Town of Altona

Mosquito Control Policy - Adulticide Factor Analysis Report

as at June 17, 2016

Adulticide Factor	SCORE
Soil and precipitation conditions:	
Dry conditions and less than 2.5mm of rain over past 7 days	3
Beginning of soil saturation and 2.5 to 7.5 mm of rain over past 7 days	3
Soil saturation and more than 7.5mm of rain over past 7 days	
Nuisance mosquito numbers in the New Jersey Light Traps for 3 consecutive days:	
Numbers are stable and averaging 25 <u>female</u> adult mosquitos or less per trap for 3 consecutive days	_
Numbers are increasing and averaging between 25 and 50 <u>female</u> adult mosquitos per trap for 3 consecutive days 2	1
Numbers are high and are averaging more than 50 <u>female</u> adult mosquitos for 3 consecutive days	
Temperature Factor:	
Degree Day model (base 14.3 degrees Celsius) threshold is equal to or less than 110	2
Degree Day model (base 14.3 degrees Celsius) threshold is between 110 and 200 2	2
Degree Day model (base 14.3 degrees Celsius) threshold is greater than 200	
Monitoring of the larval development sites:	
• 25% of mosquitos at the 1st to 4th stage of larval development and no pupae are present in water bodies 1	_
• 25-50% of mosquitos at the 1st to 4th stage of larval development and pupae are present in water bodies 2	I I
More than 50% of mosquitos at the 1st to 4th stage of larval development and many pupae are present in water bodies	
Probability of nuisance adult mosquito emergence in 7 days based on larvicide applicators data	
• Low	
Medium	•
• High	
* A combination of other factors, including but not limited to conditions from outside of the Town of Altona which have resulted in a substantial adult mosquito population within the urbanized area of the Town of Altona	2
TOTAL SCORE	10

AFA Ratings: Low (0-10), Medium (10-14), High (15-18)

*This factor will only be considered when there is a substantial adult mosquito population within the urbanized areas of the Town of Altona that is due to a combination of other factors, including but not limited to conditions outside of the urbanized area of the Town of Altona such as high winds, extensive rainfall or larval sampling that indicates large mosquito populations existing outside of the urbanized area of the Town.

Under its pesticide use permit, the Town of Altona is allowed to conduct residual treatments, in parks, cemeteries, or, non-residential right-of-ways, when the "Adulticiding Factor Analysis (AFA)" falls into and remains in the medium (AFA Medium-Range 10-14) or high (AFA High-Range 15-18) category.

The Town of Altona shall only conduct an Ultra Low Volume (ULV) residential adulticiding control program when the "Adulticiding Factor Analysis (AFA)" falls into and remains in the high category (AFA High-Range 15-18). In order to proceed with a ULV treatment, the following general guidelines will be followed:

- ULV treatment starts no earlier than 9:30 p.m. and ends no later than 8:00 a.m.
- ULV treatment does not occur if the temperature falls below 15 degrees Celsius. Many species are not active at temperatures lower than this
- ULV treatment ceases or does not occur if wind speeds are too high (12 km/h) and not conducive for effective nuisance adult mosquito control.
- ULV treatment does not occur if there are or have been significant amounts of precipitation. However, treatment may resume a half hour to one hour after a short thunderstorm and light rainfall if there is no evidence of additional precipitation events occurring.