Bacterial wilt and spot of tomato caused by Xanthomonas vesicatoria and Ralstonia solanacearum in Egypt

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Abstract:

Tomato fruits and seed lots were screened for the presence of Xanthomonas vesicatoria and Ralstonia solanacearum. Yellow colonies of Xanthomonas vesicatoria and white colonies of Ralstonia solanacearum were consistently isolated on yeast extract-dextrose-calcium carbonate agar medium (YDC) from diseased fruits and seed samples. This was confirmed by isolation on semiselective medium such as Tween B for Xanthomonas and triphenyltetrazolium salt (TTC) medium for Ralstonia solanacearum followed by biochemical tests. The four isolates belonging to Xanthomonas vesicatoria and Ralstonia solanacearum were used to inoculate a local tomato variety. The isolates were found to cause yellowing and wilting of 2-weeks-old seedlings by 8-14 days after inoculation and by 4 weeks all plants had wilted and completely died. Bacteria with the same characteristics as those inoculated were reisolated from the infected plants. Uninoculated plants remained healthy.

Keywords:

Ralstonia solanacearum , Spot disease, Tomato Wilt disease , Xanthomonas vesicatoria

Published In: