

Wide-Area Larviciding with a Buffalo Turbine and VectoLex WDG

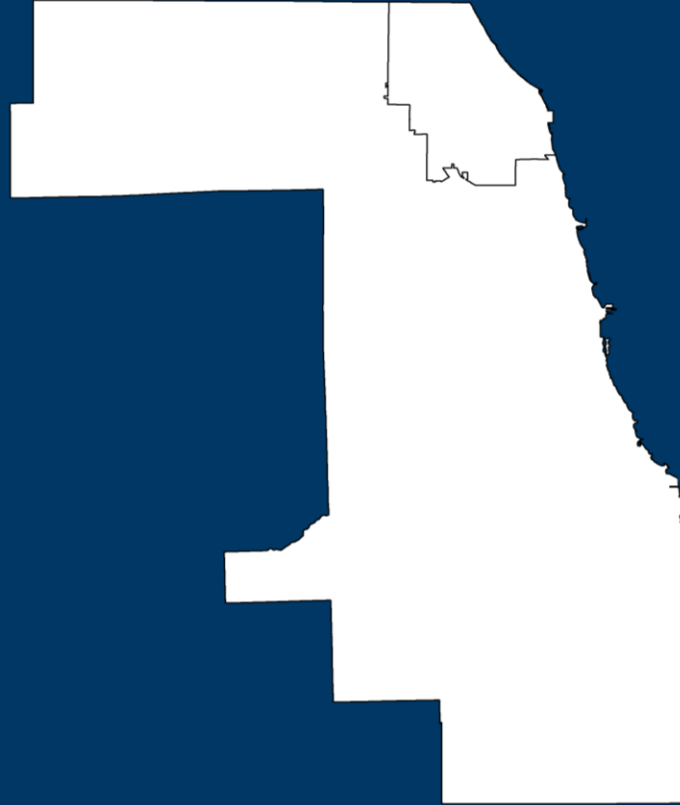


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Amy Runde ▪ **North Shore Mosquito Abatement District**

