ABSTRACT

Survival of Xanthomonas campestris pv. campestris in Trinidad soils.

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Black rot caused by Xanthomonas campestris pv. campestris is a serious disease of cabbage and other crucifers worldwide. The bacterium is known to survive in association with crop debris in soils for as long as two years but its survival freely in the soil has not been fully understood.

In this study aqueous suspensions of naturally and artificially-infested soil were cultured on SX agar, a selective medium for Xanthomonads and the plate count method was used to determine relative levels of inoculum.

Over an entire 90-day period, the bacterium was detected in three naturally infested soils that were allowed to air-dry. The organism was also present at depths of up to 75 cm in two of the three profiles. In artifically inoculated sterilised soils, the rate of decline of the inoculum was higher in the dry soils than in the water-saturated soils and such rates appeared to be unaffected by soil type.

Improvements in methodology and recommendations for further research are identified.