

Occurrence of Bacterial Wilt in Potato in aeroponics

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Received : 06.09.2018

RM's Accepted : 01.10.2018

Published : 29.10.2018

Aeroponics technology was established at Central Potato Research Station, Shillong to produce disease free mini tubers for seed potato. The system was under standardization in the research station and performance of the system was satisfactory in summer as well as autumn planting in 2013 with the total production of 360 Kg (72,000 numbers) of mini tubers in six major notified varieties of the region. Likewise, in 2014 the production system was at par in the summer planting. However, unusual and unexpected disease symptoms appeared on each aeroponic panel on each of six potato varieties. Symptoms were sudden wilting, drooping of leaves and toppling of entire green plant on the aeroponic panel. Wilted plants were taken out and ooze test was done. There was clear oozing out from cut stems and mini tuber which made turbid water. The bacterium was also isolated and purified with irregular shape colonies with pinkish centre. The bacterium was identified as *Ralstonia solanacearum*. Presuming, natural rain fall water may be the probable source of bacterial inoculum. Further, entire aeroponic system was cleaned and used water from different source. Water was taken from Municipality Water Supply Corporation; Shillong through water tanker. Then bacterial wilt infection was not detected in any potato cultivars in the operation of aeroponics during 2015 and 2016.

Key words: Aeroponics, Bacterial wilt, *Ralstonia solanacearum*, seed potato, disease free mini tubers
