

**ANTI-INFLAMMATORY ACTIVITY STUDY AND VITAMIN C
ANALYSIS OF FRUIT WINE FROM "BIKA" Vitis
quadrangularis Wall (Vitaceae)**

**An Undergraduate Thesis
Presented to
The Division of Physical Sciences and Mathematics
College of Arts and Sciences
University of the Philippines in the Visayas
Miag-ao, Iloilo**

**In Partial Fulfillment
of the Requirements
for the Degree
Bachelor of Science in Chemistry**

**Imee Ruth Brasileño Camillon
May, 2003**

ABSTRACT

"Bika" *Vitis quadrangularis* Wall fruits are non-toxic raw material for wine making. Cytotoxicity test using the Brine Shrimp Assay showed that the crude ethanolic extract has an LC_{50} higher than 1000 $\mu\text{g/mL}$.

Using the Standard Iodine Method, "bika" fruit was found to contain 789 ppm vitamin C however, analysis of the "bika" wine showed a lower amount (10.8-29.1 ppm vitamin C).

Using the Carrageenan-Induced Edema Assay, "bika" fruit was observed to have a notable anti-inflammatory activity. The crude ethanolic extract and the positive control showed a 75.0% and 38.5% inhibitions respectively, with the latter at a lower concentration than the extract. "Bika" wine's anti-inflammatory activity was slightly lower than the fruit. The wine showed a percentage inhibition of 30.2-56.6%.

The first five days of the fermentation was the peak of the yeast activity as indicated by a significant change in the specific gravity, pH and total acidity of the must.