ESTABLISHMENT AND MAINTENANCE **OF LABORATORY COLONIES OF** *AEDES ALBOPICTUS* **MOSQUITOES**

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With a mission of "providing authenticated, high-quality *Aedes albopictus* mosquito rearing information to the research community" maintenance of a *Ae. albopictus* mosquito colony was started. All environmental facilities inside the insectary were carefully maintained to better suit the *Ae. albopictus* mosquito colonization. The mean temperature of 27°C (± 0.5°C) was constantly maintained inside the insectary. Wet towels on adult mosquito cage racks were used for proper maintenance of humidity. Lighting was using fluorescent light and regulated with 16:8 hour continuous dark and light period. Pest insect was controlled to ensure essential absence of ants and cockroaches. This was achieved without any harm to the mosquito colonies either directly or by contamination with toxicants transported by pests. An adult mosquito trap placed inside the insectary was used to monitor released mosquitoes. Consistent effort was also made to improve the level of cleanliness inside the insectary. Written guidelines were given to each person responsible for a task. Insectary operations included egg counting, preparation of hatching bottles with boiled distilled water following cooling to room temperature, egg hatching, larvae rearing with International Atomic Energy Agency (IAEA) recommended diet of tuna meal, bovine liver powder, brewery yeast and vitamin complex in a ratio of 37.5:27:10.5:2 g in 1L up to one week, pupae counting and putting into adult emergency cages, adult male feeding with 10% sugar solution with Vitamin complex, adult female blood feeding from 4th day onwards with bovine blood, placing egg laying cups and collecting egg laying cups, drying egg papers and starting next generation from the dried eggs. Adult mosquito cages were blood fed every 4th day after emergence from pupa and for quality control reasons each adult cage was blood fed only 3 times and there after only 10% sugar solution with vitamin syrup was supplemented until all adult mosquitoes died. Documentation for maintenance and data record was maintained and updated daily. Records included larvae feeding records, larvae tray maintenance and cleaning charts, adult feeding records with both sugar solution and blood, insectary cleaning records with time and dates. Number of eggs and percentage of egg hatching, larvae death, pupation, adult emergence, egg laying and adult mosquito death with respect of the sex and time difference were recorded. For bio-safety reasons all discarded material from larvae trays, egg laying cups and adult cages were boiled thoroughly to facilitate total destruction of the contaminated mosquito eggs. All other infectious material were incinerated. Finally, all above conditions facilitated achievement of 100% egg hatching rate within maximum of 24 hours, 100% survival of larvae to pupa (~ 7 days), 100% survival of pupated larvae to adult emergence (~ 2 days) and 95.5% adult survival up to 12 days. No difference was observed on adult longevity between males and females within first 12 days of adult emergence. However, approximate life span for males (-17 days) was lower than the females (~ 25 days) and the mortality was regular through all generations (Fl to F21).

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