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Managing the Rugose Spiralling Whitefly Using Novel Technologies: Feasibilities and Possibilities

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Rugose spiraling whitefly (RSW), Aleurodicus rugioperculatus *Martin. is an invasive pest feeding on all the green leaved plants including oil palm causing nutrient as well as photosynthetic loss resulting in yield reductions. To manage the pest incidence, use of various possible and feasible measures in an integrated manner is the only available answer. Although many of these measures are not fool proof in giving 100 per cent control of the pest, in the present conditions it is the only solution to implement in the infested areas to reduce the pest incidence and infestation to below threshold limits. Based on the results obtained at different places, Good Agricultural Practices have been drawn for the successful mitigation of the pest. Most of these were tested in farmers' fields and found suitable to implement in all the infested areas in an integrated manner rather than alone. The compatibility among different practices when implemented together shows the significance of individual as well as combined practices in managing the pest population. Since the pest is an invasive one with no boundaries on feeding, it is required to draw attention on Intergrated Pest Management (IPM) practices to check the population effectively. For this purpose all the possible measures like stopping procurement of nursery plants from the infested areas, taking control measures on all the feeding plants, growing pest repellent plants like marigold all around the garden, hanging sticky traps in the gardens to attract the adult flies and thereby reduce the pest load, conservation of existing and release of available parasitoids and predators need to be carried out in an integrated manner. Entomopathogen,* Isaria fumosorosea *fungus is a good and effective Myco biocontrol agent for causing maximum mortality of the pest population. The feasible practices on its multiplication using locally available low cost material were developed at ICAR-Indian Institute of Oil Palm Research, Pedavegi. The methodology to multiply the mother culture by farmers in their homes was also developed which is helpful for further multiplication and usage of it against the pest. The cost of multiplication of mother culture using locally available materials was found to be half the price to that of the laboratory prepared one. This methodology nullifies the farmers' dependency for mother culture on various institutes/laboratories and helps to have sufficient culture with them.*

Keywords*: Rugose spiraling whitefly,* Isaria fumosorosea, Encarsia guadeloupae, *oil palm.*