

**DNable™ field test kit for detection of *Clavibacter michiganensis* subsp. *michiganensis* in tomato tissue**

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*Clavibacter michiganensis* subsp. *michiganensis* (*Cmm*), the causal agent of bacterial canker in tomatoes, is a very destructive disease. Bacterial canker is a vascular disease with a wide array of symptoms resulting in wilting, premature death, and the production of unmarketable fruit. Although primarily a seedborne organism, *Cmm* can survive for short periods in soil, greenhouse structures, and on equipment and for longer periods in plant debris. It is impossible to eliminate the bacteria from an infected crop, and is extremely difficult to control its spread. Therefore, preventing the pathogen from entering and early recognition of the disease, especially in greenhouse crops, is the most appropriate course of action. We have developed a field based test to rapidly screen plant tissue samples for the presence of *Cmm*. DNable™ incorporates the nicking enzyme amplification reaction (NEAR), an isothermal amplification technology that offers a PCR inhibitor resistant solution in a rapid, sensitive and specific format. NEAR is a robust assay, with little inhibition, allowing for amplification directly from crude extracts without further purification. Our data shows specific detection of *Cmm* from infected tissue using a simple maceration of the tissue and detection on a DNA lateral flow strip housed in self-contained handheld device in less than 20 minutes. This test provides the possibility of detecting plant pathogens and disease on site in very early stages of development.