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Ashwini K Abhangrao
Ph. D Scholar Vasantrao Naik
Marathwada Krishi Vidyapeeth
Parbhani, Maharashtra, India

Dr. AK Naidu
Head Deptt of Horticulture
Jawaharlal Nehru Krishi Vishwa
Vidyalaya Jabalpur (M.P.),
India

Dr. SS Yadlod
Associate Professor Vasantrao
Naik Marathwada Krishi
Vidhyapeeth Parbhani,
Maharashtra, India

Effect of recipes and cultivars on long storage of guava RTS

Ashwini K Abhangrao, Dr. AK Naidu and Dr. SS Yadlod

Abstract

The fruits of Lucknow - 49, Red fleshed variety and Apple guava were collected from the orchard of the College of Agriculture Jabalpur (M.P.). The fruits from the winter season crop (2007). Fully matured fruits were picked up and sorted, washed, cutting into pieces, mixing with water (1:1) then Passing through pulper to get guava pulp preparation after that guava pulp mixing with strained syrup solution (sugar+ water +acid heated to just to dissolve according to recipe), homogenization, cooling (at 40°C addition of sodium benzoate 750 ppm), filter, bottling, crown corking, pasteurization (82°C for 15 min), cooling for RTS product. physical - chemical characters sensory quality characters (color, flavor, Taste, overall acceptability), Total Soluble solids, pH, Percent Acidity, Ascorbic acid content (mg/100mg) for 0th, 30th, 60th days observation were recorded. For acceptability of RTS Hedonic rating of colour was done by panel of 10 judges on 9 point hedonic scale. RTS was recorded. In experiment recipe 1 was 10% pulp, 11% T.S.S, 0.3% Acidity. Recipe 2 was 10% pulp, 11% T.S.S 0.4% Acidity. And recipe 3 was 10% pulp, 12% T.S.S, 0.3% Acidity., recipe 4 was 10% pulp, 12% T.S.S, 0.4 % Acidity., recipe 5 was 10% pulp, 13 % T.S.S 0.3 % Acidity., recipe 6 was 10% pulp, 13% T.S.S, 0.4% Acidity was used. At shown that overall acceptability of RTS was highest in score (7.86) and recipe 1 (10% pulp, 11% T.S.S, 0.3% Acidity) followed by score (7.83) and recipe 2 (10% pulp, 11% T.S.S, 0.4% Acidity) Highest Ascorbic Acid content at recipe 1 (10% Pulp, 11% T.S.S, 0.3% Acidity). it was further observed At 0th days for good for storage variety was Lucknow-49 (8.10) followed by Apple guava (7.78) followed by (7.40). At 30th days was also lucknow-49 (7.60) followed by apple guava (7.28) followed by red fleshed guava (7.10). at 60th days was lucknow-49 (7.28) followed by apple guava (7.15) followed by red fleshed guava (6.83).

Keywords: Lucknow-49, Apple guava, Red fleshed guava, TSS, pH, Acidity, Ascorbic acid, storage

