

BACTERIAL WILT OF PUMPKIN (*CUCURBITAMOSCHATA* POIR) AND SNAKEGOURD (*TRICHOSANTHES ANGUINA* L.) INCITED BY *PSEUDOMONAS SOLANACEARUM* (SMITH) SMITH FROM INDIA

Recently a serious wilt symptom was noticed in some of the pumpkin and snakegourd plants grown in the vegetable garden of the College of Horticulture, Thrissur, Kerala. The characteristic symptom of the disease was the drooping of the leaves followed by rapid wilting of the entire plant. Brown vascular discolouration of stem and root tissues was also observed.

The diseased plants were subjected to routine laboratory studies. On ooze test, profuse bacterial ooze was noticed from the fresh cut surface of infected portion. The bacterium was isolated on potato dextrose agar medium and then on triphenyl-tetrazolium chloride (TTC) medium. Greyish white with light pink centered slimy colonies were obtained on TTC medium. Artificial inoculation on healthy plants showed typical wilt symptoms. Cross inoculation of the bacterium on solanaceous

plants also gave the same wilt symptoms. The cultural, biochemical and physiological characters of the bacterial isolate were studied according to Breed *et al.* (1957), Buchanan and Gibbons (1974). When the results of the study were combined with pathogenicity test and cross inoculation study, the organism causing the wilt of pumpkin and snakegourd could be identified as *Pseudomonas solanacearum* (Smith) Smith. A perusal of literature revealed that bacterial wilt of pumpkin caused by *Pseudomonas solanacearum* was reported by Date *et al.* (1992) from Japan. There is no other record of this bacterium causing diseases of pumpkin and snakegourd from India. So occurrence of bacterial wilt of pumpkin (*Cucurbitamoschata* Poir) and snakegourd (*Trichosanthes anguina* L.) incited by *Pseudomonas solanacearum* (Smith) Smith is recorded for the first time from India.

College of Horticulture
Vellanikkara 680 654, Trichur, India

Sally K. Mathew, S. Beena
Baby Lissy Markose, Koshy Abraham

REFERENCES

- Breed, R.S., Murray, E.G.D. and Smith, N.R. 1957. *Bergey's Manual of Determinative Bacteriology*, 7th ed. The Williams and Wilkins Co., Baltimore, USA, p. 144
- Buchanan, R.E. and Gibbons, N.E. 1974. *Bergey's Manual of Determinative Bacteriology*, 8th ed. The Williams and Wilkins Co., Baltimore, USA, p. 246
- Date, H., Ozaki, K., Shirakawa, T., Nasu, H., Hatamoto, M. and Okamoto, Y. 1992. Bacterial wilt of cucumber plant grafted on pumpkin root stock caused by *Pseudomonas solanacearum*. *An. phytopath. Soc. Jap.* 58 : 220-227