

PEST MANAGEMENT & CROP DEVELOPMENT

BULLETIN

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First Issue of 2002

It's been three-and-a-half months since the last issue of the *Bulletin*, and now that I am writing this article, I know the growing season is about to begin. We worked through yet another mild winter, so spring snuck up on us before some of us were ready. It's time to be ready.

Planters will be rolling through the fields soon, and when the crops emerge, our work picks up pace. Starting with the next issue of the *Bulletin* (issue no. 2, April 5), we will publish weekly issues through mid-August, with a team of Extension specialists and educators writing articles to keep you informed of pest situations and crop development throughout the state. State specialists will provide information based on research trials, observations, and reports from all over the state, as well as from other sources in the Midwest. We'll throw in the occasional editorial, too. Extension educators will offer regional reports, keeping you apprised of more local developments in northern, west-central, east-central, and southern Illinois.

Once again we have some new "players" this year. Dr. Terry Niblack joined the Department of Crop Sciences in 2002, bringing with her a truckload of experience regarding management of the soybean cyst nematode. Terry will keep you informed about the soybean cyst nematode and its management. We also welcome Dr. Aaron Hager into the faculty of our department. Most of you know Aaron; he has been a member of the weed science team for 9 years as an IPM specialist. However, we recently hired him as an assistant professor of weed science in our department, and we're all delighted to have been able to keep him here in Illinois. He'll continue to provide his excellent contributions in the *Bulletin* well into the future.

I know I speak for all specialists and educators when I invite you to send us reports throughout the season. We sincerely appreciate learning about pest problems and crop development in different areas throughout the state. When you provide us with information, we can share it with everyone who reads the *Bulletin*. And knowledge makes us all better pest and crop managers.

On behalf of all of the authors who contribute to the *Bulletin*, I thank you for your continued support of our efforts and your interest in the information we provide. We look forward to working with you and providing the most current, useful information possible.—*Kevin Steffey*

INSECTS

Black Cutworm Adults Already

Here we are, still in the month of March, and the first black cutworm adults of the season have been captured in pheromone traps. Ron Hines, senior research specialist at the Dixon Springs Agricultural Center, activated his pheromone traps in Pope and Massac counties on March 15. He found black cutworm males in the traps in both locations on March 18. The moth captures were not "intense" (nine or more moths captured over a 1- to 2-day period), but they're worthy of note.

As you are aware, we can predict the first signs of cutting of corn seedlings when 300 heat units have accumulated (base 50°F) after an intense capture. When reports of such captures begin to occur, we'll include our predictions in the *Bulletin*.

By now, readers of the *Bulletin* are familiar with the reports that Ron Hines provides. Ron sets up traps to monitor the flights of many species of moths at various times throughout the season: armyworm, black cutworm, corn earworm, European corn borer, fall armyworm, and southwestern corn borer. This information is valuable for anyone who wants to keep abreast of the potential occurrence of these important pests. Therefore, we intend to make Ron's trap-capture reports available through the *Bulletin* Web site this year. As soon as we get his Web pages up and running, "The Hines Report" will become a weekly feature. (We'll provide the URL when it's available.) Anyone wishing to follow the population dynamics of these pests in southern Illinois will want to access "The Hines Report" regularly.

Mild Winter Brings Out Thoughts of Flea Beetles

As most people know, mild winters enhance the survival of flea beetles and increase the potential for the occurrence of Stewart's bacterial wilt. The bacterium that causes Stewart's wilt, *Erwinia stewartii*, overwinters in the soil and plant debris, as well as within flea beetles. As many as 20% of the emerging corn flea beetle adults in the spring may be infected with the bacteria. Flea beetles transmit the bacteria when they feed on corn seedlings. Although most commercial field corn hybrids are resistant to the wilt phase of Stewart's disease, symptoms of the disease may be visible. The disease is much more important for producers of seed corn and sweet corn who understand the risk, especially after a mild winter.

