

Environmental Health Lab -- Guam

Dr. Grayson C. Brown

PIHOA Regional Entomologist
Dededo, Guam

graysonb@pihoa.org



Environmental Health Lab -- Guam

- ▶ Food Safety Laboratory - Still in organizational stages
- ▶ Mosquito Laboratory Activity Status
 - ▶ Current weekly mosquito trapping at 22 locations on the island
 - ▶ Trapped mosquitoes being identified in the lab
 - ▶ Collected eggs being counted and subsamples hatched
 - ▶ Within the next month will have laboratory colonies established
 - ▶ Actively collaborating with Naval Base - Guam
 - ▶ Collaboration with Anderson Air Force Base to begin the week of April 9



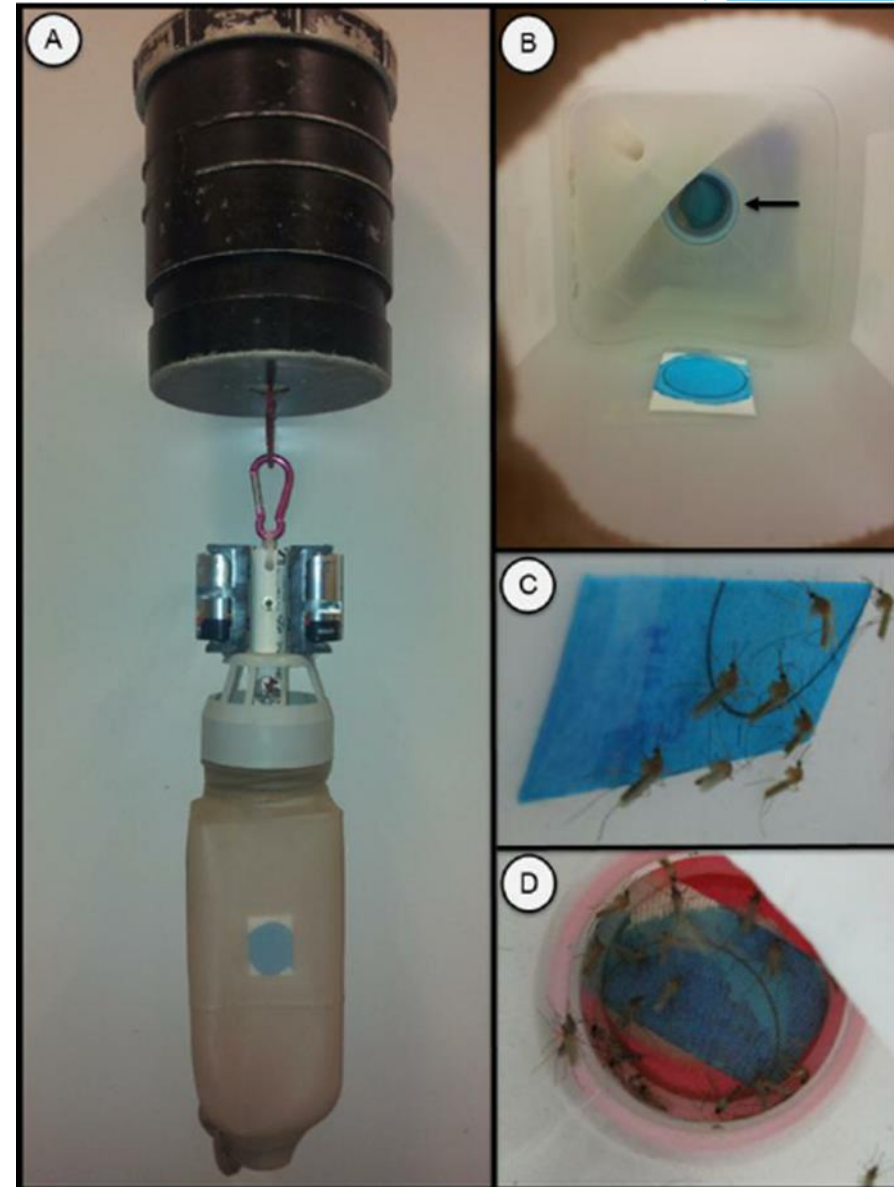
Continuing Needs at the Lab

- ▶ Ventilation/Air Handling continues to be an issue
- ▶ RAMP equipment is missing the control module
- ▶ Lab freezers need to be installed and hooked up
- ▶ Trap battery situation is being restocked
- ▶ Dry ice/CO₂ gas will remain a problem but not a limiting one
- ▶ FTA card testing to begin in April initially with a lab colony then in field traps



FTA Cards

- ▶ Cards impregnated with RNA preservative and coated with 10% honey solution
- ▶ Trapped mosquitoes feed on honey, depositing salivary contents
- ▶ Cards are harvested, sent to a regional lab
- ▶ Testing is quick and local DOH notified in case of a positive hit
- ▶ Needs no special expertise (no mosquito id), no additional labor yet yields crucial info



Additional technology/products will be coming from Guam before next PIHOA meeting

- ▶ RAMP and/or other “Point of Care” technologies to enable direct virus testing on individual islands
- ▶ Insecticide resistance testing so as to map resistance of key species across the islands
- ▶ Hub for collaboration with scientists from outside the region
- ▶ Lab should be functioning at a high level by May

