid + 2,4-D	AT	12	4	4	4	10.5	26[Fba]	10.5[e]
Stinger	clopyralid	AT	10.5	AT	AT	AT	10.5	18	10.5[e]
Imazethapyr and its premixes									
Contour	w/atrazine	8.5[f]	18	9.5	18	9.5	18	40[Fba]	9.5
Lightning	w/imazapyr	8.5[f]	18	4	18	4	9.5	40[Fba]	9.5
Pursuit	imazethapyr	8.5[f]	18	4	18	4	4	40[Fba]	AT
Pursuit Plus	w/pendimethalin	8.5	18	4	18	9.5	9.5	40[Fba]	AT
Resolve	w/dicamba	8.5[f]	18	4	18	4	9.5	40[Fba]	9.5
Sulfonylureas and their premixes									
Accent	nicosulfuron (A)	AT	10[d]	4	8	4	10	10	0.5
Accent Gold	A +R + Hornet	AT	12	4	8	4	10.5	26[Fba]	10.5[e]
Basis	thifensulfuron + rimsulfuron (R)	AT	10	4	8	18	10	18	0.5
Basis Gold	A + R + atrazine	AT	10	10	18	10	18	18	10[b]
Celebrity B&G	dicamba + nicosulfuron	AT	10[d]	4	8	4	10	10	0.5
Beacon	primsulfuron (C)	0.5	8	3	8	3	8	18	8
Exceed	C + D	1	10	3	3	3	18	18	10-18[g]
Spirit	C+ D	1	10	3	3	3	18[h]	18	10-18[g]
Peak	prosulfuron (D)	1	1	AT	AT	AT	10	22	22
Permit	halosulfuron	1	2	2	2	2	9	9	9

Fba = Field bioassay needed (see label), NY = next year, 2Y = 2nd year, AT = anytime
[a]Other corn herbicides have no significant recropping restriction except Banvel, Clarity, 2,4-D, and Eradicane have replanting limits for soybeans.
[b]2Y (2nd year) if applied after June 10 with high atrazine or July 1 with Basis Gold)
[c]Concep or Screen seed protectant needed
[d]18 months if pH ≥ 7.5
[e]18 months if <15 inches rainfall received *and* if soil has < 2% organic matter.
[f]IMI corn hybrids may be replanted anytime.
[g]Exceed I-70 to I-80, 18 months or use STS soybeans. Exceed or Spirit above I-80, 18 months to soybeans.
[h]South of I-70; 22 months north of I-70.

able, the fungus can infect lower leaves on young plants, as well as becoming a seedling blight. This pattern is especially true when plants are growing under stress, such as higher than normal rainfall, wet soils, reduced sunlight, etc. These stresses can reduce the ability of plants to resist pathogens and also favor the growth and development of certain diseases.

Control of brown spot is not usually necessary in Illinois. In some years, research has shown a yield increase of between 0 and 12 bushels per acre, depending on disease severity and location within the state. Applications of any common foliar fungicide provide control of brown spot but also add an additional cost to production. Applications made early in the season have not typically shown a yield improvement when compared to later applications during podfill stage. Therefore, unless the disease levels are severe at this time, it would be more economical to wait until later in the season when an economic return is much more likely, especially if the rainy weather patterns continue.

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Table 2. Postemergence herbicides for use in sorghum

Herbicide	*Grain sorghum*	*Forage sorghum*
atrazine	Yes	Yes
Banvel/Clarity	Yes[a]	Yes
Basagran	Yes	Yes
Buctril	Yes	Yes
Buctril + atrazine	Yes	Yes
2,4-D	Yes	Yes?
Laddok S-12	Yes	Yes
Marksman	Yes[a]	Yes
Permit	Yes	No
Prowl[b]	Yes	No
Shotgun	Yes	Yes?
Treflan[b]	Yes	No

[a]Do not apply to sorghum grown for seed.
[b]Applications of Prowl or Treflan must be mechanically incorporated after application.

Foliar Diseases of Corn

The wet weather conditions also favor corn leaf blights, especially gray leaf spot (GLS). The gray leaf spot fungus requires wet leaves for infection and colonization of the tissues. This fungus produces spores that can remain on the leaf surface up to 14 days without infecting, providing the humidity levels remain above about 60 percent. Infection occurs when humidity levels reach almost saturation (around 90 percent), and the disease cycle can be repeated every 10 to 14 days.

