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## The comparative physical appearances of different food products made from different composition of quinoa and ragi flour

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### Abstract

As the gluten free flour the ragi and quinoa supplements were flourish the market as they were in more demand by the buyers. So a lot of food products were made which were evaluated on the basis of various texture colour and flavor parameters to look good and taste good also.

**Keywords:** quinoa, Ragi flour, physical

### 1. Introduction

Now a day's mix flour comes in very popular as they known to increase the nutrient of the flour on mixing with different composition. in which the most popular were quinoa and Ragi Quinoa contains a balance set of amino acids methionine, cysteine and lysine and also making quinoa a good complement to legumes which are limiting in these amino acids, While Ragi is known for its nutritional strength and high amount of dietary fiber, minerals essential amino acids and polyphenols content. These qualities make them to best composure to enhance the color, texture and aroma with reduced calories of the prepared product. Now a days due to high dietetics application in food many foodies were love to eat various bakery products made by these nutritional four mixture. So a lot of researchers have been done on the various proportion and their nutritional enhancement along with the physical appearances and effect on flavors.

### Experimental setup

We had taken the freshly grounded flour of each quinoa and ragi and sieved them properly now for our experiments we had taken 3 proportion of the mixture of Quinoa and Ragi flour in different proportion of each flour.

A=80% Quinoa + 20% Ragi,

B= 50% Quinoa + 50% Ragi and

C= 80% Quinoa + 10% Ragi.

Mix the mixture well and prepare the dough according with the food material we had to prepare by adding additional flavors and components, now make Biscuits, Paranthas, Mathari, Chapatti, Kachori and Namkeen with the all three proportions.

### Observation

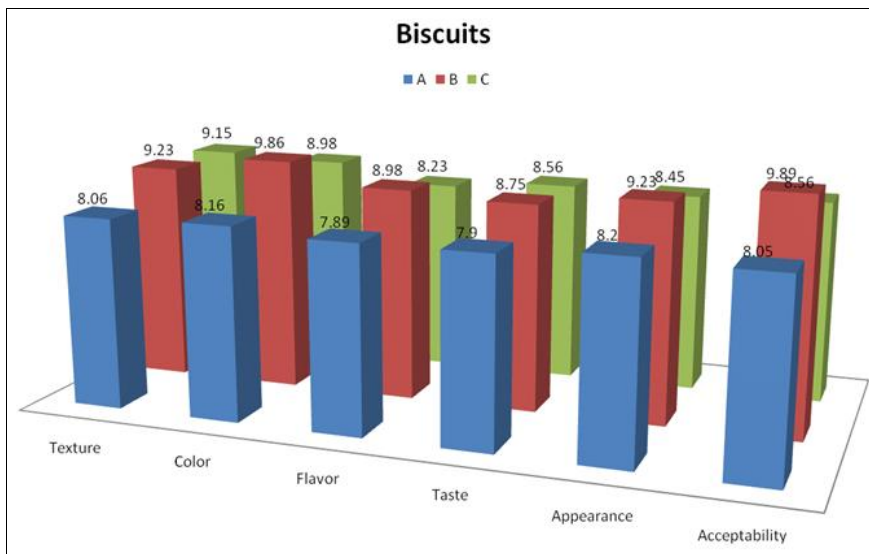
All these proportions were selected for making the Biscuits, Paranthas, Mathari, Chapatti, Kachori and Namkeen as the product famous with their flours. Now we analyse the Texture, Color, Flavor, Taste, Appearance and total Acceptability was observed.

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**Table 1:** Types of Food variety