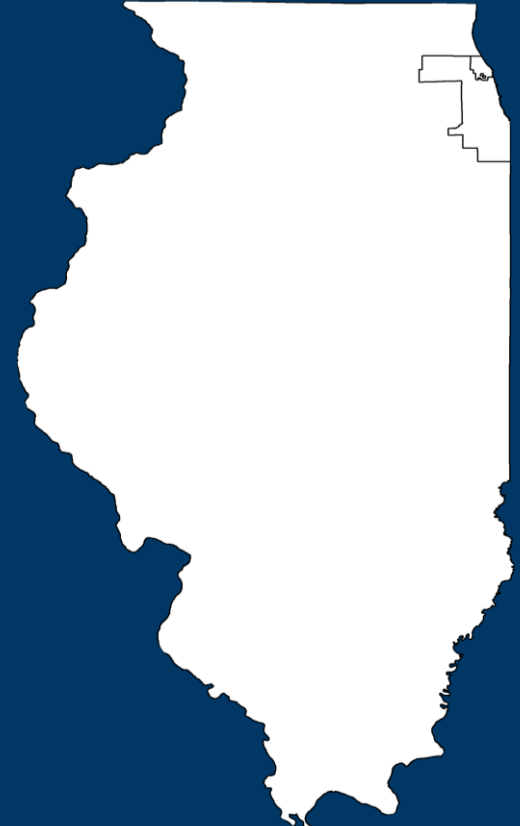
Study Location



North Shore Mosquito
Abatement District



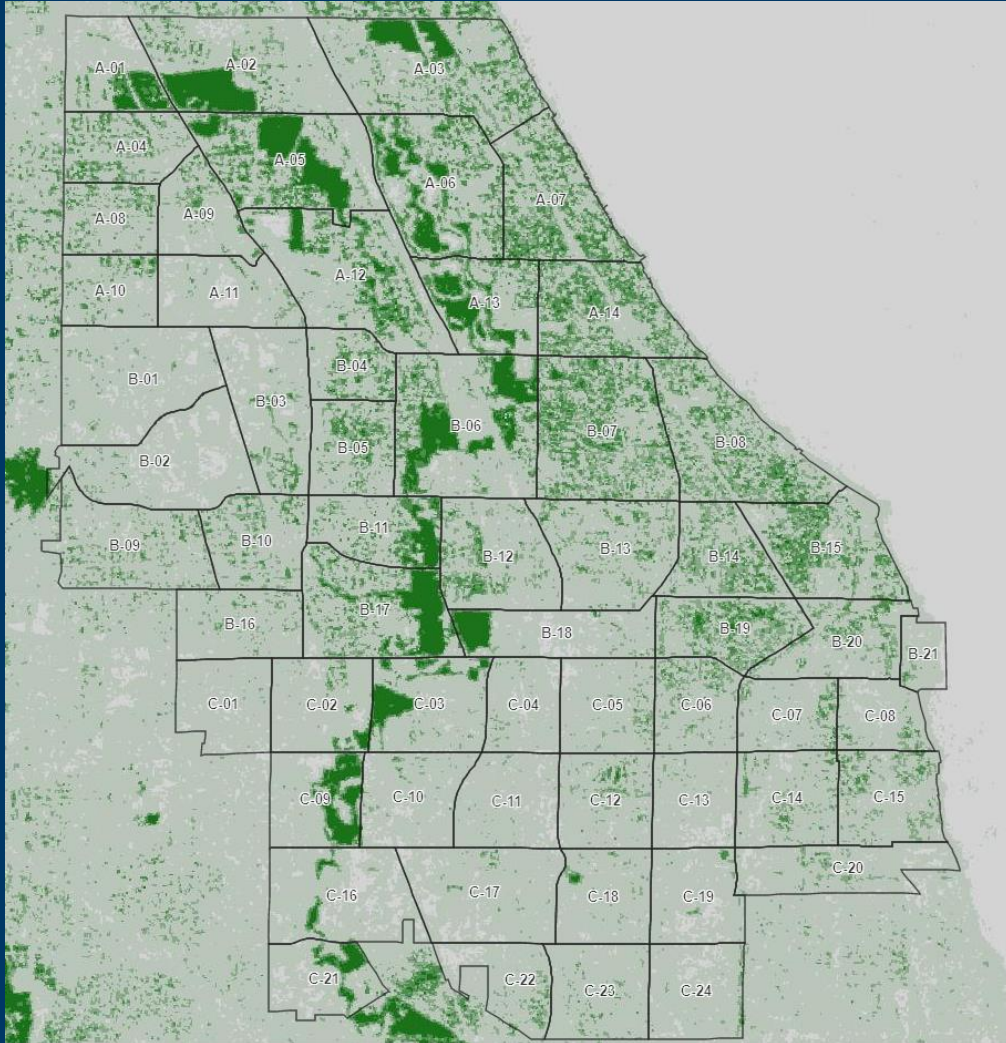
Cook County



Illinois

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Mosquito Abatement
District**

Study Location



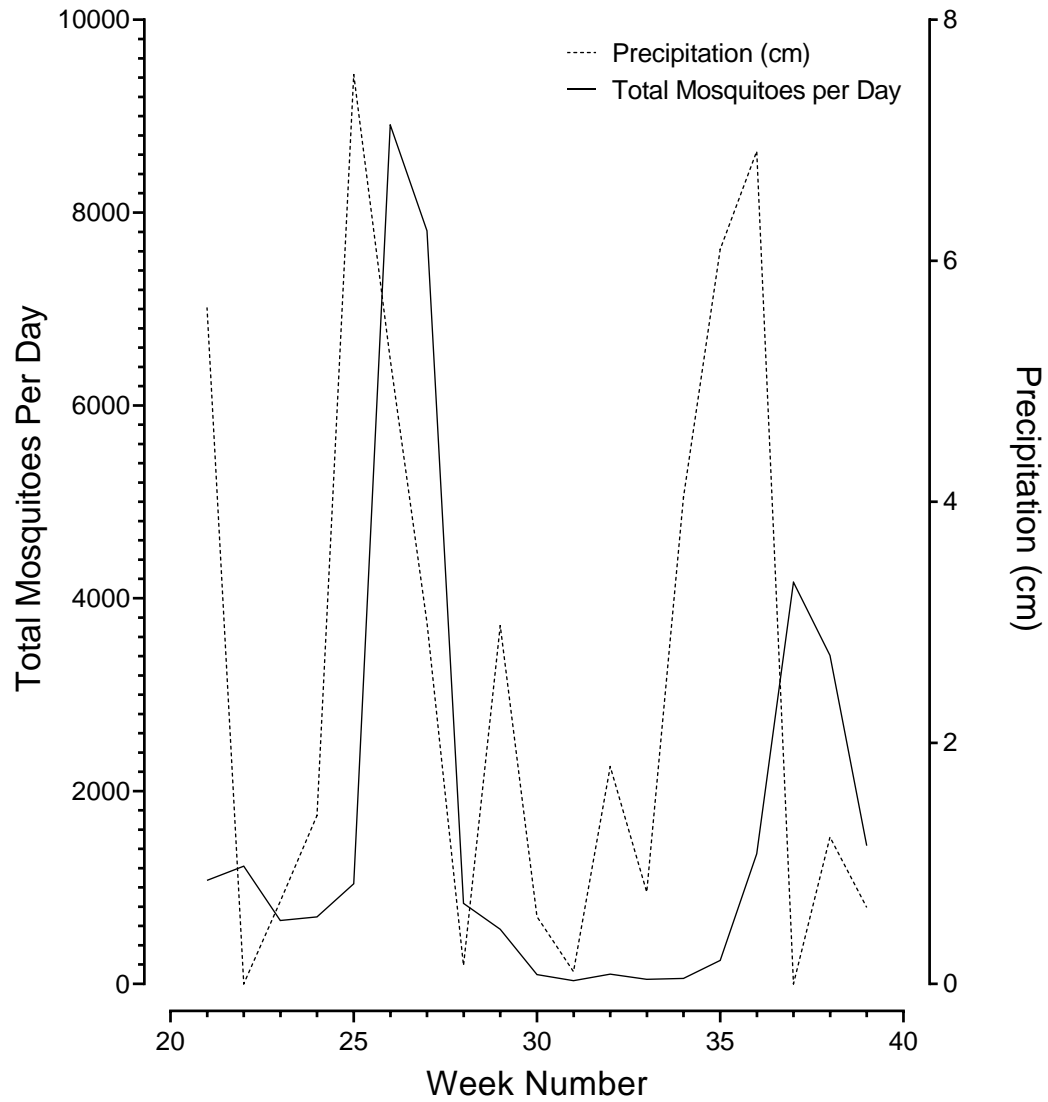
**North Shore
Mosquito Abatement
District**

