Wine Development from Marang Fruit

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Abstract

The suitability of ripe marang fruit (Artocarpus odoratissima) pulp was investigated for the production of marang wine under different treatments. Marang wine was produced from manually mashed ripe marang pulp (must) by fermentation process using Saccharomyces cerevisiae at room temperature (29±20C). Preliminary studies were conducted for optimum requirements for wine production such as pulp-water ratio (2:1) and fermentation time (4 days). Pulp mixtures were treated with 0.800 g potassium metabisulfite in 5 gallons of pulp mixture (T2) for 24 hours before fermentation while the other was not added with potassium metabisulfite (T1). The physico-chemical parameters such as pH, residual sugar content and percent alcohol and sensory test of marang wine from both treatments were determined.
Results showed that the average pH, sugar content (0brix) and percent alcohol (by volume) of marang wine for treatment 1 were 3.83±0.17, 8.8±1.7 and 10.53±0.53, respectively while 3.72±0.11, 10.13±0.58 and 10.79±0.50, respectively for treatment 2. The percent alcohol of marang wine from both treatments falls within the category of fruit wine of 8 to 11 percent with no sugar added to pulp mixture. Sensory evaluation of wine from both treatments showed an overall acceptability rating of good wine with clear golden yellow color, balance aroma, smooth texture and pleasant taste. Statistical results using t-test at 95% confidence level showed that there is no significant difference between two treatments. This indicates that marang wine can be produced either with or without potassium metabisulfite and can be recommended for small scale wine industry.

Keywords: pulp mixture, fermentation, Saccharomyces cerevisiae, potassium metabisulfite, alcohol