What about managing gray leaf spot? The following article by Paul Vincelli, Extension specialist at the University of Kentucky, offers an excellent summary of GLS management. Although it is directed toward producers in Kentucky, much information is applicable to Illinois producers as well. The basics of disease management that Paul discusses are easily adaptable to those areas of Illinois where GLS can be expected in most years (western and southeastern Illinois).

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Fungicides for Gray Leaf Spot

Gray leaf spot is a significant concern to many dent corn producers. Since the fungicides Tilt and Penncozeb 80WP are labeled for this disease, producers sometimes ask where these products fit in Kentucky grain farm operations. Penncozeb and other mancozeb-containing products have performed inconsistently for gray leaf spot control on corn, so most of this discussion will focus on Tilt fungicide.

Which fields are at risk of yield loss from gray leaf spot? Infested corn leaf residue is the source of infectious spores of the fungus *(Cercospora zeae-maydis)* that causes the disease. Damaging spore levels occur very often in no-till, continuous corn fields; these are high-risk fields. Moderate-risk fields include the following: no-till fields that were in corn two years ago and were in soybeans or wheat/double-crop soybeans last year; and fields in corn last year that were disced only (if 35+ percent residue cover remains). Levels of primary inoculum are lower in these fields than in high-risk fields, although damaging outbreaks of gray leaf spot can occur, depending on hybrid, planting date and weather during the growing season. Fields with little to no risk include: no-till fields having two growing seasons without corn; disced fields with no corn last year; and fields that were moldboard-plowed, regardless of cropping history.

The only "wild card" about these comments is that corn residue from a neighboring no-till field planted to a susceptible corn crop last year can serve as a significant source of inoculum for corn planted up to 300-500 feet away, or for any field if it is planted very late (say, in June).

Can the disease be controlled adequately with hybrid selection? More corn hybrids become available each year with enough partial resistance against gray leaf spot for adequate yields. Compared to a susceptible hybrid, a corn hybrid that has partial resistance to gray leaf spot exhibits smaller lesions, a delay in lesion development, and/or reduced sporulation in lesions. While disease development is not prevented completely, partial resistance has the effect of slowing disease progress. Since gray leaf spot is principally a disease of mid- to late grain fill, resistance which simply slows disease progress can provide for acceptable yields. The greatest availability of hybrids with partial resistance to gray leaf spot is among medium-maturity and full-season hybrids.

The majority of the seed corn in stock for the 1998 season in Kentucky appears to have at least moderate resistance to gray leaf spot. For example, 77 percent of the seed stock of Pioneer Hi-Bred has a rating of "5" or higher (scale of 1-9, where 9 = excellent resistance) against the disease. Studies have shown that expected yield benefits of applying fungicides following the label directions on hybrids with these levels of resistance are generally minimal to nonexistent, even with multiple applications. Keep in mind that data used to demonstrate a substantial economic value from Tilt are usually collected in studies from no-till, continuous corn where a susceptible hybrid is planted, not a hybrid with moderate resistance.

Probability of favorable net return from fungicides:

As far as factors to consider, I've already mentioned the influence of crop rotation, tillage, and hybrid susceptibility on gray leaf spot development. In addition, bear in mind that late planting increases pressure from the disease. Also, field location is important. A field with good air move-

ment will have less disease pressure than a foggy field along a creek. Coverage of the leaves is an issue, as well. On a scale of one to four, where "four stars" is excellent, Tilt is a "three-star" product against gray leaf spot. It is a good product, but not an excellent product. Furthermore, while Tilt is a systemic, its mobility in plant tissues is not as high as some systemic fungicides, so don't count on systemic movement to compensate for poor spray coverage. Poor spray coverage (low gallonage and pressure, poor nozzle arrangement) can be expected to compromise the performance of this product.

Penncozeb, which contains the active ingredient mancozeb, provides erratic performance against this disease, since adequate coverage of this contact fungicide is very difficult to obtain using commercial equipment.

Keep in mind that the number of applications also affects profitability of fungicide usage. The research seems to indicate that most of the benefit of Tilt comes from a single, well-timed application rather than several applications. Finally, the weather and disease development pre- and post-silking determine whether is really pays to apply fungicide.

In studies conducted to date under commercial or near-commercial conditions, Tilt provided protection against gray leaf spot yield losses that ranged anywhere from 0 bu/A to 30 bu/A. In other words, some producers may see no benefit to using the product (even in high-risk fields), while other producers may avoid a 20-30 bushel loss with a susceptible hybrid in a high-risk field. There is no way to know ahead of time whether a producer will get back more than the cost of the application, since that depends on so many unknown factors, like weather, disease buildup, corn prices, etc.

