

Name of the technology : Integrated management technologies for sucking pests

Year (s) of development : 2017-2023

Technology details

Two sucking insect pests, aphid and whitefly are the major insect pests in FCV tobacco. The whitefly, *Bemisia tabaci* Gennadius, is a vector of leaf curl virus (LCV) disease and tobacco aphid, *Myzus nicotianae* Blackman, vectors Cucumber mosaic Virus (CMV) disease on FCV tobacco.

In Southern light Soils (SLS) and Black soils, IPM module with two rows of sorghum barrier crop sown 2 weeks before planting of tobacco, application of 2 % NSKS @ 10 and 35 DAP, foliar spray with pymetrozine 50 WG @ 0.02% at 20 DAP and flonicamid 50 WG @ 0.02% or afidopyropen 50 DC @ 20 ml/ 10 litres at 45 DAP efficiently managed both the sucking pests. Afidopyropen 50 DC, a pyropene class of insecticide modulates the chordotonal organ TRPV channels. It is efficient not only in terms of its bioefficacy but also in increasing cured leaf yield. It is also relatively safe to natural enemies and hence it can be a promising alternative to the existing insecticides for the management of tobacco aphids.

In Karnataka Light Soils (KLS), pearl millet barrier crop with one spray of *Lecanicillium lecanii* @ 0.3% at 45 DAP is an effective integrated pest management approach for the control of *M. nicotianae* in FCV tobacco field crop over farmers practice.



Validation of management modules for sucking pests in FCV tobacco

Impact of the technology

The technology is being adopted by about 80 % farmers in Andhra Pradesh and 75% farmers in Karnataka. The technology contributes to higher yields to the farmers with a cured leaf yield of 2380 kg/ha. Besides the monetary returns, the natural enemy population is also conserved.

Publications/commercialization

- ICAR-CTRI Annual Report 2019 (p.51-53).

Investigators/Developers

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