

The Morris Green Table held its first forum of the 2007-2008 season on Tuesday, September 25. Our topic was the timely issue of gypsy moths and how to plan for and protect against the pest. Three presenters spoke of their experience in planning and funding gypsy moth suppression on the municipal, county, and state levels.

Eileen Klose, township administrator for Hampton Township, Sussex County, described how her municipality took on direct responsibility for gypsy moth suppression after learning in 2006 that surrounding Green Acres-managed lands were not being sprayed. Working through two lake community associations in town, Hampton combined private homeowner efforts with the State Agriculture program and an inter-local agreement with Sandyston Township to produce a plan for spraying in 2007. Hampton conducted a series of public outreach events and hearings to get public support for the proposed plan and to inform residents outside of the spray zones what to expect. Total cost to the Township for participating was slightly above \$62,000, of which half was reimbursed from Federal grants. Now, the Township is conducting an egg-mass survey to determine how effective the suppression program was and how to plan for 2008.

Gary Lovallo, Superintendent of the Monmouth County Shade Tree Commission, detailed the history and the current, year-round activities of gypsy moth suppression in his county. He presented a month-by-month chronology of the County's program, which is carefully synchronized to the gypsy moth life-cycle, even to the point of staff work schedules and equipment maintenance. The Commission has use of a helicopter to conduct aerial surveys for defoliation in the summer, which are followed up by ground surveys (by vehicle and on foot) in the fall to determine egg-mass counts. Once the surveys are completed, and public reports are corroborated, the Commission prepares packets for the municipalities, detailing where gypsy moth infestations are likely to occur or re-occur and cause tree mortality. In March, the Commission holds an annual forum on the coming season's spraying program, and it lays out the various components required for local outreach and coordination, dealing with the logistics, staffing requirements, traffic alterations, and police/emergency notification procedures. In May and June, the spraying is conducted in the morning hours, with interruptions to coincide with school bus schedules, if necessary. By July, aerial surveys are conducted to assess the spraying and to preview for the next season. One major question that confronts the Commission is determining the need to request waivers for the use of stronger and potentially more risky pesticides, which may be required when the concentration of gypsy moth egg masses (seen as high as 1,000 per tree, where 520 per acre is the Agriculture threshold for spraying) threatens to overwhelm the standard bacterial treatment (B.t.k.).

Joseph Zoltowski, Director of the State Agriculture's Gypsy Moth Suppression Program, continued the discussion of gypsy moth controls, both natural (fungus, virus) and artificially introduced (predatory insects, bacterial and chemical pesticides). Due to their invasive nature, gypsy moths lack native predators and controls and continue to spread from the northeastern US into the midwest and southern regions, often borne by the wind across even large barriers like the Delaware River. With some regularity, their populations follow an 8-9 year cycle of boom and collapse, although those cycles can be interrupted by unfavorable conditions (wet, warm springs to promote fungal growth). The populations are also somewhat localized, so New Jersey can be affected very differently across the state in any one year. The State follows an Integrated Pest Management (IPM) approach, timing and localizing its treatments carefully to maximize gypsy moth exposure and minimize effects on non-targeted species. Spraying is only planned when egg-mass counts (520/acre) and tree canopy reduction (50%) reach threshold levels. In cases when the moth infestation is severe (4,000 egg-masses per acre), then the program may include second sprayings and/or use of harsher treatments, like insect growth regulators (IGRs), which have longer residual duration (30-day vs. 7-day B.t.k.). Care is necessary as IGRs also can

kill other molting insects, particularly aquatic leaf-shredders that serve as fish food sources, so Agriculture institutes 150' or greater buffers around water bodies. Participation in the spraying program is open to governmental entities (municipalities, counties or their agencies) and is voluntary, requiring the local sponsor to pass a resolution declaring the moth to be a public nuisance. Costs are borne by the local sponsor, at just under \$40 per acre, with a possibility of Federal reimbursement through the US Forest Service, though that can vary from 0% to 50%, year to year. Agriculture also maintains information for private property owners, listing some general steps that can reduce damage and help their trees to survive.

After the presentations, a question-and-answer period was held in which various matters biological (moth lifecycles, population cycles) and social (policies, program requirements, information dissemination) were covered. Of note, the differing approaches and jurisdictions of State-owned lands, involving Parks & Forestry, Fish & Wildlife, Green Acres, and Agriculture, were discussed, along with which agencies coordinate their efforts. Legislation to require gypsy moth suppression on State lands has been introduced by Assemblyman Ron Dancer. Federal lands, particularly military installations, were also cited as problematic for gypsy moth suppression.

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