

Title Assessment of quality characteristics of enzyme treated plum (*Santa rosa*) juice
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Abstract

Plum (*Prunus* spp.) is an important temperate zone fruit crop. Plum is a delicious juicy fruit prized both for its exquisite fresh fruit flavour and in the fruit preservation industry. However, there is limited research on fruit juice extraction from plum by treating the mash with enzymes and based on this reason the study was conducted with an objective to study the effect of different enzymes treatments on juice production, juice quality and antioxidant properties in juice. The experiment was conducted taking ten treatments combinations of pectinase having 3.33, 6.66 and 10.00 units/ml of juice; Cellulase 2.00, 4.00 and 6.00 units/ml of juice and hemicellulase 3.00, 6.00 and 9.00 units/ml of juice and these treatments were compared with control i.e no enzymes. The result of the study suggests that the pectinase enzymes at a concentration of 10 units/ml were found to increase the juice yield significantly over control. Maximum DPPH radical scavenging activity (89.43%) in juice was observed when the mash was treated with 9 units of hemicelluloses for each ml of fruit pulp. The treatment with cellulose@6units/ml was found to produce juice with best colour properties. Considering all parameters studied it was concluded that fruit mashed with hemicellulase @9units/ml was the best treatment under this investigation.