Keep in mind that using a fungicide like Tilt doesn't increase yields. All it can do is protect the yield potential of the field from losses due to one or more diseases. While one cannot predict the economic return from using Tilt in any given field, it is possible to identify fields representing extreme cases, where Tilt is highly likely or highly unlikely to be worth the cost of application.

Field A, where Tilt is highly LIKELY to be profitable:

The crop is planted no-till into corn residue in a field along a creek. The hybrid is susceptible to gray leaf spot. (For example, if the company rates their hybrids on a scale of 1 to 9, where 9 = highly resistant, we've planted a hybrid with a rating of 1, 2, or 3. For a company that rates their hybrids on a scale of 1 to 5, where 5 = highly resistant, we've planted a hybrid with a rating of 1 or 2.) The crop was planted during the first week of May. Tilt was applied once in 50 gallons per acre at 100 psi using three nozzles per row, with nozzles directed to cover the ear leaf and above.

Field B, where Tilt is highly UNLIKELY to be profitable:

The crop is planted no-till into soybean residue in an upland field. On a scale of 1 to 9, where 9 = highly resistant, the hybrid has a rating of 5 or higher. On a scale of 1 to 5, where 5 = highly resistant, the hybrid is rated 4 or 5. The crop was planted during the first week of April. Tilt was applied twice in 15 gallons per acre at 50 psi using one nozzle over the row.

Where does Tilt fungicide fit for a corn producer? Its principal use is probably in specialty corns where the hybrid is susceptible to gray leaf spot, a premium is being placed on grain quality, and the field is a moderate to high risk. It probably has value for susceptible inbreds in the few seed production fields in Kentucky. Given the rotation practices of most farms and the hybrids available for this season, most typical grain fields probably won't benefit much, if at all, from using Tilt. Producers who are careful observers will, of course have a feel for which fields on their farms have high disease pressure most years. Producers who are unsure as to the level of gray leaf spot pressure should contact their Extension educator for information on identifying and scouting for the disease.

If a producer has decided to use Tilt, how can it best be used? If Tilt is to be used, spray the crop shortly before tasseling. The product is labeled for application prior to and through mid-silking. When silks on 50 percent or more of the plants have turned brown, it is illegal to use Tilt. Furthermore, UK studies show that efficacy declines significantly when applied after silking. High-clearance ground sprayers should be fitted with drop nozzles aimed for good coverage of the ear leaf and above. Keep application volume and pressure as high as possible (at least 50 gallons per acre at 100 psi or more). Aerial applicators should respect the 5 gallons-per-acre minimum volume indicated on the Tilt label; lower spray volumes could result in inadequate control.

What is the cost of treating with Tilt? At 4 fl oz per acre, Tilt costs about $10/acre for the material per application. Add about $4-5/acre to that for application costs.

Should the producer scout for the disease before deciding whether to treat? Ideally, yes. A very conservative spray threshold for susceptible hybrids is to consider treating if at least 50 percent of plants examined have gray leaf spot lesions (3/8 inch or longer in length) on the third leaf below the ear leaf by tasseling. Even if this threshold is reached, Tilt applications may not provide any economic benefit, since so many factors determine this. However, this is the guideline I suggest for the 1998 season, and it is very conservative—a producer who wishes to treat with Tilt will not forego a necessary application using this guideline.

Paul Vincelli, in *KY Pest News,* April 20, 1998

INSECTS

Corn Rootworm Adults Common in Many Cornfields

We've received many reports during the past week concerning the abundance of corn rootworm adults in many cornfields. As fields enter the pollination period, attention should be focused on the silk-clipping threat that exists. Fortunately, rootworm adults are less likely to cause reduced kernel sets this year because plentiful soil moisture exists in most cornfields. Plants that are not under moisture stress are typically able to produce silk at impressive rates even when rootworm beetles are present and feeding on silk tissue. Bob Nielsen, Purdue University Extension agronomist, recently provided some interesting facts about the pollination process in the Purdue University *Pest and Crop Newsletter* (no. 16, July 3, 1998). When making decisions regarding whether or not to treat a field to prevent silk clipping by corn rootworm adults, consider the following points provided by Bob Nielsen.

