



OHIO DEPARTMENT OF AGRICULTURE GYPSY MOTH MANAGEMENT PROGRAM



Division of Plant Industry, Plant Pest Control Section
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Pheromone Flake Fact Sheet

Disrupt II is an aerially applied, controlled release product that emits disparlure, a synthetic gypsy moth sex pheromone. Disparlure is incorporated into plastic laminated dispenser (flakes) designed to release the pheromone over a period of 2 to 3 months, during the time of the male moth flight. When applied as directed to the tree canopy, with the use of a sticker, the product saturates the air in the treated area with a low, but affective concentration of the artificial pheromone. The pheromone emitted by the tiny 1/32" x 3/32" flakes effectively disrupts the communication between the female and male moths and prevents the male from finding and mating with the female moths. This communication disruption results in fewer mated female gypsy moths, thus suppressing the population for the next generation. In areas of low-level gypsy moth populations, it can effectively disrupt all gypsy moth mating and cause an elimination of that population. Disrupt II is specific to gypsy moth and is not harmful to any other species, including humans, threatened or endangered species, or beneficial insects and predators.

- Disparlure (chemical name: cis-7,8-epoxy-2-methyloctadecane) is the naturally occurring sex pheromone produced by the female gypsy moth to attract the male for mating purposes. This attractant is synthetically produced and used in the USDA, Forest Service program, Slow-the-Spread (STS), for the suppression of low-level gypsy moth populations.
- Controlled release dispenser (flakes) is a three-layered laminate manufactured by Hercon Environmental that contains the active ingredient disparlure. The flakes slowly release the pheromone over a period of 2 to 3 months, during male moth flight. The flakes are green in color and are approximately the size of this character "·".
- Mating disruption is a technique used to control insects by masking or interfering in the communication between male and female insects. The flightless female gypsy moth emits a sex pheromone that enables male moths to find and mate with them.

A sticker is normally used to ensure that the pheromone flake remains in the forest canopy where the gypsy moth lives.

- The application rate of 15 grams active ingredient per acre is approximately equivalent to ½ cup of flakes per acre, or 2 flakes per square foot. At the 6 gram application rate per acre, it is equivalent to a little less than a ¼ cup of flakes per acre