We use the sum of the monthly average temperatures of December, January, and February as a "predictor" of the potential for flea beetle injury and development of Stewart's bacterial wilt. The sum of the average temperatures for these 3 months dictates the potential for flea beetle injury and Stewart's wilt as follows:

- less than 90°F—low potential
- 90–100°F—moderate potential
- more than 100°F—high potential

Figure 1 (provided by Bob Scott, Illinois State Water Survey) shows the sum of the monthly average temperatures for December 2001 and January and February 2002. The news is not encouraging, but I doubt that it's surprising to most of us. The potential for flea beetle injury and Stewart's wilt in the spring of 2002 is high throughout the southern two thirds of the state.

Please understand that these "predictions" are predicated on the numbers of flea beetles that have overwintered,

and these numbers are not known. Nevertheless, these guidelines based on winter temperatures at least offer an alert.

Entomologists and plant pathologists will write more articles about flea beetles and Stewart's bacterial wilt as the growing season begins in earnest. In the meantime, let this information serve as a forewarning.—Kevin Steffey

Find Wireworms Before Planting Corn

Wireworms are among the so-called secondary insect pests that have caused considerable damage to cornfields in recent years. Along with grape colaspis, white grubs, and a few other notables, wireworms have become a focus of attention for a lot of agriculturists in Illinois. Everyone should realize wireworm infestations cannot be controlled with "rescue" treatments after the fact (i.e., after the damage is discovered). Consequently, knowledge of the presence (or absence) of wireworms before planting corn is the best way to make plans for their control. Although anticipating the occurrence of most secondary insect pests is challenging (to say the least), wireworms can be detected before planting.

The occurrence of wireworms usually is related to the crops or weeds that were growing in the field 2 to 4 years before damage to corn occurs, primarily because the larvae live for 2 to 6 years in the soil. Fields with the greatest potential for wireworm problems include corn planted after small grains (including corn planted after double-cropped soybeans) and grass pastures or grass hay. Many species of click beetles (the adult stage of wireworms) prefer to lay their eggs in grasses. Depending on the species (there are many that occur in Illinois), wireworm populations may be concentrated in low, poorly drained areas of fields or in high, drier areas of fields.

Ultimately, the only way to know for certain whether wireworms pose a

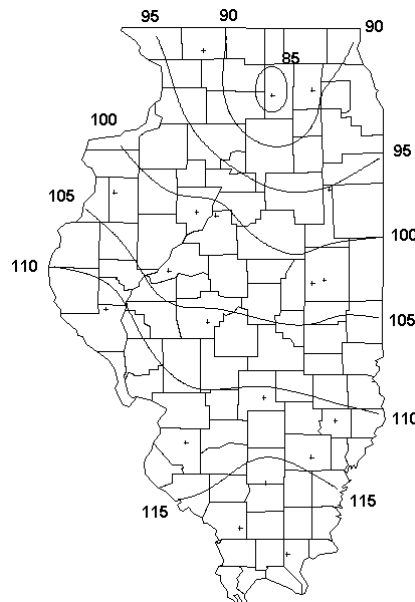


Figure 1. Sum of monthly average temperatures (degrees Fahrenheit) from December 2001 through February 2002. (Map provided by Bob Scott, Illinois State Water Survey.)

threat is to look for them before planting corn. Efforts to aid the search for wireworms led entomologists at the University of Missouri to develop the idea of solar bait stations. These bait stations are simple to create, and the results are easy to interpret. Although several studies over the years have focused on finding a better way to detect wireworms, solar bait stations always win out.

Follow this procedure for establishing bait stations 2 to 3 weeks before the anticipated planting date:

1. Dig a hole about 3 to 4 inches deep and 9 to 10 inches wide at the soil surface.
2. Bury 1/2 cup of a mixture of equal parts untreated corn and wheat at the bottom of the hole. The germinating seeds attract wireworms.
3. Fill the hole and mound a “soil dome” over the covered bait to serve as a solar collector and prevent standing water.
4. Cover each mound with an 18-inch-square sheet of black plastic topped with a 1-yard-square sheet

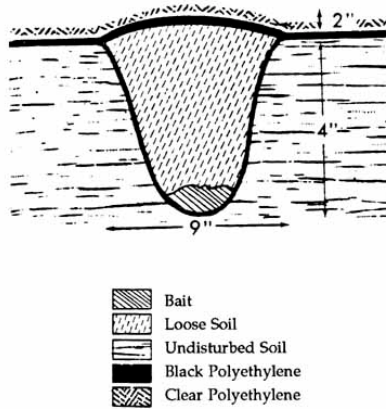


Figure 2. Cross-section of a solar bait station for sampling for wireworms.

