

## **Biocidal composition for controlling mosquito propagation**

### **Abstract of the patent invention:**

The present invention relates to a biocidal composition, and the process of preparation thereof. The composition can be used to attract gravid mosquitoes to lay their eggs and subsequently kill the larvae emerged from said eggs and thereby controlling the vector mosquito propagation.

### **Salient features of the invention:**

- This biocidal composition is mosquito larvicidal composition.
- Lethal mosquito attractant is prepared by an economical process from bacterial culture filtrates using bird feathers.
- Low cost lethal mosquito attractant from bacterial culture media was confirmed by conducting the bioassay experiments using the filarial vector of *Culex quinquefasciatus*.
- **Milestone achieved:**
  - **IP status:** An Indian patent has been granted and patent number is 255023.
  - **USP of technology:**
    - a. This composition completely controls the mosquito propagation. Extra cellular insecticidal toxins (exotoxins) of *Bacillus sphaericus* and Bti produced from bird feather culture filtrates excellently attracting the disease causing female mosquitoes for laying their eggs. Further freshly emerged mosquito larvae died on the surface of water medium and thus controlling the mosquito larvae to emerge further to the environment.
    - b. This culture media prepared from bird-feather extract is cost-effective when compared with supernatants of other synthetic culture media.
- Technology was developed at Vector Control Research Centre, Pondicherry.
- ICMR is seeking potential collaborators for the validation of technology.

**Figure-1. Extra cellular proteins from supernatant of bacterial culture**



**Figure-2: Newly emerged mosquito larvae died due to bacterial culture supernatant effect.**

