

## **Etiology, diagnostic approaches and management strategies of *Acidovorax citrulli*, a bacterial fruit blotch pathogen of cucurbits**

### **ABSTRACT**

Bacterial fruit blotch (BFB) caused by *Acidovorax citrulli*, represents one of the most destructing diseases of cucurbits, especially to watermelon- and melon producing-regions. This disease has been spread sporadically to many countries globally, due to the unintentionally dispersal of contaminated commercial seeds. The BFB causes massive yield losses up to 100% under conducive conditions. Once infected, all parts of the host plants are extremely susceptible to this bacterium, especially the seedlings and fruits parts. In recent years, various management approaches and detection tools have been employed to control *A. citrulli*. Genotypic characterization methods revealed two distinct groups of *A. citrulli* strains; (i) group I strains primarily isolated from non-watermelon cucurbits and consist of moderate to highly aggressive strains from wide range of cucurbit hosts, and (ii) group II strains isolated from watermelon which are highly aggressive on watermelon, but mildly aggressive on non-watermelon hosts. In this paper, an attempt has been made to review research findings where the impact of diverse methods and management approaches were applied in detection and controlling of *A. citrulli* infection. A better understanding of this devastating bacterium will serve as guidelines for agricultural practitioners in developing the most efficient and sustainable BFB control strategies.

**Keyword:** Control strategies; Detection; Disease; Phytopathogenic bacteria