- of clear plastic, and cover the edges with soil to hold the plastic sheets down. The plastic collects solar radiation and speeds germination of the corn and wheat. A cross-section of a wireworm bait station is illustrated in Figure 2.
5. A few days before planting, remove the plastic and soil covering the bait and count the number of wireworm larvae found at each station. Wireworm larvae are 1/2 to 1-1/2 inches long and usually are hard,

smooth, dark reddish brown, and wirelike. However, some species are soft-bodied and are white or yellowish.

6. Place about a dozen bait stations per 40 acres. Your placement of the bait stations should represent different areas of a field.

A video clip that shows the procedure for placing a solar bait station can be accessed at <http://ipm.uiuc.edu/publications/videos/video.html>. The video also is available on the IPM Online Companion CD.

If you find an average of one or more wireworms per bait station, consider the use of a registered seed treatment or a soil insecticide (refer to Table 1 for options). A hopper-box seed treatment (e.g., Agrox DL Plus, Kernel Guard) will protect the seeds but will not prevent wireworms from attacking the stem beneath the soil surface. If your baiting procedure pinpoints wireworms in a specific area of the field, consider treating only the infested area rather than the entire field. You'll save money by reducing the amount of insecticide applied in the field.—
Kevin Steffey

Table 1. Soil insecticides and seed treatments suggested for control of wireworms in corn.

Product	Amount of product	Placement
*Aztec 2.1G	6.7 oz per 1,000 feet of row	Band, furrow
*Aztec 4.67G (SmartBox only)	3 oz per 1,000 feet of row	
*Capture 2EC	0.3 oz per 1,000 feet of row	Band
*Counter CR	6 oz per 1,000 feet of row	Band, furrow
diazinon + lindane	See product label	Seed treatment
*Force 3G	4 to 5 oz per 1,000 feet of row	Furrow
*Fortress 2.5G	6 oz per 1,000 feet of row	Furrow
*Fortress 5G (SmartBox only)	3 oz per 1,000 feet of row	Furrow
imidacloprid (Gaucho, Prescribe)	See product label	Seed treatment
lindane	See product label	Seed treatment
*Lorsban 4E	4 pt per acre	Preplant incorporated
*Lorsban 15G	12 oz per 1,000 feet of row	Furrow
permethrin	See product label	Seed treatment
*Pounce 1.5G	8 to 16 oz per 1,000 feet of row	Furrow
*Pounce 3.2EC	0.3 oz per 1,000 feet of row	Furrow
ProShield with Force ST	See product label	Seed treatment
*Regent 4SC	0.24 oz per 1,000 feet of row	Furrow
*Thimet 20G	6 oz per 1,000 feet of row	Band
*Warrior	1.92 oz per acre	Furrow

* Use restricted to certified applicators.

The Watch for Alfalfa Weevils Begins

Alfalfa weevils are the “earliest-rising” insect pests of field crops in Illinois, becoming active whenever the temperatures rise above 48°F. Alfalfa weevil adults lay eggs in the fall in southern Illinois, where they overwinter as both eggs and adults. When temperatures exceed 48°F, larvae begin to develop within the eggs and adults resume mating and egg laying.

Two distinct peaks of larval activity usually occur in southern Illinois, one from fall-deposited eggs and one from spring-deposited eggs. Larvae hatch from overwintering eggs when approximately 200 degree-days (above a base temperature of 48°F) accumulate beyond January 1. Scouting for alfalfa weevil larvae should commence when between 250 and 300 degree-days accumulate. An early peak of third-stage larvae from overwintering eggs occurs after an accumulation of 325 degree-days; a second major peak of third-stage larvae from spring-deposited eggs occurs after an accumulation of 575 degree-days.

