

Red Wine : A Glass Of Fettle Benefits

Sarwatomika Pal and Dr Komal Singh

Food Science and Technology
Baba Saheb Bhimrao Ambedkar University, India
Food Science and Technology,
Baba Saheb Bhimrao Ambedkar University, India

Abstract

Wine Has Been Used Since The Dawn Of Human Civilization And Has Been Popular All Over Worldwide For Multitudes Centuries. Despite Many Health Benefit There Is A Lot Of Controversy About The Real Properties Of Its Component And Its Action On Cell Molecular Interaction. Red Wine Quality And Vogue Are Highly Influenced By Qualitative And Quantitative Configuration Of Aromatic Compounds That Have Various Chemical Structure And Its Properties As Well As Their Interaction With Different Red Wine Matrices. The Understanding Interaction Between The Wine Matrix And Volatile Compound As Well As Impact On Overall Flavour Like Specific Aroma Is More Crucial For Innovation Of Certain Wine Style.

Red Wine Acquires Large Amount Of Phenol And Polyphenolic Compound That Important Aromatic Compounds Present In Wine Are Varietal Thiols, Other Volatile Sulfur Comp, Methods Pyrazines, C-13-Norisoprenoides And Wide Range Of Higher Aromatic Active Compounds That Are Accountable For Typical Aroma In Red Wine Based On In Vitro And In Vivo Study Certain Amount Of Daily Wine Consumption May Prevent Various Chronic Diseases As Red Wine When Contain Important Antioxidant That Good For Human Health.

Wine Polyphenol Namely Resveratrol, Anthocyanins And Catechins Are The Most Effective Antioxidant That Are Present In It. Resveratrol Is Active In The Prevention Of Cardiovascular Diseases By Neutralizing Free Oxygen Radicals And Reactive Nitrogenous Radicals As They Penetrate Blood – Brain Barrier And Protect The Brain And Nerve Cells.

It Also Reduces Platelet Aggregation That Counteract The Formation Of Blood Clots. In Red Wine Antioxidant Capacity Has Been Associated With Profitable Effects When It Is Consumed In Moderate Quantity As It Depends On Many Factors. Factors Related With Wine Aging Make It Rigorous To Make Them A Semi Quantitative Forecast Of Effect Of Barrel Or Bottle Aging On Antioxidant Capacity Of Given Wine. Therefore, Its Retail Price Is Practically Not Related To Its Antioxidant Capacity And Its Potential And Beneficial Effects Are Totally Obstinate By Organoleptic Properties.

Fundamental Analytical Research Can Assist Us To Explain Our Feedback To Wine And Multifarious Factors That Affects Wine As Wine Is A Complex, Culture Lane, Multi-Sensory Stimulus And Consumer Perception Encounter Of Its Properties Is Sway By Packaging In Which It Is Exhibited Through Glassware In Which It Is Dished Up And Further More Evaluated

Keywords

- High aromatic active compound
- Antioxidant capacity
- Wine aging
- Retail wine price
- Organoleptic properties
- Polyphenols/Antioxidants

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I. Introduction

Red wine is popular all over worldwide and it is beneficial for health due to presence of its amount of compound present in it. Red wine is healthiest alcohol due to its fermentation and production process as it contains significantly more antioxidant, vitamin and polyphenols than most of other available alcohol. The tradition winemaking and wine consumption is known for many centuries as the ancient Roman knew the health benefits of wine's and they made it popularize all over the world. The key component of red wine is resveratrol which is most important polyphenol in red wine as they contain Anthocyanin, Catechins and Tanis (Proanthocyanin's and Ellagitannins' and it aids bodily system. Since many available research and numerous studies were conducted, they proved resveratrol that improves cardiovascular system and has an impact and decreasing risk of obesity and two types of diabetes.