1. Introduction

Guava (*Psidium guajava* L.) is one of the most nutritious fruit. it is richer source of vitamin "C" than Ber, Citrus, and Apple. guava is grown commercially in North India because it's higher yielding capacity and good economic returns. In india Uttar Pradesh the largest grower produces best quality of Guava Bihar, Madhya Pradesh, Andhra Pradesh, Tamil Nadu, West Bengal, Punjab, Assam, Karnataka, Maharashtra are chief producers of quality guava. India occupies nearly 150.9 lakh hectares of area with a production of 1710.6 million tonnes and with a productivity of 10.77 tonnes fruit per hectare per year. However highest productivity recorded in M.P. 20.1 tones/ha. Guava is an important fruit in international trade and domestic economy of several countries because of its easy cultivation under variable soils and climatic conditions. Fruits of guava are important ingredients in the human dietaries, due to their high nutritive value. Guava makes significant nutritional contribution to human being and cheaper source of the protective foods. Guava has earned the popularity as "Poor mans apple" available in plenty to every person at a very low price during the season. It is no way to inferior to apple for its nutritional values. The fruit (berry) is an excellent source of vitamin 'c' (6300mg/100g) and protein 1% content and has about dry matter (17%) and moisture (83%). The fruit is also rich in mineral like phosphorous (23-37 mg/100g), calcium (14-30 mg/100gm) and iron (0.6 - 1.4 mg/100g) as well as vitamin like niacin, pentothenic acid, thiamine riboflavin and Vitamin "A" (Bose T.K.1999) [4]. Guava is normally consumed fresh as dessert fruit. it emit a sweet aroma which is pleasantly sweet and refreshing acidic in flavor. The whole fruit is edible along with skin. it is considered as one of the most delicious, luscious fruits, excellent salads, Pudding, jam, jelly, cheese, canned fruit, RTS, nectar, Squash and ice-creams and toffees can be made from guava fruit. In central india especially in M.P guava grower generally takes mrighbahar crops so seasonal glut occurs very often and sold at throw way prices. The storage of fruit is very difficult for longer period because of it's perishable nature especially under tropical conditions. It is common experienced that 20-25% of the fruit is completely damaged and spoiled before it reaches to the consumers Yadav (1997). Therefore it is necessary to develop technology for better utilization of such a perishable fruit.

Correspondence

Ashwini K Abhangrao
Ph. D Scholar Vasantrao Naik
Marathwada Krishi Vidyapeeth
Parbhani, Maharashtra, India

In the state also it is grown on large scale and often it causes glut in the local market. The fruit grower does not have adequate facilities for extending shelflife of guava fruits hence most of the produce does not fetch good price. To overcome these problems there is need to find out suitable low cost processing techniques.

Therefore to utilize the produce at the time of glut and to save it from spoilage the development of low cost processing technology of guava fruit is a need of time. It will also generate enough opportunities of self - employment by starting small scale processing unit or cottage industry which will be remunerative to the growers. Thus the preparation of guava R.T.S beverage have a great scope.

Material and Method

The fruits of Lucknow-49, Red fleshed guava, Apple guava were collected from the orchard of the college of Agriculture J.N.K.V.V(M.P.). The fruits were collected from the winter season crop (2007) fully matured fruits were picked up and sorted out for the preparation of RTS. fruits were cut into small pieces, it can be sieved pulp, small pieces of guava mixing with water 1:1 and straining pulp, pulp was taken and dissolved with water after that TSS (11,12 and 13° brix) and acidity (0.3 and 0.4 percent) was maintained with help of sugar and citric acid as per recipe.

Result and Discussion

1. Colour

Data presented in table at 0th days was found in colour of RTS was maximum scored given in R₅(8.13) followed by R₁(8.10) and lowest score observed in R₆ (7.83). with respect to varieties highest score was given by V₁ Lucknow-49(8.50) followed by V₂ Apple guava(7.76) and Lowest recorded V₃ Red fleshed (7.71). as regards the combination maximum score recorded R₁V₁ (8.84) followed by R₂V₁(8.80) and lowest score observed in R₅V₃(7.00) in RTS

The data presented in table at 30 day observation was in colour maximum score recorded in R₅(7.46) followed by R₆(7.26) lowest observed in R₃(7.16). with respect to varieties maximum score recorded in V₁(7.53) followed by V₂(7.24) and lowest recorded in V₃(7.10) as per combination maximum score observed in R₂V₁, R₃V₁, R₆V₁(7.60) followed by R₅V₂(7.50) lowest observed in R₃V₃(7.00). The data presented at 60th day observation was in colour maximum score recorded recipe R₂(7.23) followed by R₆(7.16) in respect to varieties maximum score gets V₁(7.4) followed by V₂ (7.00) as per combination R₂V₁(7.50) followed by R₁V₁ (7.40) and lowest score observed R₅V₃(6.70) in RTS.

