MANGO AND WILD RASPBERRY WINE

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Introduction

Wine is an alcoholic beverage made from grapes, generally vitis vritra, fermented without the addition of sugar, acis, enzymes, water, or other nutrients. The wine also can be produced with the use of fruit and cereals. Some country have the great source of income for growing and producing wine such as France, Italy, Spain and California among others in the Philippines.

The various fruit-like flavors delectable in wine contribute nuances to the sweetness taste. It's fun trying detect different fruit characteristics, such as berries, plums, apples, pears.

Raspberry is a shrub that has prickly stem, thereby identifying it with the rose family and making it a raspberry rather than a strawberry. Its fruit has a bright red-orange color that accounts for its phytochemical richness. Raspberries are traditionally planted in winter as dormant canes, although planting of tender, become much more common. The fruit is harvested when it comes off the receptacle easily and has turned a deep color. This is when the fruits are tipest and sweetest.

Mangoes are juicy stone fruit from numerous species of tropical trees belonging to the flowering plant genus Mangifera, cultivated mostly for their edible fruit. The majority of these species are found on nature as wild mangoes. The genus belongs to the cashew family. Mangoes are native to South Asia, from where the "common mango" or "Indian mango" has been distributed worldwide become one of the most widely cultivated fruits in the tropics. The ripe fruit varies in size, shape color, sweetness, and eating quality. Cultivars are variously yellow, orange, red, green, and carry a single flat, oblong pit that can be fibrous or hairy on the surface, and which does not separate easily from the pulp. It is the national fruit of India, Pakistan, and the Philippines, and the national Bangladesh. tree

The researchers decided to conduct this study in order to prepare another wine using Mango with Raspberry and offer another variant and made available in the market. It is also the hope and desire of the proponents to utilize other fruits in the preparation of wine.

Statement of the Problem

The main focus of the study was the development and preparation of wine using Mango and Wild Raspberry.

Specifically, it seeks answer to the following sub- problem:

1. What are the ingredients, tools, utensils, and procedure in the preparation of the Mango and Wild Raspberry Wine?

2. How do the respondents assess the quality characteristics of the Mango and Wild Raspberry Wine in terms of:

2.1 Color;

2.2 Bouquet;

2.3 Taste; and

2.4 Body;?

3. Is there a significant difference in the assessment of three groups of respondents on the quality the characteristics of Mango and Wild Raspberry Wine?

4. What is the level of acceptability of Mango and Wild Raspberry Wine?

5. Is there a significant difference on the assessment of the respondents on the level of acceptability of Mango and Wild Raspberry Wine?

6. What is the alcohol content of Mango and Wild Raspberry Wine?

Methodology

In the study, the research used the descriptive method of research to determine the potential of Mango and Wild Raspberry Wine. Descriptive research involves collecting data in order to test the hypothesis or answer questions regarding the subject of the study in contrast with the qualitative approach the data are numerical. The data are typically collected through a questionnaire, an interview, or though observation. (Jaraza, 2010)

Population and Sampling

There were fifty (50) respondents in the study; comprising Connoisseurs. of forty (40) Consumers, ten (10) Wine

The study used the purposive sampling in the selection of the respondents needed in the study. Purposive sampling techniques also known also known as judgmental, selective sampling technique.

Non-probability sampling focuses where the units that were Investigated were based on the judgment of the researcher non-probability sampling to learn more about of different types of 2008) purposive sampling each different goal. (Garcia,

Table 1

Respondents of the Study

Respondents	Frequency	Percentage
Wine Connoisseurs	10	20.00
Consumers	40	80.00
Total	**50**	**100**

Table 1 presented the respondents of the study, among fifty (50) total respondents, it is divided in two group of respondents, such as: 40 or 80.00 percent are consumers; 10 or 20.00 percent are wine experts.