It contained cardio protective effects that improve endothelial function, glucose metabolism reducing inflammation and regulating blood lipid. Resveratrol has numerous health benefits that will be explained further in detail in fettle benefits section of this paper while the most far-famed seminar of wine compound upstream is polyphenol. The headstone component of polyphenol composition and in-depth content is variety of grapes. White wine contains less polyphenol than red wine. Total polyphenolic content in white wine is in terms of 100 of mg GAEL¹ (Gallic acid equivalent) whereas red wine contains thousands of mg GAEL¹ of total polyphenols. In order to prove the hypothesis regarding people that will drink more red wine if properly edified of its kilter boon as further research has been done.

The survey was to be conducted where various questionnaire regarding current drinking habits and preferences along with prior knowledge of red wine were catechized. The last questionnaire word aimed to prove the hypothesis by firstly notifying the respondent of many health effects of red wine and then asking if they would be more willing to drink red wine after knowing its benefits for the body. This paper will systematically inform the reader about their literature of red wine, processing and fermentation of red wine, observations, data analysis of processed wine, health benefits of red wine, type of red wine and analysis of the survey result. The tip is to convince the reader to drink red wine versus other of alcohol form.

II. Literature

Wine is it alcoholic beverage that has been popular beverage of mankind for thousands of years. Wine is typically made from fermented grapes juice. Yeast consumes sugar in grapes and then it is converted into ethanol, carbon dioxide and heat. Different varieties of grapes and strain of yeast produce different styles of wine. Wine is frequently quoted in the Bible from Nora and his grapevine to Jesus Wine is used in Catholic Church as alternative for the blood of Christ which is an indication of crucial role that beverage has played in years passed by. It is often said that western society construct its foundation on wine. Many centuries ago, wine industry was the sign of provident country as developed society could build the affluent and competitive wine industry. Winemaking and drinking have long and past history. Expert agree that wine dates from 6000 BC wine were made in Egypt and in Mesopotamia, Greece, Spain, Mexico, Rome and United States. Spain plays a major role in wine making process.

The premature production of red wine was in 6000 BC in Georgia (region between Europe and Asia) The red wine cultivation was first laid by Egyptian and they were sketched on their walls of their religious temple.

Firstly, grapes were harvested by using curved knife. Then they were set down in Wicker basket and then they were placed in vats of acacia wood and then they were tramped until they get liquefied. It is believed that red wine was discovered unexpectedly by farmer there's they were storing grapes and they may have left some leftover grapes in the barrel due to this leaving of grapes in barrel cause fermentation in them and hence wineproduced. The first known vineyard was discovered around 4100 BC in a cave in Armenia (coffee 2011).

III. Methodology

Ingredients

- Grapes - 3kg
- Sugar - 1.5 kg
- Long Pepper - 4 pieces
- Cinnamon - 4 sticks
- Cardamom - 4 pieces
- Cloves - 4 piece
- Crushed ginger – Small piece
- Tulsi powder dried in sunlight – 3 table spoon.
- Lemon water (150ml) (Apple juice 200ml and Orange juice 200ml)
- Beet roots – 200 grms

- Yeast – 40 Tablets
- Wheat crushed - 200grms

Equipment's of Red Wine

1. Churning Rod Wooden
2. Ceramic Jar
3. Siever
4. Binding Cloth
5. Grinder (For Wheat)
6. Mixer (For Apple and Oranges juice)
7. Cotton Cloth
8. Storing Jars (Glass)
9. Vessel for Washing Grapes
10. Cork Bottles
11. Sterilized Wine Bottles/Stainless Steel Grater



Processing of Red Wine (Within 21 Days)

Part -1

Use boiled and cooling water only Take 3kg of Grapes Wash the grapes in boiled and cooled water Remove all the stems Pat it dry After drying fill, it in Ceramic jar Use a wooden Churning rod for mashing grapes Take 1.5 KG of sugar Mash the batter until the sugar starts to melt Take long pepper 4 pieces and add in it Add cinnamon sticks – 4 pieces Add cardamom – 4 pieces Add cloves – 4 pieces Crushed ginger – 25gm small piece Add Tulsi powder – 3 tablespoons Add 150 ml lemon juice and 200ml of apple and 200ml Orange juice For colour Red add beetroot 200 gram Boil beetroot for two to three minutes Drain and store water Add beetroot juice in ceramic jar Wheat slightly crushed 200 grams Mix it well In Lukewarm water add one tablespoon yeast Sugar one tablespoon

