

What you can do to fight gypsy moths

If you do decide to protect your own trees against heavy defoliations, insecticides registered for home grounds use can be an effective do-it-yourself control. Apply them now for best results. By then the majority of the eggs will have hatched but they will not have had time to damage trees from heavy feeding. Spraying them will also save you and your family from most of the irritations caterpillars inflict.

There are five insecticides registered for home use; they are available throughout the state. All have been thoroughly tested and have proven to be environmentally safe. These include:

1. **Acephate**. (Orthene) is registered for both ground application by home owners and aerial application for federal/state/county programs. The spray does produce a mild, disagreeable odor for a short time after application. It tends to be costly for extensive spraying. Orthene is widely used for controlling many ornamental insects pests.

2. **Bacillus Thuringiensis** (Dipel, Thuricide, Biotrol) is registered for both ground and aerial application for homeowners use and other control programs. Results are not spectacular, but it is usually effective enough to prevent severe defoliation. It

presents no environmental hazard and may be a good choice to use along streams, lakes, reservoirs, etc. It is relatively costly and two applications may be needed. Cool or wet weather reduces its effectiveness.

3. **Carbaryl** (Sevin) is registered for ground and aerial application for homeowners and professional applicators. Carbaryl is the most widely used insecticide for gypsy moth control in the U.S. It is also widely used by home gardeners to control a wide range of vegetable pests.

4. **Imidan** is registered for ground application only and may be used by homeowners. Its environmental impact record has been good. It is a commonly used insecticide for homegrounds fruit pests.

5. **Methoxychlor** is registered for ground application only and may be used by homeowners. It is a commonly used insecticide for home gardens and Japanese beetle control.

Insecticides registered for use in government control programs or by qualified foresters only include Dimilin and Dylox. These two materials are not registered for use by homeowners. Demilin is used by the state. It is effective and safe.

Tree trunks can be encircled with a piece of burlap or similar material. Place it

about chest high and arrange so it hangs apron-like around the trunk. Such aprons work best in light to moderate infestations from late May thru early June. A few street or shade trees can often be fairly well protected with this method.

When the caterpillars are half-grown, many of them feed at night and crawl down the trunk in the morning to seek shelter during the day. The apron provides a place under which they can collect and be killed. The apron must be kept in place for 10 to 14 days, checked daily, and all trapped caterpillars destroyed. This control method is usually sufficiently effective to save enough leaves to keep the tree green. Do not expect it to be effective on trees that are part of a heavily infested forest.

Repellent tape may have value in protecting some trees. It does not protect trees from caterpillars that drop onto them from air currents nor from caterpillars that hatch from egg masses located on the tree above the tape. The tape may be of value in preventing caterpillars from crawling up evergreen trees and other species in the non-preferred category. This will help on most evergreen trees (except blue spruce) since young caterpillars first feed and develop on preferred hosts before they will attack hemlock, pines, and spruce.

Pa. plans counterattack

(Continued from Page A1)

Hobaugh points out that the 500,000 acres to be sprayed should not be assumed to be the total acreage where gypsy moth infestations are present. If total acreage where gypsy moth defoliation is at least 25 percent or more were figured in, the amount would be over 3 million acres in Pennsylvania alone.

In Lancaster County, spraying is being planned to cover 11,837 acres and will cost approximately \$106,000. Last year, the moths defoliated or partially damaged over 15,000 acres of Lancaster County woodland.

How it began

Gypsy moths are native to Europe and first appeared in the U.S. in Medford, Massachusetts in 1869. Leopold Trouvelot, a naturalist and entrepreneur, was trying to breed a disease-resistant silkworm for the silk industry. His experiments called for crossing the gypsy moth with the silk moth, so he had a package of egg clusters shipped to him.

Upon arrival, Trouvelot set the eggs on a windowsill. Unfortunately, as the story goes, a gust of wind blew them off. The package broke and the eggs were scattered.

The escaped gypsy moths found a plentiful supply of food in New England and began multiplying.

In 1889 the first major outbreak occurred in New England. The problem didn't become established in Pennsylvania until between 1960 and 1965. The state's infestation progressed southwestward following the mountain ridges. During 1981, the front edge of the infestation advanced into Centre, Blair, Huntingdon and Clearfield counties. Heaviest defoliation and tree mortality has occurred along mountain ridges in forested areas with predominately oak species, according to the Pennsylvania Extension Service.

The Extension's "Pest Sheet" goes on to explain that in new areas of infestation, its level of importance is closely related to number of people residing in the area. The normal pattern has been two years of light infestation with minimal defoliation followed by two years of moderate to severe defoliation with population

collapse after the second year of heavy defoliation.

Based on history of the moth in New England, infestations will flare up again in future years, however, caterpillar density and severity of defoliation will probably not be as high or widespread as encountered during the initial infestation.

The Problems

The greatest problem is the nuisance created by caterpillars especially during June. The urticating hairs cause skin rashes that vary from faint reddish spots to patches of inflamed skin with blister-like wheals. The wheals disappear in 12 to 18 hours and the rash fades in a few days.

The second problem is economic loss to recreational and private woodlands.

The moths

Every five to seven years there is a period of heavy defoliation for about two years, followed by a population collapse. When this happens, the visible effects of feeding gypsy moths practically disappears. Often, people mistake the moths as having disappeared completely. However, these populations weaken because of stress. Once weakened, the moths are susceptible to a virus called Wilt Disease. Once populations have diminished, the feeding and breeding environment becomes ripe for rejuvenation.

