

## EFFECTS OF BICARBONATES AGAINST ANTHRACNOSE, COLLETOTRICHUM GLOESPORIODES OF MANGO PLANT

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Mango suffers from several diseases at all stages of its life. One, being the most important is the anthracnose disease caused by *Colletotrichum gloeosporioides* Penz. The reduced efficacy of chemicals due to pathogen resistant strains has forced producers to evaluate safer alternatives for controlling diseases in the context of sustainable agriculture. Thus, an inorganic solution to this problem is studied. In recent years, there is a broad range of products based on bicarbonates. As reported by the United States Environmental Protection Agency; potassium bicarbonate (PBC), sodium bicarbonate (SBC), and ammonium bicarbonate (ABC) are considered harmless from the ecotoxicological and toxicological points of view. The three bicarbonate salts were examined for their efficacy against *C. gloeosporioides*. Growth of *C. gloeosporioides* was seen to vary among the treatments used at different concentrations of 0.1%, 0.2%, 0.4%, 0.8%, 1.6%, and 3.2% (w/v). In treatments of ABC, no growth of *C. gloeosporioides* was recorded. For treatments of SBC, all the concentrations used showed no significant difference, thus there was no significant inhibition of *C. gloeosporioides* observed. As for percentage in growth inhibition (PGI), it was observed that treatments of Ammonium bicarbonate (ABC) at 0.4%, 0.8%, 1.6%, and 3.2% were able to significantly control *C. gloeosporioides* at 88.24%. Thus, we conclude that the best treatment to control *C. gloeosporioides* with the lowest concentration of bicarbonate salt according to PGI is ABC at 0.4%.

**Keywords:** *Colletotrichum gloeosporioides*, bicarbonate, mango