Keep it for few minutes for activation of yeast Add yeast in ceramic jar Don't close lid tightly Cover and tie it with a cloth Stir after 24 hours with a wooden spoon for 21days Processing of Red Wine

(Part 2)

On 21th day today open the batter and mix it well Use sterilized vessel and bottle Strain the liquid and keep it in a jar or bottle Run the wine into the bottles Leave half inch space of for cork

Thesis Questionnaire

Q1) How Is the Taste, Flavour and Odour of Red Wine?
 (1) Excellent (2) Good (3) Moderate (4) Slightly like (5) Poor (6) Very poor

Q2) How Is the Colour of Red Wine?
 (1) Extremely Strong (2) Strong (3) Very Strong (4) Moderate (5) Weak

Q3) What Rank Will You Give to Red Wine?
 (a) 1st Rank (b) 2nd Rank (c) 3rd Rank (d) 4th Rank

Q4) What Is the Numerical Score of Red Wine?
 (a) 90% (b) 80% (c) 70% (d) 60%

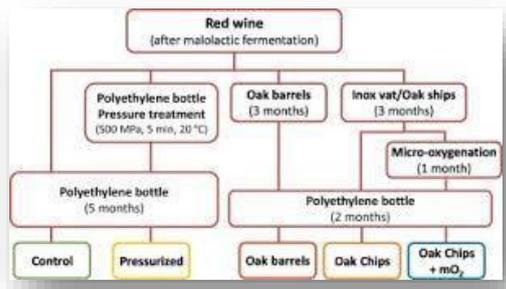
Q5) How Is the Quality of Red Wine?
 (1) A grade (2) B grade (3) C grade (4) D grade

Q6) Is There Any Defect in This Product?
 Yes/No

Q7) Do You Like to Drink Red Wine?
 Yes/No

Q8) After Reading This Excerpt About Red Wine Will You Drink Wine?
 "Antioxidant In Red Wine Called Polyphenol Help To Protect The Lining of Blood Vessel In Your Heart. A Polyphenol Called Resvetrol Is One Substance In Red Wine That Is Present In It. Resvetrol Be a Key Ingredient In Red Wine that Help To Prevent Damage to Blood Vessel and Reduce LDL Cholesterol and Prevent Blood Clot"

