

Gypsy Moth Mating Disruption for Tukwila (June 2013)

Mating disruption is a way to keep small [gypsy moth](#) populations from getting bigger before they can damage the environment by preventing the moths from producing off spring. The male gypsy moth is attracted to the female moth by a species specific pheromone. A pheromone is a chemical sex attractant produced by the female moth that the male moth uses to locate the female. Males use special receptors found in their antennae to follow the pheromone trail to its source, mating occurs and eggs are laid. Caterpillars would hatch out of the eggs months later. Staff from the Washington State Department of Agriculture wants to stop that from happening to protect Tukwila's landscapes and general environment.

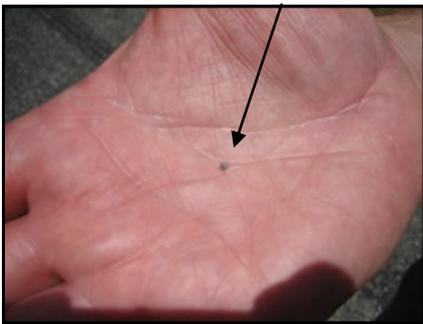
Mating Disruption involves using a synthetic version of gypsy moth pheromone to confuse the male gypsy moth so he cannot find a mate and reproduce. The synthetic version of the pheromone is called disparlure and it is released by airplane flying over the trees where the gypsy moths are located. Disparlure is made up of tiny bits of plastic that have been treated with the synthetic pheromone. When the disparlure is applied, the flakes slowly release a small amount of the gypsy moth pheromone into the area. The male moths become overwhelmed by the abundance of scent and are unable to find the female moths. They eventually die without producing offspring.

Disparlure has been used for mating disruption to control gypsy moth populations in Indiana, Minnesota, Wisconsin and other Midwestern and eastern states.

Mating disruption has been used for control of other insect pests in Washington such as codling moth and Douglas-fir tussock moth. Additional facts about the use of disparlure (DISRUPT II) plastic flakes:

- Mating disruption treatments are non-toxic to humans and animals.
- The pheromone application will only affect gypsy moths and not harm other species of moths and butterflies.
- The proposed site includes some 180 acres for dispersal of the synthetic pheromone flakes.
- Pheromone flakes will not damage the finish of cars, vinyl siding or outdoor household goods.

Disrupt II flake



Disrupt II

Disrupt II Delivery system



Washington
State Department of
Agriculture

Gypsy Moth Hot-Line
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