Pennsylvania DCNR Bureau of Forestry (BOF) Standards for using the insecticide Tebufenozide (MIMIC 2LV) on State Forest Lands for control of gypsy moth in 2018

- Only used on healthy, building populations of gypsy moth that exceed 2,000 egg masses per acre. Populations that have peaked and have small unhealthy egg masses can be treated successfully with *Bacillus thuringiensis* subspecies *kurstaki* (Btk - FORAY 76B) even if the egg mass density exceeds 2,000 egg masses per acre.

- Only used on the most difficult to control populations where Btk has shown a high failure rate in the past (for example, on the dry upland ridges of central PA that are dominated by oak and where gypsy moth populations build-up first during an outbreak cycle). These are years when gypsy moth populations are on the increase and have very large healthy egg masses. These areas typically had only light to moderate defoliation the previous year.

- Canopy cover must be 75% or greater in the spray block; and preferred tree hosts of gypsy moth comprise 30% or more of the treatment block.

- Only used once in a four year period on a particular block. If treatment is required in the three years following a tebufenozide treatment, then Btk, Gypchek, or the no spray option must be used allowing any affected non-target lepidopteran species an opportunity to recover.

- Would not be used near open bodies of water or on non-forested wetlands (must have a forest canopy of at least 75%); a 300 foot buffer would be established adjacent to open bodies of water and non-forested wetlands (note: 300 feet = two spray swaths of a large fixed-wing spray aircraft or large helicopter). Btk, Gypchek, or the no spray option can be used in the 300 foot buffer zone.

- The recommended label rate for MIMIC 2LV is 4.0 to 8.0 fl. oz. per acre in ½ to ¾ gallon of water. The working rate in 2018 will be 6.0 fl. oz. per acre in ¾ gallon of water due to the high egg mass densities and based on recommendations from the manufacturer, treatments conducted in other states, and private applicators in PA. No adjuvant is required.

- Not used within 300 feet of any known non-target lepidopteran species-of-concern locations or habitat that are identified through the Natural Heritage environmental review. Gypchek can be used in these situations. The 2012 Federal Supplemental Environmental Impact Statement (http://www.na.fs.fed.us/pubs/detail.cfm?id=5251) identifies potential non-target effects and impacts. Every proposed spray block must have a site-specific environmental review conducted.

- The U.S. EPA pesticide label for MIMIC 2LV must be followed.

*Btk* or Gypchek is the first choice of insecticide to be used. The BOF Division of Forest Health will identify areas where tebufenozide would be the preferred treatment based on the above criteria. Use of tebufenozide in these areas will be with the acceptance and concurrence of the District Forest Manager for BOF State Forest Lands and the Game Commission’s Forestry Division Chief for PA Game Commission forest lands. MIMIC 2LV will be used on 7,192 acres of BOF State Forest Lands and 0 acres of PA State Game Lands in 2018 if the conditions above are met. Tebufenozide will not be used on private residential lands, county or municipal lands, DCNR State Parks, or federal lands in 2018.

(D. Eggen & C. Plank - Revised 11/17/2017)