Data Analysis and Flowchart



In following observation and data representation :-

Statistical representation (Bar graph, Pie chart) /Fermentation Table

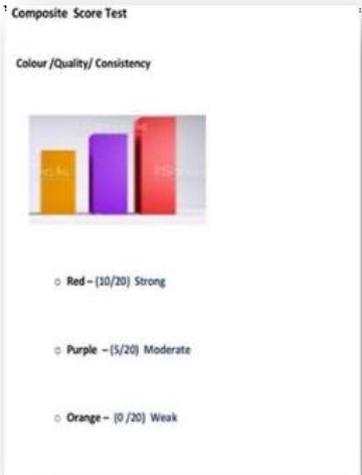
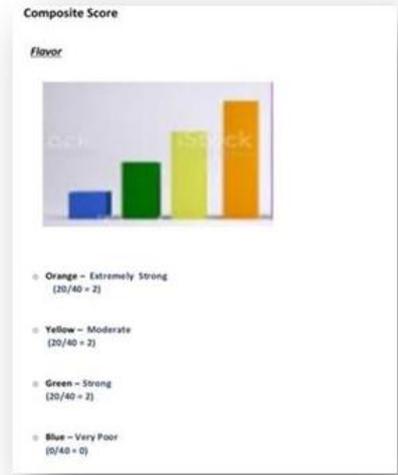
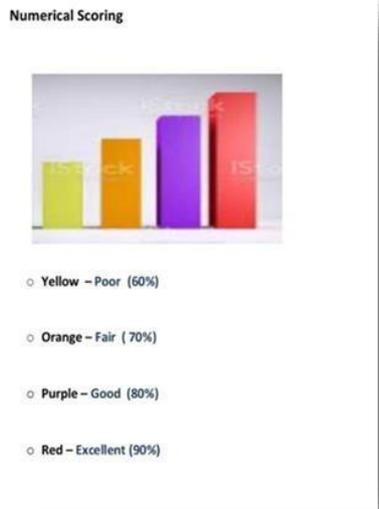
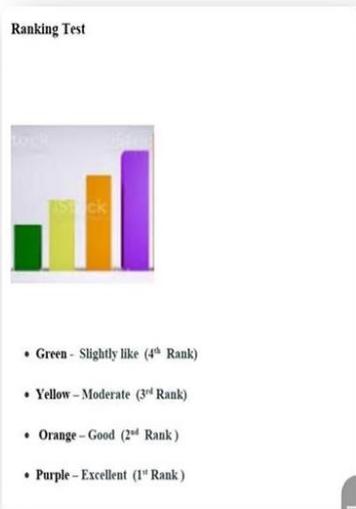
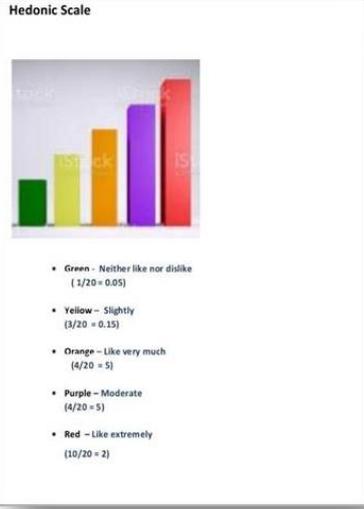
No consumer kept under observation = 20 people. / Formula = Total no of consumer satisfied/20

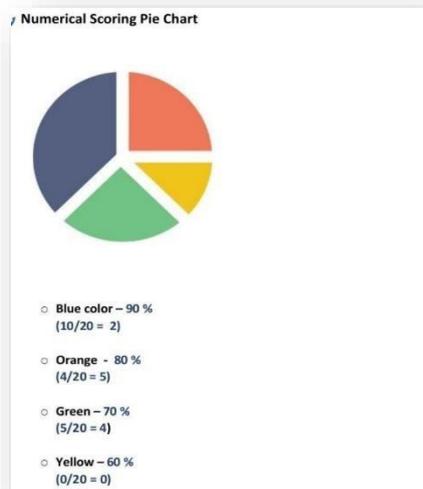
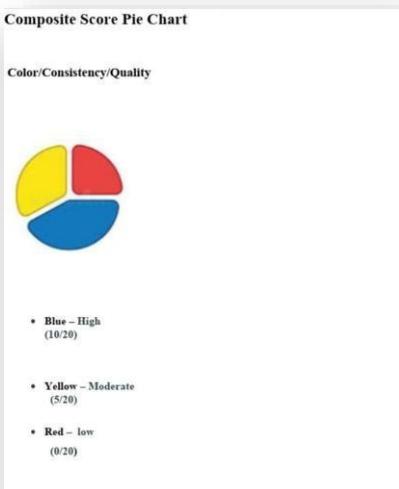
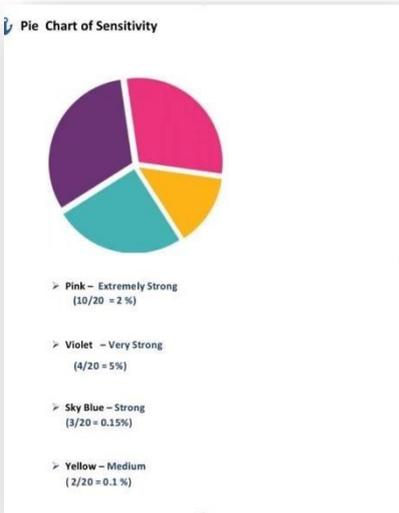
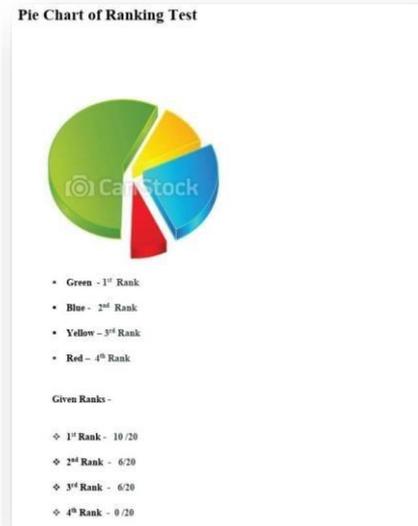
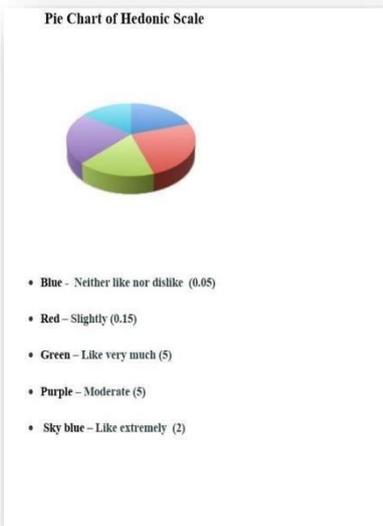
**Fermentation of Red Wine
Observation of Wine (21day)**