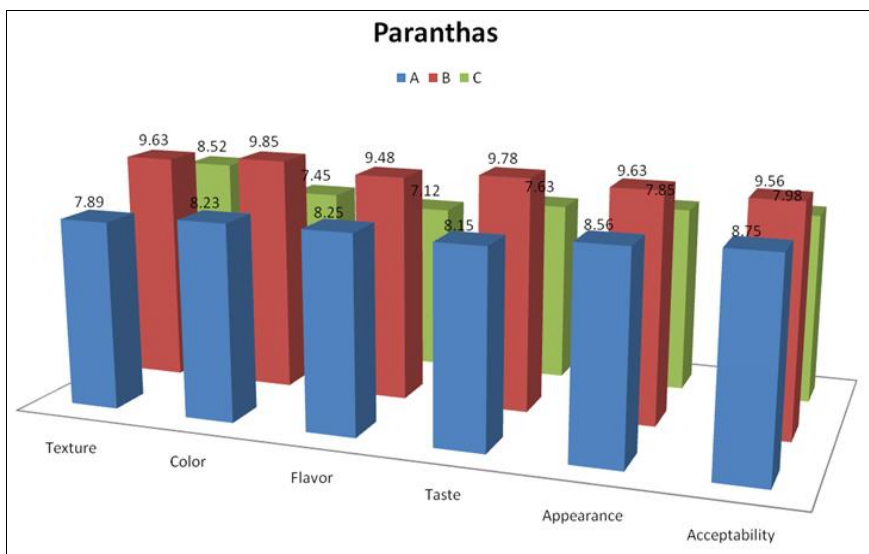
Food variety	Mix	Texture	Color	Flavor	Taste	Appearance	Acceptability
Biscuits	A	8.06	8.16	7.89	7.90	8.20	8.05
	B	9.23	9.86	8.98	8.75	9.23	9.89
	C	9.15	8.98	8.23	8.56	8.45	8.56
Paranthas	A	7.89	8.23	8.25	8.15	8.56	8.75
	B	9.63	9.85	9.48	9.78	9.63	9.56
	C	8.52	7.45	7.12	7.63	7.85	7.98
Mathari	A	8.56	8.52	8.45	8.78	8.63	8.87
	B	9.56	9.12	9.85	9.63	9.52	9.86
	C	7.45	7.25	7.45	8.63	8.12	8.02
Chapatti	A	8.45	8.63	8.52	8.20	8.10	8.45
	B	9.56	9.63	9.30	9.50	9.80	9.84
	C	7.20	7.50	7.45	7.63	7.53	8.20
Kachori	A	8.56	8.63	8.20	8.41	8.74	8.96
	B	9.52	9.62	9.51	9.20	9.40	9.80
	C	7.52	7.85	7.63	7.12	7.89	7.78
Namkeen	A	7.53	7.85	8.53	8.12	8.01	8.03
	B	9.02	9.45	9.63	9.02	9.45	9.63
	C	7.52	8.63	8.21	8.01	8.01	8.06



**Fig 1:** Biscuits

For biscuits the value of mixture A of Quinoa and Ragi flour were 8.06 for texture, 7.89 for flavor, 7.90 for taste, 8.20 for appearance and 8.05 for total acceptability of product. While that for mixture b is 9.23 for texture, 9.86 for flavor, 8.98 for

taste, 8.75 for appearance and 9.89 for total acceptability of product and that were recorded for mixture c is as 9.15 for texture, 8.98 for flavor, 8.23 for taste, 8.45 for appearance and 8.56 for total acceptability of product.



**Fig 2:** Paranthas

For paranthas the value of mixture A of Quinoa and Ragi flour were 7.89 for texture, 8.25 for flavor, 8.15 for taste, 8.56 for appearance and 8.75 for total acceptability of product. While that for mixture b is 9.63 for texture, 9.48 for flavor,

9.78 for taste, 9.63 for appearance and 9.56 for total acceptability of product and that were recorded for mixture c is as 8.52 for texture, 7.12 for flavor, 7.63 for taste, 7.85 for appearance and 7.98 for total acceptability of product.

