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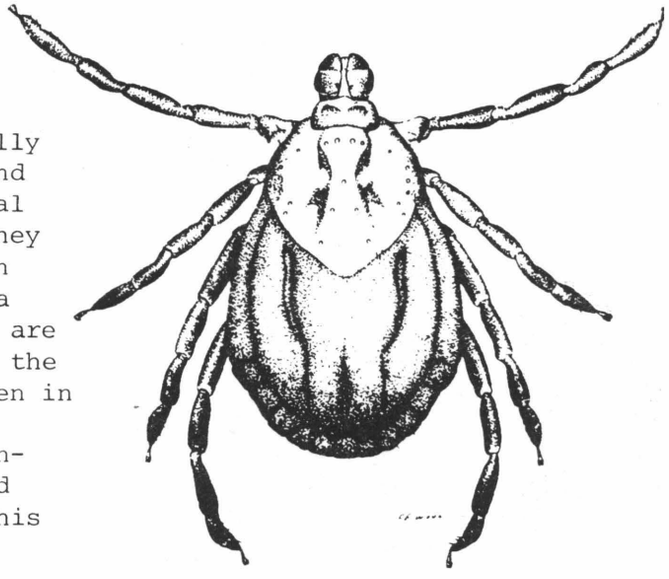
INSECT NOTES

Ticks and fleas are two of the most common home and yard pests in spring and summer. A brief review of the biology and habits of these pests will help to answer some of the most common homeowner questions.



AMERICAN DOG TICK

Ticks. Spring and early summer is the time when these pests are most active. Ticks will be most abundant in wooded or grassy areas, especially where there are plenty of rabbits, field mice, and other small animals. Ticks must take a blood meal from several animals; during their life cycle they will usually feed on small animals at first, then large animals. Controlling ticks in a large area is very difficult. There are few chemicals that are labelled and/or effective against ticks. One of the best means of control is to 1) use repellents when in areas where ticks are known to be, and 2) reduce the small animal population and alter the environment where ticks are known to be. Keep grass and shrubs cut very short in tick-infested areas. This will discourage mice, rabbits, and other animals (hosts for ticks), and short vegetation is not beneficial to ticks. Remember, ticks should be removed from the skin by grasping firmly and pulling them out.

Fleas. The hot and humid days of summer are the best times for fleas -- indoors and outdoors. Fleas will live outdoors in the summer, so remember to treat areas that are frequented by pets. Chemical control of fleas is sometimes difficult because of insecticide resistance in the flea populations, and the fact that flea larvae are more difficult to control with aerosol sprays. Serious infestations of fleas should be controlled, as they may be a health hazard to the pet or people in the house. A professional pest control operator can give control with some safe and effective chemicals.
-- Robinson

TERMITE CONTROL WITH CHLORDANE, ALDRIN, OR DURSBAN

Homeowners seeking to have their home treated for subterranean termites have a choice in the insecticide the professional pest control operator uses. Chlordane has been the standard for years; it is effective, reasonably priced, long lasting (35 + years), and safe when mixed and applied correctly. However, chlordane has been implicated as a possible carcinogen (cancer causing), and some homeowners are reluctant to have it applied around their home. Aldrin has the same good qualities as chlordane, and is used by some large pest control companies. Dursban TC is a new product in the area of termite control. It has some characteristics very different from chlordane and aldrin. Dursban TC is an arganophosphate insecticide (the others are arganochlorine insecticides), that perhaps does not last as long (15 - 18 years) as chlordane and aldrin, and may be slightly more expensive. Dursban TC is not safer to use than chlordane or aldrin; it is a toxic insecticide, and if not applied correctly it can be hazardous to humans.

Homeowners should understand that they have a choice of which insecticide they want applied around their house. There are distinct differences in residual activity, cost, and relative safety (Dursban TC has not been implicated as a cancer causing agent). There are no differences in effectiveness - they all kill termites. There are no differences in application - they all must be applied according to the label, not to houses with a well within 100 feet, and not to the soil surface.

HOPLIA BEETLES

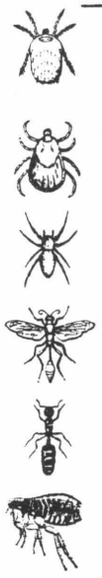
Hoplia sp. beetles are abundant in several regions of the state this spring. These small (¼-½ inches), grayish-black beetles are related to other scarab pests of turf - Japanese beetles, June beetles, and Green June beetles. *Hoplia* sp. beetles frequently emerge in large numbers and fly over turf; they may come to lights at night. The presence of these beetles has caused concern among homeowners and golf course superintendents. Let's review the biology and habits of *Hoplia* sp. beetles so you'll be better able to answer questions.