Study Location



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Timing of Precipitation and Emergence



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Wide-Area Larviciding for Floodwater Mosquitoes?

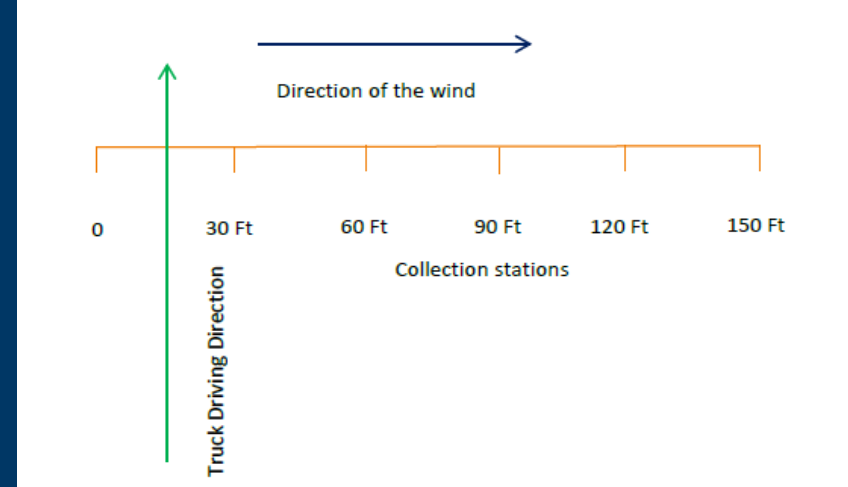


- 1.2 gallons per minute @ 50 PSI



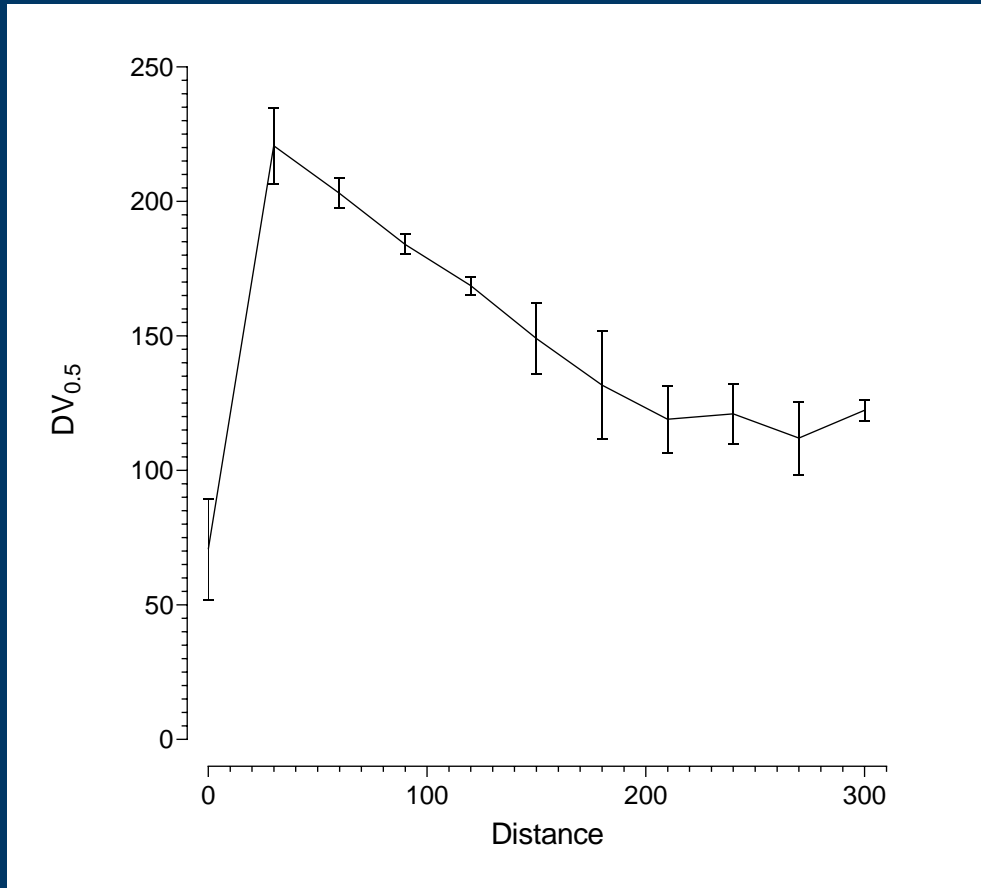
- 1 pound VectoLex WDG per gallon of water