0th day that the colour rating of RTS decreased with increasing sugar content at after 30 days. At 0th day observed that the RTS color rating was higher recipe R₅ at 13 percent TSS which might be due to quite sugar and pulp ratio. At 30th day observed colour rating was higher in recipe R₅ decreasing color rate. The RTS prepared from Lucknow-49 was rated best for colour at 0th day, 30 day and 60th day also second best apple guava lowest in Red fleshed guava (Harisimrat and Dhawan, 1998) ^[11].

2. Flavor

At 0th day observation flavor was found in maximum scored in R₁(8.00) followed by R₅ (7.86) and Lowest score observed in R₃(7.70). with respect to varieties maximum score observed in V₁ (8.46) followed by V₂(7.70) lowest score recorded in V₃ (7.28). as regards the combination for maximum score recorded in R₂V₁ (8.80) followed by R₅V₁(8.70) and lowest

recorded in R₄V₃(7.10) in RTS. At 30th day observation was maximum flavor recorded in R₁(7.56) followed by R₂(7.53) Lowest recorded in R₅ and R₆ (7.30) with respect to varieties maximum score observed in V₁ (7.61) followed by V₂(7.35) lowest recorded in V₃(7.23). as per combination the flavor of RTS maximum score R₃V₃(7.90) followed by R₂V₁ (7.80) lowest recorded in R₂V₂(7.10), R₆V₃. At 60th day observation recipe R₄ (7.46) followed by R₂(7.40) with respect to varieties maximum score V₁(7.5) followed by V₂(7.2). as per combination maximum score recipe R₃V₁(7.70) followed by R₅V₁(7.60) and lowest score R₁V₂(6.70)

Flavor rating of RTS decreased with increasing of sugar content (TSS) at 0th day, 30th day and 60th day at 0th day recipe R₁ showed highest flavor followed by Recipe R₂ and lowest flavor in recipe R₃ this is due to higher pulp and sugar ratio with adequate acidity level. At 30th day show recipe R₁ show highest flavor followed by recipe R₂ but at 60th day recipe R₄ show highest flavor and lowest flavor observed in recipe R₆ this might be due to inadequate sugar pulp and acidity ratio similar result was obtained Pandey and Singh (1999) ^[23]. Among the cultivars Lucknow-49 was rated best at 0th day followed by 30 day for flavors over apple guava and red fleshed RTS due to their varietal character (Pandey *et al.*, 1997) ^[24].

3. Taste

At 0th day observation flavor was found in maximum scored in R₁(8.00) followed by R₅ (7.86) and Lowest score observed in R₃(7.70). with respect to varieties maximum score observed in V₁ (8.46) followed by V₂(7.70) lowest score recorded in V₃ (7.28). as regards the combination for maximum score recorded in R₂V₁ (8.80) followed by R₅V₁(8.70) and lowest recorded in

At 0th day observation taste was found in maximum scored in R₁(7.86) followed by R₂(7.83) and lowest score observed in R₆(7.60). With respect to varieties maximum score observed in V₁(8.10) followed by V₂(7.78) and lowest observed in V₃(7.40). as regards the combination was highest score R₂V₁(8.30) and followed by R₁V₁(8.20) and lowest recorded as R₅V₃(7.20). At 30th day observation was in Taste maximum recorded in R₂(7.46) followed by R₁(7.43) and lowest observed in R₃(7.20). With respect to varieties maximum score recorded was in V₁(7.60) followed by V₂ (7.40) and lowest in V₃(7.15). with regards combination maximum score recorded in R₁V₁(7.90) followed by R₂V₁(7.80) Lowest score observed in R₂V₃(7.00), R₃V₃(7.00) At 60th day observation maximum score for taste at recipe R₂(7.43) followed by recipe R₁ (7.43)., with respect to varieties maximum score was observed V₁(7.5) followed by V₂(7.2) as per combination maximum score was observed R₁V₁(7.80) followed by R₂V₁(7.70) lowest score observed R₆V₃ (7.00) 0th day observation obtained that recipe R₁ round to best rating. at 30th day observation obtained that recipe R₂ followed by 60th day observation R₂ recipe found to be the best taste rating of RTS. The highest taste rating RTS due to addition of sugar in the pulp after 30th and 60th day increase in quantity of sugar in RTS also reduce the taste rating. This is due to higher TSS value because of higher TSS reduced the colour and flavor of RTS color and flavor ultimately reduce taste of RTS. At after 60 day in recipe R₅ similar result were obtained by Jain *et al.* (1997) ^[16], Pandey and Singh (1999) ^[23]. Among the cultivars it was found that RTS from Lucknow-49 was rated to best taste in 0th, 30th day. The next best apple guava show RTS taste rating in Red fleshed. These findings are in conformity with those at Harisimrat and Dhawan (1998) ^[11].