Figures 3 and 4 show actual and projected degree-day accumulations (base 48°F) in Illinois from January 1 through March 17 and March 30, respectively. According to current degree-day accumulations, alfalfa weevil larval activity is still in our future. However, accumulation of degree-days varies within an area, depending on topography and other factors. For example, south-facing slopes usually warm up faster in the spring, so alfalfa weevil activity could begin in such fields earlier than projected. For several counties in southern Illinois, alfalfa weevil larvae should be evident before the end of March.

I recently visited Oklahoma State University and got some information about alfalfa weevils from Phil Mulder, Extension entomologist. At the time of my visit (first week in March), Phil and his students were

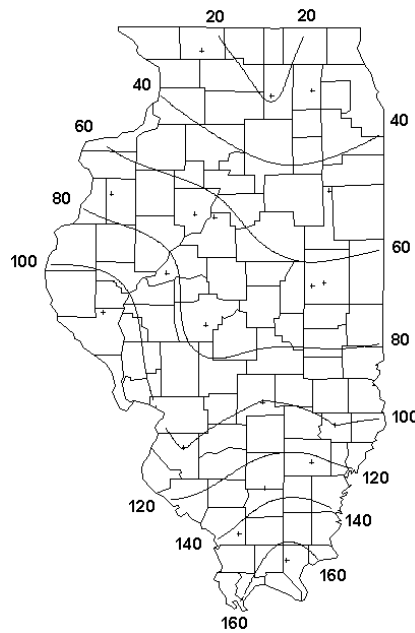


Figure 3. Actual degree-day accumulations (base 48°F) from January 1 through March 17, 2002. (Map provided by Bob Scott, Illinois State Water Survey.)

processing samples of alfalfa weevil eggs from several areas in their state. He indicated that samples taken during January indicated an unprecedented density of eggs per square foot, the highest densities he had ever observed. The range in densities was about 57 (Payne County, central Oklahoma) to 1,487 alfalfa weevil (Stephens County, southern Oklahoma) eggs per square foot. The average was 348 alfalfa weevil eggs per square foot.

However, the freeze that occurred in February took its toll on both alfalfa weevil eggs and larvae that had hatched in some areas (as much as an 85% reduction in larval numbers). Nevertheless, the viability of eggs ranged from 73% to 81%. (Data taken from the article “Alfalfa Weevil Egg Population Up in 2002,” in Oklahoma State University’s *Plant Disease and Insect Advisory*, Vol. 1, No. 5, March 12, 2002; <http://plants.okstate.edu/Pddl/PDIA1-5.pdf>).

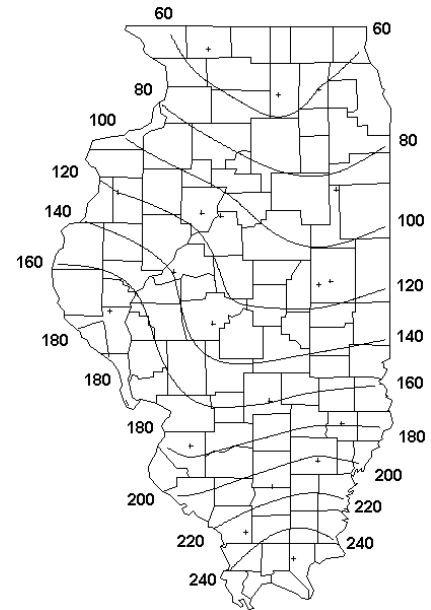


Figure 4. Projected degree-day accumulations (base 48°F) from January 1 through March 30, 2002. (Map provided by Bob Scott, Illinois State Water Survey.)

You may wonder what the situation in Oklahoma has to do with our situation in Illinois. Well, we can keep track of occurrences of insects like the alfalfa weevil in states to the south (e.g., Kentucky, southern Missouri, Oklahoma) to get potential insight into our own situation. If alfalfa weevil eggs survived the mild winter in Oklahoma, they probably survived our mild winter, too. Another forewarning of the possibilities.