The female gypsy moths do not fly. As soon as they emerge from the pupa case, there are usually four or five males waiting. They mate almost immediately and the female lays her eggs that quick.

The female moth is a whitish-brown and should not be confused with the tent caterpillar whose nests are currently seen especially abundant in wild cherry trees.

The males vary in color from light tan to dark brown.

Control

Homeowners anxious to take steps to protect their property can begin now, as the state has done in their massive spray program.

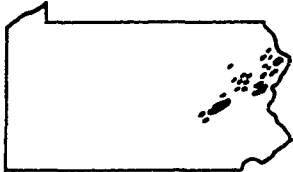
Each egg mass can contain from 700 to 1,000 eggs, so for each one destroyed, there will be over 700 fewer caterpillars to destroy trees.

According to Extension, the best

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Path of Gypsy Moth Invasion

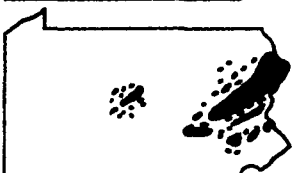
1971
7 counties,
92,200 acres



1977
29 counties
1,296,550 acres



1973
18 counties
856,710 acres



1981
46 counties
2,527,000 acres



USDA changes dry bean standards

WASHINGTON, D.C. — The U.S. Department of Agriculture has adopted, without change, a final rule which will clarify the U.S. Dry Bean Standards and facilitate marketing.

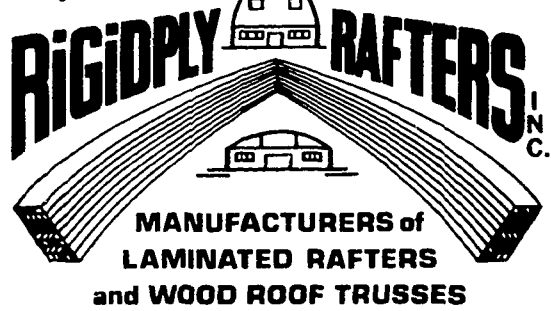
Kenneth A. Gilles, administrator of USDA's Federal Grain Inspection Service, said the changes are primarily revisions in the format of the standards tables which will make them easier to understand and use.

Also, all special premium grades of dry beans will be deleted from the standards, except for the class pea beans.

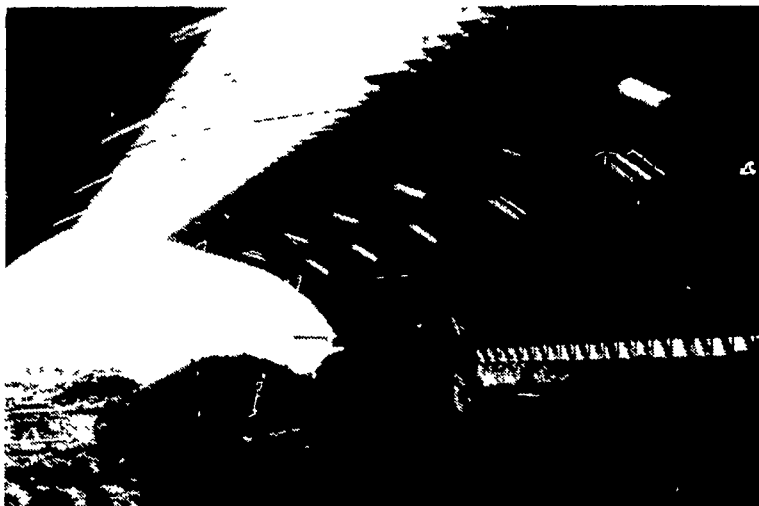
"We periodically review grading standards so that the standards can continue to serve the needs of the grain and commodities market," Gilles said.

Notice of this action was published in the May 6 Federal Register.

Telephone: (717) 866-6581

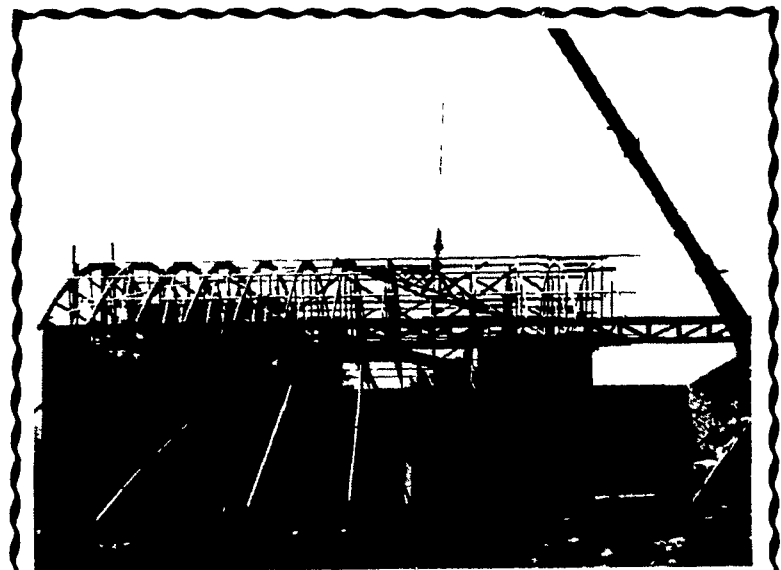


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