عنوان مقاله:

Evaluation of Copper Sulfate -sensitivity on Environmental Isolates of Agrobacterium vitis of Iran

محل انتشار:

اولین کنگره بین المللی در مسیر توسعه علوم کشاورزی و منابع طبیعی (سال: 1394)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

The purpose of this study was to determine the range of Copper Sulfate sensitivity of Agrobacterium vitis that isolated from environmental samples in Iran vineyards. From May to June 2014, 20 samples isolated from Vineyards of five grape cultures from west of Iran. After identification of Agrobacterium vitis by biochemical, microbiological and molecular methods, the antibacterial effect of Copper Sulfate against mentioned bacteria was evaluated by dilution in Broth medium. Sampling of Copper Sulfate Media was performed in specific intervals and diluted as 101, to 10-8. Each of prepared Broth Media (10 ml) was inoculated with 1 ml of bacterial suspension (106 CFU/ml) and incubated totally for 24-48 hours. 100 µl of each sample on special hours, was transferred to agar plates and was spread carefully and then incubated. Grown colonies were counted and MIC and MBC was determined. Copper Sulfate showed that after 24 hours the bacteria were totally diminished. The MIC concentration of these particles in broth medium was 10-4 g/l and the MBC concentration was 10-2 g/l respectively. Use of Copper Sulfate particles as an anti-microbial agent is recommended in different fields of food industry and agriculture and can be of importance considering health and economic issues

کلمات کلیدی:

Agrobacterium vitis, antimicrobial, copper sulfate