

Aerial bio-attack slays gypsy moth

■ The gypsy moth caterpillar has been an especially irritating pest in many parts of the country recently (see LM, October 1991), causing horticulturists to experiment with new control methods, including biological pesticides.

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) reacted quickly when a 1988 pheromone trapping program indicated the presence of gypsy moths in the Door County region and surrounding counties.

A popular recreational and forestry region, Door County officials feared the loss of tourist revenue which it felt would result if gypsy moth damage became widespread and evident. A major eradication program was launched last year to solve the problem, led by Steven C. Krause, gypsy moth project coordinator the





A healthy tree will survive two to three years of gypsy moth damage.

DATCP's Agricultural Resource Management Division. Krause says the situation nearly became unmanageable.

"Had no action been taken this year to eradicate gypsy moths," says Krause, "we most likely would have seen a permanent establishment in Door County and the surrounding counties."

The USDA Forestry Service teamed with the state and decided to conduct a biopesticide spraying program on an estimated 6,000 infested acres.

The biological pesticide chosen was the *Bacillus thuringiensis var. kurstaki* (*B.t.k.*), a biological stomach poison that only affects certain lepidopteran larvae, which include gypsy moth caterpillars. The spores and crystals of the agent are ingested by lepidopteran caterpillars, which results in paralysis of the gut wall, and death within hours.

State officials chose the Foray 48B product, by Novo Nordisk's Plant Protection Division in Danbury, Conn.

The 6,000 acres were treated twice, three days apart by aerial application from two twin-engine aircraft. Treatments were timed to hit just after eggs had hatched, to be injested by emerging caterpillars. (Because eggs hatch at different rates, a second application is recommended for best results.)

The aerial application firm, Duflo Spray-Chemical, Inc., of New Bremen, N.Y., was awarded the application contract. Owner Jeffrey Duflo was on site to manage the spraying efforts, and manufacturer's personnel were on hand to provide field support to Duflo's team.

Observers from DATPC and the USDA Forest Service insured adherence to project specifications and environmental regulations.

Krause says he is confident in the efficacy of the B.t.k. pesticides to eradicate the gypsy moth, "in this economically vital region of Wisconsin."

The state ag department continues its program to monitor other areas of Wisconsin to determine if there will be a need to conduct eradication programs in untreated regions next year.

State officials say they have learned from this experience that gypsy moth is a pest to be dealt with in a swift and firm manner. Gypsy moth is spread through the movement of household goods and forest products, as well as by campers and others who travel from infested to non-infested areas.