Characterization of the Buffalo Turbine and the Micronair AU5000

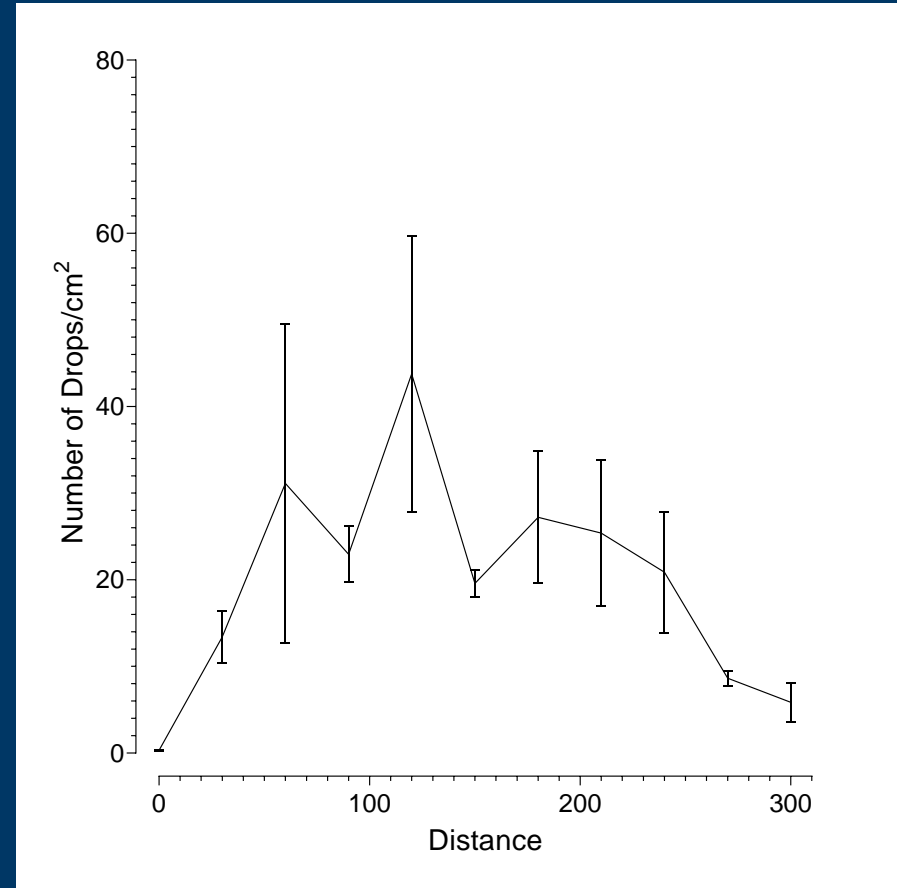


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Characterization of the Buffalo Turbine

