# ABSTRACT

**Potential Utilisation of *Phyllanthus acidus***

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The main objective of the project was to process *Phyllanthus acidus* (cherries) so that they can be used as a replacement for Maraschino cherries, which are presently imported at a high cost.

The fruit was soaked in a calcium bisulphite brine of varying formulations for over a period of eight weeks. This was done mainly to determine through sensory evaluation tests, the formulation which gave the most desirable texture to the fruit. After the brining operations, the cherries were carried through the process of pitting, leaching, dyeing, syruping and bottling. The processed cherries were held in syrup at both 40° and 70° Brix. The cherries were also dyed with different colours which included FDC #40, Red #525 and Green #520 for comparison.

ANOVA showed that there was no significant difference at the five percent level in appearance, mouthfeel and overall quality among the cherry samples of the different formulations held in syrup at 40° Brix and 70° Brix. Analysis of ranking test also showed no significant difference at 5 percent level for preference among the cherry samples, at both Brix values.

Performance of ranking test, with a commercial brand of Maraschino cherries, made from a foreign cherry cultivar, showed a significant difference in preference at the one percent level for the processed local cherry *Phyllanthus acidus*, held in syrup at 70° brix. Results show that the sample was also far superior in colour. The calcium bisulphite brine formulation for this sample consisted of 1.25 percent $Na_2S_2O_5$ and 0.7 percent $CaC1_2$.

The results show that there is a definite potential for the processing of *Phyllanthus acidus* for use as a replacement for the imported brand of Maraschino cherries.