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VARIETAL SUSCEPTIBILITY OF MANGOES TO SOOTY MOULD

Traditionally sooty moulds have been regarded as a group of fungi deriving nutrients from honey dew produced by various kinds of insects. However, it has also been shown that some of the sooty moulds derive nutrients from the host plants. Under this circumstance they become partial parasites. Further, sooty moulds effect growth of the plants by covering the leaves with their growth thereby preventing active photosynthesis by the leaves.

Recently very severe infestation of mango trees in the orchards of the College of Horticulture, Kerala Agricultual University, Mannuthy was observed. There were severe leaf fall and drastic reduction in the fruitset noticed by the infestation by sooty moulds. Hence a study was conducted to find out the susceptability of different mango varieties to sooty mould. In the present investigation the term sooty mould is used for the fungi with dark coloured hyphae producing black colonies belonging to the genera *Meliola* and *Capnodium*.

Twentynine mango varieties were used for the present investigation. All the mango trees were grown under the same management practices ;and were of the same age group (20 years). Intensity of sooty mould infection was taken only from plants bearing flowers and fruits. Depending on the intensity of infection leaves were graded into five different infection grade viz. 0 (no infection), 1 (0 to 20% infection), 2 (20 to 40% infection), 3 (40 to 60% infection) and 4 (60 to 100% infection).

To reduce sampling error only twigs facing west were used for taking observation. Infection rate was taken from 12 twigs and five leaves from each twig.

Among the varieties studied only Alphonso was completely free from nfection. Varieties Suvarnarekha, Amrutham, Kalpuram, Back Andrews, Creeping, Olour, Bangalore and Dadasala came under Grade I; varieties Mundappa, Neelam, Challenger, Prior, Chinnarasam, Kasthurimammdi, Maharaj Pasant, Bombay Nadusala and Hyderabad Black under grade 2; varieties Mulgoa, Allumper Baneshan, Goa and Chandanam under grade 3 and varieties Kadiri, Nasipasant, Pacharasi' Kalapani, Solar Summer, Jehangir and Bennet Alphonso under grade 4. Apart from leaves, inflorescences were also found to be infested. To find out the infestation of the inflorescences the percentage of infested inflorescence on the branches facing west was estimated. Variety Kadiri showed meximum infestation of the inflorescence(66%) followed by the variety Kalpani (50%) Nadusala and pacharasi 33%)Solar Summer (25%) Nasipasant and Bennet Alphonso (16%) and Maharaj Pasant (8%). Other varieties did not show any infection of the inflorescence.

Yamamoto (1955) observed that there was no host preference for sooty moulds. But the present study clearly shows that there is host preference in sooty moulds in mango varieties, Alphonso showing maximum tolerance and Kadiri, Solar Summer, Kalpani. Jehangir and Bennett Alphonso the least tolerance.

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വിവിധയിനം മാവുകളിൽ സൂട്ടിമോൾഡുണ്ടാക്കുന്ന കുമിളിന്റെ ആക്രമണം എത്രുകണ്ടു ഉണ്ടാകുന്നു എന്നു നിരീക്ഷിച്ചതിൽ 'അൽഫോൺസ' എന്നയിനം മാത്രം ഈ രോഗത്തെ പരിപൂർണ്ണമായി ചെറുത്തുനില്ക്കുന്നതായി കണ്ടു.

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College of Horticulture,
Vellanikkara, Trichur.

C. K. PEETHAMBHARAN
M. ARAVINDAKSHAN

(M. S. Received 3-4-1978)