Table 2

Respondents of the Age

Age	Connoisseurs		Consumers		Total	
	f	%	f	%	f	%
36 – 40 years old	2	20.00			2	4.00
31 – 35 years old	6	60.00	4	10.00	10	20.00
21 – 25 years old	2	20.00	36	90.00	38	76.00
Total	**10**	**100.00**	**40**	**100.00**	**50**	**100.00**

Table 2 portrays the distribution of respondents as to age are as follows: 38 or 76.00 percent are aged 21-25 years old; 10 or 20.00 percent are aged 31-35 years old: 2 or 4.00 percent are aged 36-40 years old.

Table 3

Respondents as to Gender

Sex	Connoisseurs		Consumers		Total	
	f	%	f	%	f	%
Male	8	80.00	23	57.50	31	62.00
Female	2	20.00	17	42.50	19	38.00
Total	**10**	**100.00**	**40**	**100.00**	**50**	**100.00**

Table 3 revealed the distribution of respondents as to gender such as: 31 or 62.00 percent are male; and 19 or 38.00 percent are female.

Table 4

Respondents as to Civil Status

Civil Status	Developers		Consumers		Total	
	f	%	f	%	f	%
Single	7	70.00	40	100.00	47	94.00
Married	3	30.00	19		3	6.00
Total	**10**	**100.00**	**40**	**100.00**	**50**	**100.00**

Statistical Treatment of Data

The data gathered were complied, collated and summarized separately per group. The responses for each item were categorized based on the specific problem raised.

The following were be utilized in the treatment of the data:

1. **Percentage** This was used as descriptive statistic or something that describe a part of the whole.

2. **Weighted Mean** this was used to measure the respondent's assessment multiplying each value in the group by the appropriate weight factor does it and the product is summed up and divided by the total number of respondents. The Five Points Liker Scale Method will be used to interpret the data using the legend bellows:

Formula:

$$\mathrm{WM} = \frac{(f_5\mathrm{x}5) + (f_4\mathrm{x}4) + (f_3\mathrm{x}3) + (f_2\mathrm{x}2) + (f_1\mathrm{x}1)}{N}$$

Assessment of the Quality Characteristics of Mango and Wild Raspberry Wine.

Option	Verbal Interpretation	Range Value
5	Excellent (E)	4.20-5.00
4	Very Good (VG)	3.40-4.19
3	Good (G)	2.60-3.39
2	Poor (P)	1.80-2.59
1	Very Poor (VP)	1.00-1.79

3. t-test This will be used to determine the significant difference among the assessment of the two groups of respondents.

Formula:

$$t = \sqrt{\frac{\Sigma\,\mathrm{D}}{\frac{N\Sigma\mathrm{D}2 - (\Sigma\mathrm{D})2}{N-1}}}$$

Where:

X = Weighted Mean

f = Frequency

∑ = Summation

N = Total number of respondents

Summary

1. On the tools and utensils, ingredients and procedure used in the preparation of Mango and Wild Raspberry Wine.

The tools and utensils in making Mango and Wild Raspberry Wine were wine bottle, Jar, Strainer, cotton cloth, mixing bowl, measuring spoon, funnel and casserole pot.

The Ingredients used in the preparation of Mango and Wild Raspberry Wine are Mangoes, Wild Raspberry, White Sugar, Yeast, and Filtered Water.

Procedures in Raspberry Wine. the Preparation of Mango and Wild

Assemble all the ingredients, tools, and equipment used in preparation of Mango and Wild Raspberry Wine then Prepare all the ingredients Cut the Mangoes in to little dice and Boil one (1) liter of water, Put the mango in boiling water then add sugar and continues stirring, Put the Wild Raspberry into the jar then add sugar When the Boiling water with Mango if it is done put it to the jar After Combining all the Ingredients add 1 tbsp. of yeast Cover and ferment for 2 to 8 months

2. On the assessment on the quality characteristics of Mango and Wild Raspberry Wine.

The assessment of the wine connoisseurs and wine consumer respondents on the quality characteristics of Mango and Wild Raspberry Wine, rank no. 1 is "taste" was rated excellent as

proven by the obtained weighted mean of 4.40. Rank no. 2 is "bouquet" was rated very good as confirmed by the obtained weighted mean of 4.18. Rank no. 3 is "body" was rated very good as affirmed by the obtained weighted mean of 4.06. Rank no. 4 is "color" was rated very good as strengthened by the obtained weighted mean of 4.03 yielded an overall weighted mean of 4.17 verbally interpreted as very good.