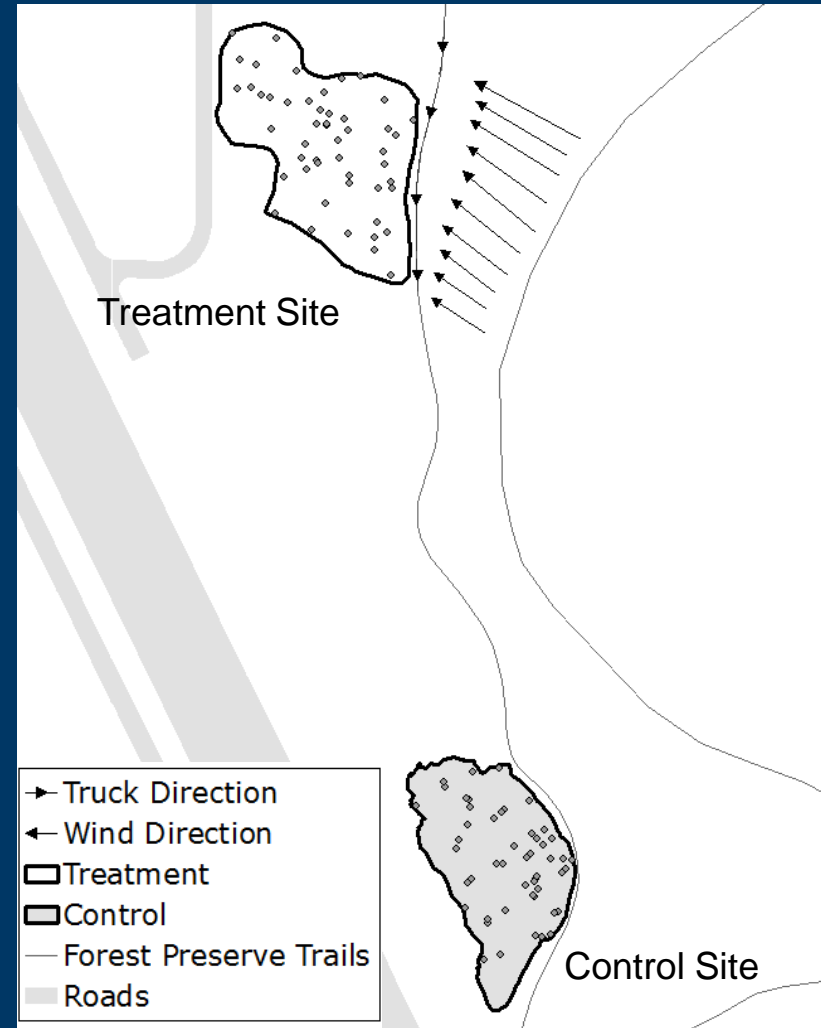
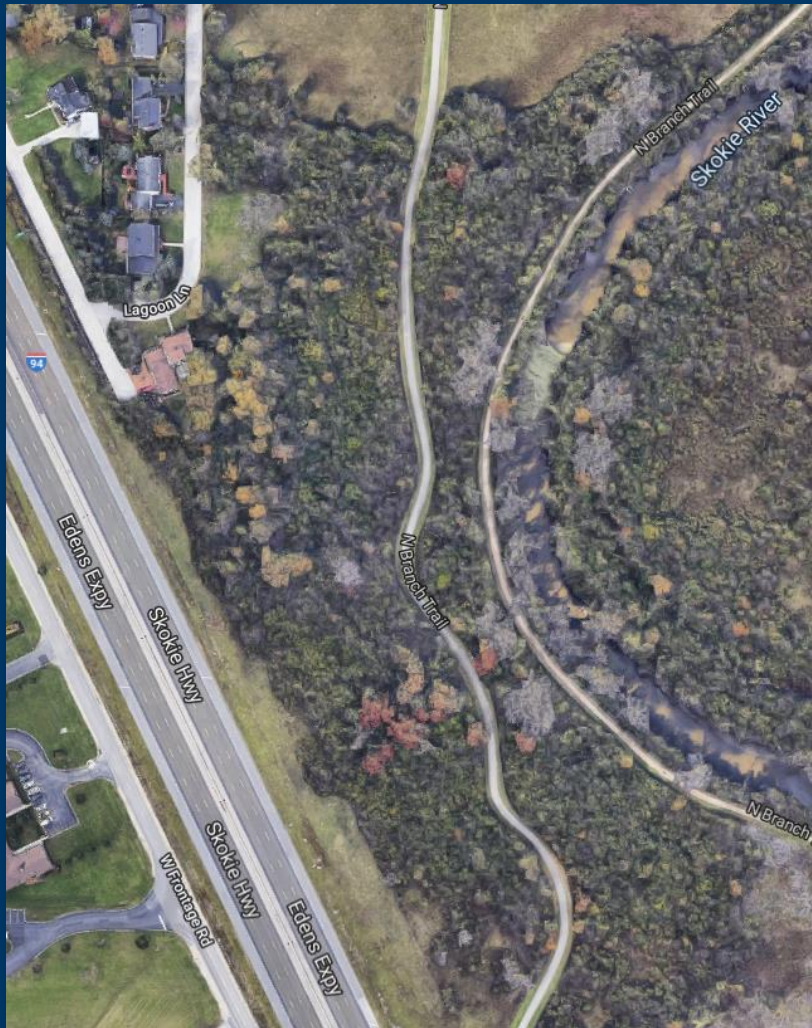


-DV_{0.5} 127 μm



5.54 droplets/ cm² at 300'

