Two dragon fruit halves are shown in the top right corner. The one on the left is cut lengthwise, revealing a bright pink, fleshy interior with small, dark seeds. The one on the right is cut crosswise, showing a white, hollow interior with a small, dark seed in the center. Both halves have a green, scaly outer skin.

ORGANOLEPTIC EVALUATION OF DRAGON FRUIT (*Hylocereus polyrhizus*) WINE PREPARED FROM THREE FERMENTATION PROTOCOLS

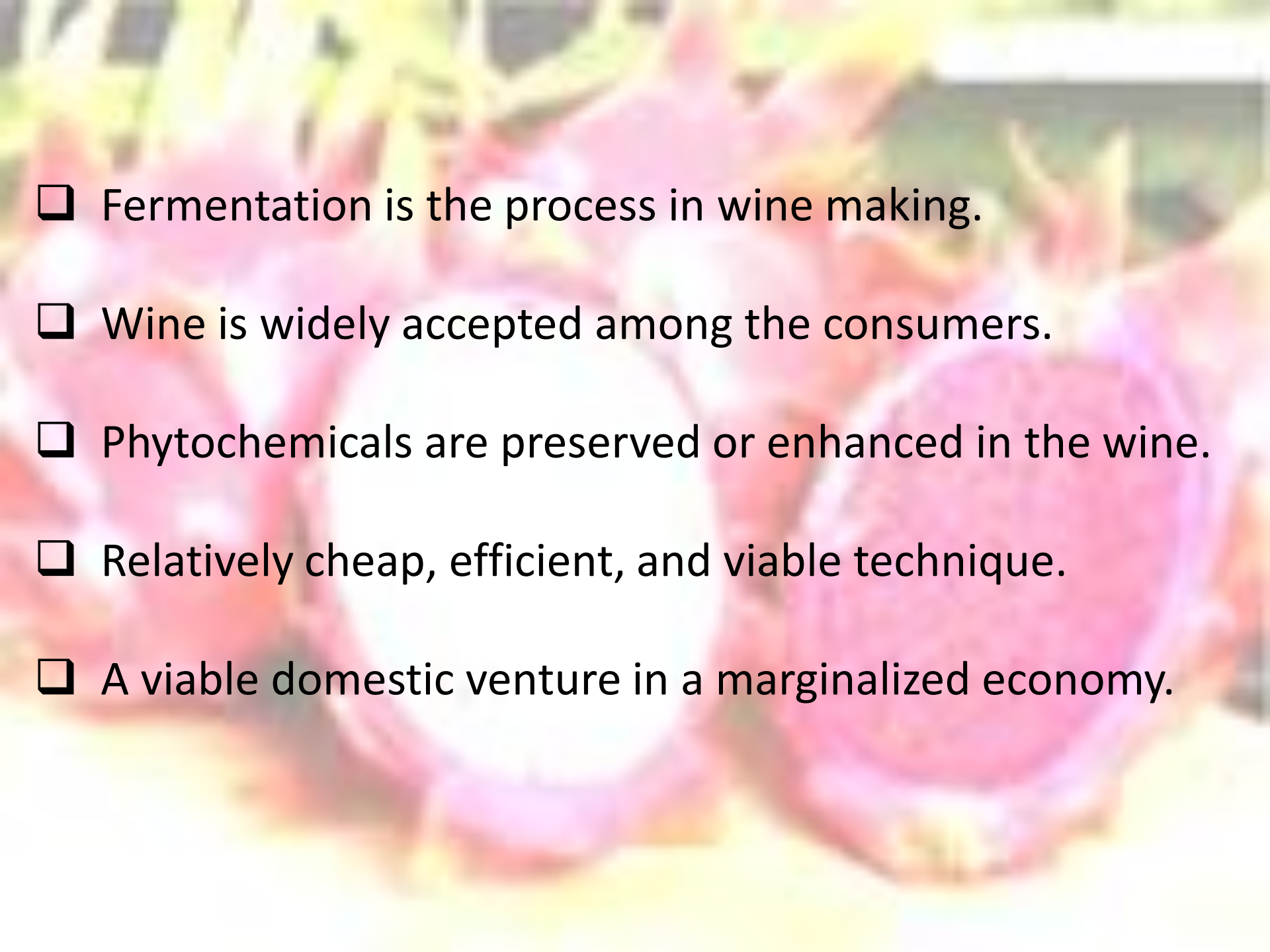


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RATIONALE

Dragon Fruit (*Hylocereus polyrhizus*)

