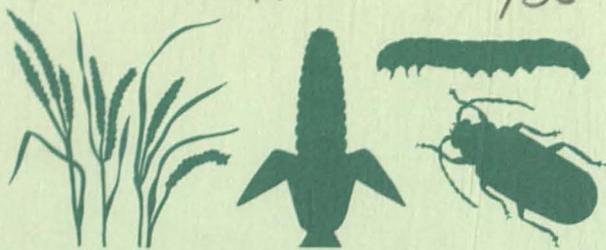


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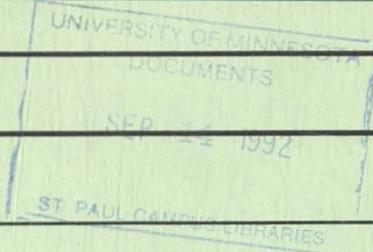
PLANT PEST Newsletter

MINNESOTA EXTENSION SERVICE

UNIVERSITY OF MINNESOTA

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OAKS

ALAMO (PROPICONAZOLE) MAY SAVE OAKS INFECTED WITH THE OAK WILT FUNGUS

—Initial research with “Alamo” indicates that this product may be helpful in saving many of our oak shade trees. Alamo is a product produced by the Ciba Geigy Company. Thus far it has been evaluated in Texas and currently is being evaluated in Minnesota. The product has been approved for use in both Texas and Minnesota, and as more data becomes available supporting the effectiveness of the product, it will become one more way to save our oaks.

To be effective, Alamo must be injected into the tree to be saved or protected from the oak wilt fungus. To purchase the product it is necessary for the people involved to attend a demonstration on how to inject oaks. The procedure is not difficult once the procedure is demonstrated. We have had two demonstrations on how to inject oak trees in Minnesota and plan to have more of these demonstrations.

The experimental results thus far are encouraging.

Infected trees have survived after they were injected with the product. In some instances the oaks adjacent to an infected oak have not become infected when the infected oak is injected. During the next few months more trees will be treated and the results evaluated.

Alamo (Propiconazole) can be purchased from a number of companies which have been approved by the Ciba Geigy Company.

Even though we have this additional way of saving some oaks, people should follow the other recommendations such as not wounding oaks in May and June, especially the period between May 15 and June 15. If oak trees are wounded a non toxic paint should be used to cover the wound. Also every effort should be made to eliminate oaks on which the fungus is present on mats under the bark. The spread of the fungus can also be limited by separating the roots by vibratory plowing between infected and healthy oaks.

*David W. French
Professor*

For more information regarding the Plant Pest Newsletter
contact Extension Plant Pathology at 612-625-6290

SOYBEANS

SOYBEAN HARVEST AIDS—Heavy weed growth in some soybean fields has producers considering harvest aid treatments. Recently Monsanto received a supplemental label for the use of Roundup (glyphosate) in preharvest applications in soybeans. Although Roundup is a nonselective herbicide and can now be considered a harvest aid, it's herbicide activity is slow on annuals and would require hot dry weather after application to be effective. The primary focus for preharvest Roundup use would be perennial weed control.

Roundup preharvest label restrictions are as follows:

1. Apply after pods have set and lost all green color.
2. Allow 7 days between application and soybean harvest.
3. Do not graze or harvest treated soybeans for livestock feed within 25 days of application.
4. Do not apply more than 6 qts./A of Roundup by ground

application or more than 1 qt./A by air.

5. Avoid contact with foliage, green stems, or fruit of crops.
6. Do not apply to soybeans grown for seed because a reduction in germination or vigor may occur.

Gramoxone Extra (paraquat) is also a soybean harvest aid. Apply when at least 65% of the seed pods have reached a mature brown color or when seed moisture is below 30% or less. Immature soybeans will be injured. Gramoxone Extra is a nonselective herbicide that will accelerate weed dry down and can be applied by ground or air. Paraquat is a restricted use pesticide.

One final note. Soybean harvest aids have not been successful in drying down black nightshade in soybeans. The moisture from nightshade stems and berries can make soybean harvesting difficult. Heavy frosts and delaying harvest of heavily infested fields are your only choices.