3. On the comparison of assessment as to the quality characteristics of the Mango and Wild Raspberry Wine.

The result of significant difference in the assessment of the wine connoisseur and wine consumer respondents on the quality characteristics of Mango and Wild Raspberry Wine, it obtained a computed t value of 3.8263 which is greater than the critical value of t which is 2.014 at five percent level of significance with 48 degrees of freedom leading to the rejection of the null hypothesis and verbally interpreted significant. Since we failed to accept the null hypothesis, there is a strong indication that there is a significant difference between the assessment of the wine connoisseurs and wine consumer respondents on the quality characteristics of Mango and Wild Raspberry Wine in terms of color, bouquet, taste, and body.

4. On the assessment on the level of acceptability of Mango and Wild Raspberry Wine.

The assessment of the wine connoisseurs and consumer respondents on the level of acceptability of Mango and Wild Raspberry Wine, rank no. 1 is "bouquet" was rated highly acceptable as backed-up by the obtained weighted mean of 4.39. Rank no. 2 is "color" was rated highly acceptable as sustained by the obtained weighted mean of 4.35. Rank no. 3 is "taste" was rated highly acceptable as affirmed by the obtained weighted mean of 4.31. Rank no. 4 is "body" was rated highly acceptable as supported by the obtained weighted mean of 4.25 yielded an overall weighted mean of 4.29 interpreted highly acceptable.

5. On the assessment of significant difference in terms of level of acceptability of the Mango and Wild Raspberry Wine.

The result of significant difference on the assessment of the wine connoisseurs and wine consumer respondents on the level of acceptability of Mango and Wild Raspberry Wine, it obtained a computed t value of 4.4359 which is greater than the critical value of t which is 2.014 at five percent level of significance with 48 degrees of freedom resulted to the rejection of the null hypothesis and verbally interpreted significant. Since we reject the null hypothesis, there is a strong manifestation that there is a significant difference between the assessment of the wine connoisseurs and wine consumer respondents on the level of acceptability of Mango and Wild Raspberry Wine in terms of color, bouquet, taste, and body.

6. On the result of the alcohol content analysis of Mango and Wild Raspberry Wine.

The result of the alcohol content analysis of Mango and Wild Raspberry Wine, it based from the laboratory test conducted by Department of Agriculture Bureau of Plant Industry (DABP) Standards and Testing Division, Mango and Wild Raspberry Wine has an alcohol content 12.12.

Conclusions

Based on the findings revealed in the study, following conclusions were formulated. the

1. Mango and Wild Raspberry can be used ingredient in the development and preparation wine. as main

2. Mango and Wild Raspberry Wine has a very good quality characteristics as assessed by the selected respondents.

3. The result of the significant difference signifies that the evaluation of the wine connoisseurs' respondents does not concur with the evaluation of the wine consumer respondents on the quality characteristics of Mango and Wild Raspberry Wine.

4. Mango and Wild Raspberry Wine is highly acceptable in terms of color, taste, body, and bouquet to the selected groups of respondents.

5. The wine connoisseurs and wine consumer respondents perceived different evaluation on the level of acceptability of Mango and Wild Raspberry Wine in terms of color, bouquet, taste, and body.

6. Mango and Wild Raspberry Wine has an alcohol content 12.1%

Recommendations

In the light of the findings, the following are the conclusions;

1. Use appropriate bottle and label accordingly to ensure uniformity in the presentation, observing the standard volume of 750ml.

2. The results of the study should be taken as reference for future related study.

3. Further experimentation may be done to improve the wine.

4. A parallel study may be conducted using another fruits for possible marketability.