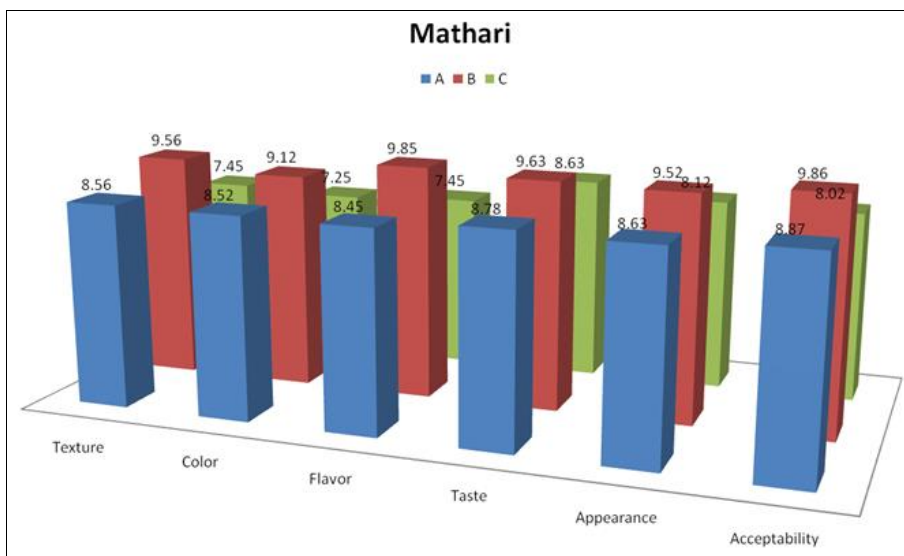


Fig 3: Mathari

For mathari the value of mixture A of Quinoa and Ragi flour were 8.56 for texture, 8.45 for flavor, 8.78 for taste, 8.63 for appearance and 8.87 for total acceptability of product. While that for mixture b is 9.56 for texture, 9.85 for flavor, 9.63 for

taste, 9.52 for appearance and 9.86 for total acceptability of product and that were recorded for mixture c is as 7.45 for texture, 7.45 for flavor, 8.63 for taste, 8.12 for appearance and 8.02 for total acceptability of product.

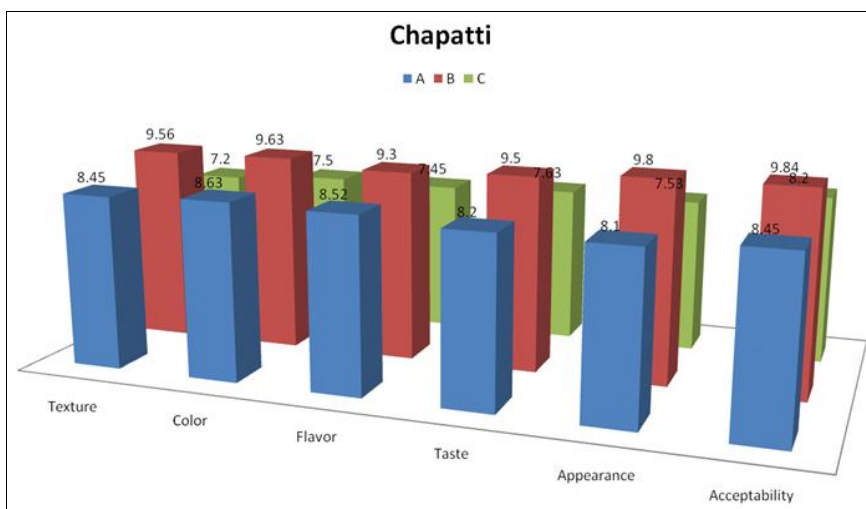


Fig 4: Chapatti

For chapaties the value of mixture A of Quinoa and Ragi flour were 8.45 for texture, 8.52 for flavor, 8.2 for taste, 8.1 for appearance and 8.45 for total acceptability of product. While that for mixture b is 9.56 for texture, 9.3 for flavor, 9.5 for

taste, 9.8 for appearance and 9.84 for total acceptability of product and that were recorded for mixture c is as 7.2 for texture, 7.45 for flavor, 7.63 for taste, 7.53 for appearance and 8.2 for total acceptability of product.

