

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Administration
Bureau of Entomology and Plant Quarantine,
GYPSY MOTH CONTROL AND QUARANTINE

The gypsy moth was introduced from Europe in 1869. Shortly thereafter it became recognized as a serious pest of forest, shade and fruit trees. Early attempts at eradication by the State of Massachusetts were unsuccessful. In 1950 it was known to occur in 76 counties in seven states-- Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. In outbreak years the gypsy moth causes widespread defoliation. Repeated defoliations have resulted in extensive dying of oaks and other valuable forest species. In generally infested areas timber growth is greatly retarded and annual sprays are required to protect shade trees and ornamentals. Unless suppressed the gypsy moth probably would invade all hardwood growing areas of the country.

Methods of Control: Lead arsenate spray was developed on the gypsy moth control project and later became a standard treatment for protection of orchards against codling moth and other fruit insects. Aircraft was first used on the gypsy moth work for control of forest pests. During early years of the program the best that could be done was to retard spread by regulating the movement of commodities from infested areas to other parts of the country, and by suppressing small outlying infestations by laborious and costly procedures.

With the development of DDT and the use of aircraft for forest spraying the cost of treatment has been reduced from \$15 - \$20 per acre to less than \$1 per acre. Since 1946 the gypsy moth has been reduced to the point that eradication is assured in areas totalling 450 square miles in Pennsylvania, 900 square miles in southeastern Massachusetts, and almost 2,300 square miles in New York, west of the Hudson River. It has now been demonstrated that the gypsy moth can be eradicated with a single application of 1/2 to 1 pound of DDT in a gallon of kerosene or similar solvent per acre. This may be applied either with aircraft or ground sprayers. An immediate problem is to prevent the infestation of treated areas.

Current Program: The current program is jointly financed with county, State, and Federal funds. The principal functions are:

- (1) Surveys to locate and suppress outlying infestations while the areas are small,
- (2) Inspection and certification of commodities moving from infested areas to other parts of the country, to prevent either local or long-distance spread of the pest, and
- (3) Systematic treatment of extensive woodland areas to reduce the size of the generally infested area.

Plans for 1951 provide for spraying approximately 700,000 acres.