4. Overall Acceptability

At 0th day overall acceptability observation maximum score was found in R₁(7.86) followed by R₂(7.83) and lowest recorded in R₆(7.66). With respect to varieties V₁ (8.10) given maximum score followed by V₂(7.78) and lowest score observed in V₃(7.40). as per combination R₂V₁(8.30) followed by R₁V₁(8.20) and lowest score recorded in R₄V₃(7.20). At 30th day observation was in overall acceptability maximum score was observed in R₁(7.46) followed by R₂(7.43) Lowest observed in R₃(7.26). with respect to varieties maximum score observed V₁(7.60) followed by V₂(7.28) Lowest observed in V₃(7.10). with regards to combination maximum score followed by R₁V₁(7.90) Followed by R₁V₂(7.80) and lowest in R₃V₃(7.00). At 60th day observation maximum score for recipe was R₆(7.20) followed by R₅ (7.13). in respect of varieties maximum score for varieties V₁(7.2) followed by V₂(7.1). as per combination R₅V₁(7.50) maximum score recorded followed by R₆V₁(7.30) and lowest score observed R₆V₃(6.80). At 0th day recipe R₁ was on rating colour, flavor, taste followed by 30th day reduced rating of overall acceptability, but at 60th day recipe R₆ showed overall acceptability higher. But reduced rating of overall acceptability at 0th day and 60th day reported that by Pandey and Singh (1999) [23] This is due to better colour excellent flavor good taste and attractiveness. The higher score from overall acceptability of RTS was found in Lucknow-49 at 0th days followed by 30th day. Next best apple guava RTS showed high overall acceptability followed Red fleshed guava. Among storage period 0th, 30th of RTS overall acceptability of RTS decreased slightly with increase in storage decreased slightly with increase in storage period. recipe R₁ show highest score for overall acceptability followed by recipe R₂ and R₃. This is due to loss of colour and flavor of RTS which are responsible to change in overall acceptability (Pandey and Singh, 1999) [23]

5. TSS

At 0th day observation was found in TSS maximum scored in R₃(13.43) followed by R₂(13.36) lowest observed in R₄ (11.14). With respect to varieties V₁ (12.68) recorded found that maximum score observed in R₂V₁(13.62) followed by R₂V₂(13.48) lowest recorded in R₄V₃(11.00). At 30 days observation was TSS maximum score in R₃(15.34) followed by R₆(14.90) lowest observed in R₄ (13.08) with respect to varieties maximum scored observed in V₁(14.63) followed by V₂(14.27) lowest score observed in V₃(13.90). As per combination maximum score was observed in R₆V₁(15.70) followed by R₃V₁ (15.62) and lowest observed in R₅V₃(13.00). At 60th day observation maximum scored for recipe R₁ (18.26), followed by R₂(7.76) in respect of varieties maximum score followed by V₁ (17.30) followed by V₂(16.66) as per combination maximum score recorded at R₂V₁(18.70) followed by R₁V₁(18.32) At 0th days recipe R₃ show higher TSS content (13.43) which have lower pulps: sugar At 0th days recipe R₃ show higher TSS content (13.43) which have lower pulps: sugar ratio and acidity followed by 30th day observation recipe R₃ higher TSS content, but at 60th day recipe R₁ show higher TSS., recipe R₁ show higher TSS content in RTS as increase in TSS of the RTS beverage may possibly be due to conversion of polysaccharides into sugar (Ashrat 1987 and Rabbani, 1992) [28].

