

Impact of migration of insect pests on oil palm sustainability

Kalidas P

Directorate of Oil Palm Research, India

Oil palm, *Elaeis guineensis* Jacq. is an introductory crop to India to mitigate the gap in demand and supply of vegetable oil requirement of the country. Though utmost care is being taken to restrict the entry of any pest population along with the seed sprouts from the importing countries, still many pests are found to infest the crop causing yield losses. Few such pests are rhinoceros beetle, leaf web worm, pschid, slug caterpillar, scales and mealybugs. Except the leaf web worm, *Acria* sp. rest all are found to migrate from the local ecosystem. Most of these populations are found to migrate from other arecaceae palms like coconut, palmyrah and arecanut which are commonly seen in the adjoining areas of oil palm plantations. The loss estimation on the yields of oil palm due to the above pests was in the range of 20-30% extending to three years after attack. However this is further found dependent on the management practices being taken by the farmers with restoration to the normal yield levels within few years of attack. The loss in the yields due to rhinoceros beetle was mainly due to the breaking of leaves at the petiole region where the pest attack is commonly seen. Nearly 25% yield loss is reported with the 50% breaking per palm. The pest which is common on coconut and palmyrah found migrating to oil palm due to more number of leaf production. *Metarhizium anisopliae* is found to act as good biological control agent causing green muscardine disease to all the stages of the pest. Psychid, *Metisa plana* and slug caterpillar, *Darna catenatus* which are reported to be minor pests of coconut, palmyrah and maize, found to cause heavy infestation on oil palm causing yield losses upto 50%. The causes of migration may be the existence of congenial conditions like low temperatures and high humidity in the oil palm plantation. The yield losses due to these migrant pests lead to instability on sustainability of the yield as well as cultivation and hence necessary to take good management practices.

potinenikalidas@gmail.com