- ❑ An introduced fruit.
- ❑ Is gaining popularity and positive reception.
- ❑ Believed to possess antioxidant potential.
- ❑ Well adapted in Northern Luzon.
- ❑ Array of products developed to bolster its value.
- ❑ One product derived from dragon fruit is wine.

- 
- ❑ Fermentation is the process in wine making.
 - ❑ Wine is widely accepted among the consumers.
 - ❑ Phytochemicals are preserved or enhanced in the wine.
 - ❑ Relatively cheap, efficient, and viable technique.
 - ❑ A viable domestic venture in a marginalized economy.

OBJECTIVES

Evaluate the quality of fermented *Hylocereus polyrhizus* wine through the following sensory parameters:

(1) Appearance

- Limpidity or clarity
- Transparency
- Color

(2) Aroma

(3) Taste

(4) Finish

FERMENTATION PROTOCOLS

Preparation A

- (cold) mixing together all the dry ingredients.

Preparation B

- Pouring the boiling sugar syrup into the mashed fruit.

Preparation C

- Boiling altogether the ingredients.

Table 1. Scoring guide in the organoleptic evaluation of the dragon fruit wine (adapted from American Wine Society - AWS).

SCO RE	APPEARANCE			AROMA	TASTE	AFTER- TASTE
	Limpi- dity	Transpa- rency	Colour			
3	Bright	Crystal clear letters	Pinkish	Balanced aroma and bouquet	Wine type, characteristic flavour, smooth taste	Lingering outstanding aftertaste
2	Clear	Readable letters	Pinkish with greenish hint	Characteris- tic aroma, distinguish- able bouquet	Undistinguish- able but acceptable wine, not so smooth	Pleasant, short lingering
1	Dull	Faint letters	More greenish than pink	No aroma	Disagreeable flavour, rough	Not distinguish- able
0	Cloudy	Opaque	Indistinguish- able/ off colour	Off odor	Offensive flavour	Unpleasant

METHODS

Fifteen (15) respondents who are wine and liquor drinkers with ages 18 above were randomly selected.

Pre-evaluation Preparations

Pre-assessment for visual imperfections:

- tartrate crystals
- pieces of cork
- red granular sediment

The wines were not chilled

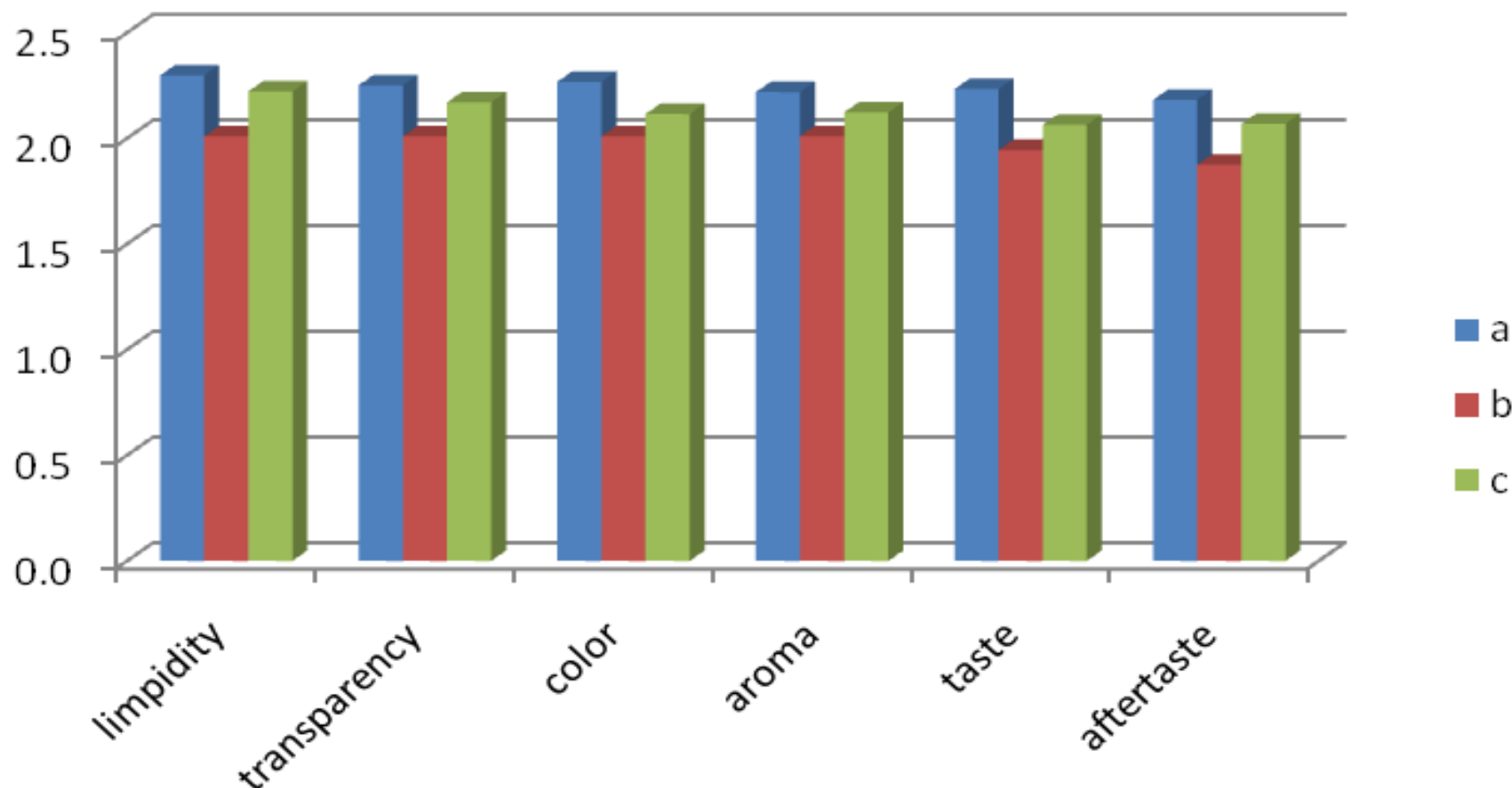
- chilling may cause condensation on the glass and produce a faint cloudiness.

STATISTICS

Data gathered were subjected to descriptive statistics.

Particularly means of the blind score card results were computed.

Figure 1. Organoleptic scores of the dragon fruit wine preparations A, B, and C.





RESULTS

Preparation A garnered the highest mean score in the different sensory parameters; appearance, aroma, taste, and finish.

CONCLUSION

It is therefore concluded that Preparation A is the most efficient and convenient procedure in fermenting dragon fruit wine.

RECOMMENDATIONS

The result of the research was limited to developing the most convenient and efficient method in producing the best sensory acceptable dragon wine.

To further improve the product, the following studies and/or analyses are recommended:

- (1) Phytochemical
- (2) Aging and shelf-life , and
- (3) Packaging.

A close-up photograph of two dragon fruits (pitayas) resting on a light-colored surface. The dragon fruit on the left is cut open, revealing a white, fleshy interior with small, dark seeds. The dragon fruit on the right is also cut open, showing a vibrant red interior with similar seeds. The outer skin of both fruits is a reddish-pink color with prominent, yellowish-green scales. The background is slightly blurred, showing more of the same fruits and a hint of a green plant.

Thank You