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Pests, Diseases, Nutrient Deficiencies and Disorders of Oil Palm

भाकृअनुप-भारतीय तेल ताड़ अनुसंधान संस्थान
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FOREWORD

Commercial planting of African oil palm (*Elaeis guineensis* Jacq.) in India was initiated during early 1960 at Thodupuzha, Kerala and later large-scale plantations were established in mid-1970s in Kerala and Little Andamans. At present, oil palm is being extensively cultivated in 14 states of the country out of which states like Andhra Pradesh, Mizoram and Kerala are having larger areas under oil palm cultivation. Research programmes to assess and monitor pest and disease incidence, nutrient requirement and occurrence of nutrient deficiencies and disorders were initiated during 1985 at Palode, Kerala and during 1995 at Pedavegi, Andhra Pradesh with the establishment of National Research Centre for Oil Palm.

Although oil palm is a new crop to India, the pests and diseases incidence is found increasing in the recent years. The perennial nature of palms, intermingling of leaves, poor sunlight penetration, excess irrigation which modifies the micro climate, poor nutrient and pest management etc., create congenial conditions for pests and diseases build up. In India few insect species are reported to be infesting oil palm. The damage due to rhinoceros beetle and leaf eating caterpillars are ever increasing and spreading to new areas. Avian pests and mammalian pests are also emerging as a major problem to oil palm nursery, newly planted and adult gardens. Indiscriminate use of chemical insecticides may upset natural balance. Hence, an integrated pest management programme incorporating mechanical, sanitational, biological control and chemical method needs to be adopted for the effective management of pests in oil palm.

About 40 diseases have been reported from different oil palm growing countries, only a few such as basal stem rot, vascular wilt and fatal yellowing cause considerable losses and detailed investigations have been carried out. The diseases affecting this crop in our country have been catalogued. The major among them are bud rot, basal stem rot, bunch rot and stem wet rot. The curative measures and disease management techniques have been evolved to tackle these diseases in the initial stage itself. However, the etiological investigations, techniques for early detection and integrated disease management need immediate attention. Utmost care has been bestowed to prevent the spread of endemic diseases to newer areas as well.

Oil palm is a heavy nutrient feeder and requires a balanced and adequate supply of macro and micronutrients for growth and yield. Optimum economic and sustainable oil palm yields can only be achieved with judicious use of fertilizers. Nutritional constraints like imbalanced and inadequate supply of nutrients are major limitations to oil palm productivity in India. Nutrient disorders such as nitrogen-potassium imbalance, potassium, magnesium and boron deficiency are common in oil palm plantations in India and result in suboptimal production. Symptoms of nutrient deficiencies and disorders have been documented and soil and leaf sampling techniques have been standardised for correct detection and appropriate fertilizer recommendation.

Since the information on pests, diseases, nutrient deficiencies and disorders, from all the oil palm growing areas of India has been amalgamated in the form of technical bulletin, this will act as a valuable guide to development officers of state departments and entrepreneurs, researchers, farmers and other stake holders directly and indirectly associated with oil palm.

I appreciate the efforts made by the scientists for compiling and editing useful information which has helped to bring out this technical bulletin.

Date : 05-03-2017
Pedavegi

(R. K. Mathur)

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