Study Design



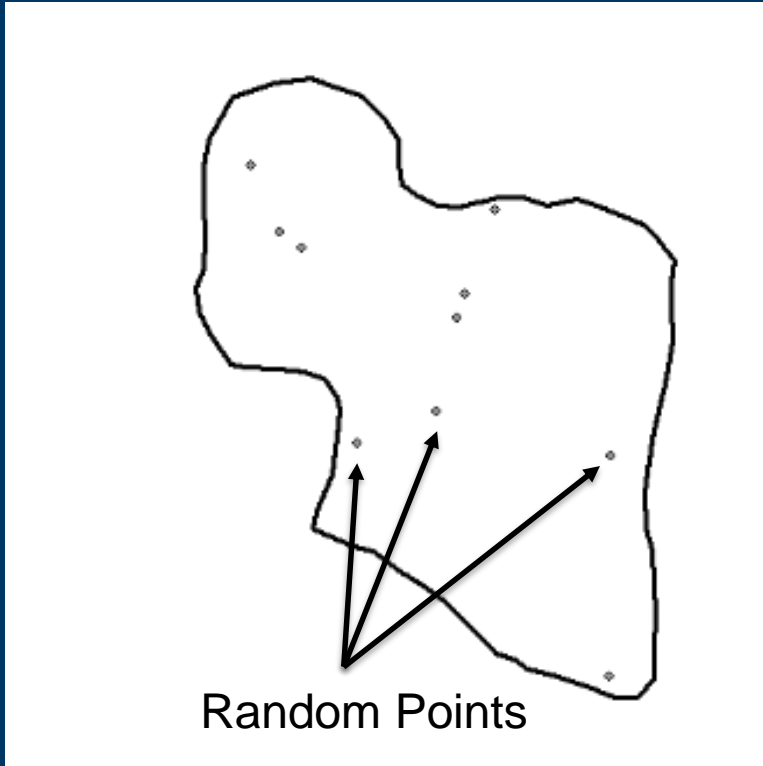
Study Design



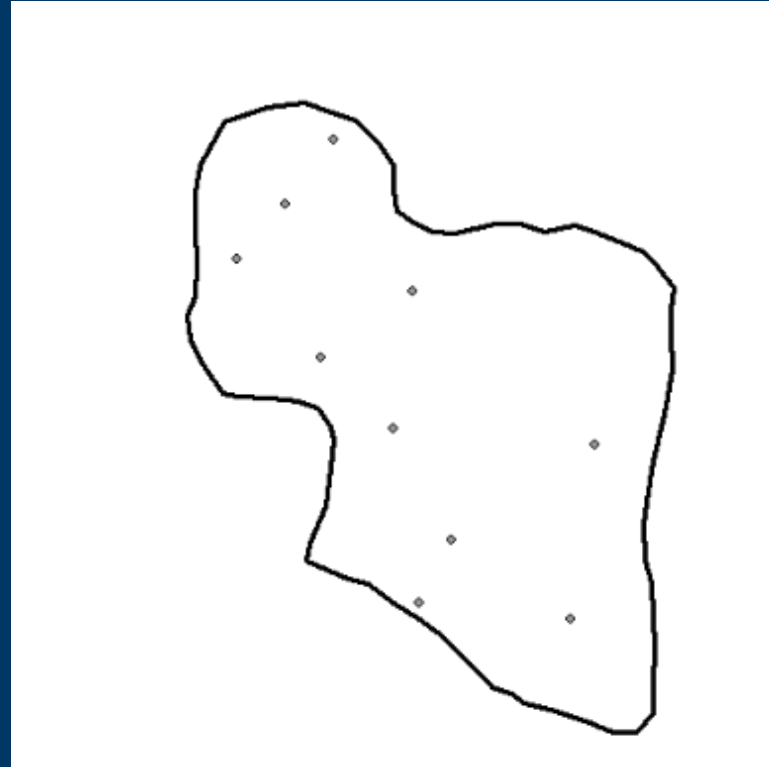
- Vectolex WDG was mixed at a rate of 1lb/g of water.
- Larvicide was applied at a rate of 1lb/acre.