We’ll keep you apprised of degree-day accumulations, population densities, effects of natural enemies, and options for management in future issues of the *Bulletin*. Please feel free to let me know when you first observe alfalfa weevil activity this year.—Kevin Steffey

Mustang Insecticide Registered for Use

A new pyrethroid insecticide—Mustang, manufactured by FMC Corporation—received federal registration late last year for use on several field crops, including, but not limited to, alfalfa, corn, sorghum, soybeans, and wheat. The common name for the active ingredient is *zeta*-cypermethrin. Mustang contains 1.5 pounds of active ingredient per gallon. Following is a list of crops, rates of application, and selected insects for which Mustang is labeled for control:

- Alfalfa, 2.4 to 4.3 oz per acre—alfalfa caterpillar, alfalfa weevil, cutworms, meadow spittlebug, potato leafhopper, webworms
- Alfalfa, 3.0 to 4.3 oz per acre—grasshoppers, plant bugs
- Corn, 0.16 oz per 1,000 feet of row (at plant)—cutworms
- Corn, 1.4 to 3.0 oz per acre (“rescue” treatment)—cutworms
- Corn, 1.9 to 4.3 oz per acre—corn earworm
- Corn, 2.9 to 4.3 oz per acre—corn rootworm adults, European corn borer, flea beetles, grasshoppers, hop vine borer, Japanese beetle adults, sap beetle adults, southern corn leaf beetle, southwestern corn borer, stalk borer, stink bugs, webworms
- Corn, 2.4 to 4.3 oz per acre—armyworm, chinch bug, fall armyworm
- Sorghum, 1.4 to 4.3 oz per acre—cutworms, sorghum midge
- Sorghum, 1.9 to 4.3 oz per acre—corn earworm, fall armyworm, webworms
- Sorghum, 3.4 to 4.3 oz per acre—chinch bug, grasshoppers
- Soybeans, 1.4 to 4.3 oz per acre—cutworms, thistle caterpillar, saltmarsh caterpillar

- Soybeans, 3.0 to 4.3 oz per acre—bean leaf beetle, blister beetles, corn earworm, green cloverworm, Japanese beetle adults, Mexican bean beetle, plant bugs, potato leafhopper, soybean aphid, woollybear caterpillars
- Soybeans, 3.4 to 4.3 oz per acre—grasshoppers, stink bugs, thrips
- Wheat, 1.9 to 4.3 oz per acre—armyworm
- Wheat, 3.4 to 4.3 oz per acre—chinch bug, grasshoppers

For aphids that occur in some of these crops, the Mustang label indicates “Aids in Control.”

Mustang is a restricted use pesticide. Refer to the label for precautionary statements (e.g., hazards to humans and domestic animals, and environmental hazards), spray drift precautions, and preharvest intervals, as well as other label-specific information.—*Kevin Steffey*

WEEDS

New Herbicides and Label Changes for 2002

Aventis

Option 35WG (foramsulfuron) registration is expected sometime this spring. Option contains a new active ingredient that will be labeled for postemergence use in field corn. Use rates will range from 1.5 to 1.75 ounces per acre and may be applied up through V5 corn. Applications must include a methylated seed oil and a nitrogen fertilizer. Option controls several annual grass and broadleaf weed species. Since Option is an ALS inhibitor, it will not provide satisfactory control of ALS-resistant weed biotypes. Tank mixtures with herbicides having other modes of action will be needed to control these species.

BASF

Raptor 1S (imazamox) received registration for use in alfalfa. Raptor should be applied early postemergence before weeds exceed 3 inches in height. Use rates range between 4 and 6 fluid ounces per acre for seedling or established alfalfa grown for forage, hay, or seed. There should be at least 20 days between applications of Raptor and cutting or feeding alfalfa for forage or hay, and an interval of 70 days between application and harvest of alfalfa seed used for food or feed.

Backdraft SL 1.35L (imazaquin + glyphosate) will replace Backdraft 1.5L. The change in formulation results in a use rate change to 2.5 quarts per acre. This rate delivers 2.14 ounces per acre of Scepter 70DG and 1 quart per acre of Roundup Original. Postemergence applications should be made only to Roundup Ready soybeans.

Dow AgroSciences

There are a couple of label changes for *Hornet 68.5WDG (flumetsulam + clopyralid)*. The rotational restriction is now 10.5 months for forage grasses and snap beans. There has also been a change in the rainfastness from 6 to 2 hours.

