conferenceseries.com allied academies

Agrotechnology 2017, 6:4(Suppl)
DOI: 10.4172/2168-9881-C1-028

Attraction of melon fruit fly, *Bactrocera cucurbitae* (Diptera: Tephritidae) to the odor of cultivable gut bacterial isolates

Mala Mishra
Indian Agricultural Research Institute, India

The melon fruit fly is a destructive pest of cucurbits in India and microbiota plays an important role in insect biology. Understanding the gut microbiota composition is essential for the development of pest management strategies. Given this, the study intended to identify the cultivable bacteria inhabiting the intestinal tract of adult melon fruit fly (*Bactrocera cucurbitae*) from the field-collected population of the experimental fields of IARI, New Delhi, India; between 28°37'22" to 28°39'05" N latitudes and 77°08'45" to 77°10'24" E longitudes. Ten isolates were identified and characterized using biochemical, molecular and 16sRNA sequencing methods to assess the attractiveness of the bacterial odours to their hosts. Bacteria identified belong to family *Enterobacteriaceae, Staphylococcaceae, Enterococcaceae, Bacillaceae* and *Brucellaceae*. Laboratory bioassay was employed to examine the attractiveness of the different bacterial isolates to *B. cucurbitae* adults in normal and olfactory cages separately. The bioassay showed that a higher number of female flies were attracted to bacterial filtrates than male flies across all age groups. *Klebsiella oxytoca and Citrobacter freundii* were the most attractive species across all age group of adult flies. These findings will facilitate blooming of female targeting bacterial bio control emissary for the defense of cucurbit crops.

dr.mala85@gmail.com