It was further observed that the TSS value of different cultivars also affected the TSS content of the recipes significantly. The highest TSS observed in 0th, 30th day in

RTS prepared with Lucknow-49 followed by apple guava and lowest in Red fleshed guava this was also due to varietal characters.

pH

At 0th day observation maximum scored for recipe R₃(3.65) followed by R₆(3.61) in respect of varieties V₁(3.70) had maximum score followed by V₂(3.59) in combination maximum scored was R₃V₁(3.72) followed by R₄V₁(3.71) At 30th Day maximum score of pH was recipe R₃(2.90) followed by R₂(2.70) in respect of varieties maximum scored of V₁(3.21) followed by V₂ (2.63) as per combination maximum score R₆V₁(3.30) followed by R₅V₁(3.20) At 60th day observation maximum scored for recipe R₂(2.80) followed by R₁(2.73) in respect to varieties maximum score for recipe V₁ (3.1) followed by V₂ (2.9) as per combination R₂ V₁(3.30) followed by R₆V₁ (3.20) and lowest score was observed R₆V₃(1.80). At 0th day observation recipe R₁ shows minimum pH followed by recipe R₄ followed by R₅ wherever higher pH observed at R₃ recipe. At 30th day observation recipe R₁ minimum followed by recipe R₄ and R₅ recipe wherever pH observed higher at recipe R₃ but decreasing at after 0th day observation At 60th day observation recipe R₄ maximum pH shows at recipe R₂ this is due to higher pulp and sugar ratio and higher acidity reduced pH helped to check the bacterial growth in the RTS (Sethi and Jindal 1997) [34].

6. Acidity

At 0th day observation was found Acidity maximum recorded in R₅(2.50) followed by R₄(2.40) and lowest observed in R₁(2.00). With respect to varieties maximum scored in V₁(2.41) followed by V₂ (2.21) lowest in V₃(2.20). as per combination maximum scored observed R₃V₁(2.50) R₄V₁(2.50) R₅V₁(2.50) followed by R₆V₁(2.40). lowest recorded in R₂V₂(2.00), R₃V₂(2.00). At 30 day observation in percent acidity maximum score observed in R₄ (2.23) followed by R₅(2.20) lowest score observed in R₁(1.73). with respect to varieties maximum scored observed in V₁(2.08) and followed by V₃(2.03) lowest observed in V₂(1.88). As per combination maximum score R₄V₁ (2.40) followed by R₅V₁(2.30) and Lowest observed in R₆V₃(1.90) in RTS. At 60th day observation maximum scored for recipe R₁(2.03) followed by recipe R₂(1.96) in respect to varieties maximum score recorded V₁(1.99) followed by V₂(1.86) As per combination maximum score observed R₁V₁ (2.20) followed by R₂V₂(2.10) and lowest score observed R₆V₃(1.60). At 0th day observation maximum acidity showed recipe R₅ and minimum acidity showed at recipe R₁. 30th day observation maximum acidity shows at recipe R₃, recipe R₆, followed by recipe R₂. At 60th days observation maximum acidity shows at recipe R₁ followed by R₂ and R₃ and minimum acidity shows at recipe R₅ It clearly indicates that increase in TSS of RTS reduced the acidity of RTS (Baramanray 1996).