DuPont

Accent Gold WDG 78.1WDG (nicosulfuron + rimsulfuron + clopyralid + flumetsulam) is a new formulation of Accent Gold that contains Hornet WDG, which replaced the original Hornet. Accent Gold WDG is applied at 3.5 ounces per acre, which provides the same activity as 2.9 ounces per acre of the original Accent Gold. Some confusion may exist as Accent Gold inventories are replaced with Accent Gold WDG, so be aware of which formulation you are using.

FMC

Aim 1.9EW (carfentrazone), a liquid formulation, will replace the Aim 40WDG dry formulation. The Aim EW use rate of 0.5 fluid ounce per acre is equivalent to the 0.33 ounce per acre rate of the dry formulation. Aim is labeled for field corn, seed corn, popcorn, corn silage, sweet corn, grain sorghum, soybeans, wheat, barley, and oats.

Monsanto

Yukon 67.5WG (halosulfuron + dicamba) state registration is expected this spring. The common use rate of Yukon is 4 ounces per acre, which delivers 2/3 ounce per acre of Permit and 4 ounces per acre of Banvel. Yukon controls both large- and small-seeded broadleaf weeds, with the added benefit of yellow nutsedge control. Since Yukon contains dicamba, special care needs to be taken when applications are made near dicamba-sensitive species.

Syngenta

Callisto (mesotrione) registration was granted during the 2001 growing season, and this product is summarized in issue 11 of the 2001 *Pest Management & Crop Development Bulletin*. One major change to the Callisto label affects rotational crop restrictions. Small grains can still be planted 120 days after application, and soybeans, sorghum, potatoes, sunflowers, tobacco, and sweet corn can be planted the season following application. However, the rotation interval has been extended to 18 months for sugar beets, peas, dry beans, snap beans, cucurbits, red clover, alfalfa, and all other rotational crops. In addition, there are several 2ee labels associated with this product. These address additional tank-mix partners and the use of several soil-applied insecticides prior to Callisto use postemergence.

Valent

Phoenix 2EC is a new formulation of lactofen, which is the active ingredient in Cobra. Phoenix contains 2 pounds

per gallon of lactofen plus an adjuvant system. Use rates range from 8 to 12.5 fluid ounces per acre, and applications should include 0.125 to 0.25% v/v non-ionic surfactant. A crop oil concentrate (COC) may be used at 1 pint per acre if weeds are under stress due to hot and dry conditions. The addition of a COC will cause soybean leaf burn similar to Cobra. Phoenix with a non-ionic surfactant will also cause some leaf bronzing or speckling; however, it may not be to the same extent as Cobra. The rainfastness of Phoenix is 2 hours compared with Cobra's 1/2 hour.

Valor 5IWDG (flumioxazin) received registration during the 2001 growing season, and this product is summarized in issue 4 of the 2001 *Pest Management & Crop Development Bulletin*. Valor may be used for burndown applications at a use rate of 1 to 3 ounces per acre with an adjuvant or used from 2 to 3 ounces per acre soil-applied for residual control of summer annual species.—Christy Sprague and Aaron Hager

CROP DEVELOPMENT

Oats, Anyone?

One unexpected surprise of the 2001 growing season was the price of oats, which was considerably higher than it had been in recent years, especially when compared to prices of other crops with which it competes. This has renewed some interest in the crop in Illinois for 2002. As a minor producer of oats—Illinois in 2001 had only about 2 percent of the oat acres in the United States—what we do in Illinois will not affect the "oat world" very much. But Illinois has one of the highest yields among oat-producing states, with 80 bu/acre in 2001 versus 61 bu/acre for the U.S. oat yield. On the other hand, even at \$2.00 per bushel, which some producers received in 2001, and yield expectations under good conditions of about 100 bu/acre, the crop usually does not compete well with corn or soybean in terms of

gross income, at least on the more productive soils.

About 1/3 of the Illinois oat acres—20,000 of 60,000 planted acres in 2001—is not harvested for grain, but is rather used as a setaside seeding or as a companion crop for forage seeding. The oats harvested for grain in warmer states such as Illinois tend not to have the high test weights (35 pounds per bushel or higher) desired by many horse owners. From a nutritional standpoint, groat percentage (dehulled weight as a percentage of total weight) and nutritional content of the groat are more important than test weight, and are often unrelated to test weight. Most commercial animal producers recognize this, and will use oats in feed for its fiber and good nutritional content. Oatmeal and oat flour producers also have little difficulty using oats produced in the Corn Belt. But pleasure horse owners often will pay a premium for oats, often imported from cooler climates such as Sweden or Canada, based on its "heavy kernels" and appearance.

