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SCIENTIFIC NOTE :

Resistance of Some Foreign Varieties to Wilt of Sugarcane

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Wilt is considered as one of the major and the most damaging diseases in Bangladesh (Malek, *et. al.*, 1982). The diseaseis also common and destructive in India and was first recorded by Butler and Khan (1913). It has also been reported from Argentina, Barbados, Colombia, Mexico, the Philippines Trinidad, Uganda, South Africa, United States, West Indies and many other countries of the world (Ganguly, 1964). There is hardly an area in Bangladesh free from wilt hazzard (Malek *et. al.*, 1982). The wilt pathogen *Cephalosporium sacchari* Butler occurs alone or frequently in association with red rot parasite (*Physalospora tucumanensis* Speg) and hastens the deterioration of the affected cane (Ganguly, 1964). Ganguly (1964) citing the reference of S. A. Rafay stated that severe effect on length and weight of the cane stalks as well as in sucrose occured due to wilt. Waraitch (1981) assessed the losses in a particular variety Co. 1148 to be 17.96 percent in cane weight compared to healthy cane at 40 percent level of disease incidence in the Punjab state of India.

Considering the wide spread occurrence of the disease and the severity of its losses in our country, it is necessary to screen the varieties either in-bred or local or imported before they are finally selected and recommended for commercial cultivation. Therefore, the present work was undertaken to determine the resistance/susceptibility of newly imported varieties.

Fourteen varieties namely, B. 48123. CP 56-59, CP 57-614, CP 61-37, CP 61-79, CP 62-374, CP 63-588, CP 66-346, CP 70-1133, CP 71-1442, CP 75-351, M 147-144, Q 97 & Saipan were included in the test and they were artificially inoculated by standard plug method during the crop seasons 1980-81 and 1982-83. Twenty stalks from 10 month old cane of each variety were inoculated by 10 days old and uniformly sporulated pure culture of *Cephalosporium sacchari* Butler. The data were collected after 10 weeks following inoculation. Each of the individual cane stalks was split open and the linear spread of the disease (lesion's length) was recorded by meter scale. The index of virulence was determined by dividing the lesion's length with the length of inoculated internodes and a scale was developed based on index ratios (Malek *et al.*, 1982). The varieties were then rated using that scale.

All the 14 varieties showed clear symptoms of wilt of varying degrees. None of the varieties was found resistant or very highly resistant. Only one variety CP 62-374 was

found moderately resistant and the varieties CP 57-614, M 147/44 & Q. 97 and Saipan showed intermediate reaction. The rest of the varieties exhibited moderate to very high degrees of susceptibility.

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