- *The yellow "dust-like" pollen that falls from a tassel represents two to five million individual, nearly microscopic, spherical, yellowish-translucent pollen grains.*
- *Approximately two to five thousand pollen grains are produced for each silk. Therefore, the amount of viable pollen available is almost never a limiting factor during pollination.*
- *As silks first emerge from husk, they lengthen as much as 1 inch per day for the first day or two, but gradually slow over the next several days.*
- *Silk elongation stops about 10 days after silk emergence, regardless of whether pollination occurs, due to senescence of the silk tissue.*
- *Silks remain receptive to pollen grain germination up to 10 days after silk emergence.*
- *A pollen grain germinates on a receptive silk and develops a pollen tube, containing the male genetic material, that grows inside the length of the silk and fertilizes the ovule within 24 hours.*
- *Generally, silk length on injured ear shoots must be at least 1/2-inch in order that a sufficient length of viable silk tissue be exposed for pollen germination.*

Our thanks to Bob Nielsen for providing this interesting information on the pollination process.

With so many planting and replanting dates this year, corn rootworm beetles will have many opportunities to move from field to field to find fresh silks and pollen, their preferred food. Western corn rootworm males emerge first, followed by western corn rootworm females. After emergence and mating, about 14 days elapse before the females begin laying eggs. Western corn rootworm beetles are about 1/4-inch in length. The background color for both males and females is yellow, but the two sexes differ somewhat in their markings (Figure 1). On males, nearly the entire front half of each wing cover is black; only the tip of the wing cover is yellow. Females are usually slightly larger and have three distinct black stripes on the wing covers. Gravid (pregnant) females have distended and swollen abdomens. Northern corn rootworm adults emerge after western corn rootworm beetles. Northern corn rootworms also are about 1/4-inch long, but they have no distinct markings (Figure 1). Newly emerged northern corn rootworms are cream or tan in color, but they gradually become green as they age. As with the western species, the females are slightly larger. You may also observe southern corn rootworm beetles, or 12-spotted cucumber beetles. These migratory beetles rarely cause much silk-clipping injury.

The first objective of scouting for rootworm adults is to determine their potential for interfering with pollination. In commercial field corn, treatment may be justified if you find five or more beetles per plant, pollination is not complete, and silk clipping is observed. In seed-production fields, a treatment may be justified if the silks

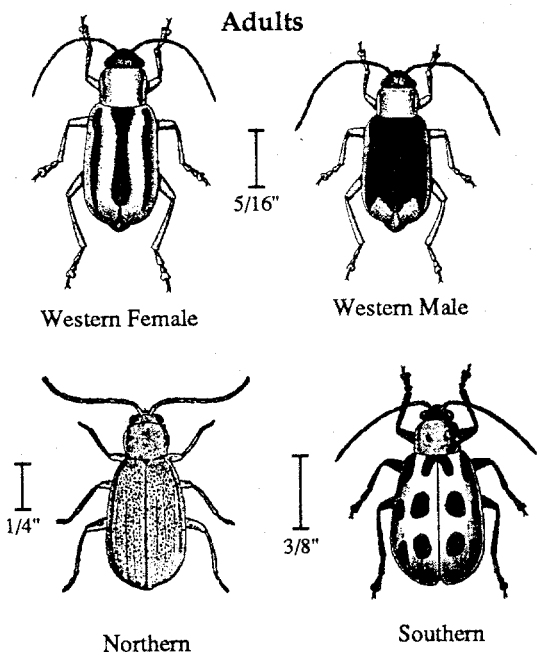

Figure 1. Western (top), northern (bottom left), and southern (bottom right) corn rootworm adults (illustration from Seed Corn Pest Management Manual for the Midwest, *Purdue University).*

on 20 percent of the plants have been clipped to a length of 3/4-inch or less, pollination is still taking place, and rootworm beetles are present. Products labeled for use against corn rootworm adults include *Ambush 2E, *Asana XL, Lorsban 4E, *Penncap-M, *Pounce 3.2EC, Sevin XLR Plus, and *Warrior 1EC (* = Use restricted to certified applicators only). In future issues of this *Bulletin*, we will provide information about treating cornfields to suppress egg laying by corn rootworm adults. Keep in mind, optimal treatment times necessary to prevent silk clipping and suppress egg laying most often do not overlap.

