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Agricultural Extension Service
The University of Tennessee

SP341N

Insects

The Eastern Tent Caterpillar and Its Control

Frank A. Hale, Associate Professor
Originally developed by Harry Williams, Professor Emeritus, and
Jaime Yanes Jr., former Assistant Professor
Entomology and Plant Pathology

Nests or tents of the eastern tent caterpillar are a part of the landscape along fence rows and in trees in many parts of Tennessee. This insect has become an increasing problem as more subdivisions spring up in rural areas.

Food Plants

The favorite host plant of the caterpillar are wild cherry and apple trees. It also feeds on peach, plum, pear, crab-apple, rose, hawthorn and many different shade and forest trees.

Importance and Nature of Injury

In addition to making a tree look unsightly with the webs they construct in the crotches of limbs, the caterpillars have big appetites and often completely eat all the leaves off a small tree. Aside from defoliating the trees, the caterpillars arouse much concern among area residents when they migrate in mass in search of new food or a place to complete their development. During periods of migration, caterpillars may be seen by the thousands over roads, driveways and sidewalks. It becomes virtually impossible to drive or walk in these areas without squashing them.

Life Cycle and Habits

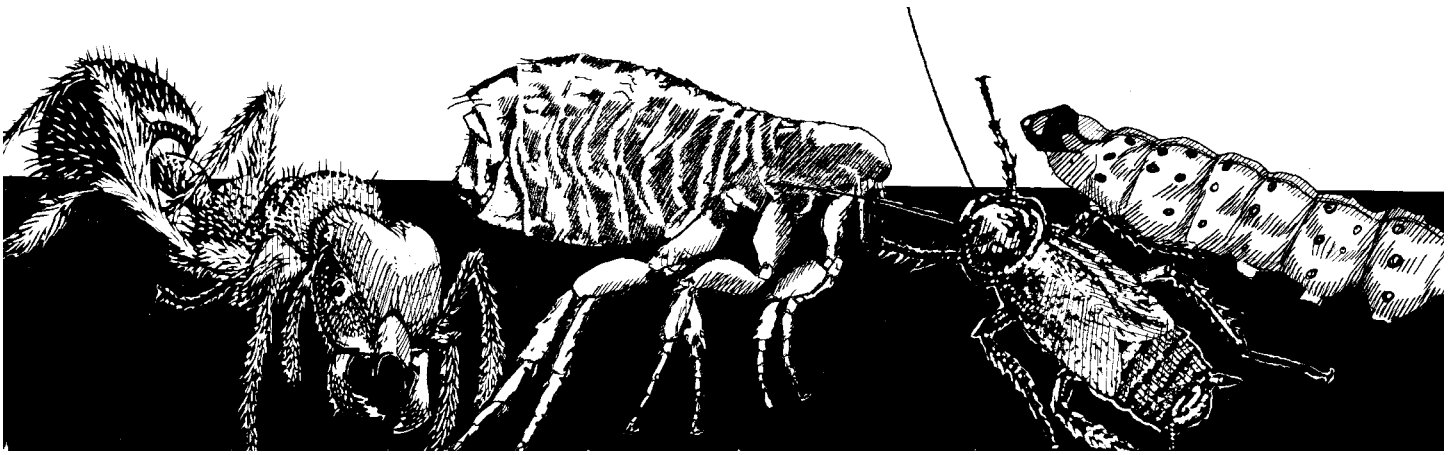
The life span of this moth includes four stages: egg, larva, pupa and adult. Eggs laid in July hatch the following March. The colony of caterpillars stays together and spins threads of silk as they migrate up and down branches. Tent-building begins a couple of days after feeding. Groups of caterpillars from other egg masses often join together and build large tents in a nearby crotch.

The tents are enlarged as the caterpillars grow and are built several layers thick. The larvae leave the tents to feed several times a day, but return to the tents when not feeding. The larvae become full-grown about six weeks after hatching and are nearly 2 inches long, black, sparsely hairy, with some white and blue markings on their sides. They have a white stripe down the middle of their back. At maturity, the larvae migrate down the tree trunks and form cocoons on the bark of trees, in grass and under nearly any object they can get under. The dirty white, oval-shaped cocoons can also be formed on trees or buildings. After about three weeks in the cocoon, adult moths begin emerging. The reddish-brown moths' emergence and flight usually takes place at night. This may be why the average person never sees the adults.

Mating takes place soon after emergence. The eggs are laid in a foamy mass-like collar around the twigs. Each egg mass is shiny black and contains about 200 eggs. Eggs do not hatch until the following spring. Moths die soon after egg-laying. Only one generation occurs each year.

Control

Non-chemical Control: Where trees are small and only a few are involved, the eastern tent caterpillar can be



brought under control without the aid of insecticides if a person will apply any one of the following techniques:

1. Hand destruction of webs and larvae.
2. Pruning out webs and destroying them.
3. Destroying egg masses before spring.
4. Removing wild cherry trees.

Any one of these methods, if done thoroughly, will help reduce the tent caterpillars.

Chemical Control: The best time to control tent caterpillars is while they are small and before the leaves are half open on wild cherry trees. A good application of insecticide at this time can completely eliminate the insect. Most people wait until tents appear in the trees before they attempt to apply control measures. The insecticides listed in the table below are recommended. Do not use Orthene or Address on flowering crabapple, as foliar injury may occur.

Chlorpyrifos and diazinon are for use in commercial nurseries, not for residential use.

Chemical Control

- carbaryl (Sevin brand 80% WSP, Carbaryl 80% S, Sevin 4 lb/gal SL)
- chlorpyrifos (Dursban 50% W)
- acephate (Orthene 9.4% EC, Orthene Turf, Tree & Ornamental Spray 75% SP, Address T/O 75% SP)
- malathion (Malathion 57% EC, Malathion 50% EC)
- *Bacillus thuringiensis* (Dipel 2X 6.4% WP, Javelin WG 7.5% WP)
- cyfluthrin (Advanced Garden Lawn & Garden Multi-Insect Killer 0.75% EC, Tempo 20% WP, Decathlon 20% WP)
- beta-cyfluthrin (Tempo 1 SC Ultra)
- bifenthrin (Talstar Lawn & Tree 7.9% F, Talstar GC 7.9% F, Talstar N 7.9% F)
- horticultural oil (SunSpray Ultra-Fine Spray Oil 98.8% paraffinic oil, Ultra-Fine Oil 98.8% paraffinic oil - use 1 to 2% oil in finished spray mixture)
- insecticidal soap (M-Pede 49% a.i., Safer Insecticidal Soap 49% a.i.)
- lambda-cyhalothrin (Scimitar 9.7% CS, Scimitar 9.7% GC, Scimitar 10% WP)
- diazinon (D-264 4 lb/gal EC, Diazinon Insecticide 4 lb/gal EC)
- spinosad (Conserve 1 lb/gal SC, SpinTor 2 lb/gal SC)

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label. Persons who do not obey the law will be subject to penalties.

Disclaimer Statement

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticides registrations are continuously reviewed. Should registration of a recommended pesticide be canceled, it would no longer be recommended by the University of Tennessee.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

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