

Title : Production and Study of Amla Wine

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ABSTRACT

Amla or Indian gooseberry (*Phyllanthus emblica* L.) is a native fruit of Thailand that has been promoted for community-level cultivation due to its high nutritional value, particularly its vitamin C content, polyphenols and antioxidant compounds. However, during periods of seasonal overproduction, it often encounters low market prices. Therefore, this study aimed to produce wine from amla and to investigate selected properties during the fermentation process as a guideline for adding value to this local fruit. Wine fermentation was conducted using 500 mL of amla juice and 10% (v/v) of a starter yeast culture, *Saccharomyces cerevisiae* EC-1118, at a temperature of approximately 25–30 °C for 7–14 days. Wine samples were collected at different fermentation times to analyze reducing sugar content, pH, alcohol content, vitamin C content, total polyphenol content, and antioxidant activity. The results showed that the reducing sugar content decreased by 84.5% at the end of fermentation, declining from 90.64 to 14.07 mg/mL after 13 days of fermentation. The vitamin C content decreased from 183 to 106 mg/100 mL on day 13 of fermentation. Meanwhile, the alcohol content increased in relation to the decrease in sugar content, reaching 8.27% at 13 days of fermentation. The pH of amla wine ranged from 3.17 to 3.23. The total polyphenol content and antioxidant activity of amla wine are currently under investigation.

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