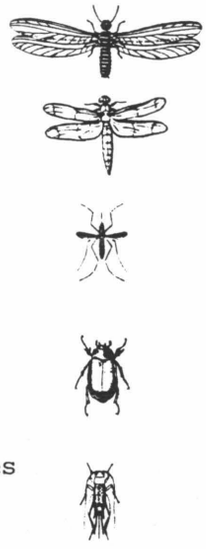
Hoplia sp. beetles emerge in early spring, frequently during the first few warm days after a series of rains (sounds familiar!). They may be very abundant in one area one day - and gone the next! The adults are known to feed on the flowers and foliage of apple and peach. Apparently they can cause considerable damage to fruit crops (this information is from California). The adults usually fly a short distance before they begin feeding.

Larvae feed on the roots of grasses - similar to the larvae of other scarab beetles. *Hoplia* sp. has a one-year life cycle, and may be present on a regular basis. However, populations may peak every 2 - 3 years and cause concern.

Control of the *Hoplia* sp. is best accomplished by treating turf to kill the grub stage. Treatment similar to that recommended for other white grubs will give control of *Hoplia* sp.

INSECT SURVEY

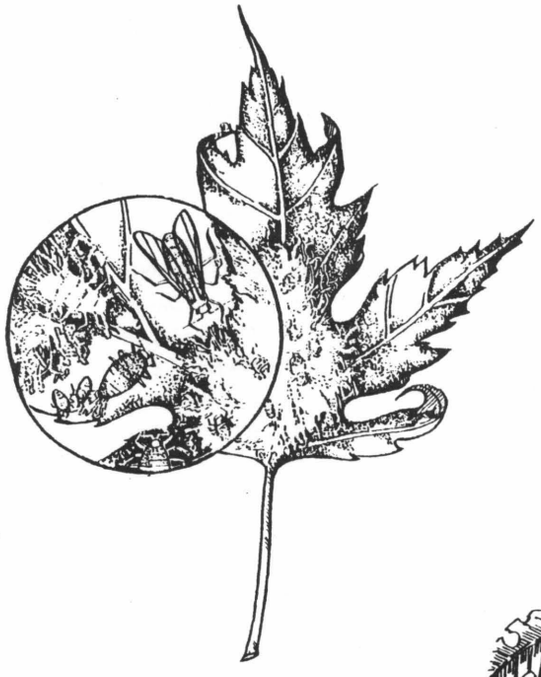




One hundred and twenty-five specimens were received in May. Among those received most frequently were: elm leaf beetle (overwintering adults found in houses) and several types of leaf galls on maples and oaks. Maple bladdergall, the work of a tiny mite, is especially noticeable this time of year.

Next month be prepared to see more leaf galls on shade trees and aphids on all sorts of plants. The buck moth caterpillar, a gypsy moth look-alike, has been abundant in June the last few years. Both feed primarily on oaks. Buck moth caterpillars have long, branched spines rather than tufts of hair on the sides of their bodies.

June is also the month for hickory leaf-stem gall phylloxera which causes irregular petiole galls and deformed leaves on hickory. Populations were down last year, but they may rebound. Also be prepared to see cottony masses of woolly alder aphids on the underside of silver maple leaves. They spend the early summer there and accumulations of white waxy filaments under infested trees can be a real nuisance. -- Dan Hilburn



Aphid gall

Mite gall

Hickory leaf-stem gall

REUSE OF STORED PESTICIDES

Examination of pesticide chemicals stored from previous seasons is important prior to the reuse of the chemicals. Containers should be examined for leaks, cracks, tears, erosion, seal failures and the development of gas. Bulges in the walls of a container may be a sign of gas development, making handling and opening of the container hazardous. The presence of a strong pesticide odor can indicate a leak, spill or improperly sealed container. The contents of a damaged container should be transferred to a clean container or to one that held the formulation previously, and the new container should always be clearly labeled.

If there are doubts concerning the effectiveness of a pesticide after storage, test a small amount of the pesticide according to label directions. If the test is satisfactory, the pesticide can be used. Signs of deterioration commonly found in pesticide formulations include the following:

Formulation	General Signs of Deterioration
Emulsifiable concentrate	When milky coloration does not occur with the addition of water and when sludge is present or any separation of components is evident
Oil sprays	When milky coloration does not occur by adding water
Wettable powders	Lumping occurs and the powder will not suspend in water
Dusts and Granular	Excessive lumping
Aerosols	Generally effective until the opening of the aerosol dispenser becomes obstructed.

If a pesticide exhibits any of these signs, it should be disposed of properly. -- James E. Roberts, Sr., Extension Entomologist

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