

RESEARCH AND DEVELOPMENT FINAL PROJECT
“NORC CORN” WINE




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**RESEARCH AND DEVELOPMENT NEW PRODUCT
FINAL REPORT
Norc Corn Wine**

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PLAGIARISM STATEMENT

To the best of my knowledge and belief, this Research Project Report is my own work, all sources have been properly acknowledged, and the report contains no plagiarism. I have not previously submitted this work or any version in full or part of it, for assessment in any other University or institution for any degree or diploma program. I acknowledge that this Research Project Report may be transferred and stored in a database for the purposes of data-matching to help detect plagiarism.

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EXECUTIVE SUMMARY

Alcoholic drinks are products that are produced through the fermentation process of starch and sugar using microbes. Fermentation itself is the process of breaking down glucose (starch) into carbon dioxide and alcohol. You can choose the source of starch used: tubers, seeds, and palm plants such as *legen* or dates. The fermentation process has been known for centuries. The most widely used microbes in the process of making fermented drinks is yeast from the *saccharomyces cereviceae* species.

Most yeast cannot grow when the alcohol concentration is higher than 18 percent. This is the practical limit for the strength of fermented drinks such as **wine**, beer and sake (rice wine). Distillation is needed to produce products with greater alcohol concentrations, even up to 96 percent. In addition to being based on the distillation process, variations in the fermentation product names are also distinguished based on the raw material used. Beer is made with barley, corn and wheat, just like whiskey and vodka are made through an advanced process (distillation). Fermented products are distilled to purify and remove components such as water, so the alcohol content becomes higher by 40 percent. **Beverage** who also uses this distillation process called spirit drinks. Including whiskey, rum, brandy, vodka and tequila.

Tequila is a distillation product made from the fermentation of the blue agave plant that grows exclusively in Mexico. Tequila is also a basic ingredient of cocktails like margaritas.

Vodka alcoholic drinks that are included in the spirit group. It is usually made from distilling starch or sugar from seeds and also potatoes. There are also several types of vodka made from fruit, sugar drops, and even from crystallized sugar fermented by yeast.

Gin is made from the distillation of mashed wheat which is then refined with spices and juniper fruit trees. Sometimes flavorings are added.

Besides that there are other fermented drinks that we also know for example: yogurt, kefir, and kombucha. Yogurt and kefir are made from milk by fermentation using *lactobacillus bulgarius* and *streptococcus thermophilus*, while kefir uses kefir grain, a mixture of bacteria and yeast. Kombucha is a fermented beverage of tea that uses a collection of microbial colonies called scoby (a bacterial and bacterial yeast symbiotic colony).

Keyword: alcoholic drinks, fermentation

TABLE OF CONTENTS

ACKNOWLEDGMENT	ii
PLAGIARISM STATEMENT.....	iii
EXECUTIVE SUMMARY.....	iv
TABLE OF CONTENTS.....	v
LIST OF PICTURE.....	viii
LIST OF TABLE.....	ix
CHAPTER I.....	1
1.1 BACKGROUND OF INGREDIENTS.....	1
1.2 OBJECTIVE.....	2
CHAPTER II.....	3
2.1 DESCRIPTION OF THE MATERIAL TO BE USED.....	3
2.1.1 Corn.....	3
2.1.2 Yeast.....	4
2.1.3 Mineral Water.....	6
2.1.4 Sugar.....	6
2.2 THE TOOLS USED DURING THE PROCESSING.....	8
2.2.1 Knife.....	8
2.2.2 Cutting board.....	8
2.2.3 Bowl.....	9
2.2.4 Electronic scale.....	9
2.2.5 Blender.....	10
2.2.6 Measuring cup.....	10
2.2.7 Strainer.....	11
2.2.8 Sauce pan.....	11
2.2.9 Stove.....	12
2.2.10 Ladle.....	12
2.2.11 Spoon.....	13

2.2.12 Jar.....	13
2.2.13 Winding sheet.....	14
CHAPTER III.....	15
3.1 THE PROCESSING PRODUCT BY USING FLOWCHART.....	15
3.2 COMPLETE RECIPE ATTACHE.....	16
CHAPTER IV.....	17
4.1 THE FACTS OF NUTRITION.....	17
4.1.1 Nutrition Fact of Granulated Sugar.....	17
4.1.2 Nutrition Fact of Corn.....	19
4.1.3 Nutrition Fact of Yeast.....	20
CHAPTER V.....	22
5.1 IDENTIFICATION OF INVESTMENT OPPORTUNITIES.....	22
5.2 MARKETING ASPECT.....	24
5.3 TECHNICAL ASPECT.....	24
5.4 FINANCIAL ASPECT.....	25
5.4.1 Variable cost.....	25
5.4.2 Overhead cost.....	26
5.4.3 Fixed cost.....	26
CHAPTER VI.....	29
6.1 CONCLUSION.....	29
6.2 SUGGESTION.....	29
REFERENCES.....	30
APPENDIX.....	31
APPROVED RECIPE ATTACHED.....	33
FORM CONSULTATION.....	34