Study Design

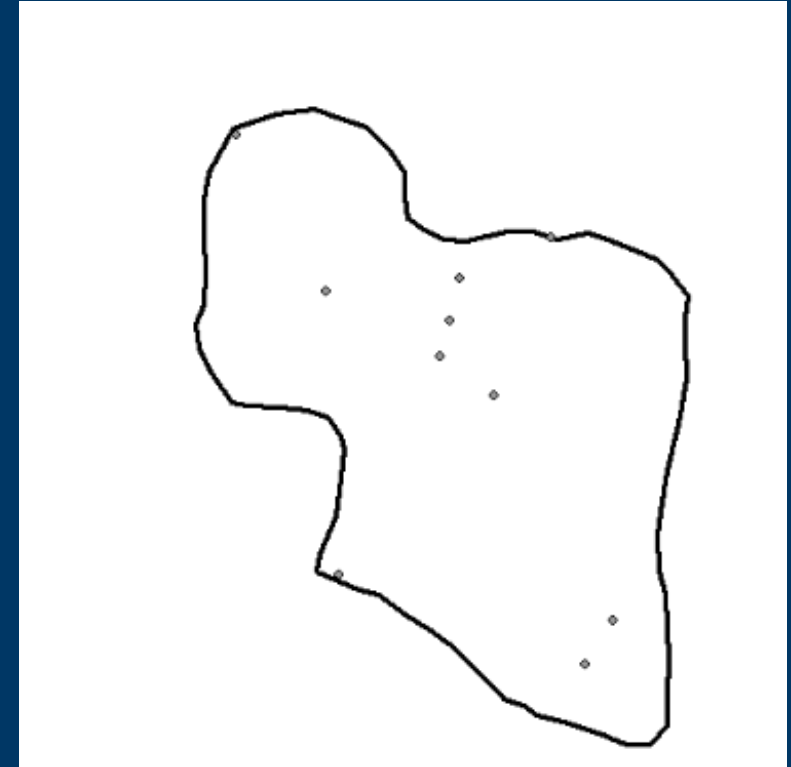
Week 1



Week 2



Week 3

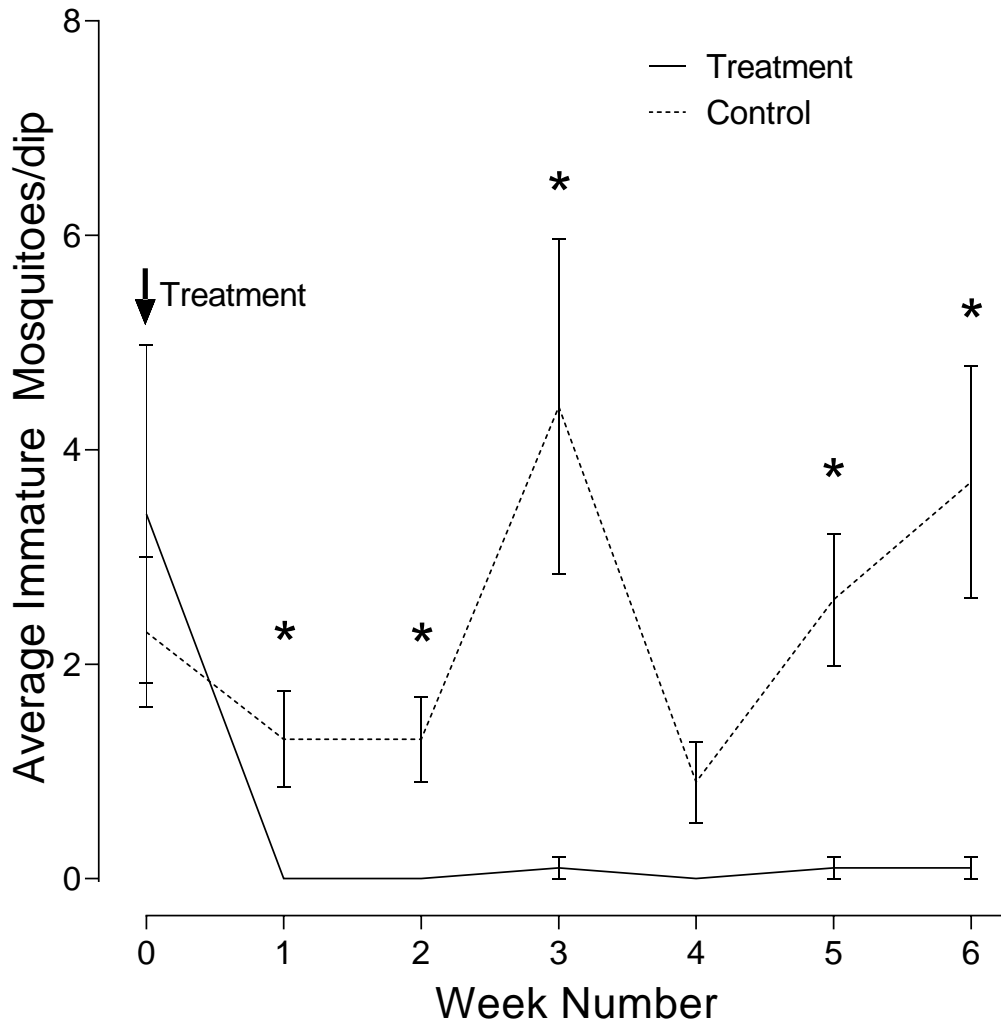


- 10 Random points were generated for each sampling week with QGIS software.
- The random points were located by GPS and sampled with a single dip.
- Control and treatment sites were sampled each week for 7 weeks with 10 dips per site.

