

# Field Evaluation of the Next Generation of BG Sentinel<sup>®</sup> Trap, the Biogents Mosquitito<sup>®</sup>

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# Objectives

1. Evaluate the collection prowess of the Mosquitito in comparison with the BG Sentinel and MMX.
2. Determine if traps can effectively collect mosquitoes with lures in lieu of CO<sub>2</sub>



# Experimental Design

- Latin square
- Sept - Oct, 2010
- PHEREC campus - salt marsh
- 5 trap configurations
- 5 locations
- 3 repetitions
- 24 hrs from 8-8 a.m.



# Treatments

1. Mosquitito + CO<sub>2</sub> + Sweetscent
2. Mosquitito + Sweetscent
3. BG Sentinel + BG Lure
4. MMX + CO<sub>2</sub> + Octenol
5. MMX + Octenol



# CO<sub>2</sub> Delivery - MMX

- 20 lb. compressed gas cylinders
- 15 psi regulator
- 1/4" tubing, in-line filter, and .007 constrictor orifice
- 1.5 – 2.0# / 24 hrs.



# CO<sub>2</sub> Delivery – Mosquitito

- Same tubing, regulator, filter and orifice
- Biogents diffuser nozzle
- 2.7 – 3.0# / 24 hrs.



# BG Sentinel Trap



# Biogents Mosquitito Trap





# MMX Trap

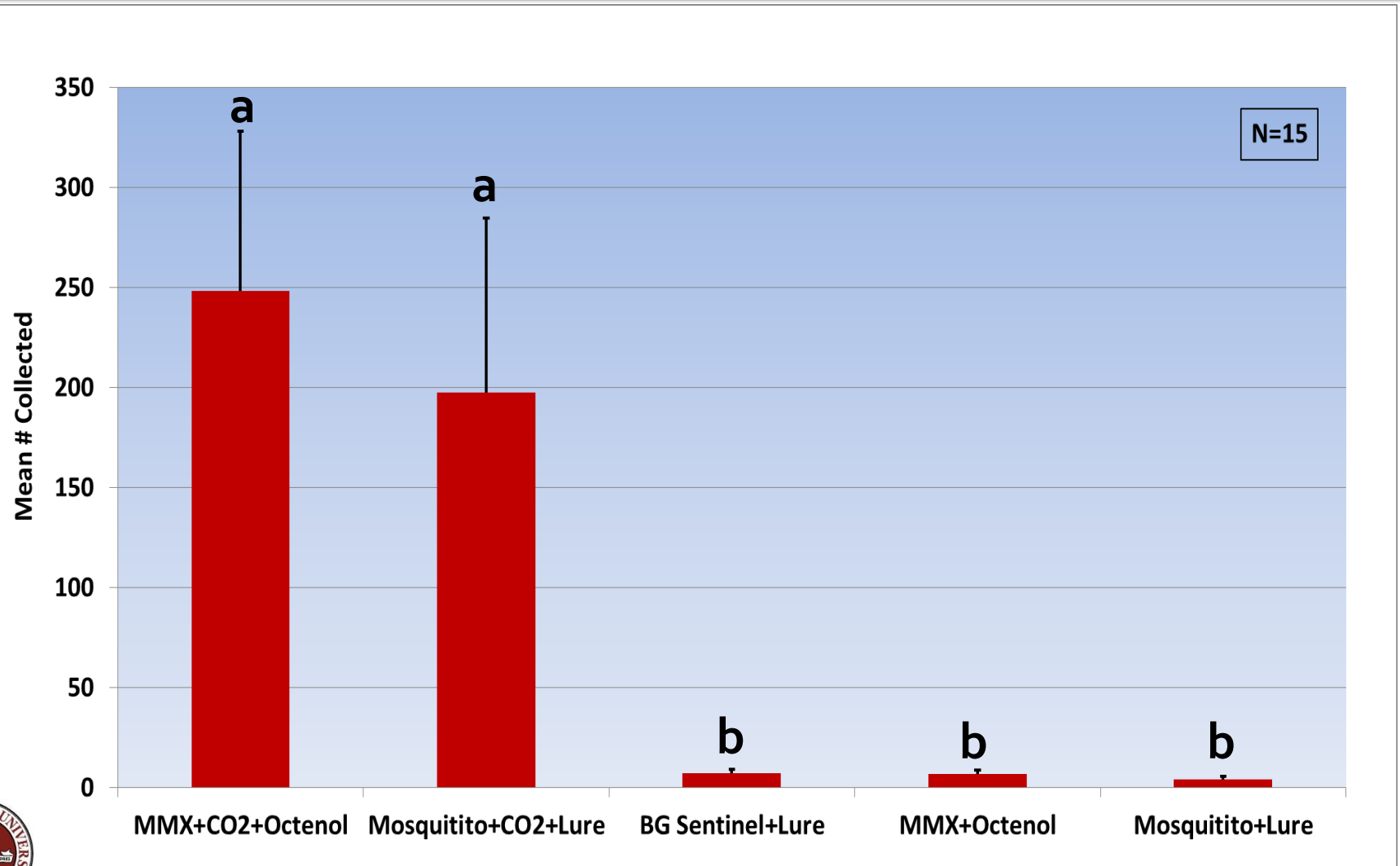


# Species Collected

Species	Total	%
An. crucians	6473	93.1
Ae. taeniorhynchus	340	4.9
An. atropos	56	0.8
Cx. quinquefasciatus	45	0.6
Ae. vexans	7	0.1
Ae. albopictus	7	0.1
Ae. atlanticus	5	0.1
Ps. columbiae	4	0.1
Ae. sollicitans	4	0.1
Ae. infirmatus	3	0.0
Ae. aegypti	3	0.0
Cx. salinarius	1	0.0
Ps. ciliata	1	0.0
Cx. restuans	1	0.0
Cx. erraticus	1	0.0
No catch	0	0.0
Grand Total	6951	100.0



# Mean # Mosquitoes by Trap Configuration



# Conclusions

1. There was no significant difference in catch between the MMX and Mosquitito when equipped with CO<sub>2</sub> and lures
2. The Mosquitito used 50-100% more CO<sub>2</sub>
3. Lures could not substitute for CO<sub>2</sub> without sacrificing catch numbers and species