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Fall Armyworms: Many Southern Illinois Cornfields Are Infested

Fall armyworm infestations are causing many producers throughout southern Illinois to "wrestle" with some tough management decisions in replanted cornfields. For many producers that I visited with this week, plants in their fields were no taller than 12 to 18 inches. Typically, fall armyworms infest cornfields that are in the late-whorl to early tassel stages of plant development. Not this year. Our economic threshold for fall armyworms on whorl-stage plants is to consider a rescue treatment when 75 percent of the plants display injury and armyworms are continuing to feed. Because many southern Illinois cornfields are not at the whorl stage of development, the economic threshold becomes very blurry. We suggest a rescue treatment when 25 percent of the plants are being injured by true armyworms on seedling corn. Both our true armyworm and fall armyworm thresholds are based upon corn that was planted at more optimal planting dates in the spring. Many fields in southern Illinois were replanted well into June, and the potential yield doesn't look quite as encouraging. Because many of these fields will be pollinating in late July and early August, during what is typically the most stressful point of the summer, the potential payback of applying rescue treatments for fall armyworm is a very tough call. Provided are some facts about fall armyworms that may be of some assistance in making control decisions.

- Fall armyworms are migratory moths that overwinter in more southern states.
- Fall armyworms are unable to survive winters in locations where the ground freezes hard.
- Each fall armyworm moth can lay upwards of 1,000 eggs.
- Eggs are laid in "hairy" masses, each mass containing approximately 150 eggs.
- Unlike true armyworms, fall armyworms do not leave plants during the daylight hours.
- Fall armyworms typically reach lengths of 1-1/2 inches.
- Usually only 1 generation occurs in northern states, in southern regions, 5 to 10 generations may occur within a single year.

Fall armyworms are very similiar in appearance to true armyworms. Larvae range in color from light tan or green to almost black. Also very noticeable are the presence of many stripes running the length of the body. Fall armyworms have a very striking inverted Y on the front of their head capsule (Figure 2). True armyworms do not display this feature.

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Figure 2. Head capsule of fall armyworm; note the inverted Y.

Corn Leaf Aphid Populations: Reports of Infestations Are Down

In most seasons, after the 4th of July we begin to receive many reports of corn leaf aphid infestations. So far, that has not been the case this year. The excessive precipitation across much of Illinois has likely suppressed aphid densities in many fields. However, don't be surprised to see "pockets" of corn leaf aphids during your scouting ventures for corn rootworm beetles. Provided is a summary of corn leaf aphid biology, management strategies, and some information about thresholds for commercial and seed production cornfields.

Corn leaf aphids do not survive the winters throughout most of the north central states. The aphids usually migrate or are carried into Illinois on storm fronts and prevailing winds during June and July. When these aphids "drop" into cornfields, they move into the protective whorl area to begin the business of establishing colonies. The reproductive powers of corn leaf aphids are impressive. About nine generations of this insect occur each year in the Midwest. Producers generally begin to notice the aphids in clusters that appear on leaves and in the whorls of corn plants. As the number of aphids increases on a given plant, winged females become more apparent and eventually fly from infested plants to less crowded plants to begin new colonies. Corn leaf aphids secrete a sticky substance referred to as "honeydew." As densities increase, leaf surfaces and tassels often become black and sooty as mold begins to grow on the honeydew.

When monitoring fields for this pest, look for bluish green, soft-bodied insects the size of a pinhead (Figure 3). Their legs and short cornicles ("tailpipes") near the rear of the abodomen are completely black. When scouting fields for corn leaf aphids, examine at least 5 sets of 20 plants per field. The presence of predators such as lacewings and lady

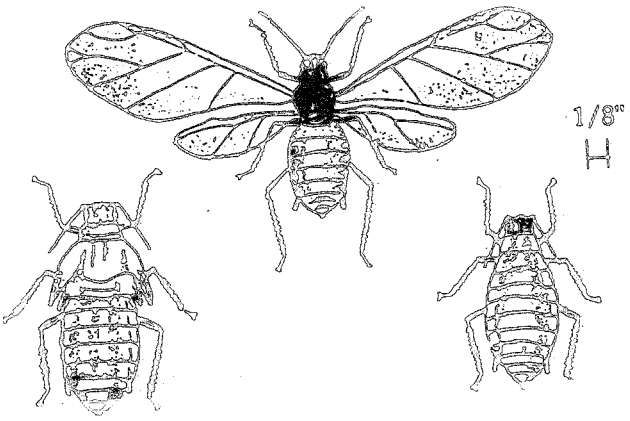

Figure 3. Corn leaf aphid, winged and wingless forms.

