

**WILT OF VANILLA PLANIFOLIA ANDR. (SALISB) CAUSED BY
FUSARIUM OXYSPORUM SCHL. EX. FRIES
F. VASINFECTUM(ATK.)**

During 1977-78 a severe incidence of wilt disease was noticed in the nursery of a vanilla plantation in Calicut. The affected plants succumbed to the disease prematurely. The major symptoms noticed were gradual yellowing of foliage, withering, wilting and finally drying of the whole plant. Examination of the root system showed blackened tissues and diseased portions showed typical vascular browning. The fungus responsible was isolated and brought into pure culture by single spore isolation.

The fungus grew luxuriantly on Potato dextrose agar (PDA) and Czapek Dox agar. Stromata were purple red. Chlamydoconidia were mainly intercalary and round. Both micro and macro conidia were single or 2 celled. Macroconidia were fusiform to falcate, 3-5 septate. Based on morphological and cultural characters the fungus was identified as *Fusarium oxysporum f. vasinfectum*.

For testing pathogenicity, the fungus was grown in Potato dextrose solution for 7 days, filtered and added to the root zone of healthy one month old plants grown in plastic bags. Inoculation at the base of the stem portion also proved successful. Typical symptoms were noticed within 20-30 days of inoculation.

Alconero and Santiago (1969) have reported the incidence of *F. oxysporum* on vanilla, while Leakey (1970) and Balagopal *et al.* (1974 a and 1974 b) isolated *F. oxysporum vanillae* from the roots of vanilla plants. In this paper the fungus *F. oxysporum f. vasinfectum* has been reported to cause the disease. The fungus was reported to cause serious wilt of cotton throughout India (Subramanian, 1971) and this is the first report of the fungus causing wilt of vanilla from India.

സംഗ്രഹം

വാനില വെടിയിൽ വാട്ടരോഗം ഉണ്ടാക്കുന്ന ഒരുതരം കുമിളിനെ രോഗം ബാധിച്ച ഭാഗങ്ങളിൽ നിന്നുവേർതിരിച്ചെടുക്കാൻ കഴിഞ്ഞു. പ്രസക്ത കുമിളിനെപ്പറ്റി നടത്തിയ പഠനങ്ങളിൽനിന്നും അത് *ഫ്യൂസേറിയം ഓക്സിസ്പോറം വേറ്റം വാസുഇൻഫെക്റ്റം* ആണെന്നു കണ്ടു.

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