

## Shatpada Rugose Whitefly kill - *Isaria fumosorosea* for management of Rugose Spiralling Whitefly *Aleurodicus rugioperculatus* in Coconut and Oil palm

- **Brand Name:** Shatpada Rugose Whitefly kill
- **Microbial Constituent:** *Isaria fumosorosea* ICAR-NBAIR Pfu5 strain
- **Microbial Culture deposition in National Culture Collection and accession number:** Yes, deposited at ICAR-NBAIM on 17-07-2016. Accession number yet to be assigned by ICAR-NBAIM. DNA finger print generated at ICAR-NBAIM, Mau.
- **Type of Formulation:** Liquid (SC) /Talc (WP) /Rice grain-based formulation were developed containing minimum of  $1 \times 10^8$  cfu/g
- **Target pest and crop:** Rugose Spiralling Whitefly *Aleurodicus rugioperculatus* in Coconut and Oil palm.
- **Method of application:** Foliar application of talc/oil/rice grain formulation. 900 litres of water/ha (@5litres/palm) required for preparation of foliar suspension of the formulation for each spray. Since 2-3 rounds of sprays are to be given, 1800-2700 litres of water/ha needed.
- **Dosage of application:** Two-three foliar sprays of Shatpada Rugose Whitefly kill at the dose of 5g/ml/litre containing  $1 \times 10^8$  cfu/ml at 15 days interval after pest incidence.
- **Target states:** Karnataka, Andhra Pradesh, Tamil Nadu, Kerala
- **Validation:** The technology was tested in in Coconut & Oil Palm in Coastal Andhra Pradesh (2018 & 2019) and in coconut in Karnataka (2018 & 2019), Kerala (2018 & 2019) and in Tamil Nadu (2019 & 2020).



### Effect of *Isaria fumosorosea* ICAR-NBAIR Pfu-5 on Coconut (var. ECT) Rugose spiralling whitefly in coastal Andhra Pradesh during 2019



Before NBAIR Pfu-5 Spraying    After NBAIR Pfu-5 Spraying    Infection of NBAIR Pfu-5 on Coconut RSW  
a-eggs, b,c- third and fourth instar nymphs, d-Adult

- **Benefits:**  
74-75% pest reduction  
15-20% increase in yield
- **Commercialization of technology:** The technology will be commercialized.

**Contact:** Director, ICAR- National Bureau of Agricultural Insect Resources, Bangalore-560 024.  
[director.nbair@icar.gov.in](mailto:director.nbair@icar.gov.in)