Ascorbic Acid

At 0th day observation maximum score was observed recipe R₃(20.03) followed by R₁(19.86) in respect of varieties maximum score followed by V₁ and V₃ (17.76) and lowest score observed by V₂(16.25) as per combination maximum score observed R₁V₁(21.30), R₃V₁(21.30) and lowest score observed R₆V₃(14.00) At 30th day observation maximum scored was given at recipe R₁ (13.43) followed by R₅(12.47) in respect of varieties V₁(14.62) followed by V₂(12.98) as per combination maximum score observed R₁V₁(17.30) followed

by R₂V₁(16.00). At 60th days observation maximum score observed recipe R₁ (12.00) followed by R₄ (11.60) in respect of varieties V₁ (13.59) followed by V₂ (11.52) as per combination maximum score for R₆V₁ (15.80) Followed by R₁V₁ (15.30) lowest score was observed R₆V₃ (8.00) Ascorbic acid content of RTS prepared from all the cultivars had decreasing trend with an increase in the sugar content and acidity levels. At 0th day observation the ascorbic acid content was more in recipe R₃ followed by R₁. At 60th day observation

recipe R₁ shows more ascorbic acid content followed by recipe R₄ These storage periods at 0th to 60th day ascorbic acid content in RTS show decreases. This might be due to less sugar content, acidity more pulp. An increase in sugar content acidity and more pulp. An increase in sugar content (TSS) decreased the ascorbic acid value in different recipes of RTS. The maximum ascorbic acid content was observed in Lucknow-49 RTS second best apple guava followed by Red fleshed guava at 0th, 30th, 60th day.

Table 1: Effect of recipes, cultivars and their interaction on storage of Guava RTS at 0th day

AT 0 th DAYS								
Factor A	Colour	Flavour	Taste	Overall Acceptability	Tss	%Acidity	Ph	Ascorbic Acid
R ₁	8.10	8.00	7.86	7.86	12.31	2.00	3.50	19.86
R ₂	8.06	7.83	7.83	7.83	13.36	2.10	3.58	18.01
R ₃	7.83	7.70	7.80	7.80	13.43	2.20	3.65	20.03
R ₄	8.03	7.76	7.70	7.70	11.14	2.40	3.55	15.29
R ₅	8.13	7.86	7.73	7.73	12.31	2.50	3.57	17.25
R ₆	7.90	7.73	7.60	7.66	12.30	2.30	3.61	15.26
MEAN	8.00	7.81	7.76	7.76	12.46	2.20	3.56	17.60
SEM±	0.001	0.003	0.004	0.100	0.001	0.005	0.004	0.100
CD AT 5%	0.003	0.010	0.001	0.003	0.004	0.009	0.001	0.288
FACTOR B								
V ₁	8.50	8.46	8.10	8.10	12.68	2.41	3.70	17.76
V ₂	7.76	7.70	7.78	7.78	12.50	2.21	3.59	16.25
V ₃	7.71	7.28	7.40	7.40	12.22	2.20	3.40	17.76
MEAN	18.83	23.44	18.35	18.35	29.25	5.35	8.42	39.93
SEM±	0.0017	0.0047	0.0054	0.1419	0.0020	0.0064	0.0089	0.1419
CD AT 5%	0.0049	0.0014	0.0016	0.1419	0.0559	0.0130	0.0018	0.407.19
AXB								
R ₁ V ₁	8.84	8.60	8.20	8.20	12.54	2.30	3.68	21.30
R ₂ V ₁	8.80	8.80	8.30	8.30	13.62	2.30	3.70	19.05
R ₃ V ₁	8.00	8.20	8.00	8.00	13.70	2.50	3.72	21.30
R ₄ V ₁	8.70	8.30	8.00	8.00	11.30	2.50	3.71	16.89

Table 2: Effect of recipes, cultivars and their interaction on storage of Guava RTS at 30th day