Results

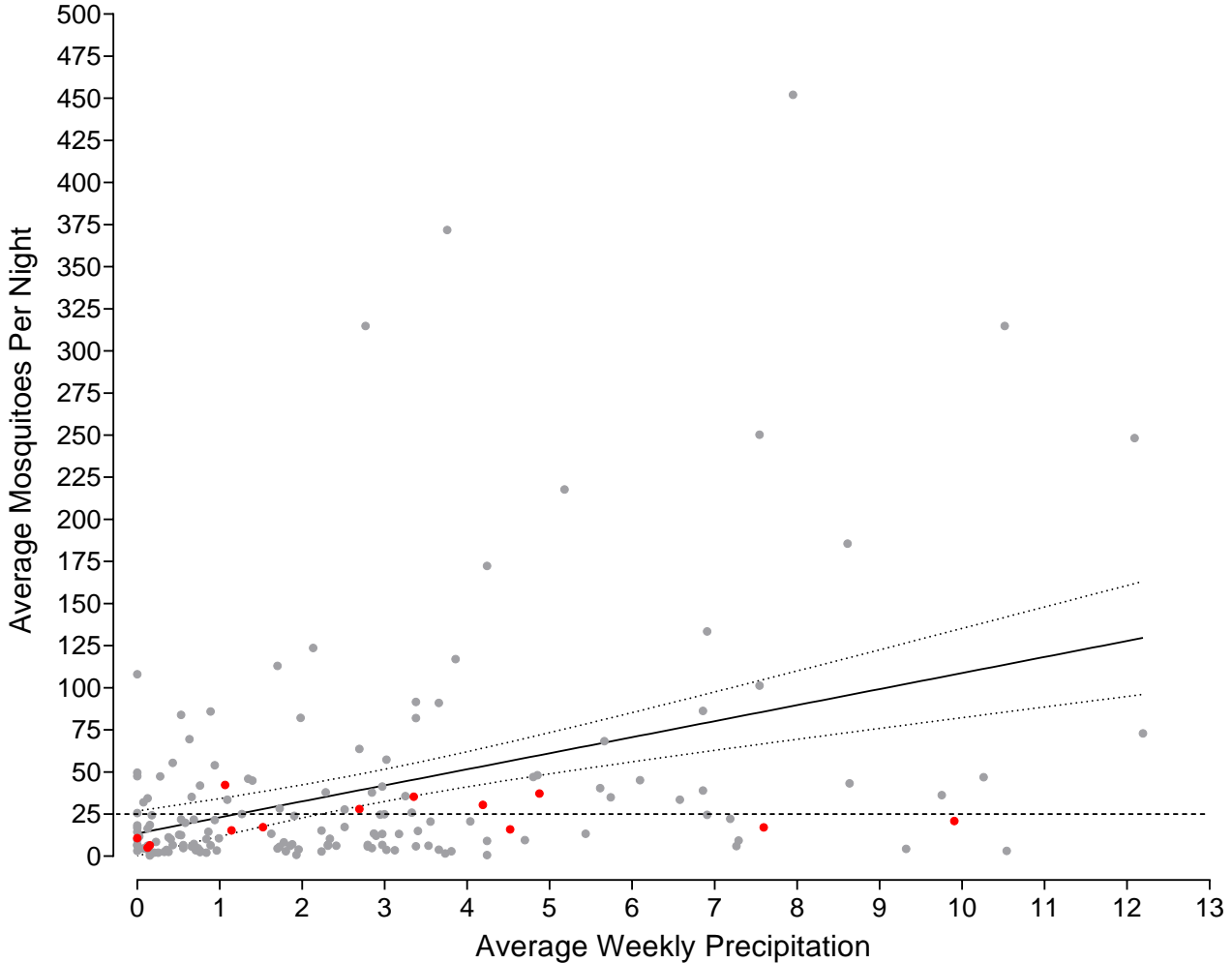
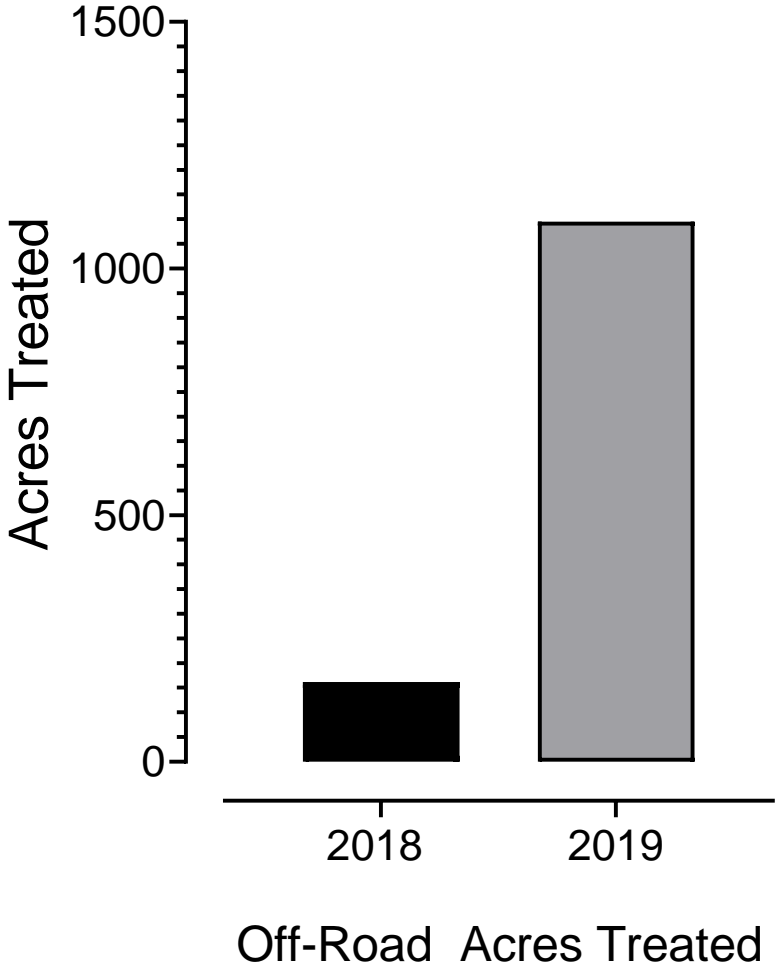
-One treatment of Vectolex WDG at 1 lb./acre was effective for at least 6 weeks.

* Denotes significance at $P < .05$: Mann-Whitney U



	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Median Rank Control	2	1	1.5	2.5	0	2.5	4.5
Median Rank Treatment	2	0	0	0	0	0	0
n	10	10	10	10	10	10	10
U	49.5	20	20	7	30	7	22
P value	1	0.0108	0.0108	0.0004	0.0867	0.0004	0.0108

Operational Results



Mixing Vectolex WDG



Mixing Vectolex WDG





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