IMPACT OF POSTHARVEST HOT WATER AND ETHANOL TREATMENT ON GRAY MOLD *Botrytis cinerea* INCIDENCE AND QUALITY OF NINH THUAN'S TABLE GRAPES

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Summary

The purpose of this study was to evaluate the combination effect of hot water treatment and ethanol to the growth of *Botrytis cinerea* gray mold and the quality of Ninh Thuan grapes. The *in vitro* results showing both ethanol and hot water treatment are inhibiting the germination of fungal spores. When the ethanol concentration and temperature increases, increasing the inhibitory effect. Ability to complete inhibition to achieve a concentration of 20% ethanol at 45°C or 40°C in 25% ethanol. Results of experiments on artificial infection found Red-cardinal grape varieties should handle hot water 50°C for 120 s to inhibit *B.cinerea* infected on the fruits surface of mechanical unscratched. When damaged fruit surface, to be processed at 52°C for 180 s. Handling ethanol alone is not highly effective against infective *B.cinerea*. Combined treatment with hot ethanol has a higher effect than individual treatment. In terms of research, the concentration of ethanol 25-30% with temperature 45^{o}C for best processing results. Experimental preservation with two grape varieties Red - cardinal and NH01-48 by hot water treatment at 52°C or combined treatment with 30% ethanol and 45°C for 180 s not only inhibit the growth of gray mold and drastically reduce fruit decay rate but also reduce the rate of loss of natural mass and well maintain fruit quality during storage of red grapes Red - cardinal and green grape NH01-48 of Ninh Thuan province.

Keyword: *Ethanol, fruit quality, grape, hot water treatment, Ninh Thuận, postharvest.*