Jeffrey L. Gunsolus
Extension Agronomist—Weed Science

SWEET CORN

EUROPEAN CORN BORER—At most locations (see Table) we are approaching the end of this year's second generation flight. However, some of the recent low trap catches are due to cold nights. There may be some significant numbers of moths still out there "waiting in the grass" for a good night to lay eggs (as we experienced during the first generation), but the longer they have to delay egg-lay, fewer eggs will be laid and it's unlikely that new larvae at this point will grow beyond the 3rd instar (1/2" size) by the time of the last harvest dates—or 1st frost. Therefore, my bottom line: only those very late-planted fields (last 2 weeks of June to early July) will continue to require some control of ECB

or corn earworm larvae. For these fields, I would consider only one application (e.g. @ 10% silk) being sufficient. The only exception would be a welcomed 2-wk "Indian summer", which would permit the reservoir of corn earworm moths (now present) to lay more eggs, and/or permit accelerated larval development.

Although it has been a strange year for growing a tropical plant in the upper midwest, I trust that most of your harvests to date have looked good. ECB populations are clearly back to more normal levels and I would suspect that most of you are having good results with your ECB/CEW management programs.

Bill Hutchison
Extension Entomologist

MISCELLANEOUS

BLACK LIGHT TRAP CAPTURES

Data collected by: University of Minnesota, Minnesota Department of Agriculture and Private Cooperators
Traps Reporting 9/9/92

EUROPEAN CORN BORER

District	Location	Aver.	High	Date/Max
C	GLENCOE	14.83	31.00	920903
C	BIRD ISLAND	13.00	32.00	920903
C	GROVE CITY	11.67	21.00	920902
C	GAYLORD	16.17	44.00	920903
C	STAPLES	4.50	9.00	920908
SC	LE SUEUR E	45.57	117.00	920902
SC	LE SUEUR W	34.00	130.00	920906
SC	SLEEPY EYE	39.71	85.00	920902
SC	SLEEPY EYE	32.14	50.00	920907+
SC	WASECA SES	7.43	22.00	920903
SW	LAMBERTON	15.00	16.00	920909 *-5
SW	MINNEOTA	14.57	24.00	920907 *-3

*-Number of nights...High derived by average over multiple nights.

+ More than 1 night with maximum value.

Dial U

County Agents: Please Alert Master Gardeners of the Following Items

Transplanting questions continue to occupy peoples' attention. In many instances they're planning to move later in the season, and want to take some of their more valued plants with them.

We're probably seeing more of this as people become more involved with flowering perennials. Not only do they choose their plants with care, they may have quite a bit of money invested in them. No wonder they want to take them along.

If the move is to another location not too far away, perhaps the plants can be moved now, and simply "heeled in" to a small area in the new yard, mulched later in autumn, and finally replanted properly next spring. Or maybe a friend will let them plant them temporarily in their garden till next spring.

If the move is cross-country, maybe the homeowner can come back and dig the plants out next spring. Once winter temperatures set in, it would be difficult to move them without injuring or killing them.

If plants aren't too large, they could be dug now and planted in pots. Then the pots could be sunk in someone's garden or mulched heavily with straw to get through winter. There's clearly no easy answer to this problem.

Fall Lawncare questions are coming in, which means we're making inroads on that well-entrenched idea that spring is the time to fertilize and plant seeds. But this is already the tail end of grass seeding time in the southern part of the state; it's already too late for the very northern portions. But it's not too late to fertilize, regardless of which part of the state you're in.

Use a standard, high nitrogen lawn fertilizer. The nitrogen will promote rhizome and runner development so grass will come back thicker and greener next spring. The only reason to use a lower nitrogen formulation would be to mix starter fertilizer or mild, organic lawn fertilizer with grass seed to aid in even seed distribution.

We don't recommend weed and feed products unless the entire lawn has broad-leaved weeds interspersed. It's better to use a standard lawn fertilizer, then target weedy areas with a liquid herbicide spray. That way you can go back and do a second application in a couple weeks.