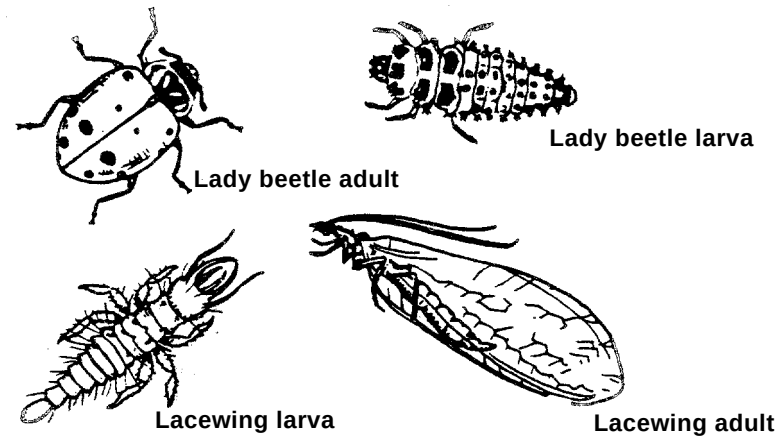

Figure 4. Common predators of corn leaf aphids (clockwise from upper left): lady beetle adult, lady beetle larva, lacewing adult, lacewing larva.

beetles also should be noted (Figure 4). Unfortunately, specific information is not available regarding how many predators and diseased aphids represent that level at which an insecticide is not required. Parasitized aphids will be smaller, brown, and less mobile. Diseased aphids will be shriveled and possibly moldy. Because corn leaf aphids must shed their skins when they molt, white to grayish cast skins are often found. Don't confuse cast skins with diseased or parasitized aphids.

If 50 percent of the plants during the late-whorl to early tassel stages have light to moderate infestations (50 to 400 aphids per plant) and plants are under drought stress, a treatment may be warranted. Please note that plants **must generally be under moisture stress** for a rescue treatment to make much sense. Obviously, most fields in Illinois don't fit this category at this point. If the pollination process is well over halfway complete and the plants are under no moisture stress, corn leaf aphids will pose less of an economic threat. Corn that is under serious moisture stress after pollination may still suffer yield losses if plants are heavily infested (upper leaves and tassel completely coated). For many replanted fields that are still several weeks from pollination, dry conditions could return in late July and early August, potentially setting the stage for late-season corn leaf aphid problems. Bottom line—don't write this insect off, just yet.

For those in the seed industry, consider the following advice. According to the *Seed Corn Pest Management Manual for the Midwest* (published by Purdue University), fields should be monitored when they reach the whorl stage of development. It is during the whorl stage that yield losses are most likely to occur if aphid densities are high. In addition, information from this manual indicates that "corn leaf aphid control is most effective 2 to 3 weeks prior to tasseling, after which it is rarely advisable."

Insecticides suggested for corn leaf aphid control include: dimethoate (see product label), Lorsban 4E at 1 to 2 pints per acre, malathion 57% EC at 1-1/2 pints per acre, and *Penncap-M at 2 to 3 pints per acre. Penncap-M is a restricted-use insecticide and can be applied only by certified applicators. If corn leaf aphids are the only target insect and residual activity is not a main concern, malathion 57% EC should provide satisfactory levels of control.

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Return Service Requested

Field Days

There will be a field day at the Belleville Research Center, operated by Southern Illinois University, on Thursday, July 16, starting at 9:00 a.m. Please contact the Belleville Center at (618)566-4761 for more information.

There will be a field day on Thursday, August 6, from 8:00 to 11:00 a.m. at the Dixon Springs Agricultural Center. A free pancake breakfast will be provided starting at 7:00 a.m. There will be two tours. One on pest management will include management of seedling blights; *Bt* corn; johnsongrass control; and new developments in corn and soybean herbicides. The crop production tour will include wheat management and variety selection; yield mapping and GPS; resource management equipment; and fate of nitrogen fertilizer.

Details of field days at the other centers will be given closer to the dates they will take place. Dates and startingtimes for the other Center tours are

Orr Center (near Perry): Monday, August 24 at 3:30 p.m.

Monmouth: Tuesday, August 25 at 8:00 a.m.

Urbana: Thursday, August 27 at 7:00 a.m.

DeKalb: Wednesday, September 2 at 8:00 a.m.

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