



2021 Gypsy Moth Aerial Spray Program for the Niagara Peninsula

- Trees Unlimited has partnered with Zimmer Air Services Inc. to administer, co-ordinate and deliver an aerial spray program to protect the foliage of hardwood forests in the Niagara Peninsula from the feeding of the European gypsy moth (*Lymantria dispar* (L)). The Township of West Lincoln is a contributing partners in the program.
- The E. gypsy moth is a non-native insect introduced into North America in 1868. The larva or caterpillar is a voracious eater of hardwoods but prefers red oak (*Quercus rubra*), white oak (*Q. alba*), bur oak (*Q. macrocarpa*) and swamp white oak (*Q. bicolor*).
- The objective of the aerial spray program is to reduce the number of caterpillars to a level where they will not defoliate the preferred hardwoods and make them susceptible to other stresses. The combined stresses of drought, over-harvesting, pollutants, fungi, wood boring insects, and defoliation kills trees.
- The E. gypsy moth has spread via spring winds in 2019 & 2020 through most of southern Ontario. In 2020, the Ministry of Natural Resources & Forestry mapped 569,465 ha (1.4 million ac) moderate to severe defoliation west shorelines of Lake Huron & Georgian Bay to just west of Kemptville. That is compared to 2019 with 43,060 ha (106,410 ac) moderate to severe defoliation primarily in southern Ontario.
- As in the 2019 & 2020 aerial spray programs, we will be using the biological insecticide Foray® 48B Biological Insecticide Aqueous Suspension (Pest Control Products Act #24977). The active ingredient is a naturally occurring soil bacteria called *Bacillus thuringiensis v.kurstaki* (B.t.). B.t. only affects spring caterpillars feeding in the upper canopy of hardwoods and will not harm other insects, mammals or birds. B.t.k. is the only pesticide registered for use by the American Organic Growers and soon to be approved by the Canadian Organic Growers. Additional literature on B.t., the gypsy moth and other controls are available from our office.
- The aerial spraying will be conducted by Zimmer Air Services Inc., Blenheim, using rotary winged aircraft. The spraying will take place in late May and early June when the wind is less than 13 km/hr which normally occurs in early morning and early evening.
- Due to the severity of the infestation, there will be two applications, approximately seven days apart. The spray rate will be 6.9 litres of active ingredient (ai) per hectare with the first application at 1.6 ai litres/acre & the second application at 1.2 ai litres/acre.
- There is no need to vacate your premises but for cautionary measures, we do suggest that you bring pet food indoors and disconnect any roof collecting cisterns.
- The application time is approximately 15 minutes with the biological insecticide staying suspended for approximately 5-10 minutes. B.t. will remain lethal to the caterpillar for approximately four (4) days. Ultra violet light and rain will gradually breakdown the bacteria.

For more information, please contact:
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