THE EFFECTS OF BLANCHING MODES TO ENZYME ACTIVITY CAUSES THE COLOR CHANGE OF HUNG YEN LONGAN

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Summary

The purpose of this research is determine the effect of blanching modes to activity of the enzyme polyphenoloxydase (PPO) and the enzyme peroxidase (POD) causing browning of Hung Yen longan (*Dimocarpus longan*) to determine the pre-treatment modes before processing. Hung Yen longans were harvested at suitable ripening, were blanched at 85^0C, 90^0C and 95^0C for 9 minutes. After selecting the time and temperature, longans were blanched in citric acid solution at pH 2.0-3.5 or $NaHSO_3$ solution at 0.1-0.3% concentration and monitoring the activity change of two enzymes PPO and POD during blanching time. The control sample is a blanched in water at the same temperature. The study results showed that blanching in citric acid solution at pH 3, 90^0C for 5 minutes deactivated the enzyme PPO and POD. Especially, the $NaHSO_3$ is used at 0.1% concentration, longans were only blanched for 3-4 minutes for the same results.

Keywords: *Longan, citric acid, bisulfit natri, polyphenoloxydase, peroxidase.*