Date	Temperature Normal temperature (20-30°C)	Humidity Normal humidity (50-70%)	Temperature fluctuation (20-30°C)
27 Feb	25°C	31%	No change
28 Feb	28°C	32 %	No change
1 March	22°C	32 %	25°C
2 March	28°C	35 %	Constant
3 March	28°C	31 %	Constant
4 March	26°C	30 %	Constant
5 March	30°C	32 %	Constant
6 March	20°C	67 %	No change
7 March	30°C	35 %	No change
8 March	26°C	32 %	No change
9 March	29°C	43%	30°C
10 March	29°C	43 %	No change
11 March	30°C	29 %	28°C
12 March	21°C	32 %	25°C
13 March	30°C	42 %	No change
14 March	30°C	47 %	26°C
15 March	22°C	42 %	No change
16 March	26°C	57 %	20 – 30 °C
17 March	25°C	60 %	No change
18 March	30°C	57 %	28°C
19 March	25°C	73 %	No change

Observation Scale

Hedonic Scale	Ranking Test	Sensitive Test	Numerical Scoring	Composite Score Test
Like extremely - 9	1 st Rank	Weak - 1	Excellent 90%	Quality 20
Like very much - 8	2 nd Rank	Medium - 2	Good 80%	Color - 20
Like moderate - 7	3 rd Rank	Strong - 3	Fair 70%	Consistency 20
Like slightly - 6	4 th Rank	Very Strong ⁴	Poor 60%	Flavor 40
Neither like or dislike - 5		Extremely strong -5		Absence of defect - 20
Dislike slightly - 4				
Dislike moderately - 3				
Dislike very much - 2				
Dislike extremely - 1				





IV. RESULT

At The End of My Thesis I Hereby That From Above Observations, Data, Statistical Representation of Red Wine (Bar Graph), Pie Charts, Hedonic Scale, Ranking Test, Sensitivity Test, Numerical Scoring, Composite Score and other

Mathematical Calculations Resembles That The Flavour, Odour, Taste, Colour, Texture and Consistency of Red Wine Is Meritorious as The Backbone (Methodology) of My Clock in Hypothesis Interpreted That It Depends on The Way You Processed Your Red Wine Is It Processed in Organic or Inorganic Way and Did You Work In Organizing or Non Organizing Manner (Step by Step According To Its Methodology) as It Lean on Certain Factors That Should be Kept In Mind. While During Dispose of Red Wine Factors Like (PH, Temperature, Humidity, Vibration, Light, Temperature Change, Refrigeration, Cold Storage Place, Oxygen Removal and Many Intrinsic and Extrinsic Factors) All These Factors Are Responsible for Colour, Taste, Flavour, Odour, And Consistency of Red Wine. If There Is Fluctuation in Both Intrinsic and

Extrinsic Factors Then It Will Cause Impact on Its Colour, Flavour, Texture, Odour and It Cause Many Changes in Quality of Red Wine as Well.

