

Field Reaction of Turmeric Types to Leaf Blotch Disease

Leaf blotch (caused by *Taphrina maculans* Butl.) is an important disease of turmeric resulting in severe blighting of leaves at all stages (Chattopadhyay, 1967). It is noticed in all turmeric growing tracts in India.

Seed rhizomes weighing 20-25 g each of 42 types (33 of *Curcuma longa* and 9 of *C. aromatica*) were sown during May-June in raised beds with 30×25 cm spacing accommodating 40 plants/bed. They were supplied with recommended doses of organic manures, fertilizers, and green leaf mulch. The trial was laid out in a randomised block design with three replications. We observed the disease incidence during September-October when the crop was about 4-5 months old, and maximum incidence in November-December (temperature 19.6-30.6°C and relative humidity 43-97%). Ten plants were selected at random in each bed for disease scoring. All the leaves in a clump were individually examined and graded into following percentage categories based on the leaf area involved (visual indices) in the

disease: 0=no infection; 1=incidence upto 5%; 2=6-10%; 3=11-25%; 4=26-40%; 5=51-75%; and 6=76-100%. The data were recorded for three successive cropping seasons. The percentage of disease incidence was calculated using the formula:

$$\% \text{ disease} = \frac{\text{Total numerical rating}}{\text{Total No. of leaves} \times \frac{\text{No. of categories examined in 10 plants}}{10}} \times 100$$

Both *longa* and *aromatica* types were susceptible. However, the intensity of attack was much more in *C. longa* types. Maximum incidence in *longa* types was noticed in Kuchipudi and Nandyal (both 62%) and in *aromatica* in Ca 69 Dindigam (10%) and Ca 72 Udayagiri (6%). The varieties CLL 320 Amalapuram, CLL 324 Ethamukala, CLL 316 Gorakhpur, CLL 326 Mydukur, Karhadi local, Muvattupuzha, Ochira, No. 24, and Alleppey, among *longa* types, and Ca 68 Dahgi, Ca 67 Jobedi, and Kasturi, among *aromatica* types, were free of attack in all the three seasons.

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