Producers planning to produce oats in Illinois in 2002 should choose newer varieties with much-improved yield capability. The successful oat breeding program of Dr. Fred Kolb at the University of Illinois has given us varieties such as Blaze, Chaps, and Rodeo, of which Chaps has the best standability, but Blaze tends to have slightly higher yields. The variety Classic, developed at Purdue University, also has a good yield record. Be sure to get good seed from an established source. In general, oats tend to yield more as one moves north in Illinois, but yields in Central Illinois can be good if the weather does not turn hot and dry too soon.

For best yield potential, oats should be planted early—from mid-March to mid-April. For high yields, the crop should probably not be planted after mid-April in Central Illinois or after May 1 in Northern Illinois. The crop establishes well under tough conditions—the old saying is that oats can be "mudded in"—and some producers

do little or no soil preparation before planting. The crop is commonly seeded using 2 to 3 bushels of seed per acre, with more if seeding late or in very tough conditions. Oats are very sensitive to many herbicides, so be careful with carryover. About 50 to 60 pounds of nitrogen per acre will usually produce good yields, but under very good conditions the crop might respond up to 70 or 80 pounds N per acre. Oats seldom needs insect- or disease-control measures. Harvest usually occurs about mid-July, and hot, dry conditions or excessively wet conditions during June can reduce yields severely.—*Emerson Nafziger*

Coatings for Corn Seeds

The Landec Company, which owns the Fielders Choice seed company in Indiana, is again promoting polymer coating of corn seed for very early planting. This is a special polymer, with the ability to "sense" temperature and to become permeable to water only when the temperature reaches a certain point. In the field, this is supposed to act by preventing water uptake by the seed when the soils are too cool for germination anyway, and then to allow water movement into the seed to initiate germination when the soil temperatures are warm. The company is promoting the use of this coating for plantings made much earlier than is normally considered "safe," with the idea that planting can start earlier in this way.

We do not have very much research data on this product. In a trial planted in early May in 1999, the coating

resulted in full stands, but delayed emergence of seed in a variable manner, spreading emergence over about 10 days rather than the normal 2 to 3 days. While coated seed produced good stands, the unevenness of these stands took a toll on yield. It may be that the coatings have been changed somewhat since then, such that emergence might be more uniform and faster under warm soil conditions. But it is also clear that nonuniformity of emergence can seriously affect yield, and so should be avoided as much as possible. Observations on coated corn seed planted in 2000 were that the coating again spread out emergence, regardless of the time of planting.

Dr. Tony Vyn at Purdue has been testing this technology, and he found in 2001 that a frost that seriously damaged a stand from uncoated seed planted in early April had little effect on a stand that emerged later due to seed coating. Most of the farmer testimonials used to promote this product have tended to focus on the safety aspect—being able to plant very early (March or early April) and not having to worry about "premature" emergence and subsequent damage.

While we take a neutral view of this technology at this point, pending more research results, we would urge some caution in using coated seed on large acreages. While this material clearly can reduce damage to early-emerging stands, hence providing some "replant insurance," it is likely that the coating will often spread the time of emergence, and we think that this may reduce yields. The question probably comes down to a personal risk ap-

proach: do you accept known risks of very early planting and occasional replanting, or do you spend money for seed coating to reduce the replanting risk to some extent, while perhaps increasing risks of nonuniform emergence? It may be best to take the cautious approach of using some coated seed, preferably in half of the planter, with uncoated seed in the other half, and on relatively small areas, until we know more.

There has not been excessive replanting in most areas in the past 3 years, and replant seed policies of companies have meant fairly modest replanting costs. Furthermore, the need to replant tends to be "event-related," depending more on weather events right after planting than on time of planting itself. Finally, up to now at least, using coated seed has restricted hybrid choice to those sold by, or coated by, this company.—*Emerson Nafziger*

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