Core Aeration is being pushed by some lawn care companies whose salespeople say the U recommends it annually each autumn. Well.... maybe. But it depends on the circumstances.

Annual core aeration is a good idea for lawns growing on heavy clay soil, or in areas where pets, foot traffic, or recent construction have resulted in soil compaction. But

it's less important where soil is not heavy or compacted. You might core aerate before seeding and fertilizing, but in many cases it's nothing that needs to be done on an annual basis.

Wasps—This question remains our number one insect call. People should not attempt control of wasp nests hidden in homes at this late date because it greatly increases the chance of forcing wasps into the home's interior. Instead, people should wait for freezing temperatures to kill wasp nests.

People wishing to protect outdoor activities from wasps attracted to food do not have a lot of options. Usually once they are attracted to food, it is very difficult to discourage them. This is also true for wasps attracted to overripe fruit, such as grapes and apples. See PPST 16, 17, 19, and AG-FO-3732, *Are they wasps or bees?*

Pantry insects—The number of questions about Indianmeal moths, flour beetles, sawtoothed grain beetles and similar pantry insects are increasing. It is typical to see this increase in September. Exclusion is the best method of control. Check all dried food products, such as flour, cereals, pastas, spices, dried fruit, bird seed, pet food and similar items for the presence of insects. Wrap heavily infested food in plastic and throw it out. You can save lightly infested food by cold treating it at 0°F for three to seven days. This food is not contaminated and can be eaten. Automatically cold treat unopened packages older than two months. Store uninfested food in glass jars, heavy plastic (e.g. Tupperware) or similar insect-proof containers with tight lids. Also remove crumbs that accumulate around cupboards, toasters, silverware drawers, spice drawers and other similar places.

The use of insecticides is unnecessary and discouraged. Because most insects are inside food packages and not in the open, they are protected from insect sprays. Insecticides do not prevent pantry insects from infesting unprotected food. In the long run, susceptible food properly protected is the most effective control. See AG-FS-1000 *Pantry Pests*.

Ground beetles in homes—This is one of many types of insects that may enter buildings during fall as they seek hibernating sites for the winter. In some cases ground beetles have been confused for cockroaches. Although there is some resemblance, you can distinguish between the two because ground beetles are usually found only on floors, do not avoid light, and are hard-shelled while cockroaches are found in many places (including cupboards, counters, and sinks), avoid and hide from light, and are more leathery or softer-shelled. Ground beetles are harmless to people and property. Once inside they do not reproduce and are short-lived. Physical removal is the only necessary control.

MISCELLANEOUS/Continued

Late blight on Tomatoes. A number of tomato samples have been received at the Clinic with a fungal disease called late blight—do not confuse this with early blight, which is common every year. (The late blight fungus was responsible for the potato famine in Ireland during the mid 1800's). On tomato, leaf lesions first appear as indefinite, water-soaked spots, which may enlarge rapidly into large pale green to brown lesions. Infected leaves turn brown and shrivel up. Stems and petioles are affected in a similar manner and the plant often shrivels up in a short period of time. Fruit lesions appear as light green to brown, slightly sunken greasy areas on the fruit which enlarge rapidly. White fungal growth may be present on the under sides of the leaves or on/in the fruit.

Infected plants should be removed and destroyed. Remaining plants should be sprayed with a protectant fungicide such as chlorothalonil. Potato cull piles in the

vicinity of tomato or potato plantings should be eliminated. Keep watering to a minimum and water only at the base. Purchase only healthy plants next year. The fungus does not overwinter outside in Minnesota.

Clean Up Time. Be sure to remove all diseased plant material from the garden this fall, especially the tomato patch. Many foliar diseases overwinter on leaves on the ground and can "get to work" right away next year if not removed. If you are composting diseased plant material and **ALL** material is reaching at least 130° F, then all plant pathogenic fungi, bacteria and nematodes will be destroyed.

Debbie Brown
Horticulture

Jeff Hahn
Entomology

Cindy Ash
Plant Pathology

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