Household Production of *Isaria fumosorosea* Fungus Mother Culture to Control Rugose Spiraling Whitefly

KALIDAS, P.*

ICAR-Indian Institute of Oil Palm Research, Pedavegi, Andhra Pradesh, 534450 India

Rugose spiraling whitefly (RSW), *Aleurodicus rugioperculatus* Martin, is an invasive pest in India. It feeds on most of the green-leaved plants including are caceae palms. Both the nymphs and adults suck the sap from the leaves causing yield loss. For effective management of the pest, ICAR-Indian Institute of Oil Palm Research, Pedavegi has developed a novel technology using microbial agent, *Isaria fumosorosea*. The initial trials that were conducted on the efficacy of the fungus yielded good results causing substantial mortality to all stages of the pest. The methodology on multiplication has been standardised using locally available low cost agro materials like broken sago grains, cane sugar and potatoes. Multiplication of the microbial organism included preparation of mother culture in the laboratory as well as in the farmers’ homes and preparation of ready to use culture for application against the target pest using mother culture. The preparation of mother culture using laboratory ingredients was compared with that of locally available materials. The spore count and the time taken for obtaining the maximum output were also compared and found on par in both the cases. The methodology to multiply the mother culture by farmers in their homes was also developed which is helpful for further multiplication and use to control the pest. The cost of production of mother culture using locally available agro materials was found to be half the price of that prepared in the laboratory. This methodology replaces the farmers dependency for mother culture from various institutes/laboratories and helps to procure sufficient culture with them.

**Keywords:** Rugose spiraling whitefly, *Isaria fumosorosea*, broken sago grains, cane sugar