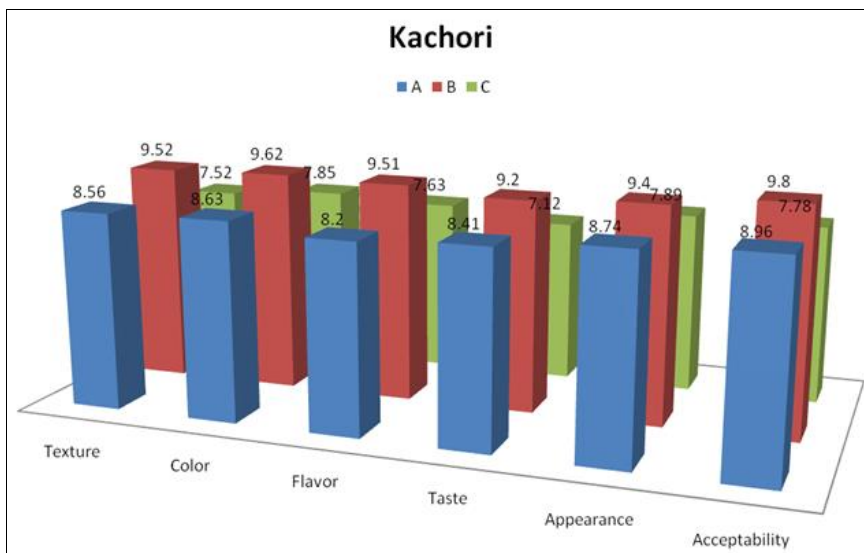


Fig 5: Kachori

For kachories the value of mixture A of Quinoa and Ragi flour were 8.56 for texture, 8.2 for flavor, 8.41 for taste, 8.74 for appearance and 8.87 for total acceptability of product. While that for mixture b is 9.52 for texture, 9.51 for flavor,

9.2 for taste, 9.4 for appearance and 9.8 for total acceptability of product and that were recorded for mixture c is as 7.52 for texture, 7.63 for flavor, 7.12 for taste, 7.89 for appearance and 7.78 for total acceptability of product.

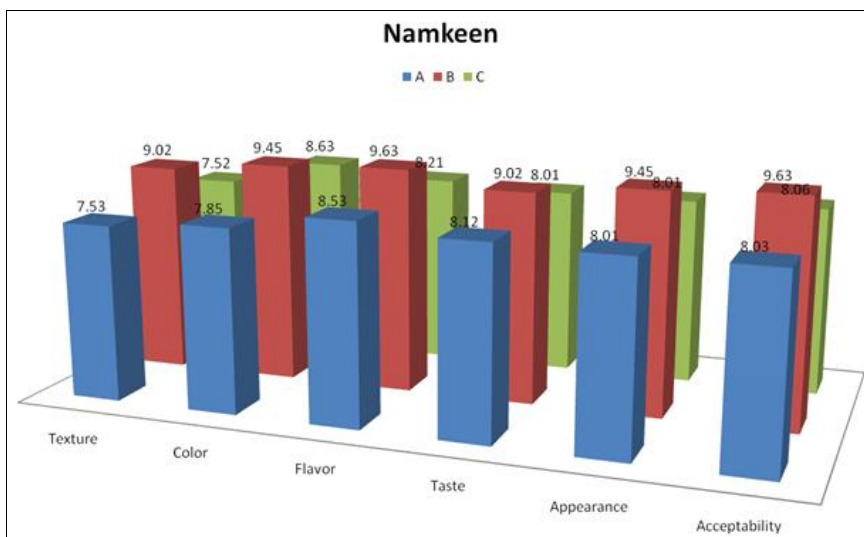


Fig 6: Namkeen

For namkeen the value of mixture A of Quinoa and Ragi flour were 7.53 for texture, 8.53 for flavor, 8.12 for taste, 8.01 for appearance and 8.03 for total acceptability of product. While that for mixture b is 9.02 for texture, 9.63 for flavor, 9.02 for taste, 9.45 for appearance and 9.63 for total acceptability of product and that were recorded for mixture c is as 7.52 for texture, 8.21 for flavor, 8.01 for taste, 8.01 for appearance and 8.06 for total acceptability of product.

### Conclusion

The main conclusion has been drawn from the above experiments that the Mixture B that contain 50% of Quinoa and 50% of Ragi has better Texture, Color, Flavor, Taste, Appearance and total Acceptability for all the food variety viz. Biscuits, Paranthas, Mathari, Chapatti, Kachori and Namkeen.

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For namkeen the value of mixture A of Quinoa and Ragi flour were 7.53 for texture, 8.53 for flavor, 8.12 for taste, 8.01 for appearance and 8.03 for total acceptability of product. While that for mixture b is 9.02 for texture, 9.63 for flavor, 9.02 for taste, 9.45 for appearance and 9.63 for total acceptability of product and that were recorded for mixture c is as 7.52 for texture, 8.21 for flavor, 8.01 for taste, 8.01 for appearance and 8.06 for total acceptability of product.

### Conclusion

The main conclusion has been drawn from the above experiments that the Mixture B that contain 50% of Quinoa and 50% of Ragi has better Texture, Color, Flavor, Taste, Appearance and total Acceptability for all the food variety viz. Biscuits, Paranthas, Mathari, Chapatti, Kachori and Namkeen.

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