PH Also Play an Important Role in Changes in Colour, Flavour, Odour and Texture of Red Wine. Throughout My On- Going Research I Took 20 People and Took Them Under Observation and Upraised Many Questionnaires Regarding the Taste, Colour, Odour, Texture and Its Quality. Many of People Gave Their Positive Impact on Its Taste, Odour, Colour and Quality. They Apprise Me That Its Quality Is Strong as It can Be Sold to Wine Shops in Market and They Even Reveal That There Is No Defect in Red Wine's Colour, Odour, Texture and Flavour. This Paper Also Convey People About the Health Benefits of Red Wine and Create Awareness of Its Benefits Amongst People So That They Can Consume More of Red Wine in Tame Amount. If You Like Drinking Red Wine There Is No Need to Worry Unless You Exceed the Recommended Amount as In Europe and America Moderate Red Wine Consumption Is Considered to Be 1-1.5 Glass a Day for Woman and 1-2 Glass a Day for Men as Many Studies Showed That 1-3 Glass of Red Wine per day, 3-4 days of Week May Reduce Risk of Stroke in Middle Aged Man.

V. CONCLUSION

Red Wine Is Not Only the Best Wine for Consumers but Also the Best Alcohol Overall. Based on The Amount of Antioxidant Present and The Amount of Resveratrol in Red Wine, It Is Proven To be The Healthiest and Most Beneficial Alcohol for Consumers. One of The Key Takeaway and Key Factors That Make Red Wine More Beneficial Than Other Forms of Alcohol Especially White Wine Is During Its Production and Fermentation Process the Skin of Grapes Is Used. The Skin of Any Fruit Is Abundant in Antioxidants and Vitamin and More often Than Not the Skin Contain Most Antioxidant Than the Actual Meat of Fruit because Red Wine Is Made with The Skin of Red Grapes. It Automatically Has More Antioxidant Vitamin and

Polyphenol Than White Wine. The Main Reason Behind This Is Why Red Wine Is Healthy because of Resveratrol. Resveratrol Has an Abundance of Wonderful Health Effects Ranging from Cardiovascular Improvement to Lowering Risk for Two Types of Diabetes for Helping Ease Depression. Not Coincidentally Though, Most Resveratrol Is Contained in Skin of Red Grapes. So, If Red Wine Wasn't Made Using Skin, It Most Likely Wouldn't have Nearly as Many Good Attributes as It Does. The Main

Problem with Red Wine Is That Consumers Aren't Aware of Its Many Useful Health Effects. Store Don't Do a Good Job of Advertising It and Neither Do other Forms of Advertisement.

Even Walking into The Liquor Store and Asking a Clerk About the Health Effects of Red Wine Proved Useless, seeing a Clerk Was Not Knowledgeable About Red Wine Many Benefits. The Survey Results Proved That If Properly Informed About the Health Benefits of Red Wine, Consumers Are More Likely to Drink It. Fortunately Enough People Already Drink Red Wine because They Like It, So Even Though They May Have Been Unaware of Its Benefits, They Were Still Making Their Body Some Good. However, Some of The Survey Results Showed That People Who Did Not Drink Red Wine Would be Inclined to Drink It After Learning About It Multiple Beneficial Health Effects. This Paper Is Not Advocating for More Alcohol

Consumption. If Anything, Its Advocating for Proper Alcohol Consumption. Consuming Excessive Amount of Alcohol Is

Extremely Detrimental to Person Health. The Point of This Paper Was to Show That When Choosing to Drink, It Would be In a Person. It Would be In Person's best Interest to Choose to Drink Red Wine at The End of Long Day 1/2 Glasses of Red Wine Will Help Rejuvenate Your Senses. The Abundance of Antioxidant and Vitamin as Well as The Resveratrol in Red Wine, Will Add Something of Value to Someone Immune System. More Research Needs To be Done to Further Validate the Positive Effects of Resveratrol on The Human Body, But There Is No Doubt That When Choosing Something to Drink, The Consumer Should Choose Red Wine because It Is Best and Healthiest Alcohol Available for Consumption

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