AT 30 th DAYS								
Factor A	Colour	Flavour	Taste	Overall Acceptability	Tss	Ph	%Acidity	Ascorbic Acid
R ₁	7.20	7.56	7.43	7.46	14.25	2.53	1.73	13.43
R ₂	7.23	7.53	7.46	7.43	14.94	2.70	1.80	11.58
R ₃	7.16	7.26	7.20	7.26	15.34	2.90	2.00	9.76
R ₄	7.20	7.43	7.30	7.30	13.08	2.56	2.23	13.15
R ₅	7.46	7.30	7.40	7.20	13.17	2.66	2.20	12.47
R ₆	7.26	7.30	7.30	7.36	14.90	2.80	2.00	10.03
MEAN	7.24	7.39	7.34	7.32	14.27	2.69	1.99	11.70
SEM±	0.006	0.001	0.007	0.004	0.002	0.004	0.003	0.096
CD AT 5%	0.002	0.003	0.002	0.001	0.005	0.001	0.007	0.028
FACTOR B								
v ₁	7.53	7.61	7.60	7.60	14.63	3.21	2.08	14.62
v ₂	7.24	7.35	7.40	7.28	14.27	2.63	1.88	12.98
v ₃	7.10	7.23	7.15	7.10	13.90	2.23	2.03	10.98
MEAN	17.14	17.37	17.38	17.25	33.53	6.58	4.64	31.26
SEM±	0.0084	0.0014	0.0064	0.0060	0.0042	0.0011	0.0036	0.1397
CD AT 5%	0.0024	0.0041	0.1837	0.0017	0.0070	0.0011	0.0010	0.4007
AXB								
R ₁ V ₁	7.50	7.80	7.90	7.90	14.40	3.30	1.90	17.30
R ₂ V ₁	7.60	7.60	7.80	7.80	15.54	3.20	1.90	16.00
R ₃ V ₁	7.60	7.70	7.63	7.60	15.62	3.20	2.00	15.05
R ₄ V ₁	7.40	7.40	7.50	7.50	13.26	3.10	2.40	14.20
R ₅ V ₁	7.50	7.60	7.20	7.20	13.30	3.20	2.30	12.80
R ₆ V ₁	7.60	7.60	7.60	7.60	15.70	3.30	2.00	12.39
R ₁ V ₂	7.20	7.60	7.40	7.40	14.25	1.90	1.70	15.30
R ₂ V ₂	7.23	7.10	7.50	7.50	14.40	2.80	1.80	14.00
R ₃ V ₂	7.16	7.30	7.30	7.20	15.40	3.00	2.10	13.00
R ₄ V ₂	7.20	7.70	7.60	7.10	13.08	2.60	2.20	13.00
R ₅ V ₂	7.46	7.40	7.40	7.30	13.17	2.70	2.30	11.00

R6V2	7.26	7.60	7.50	7.20	14.90	2.80	2.10	11.39
R1V3	7.20	7.60	7.10	7.10	14.27	2.40	1.60	14.00
R2V3	7.10	7.30	7.00	7.00	14.12	2.10	1.80	13.00
R3V3	7.00	7.90	7.00	7.00	14.90	2.50	1.90	12.00
R4V3	7.10	6.80	7.00	7.30	15.00	2.00	2.10	12.00
R5V3	7.10	7.20	7.30	7.20	13.00	2.10	2.00	10.30
R6V3	7.20	7.10	7.30	7.30	14.90	2.30	1.90	10.30
SEM±	0.001462	0.002487	0.011091	0.001041	0.00421	0.001143	0.00624	0.023628
CD AT5%	0.004194	0.007133	0.31812	0.002987	0.00121	0.00328	0.001789	0.06776

Table 3: Effect of recipes, cultivars and their interaction on storage of Guava RTS at 60th day

AT 60 th DAYS								
Factor A	Colour	Flavour	Taste	Overall Acceptability	Tss	Ph	%Acidity	Ascorbic Acid
R1	7.10	7.40	7.40	7.10	18.26	2.73	2.03	12.00
R2	7.23	7.16	7.43	7.06	17.76	2.80	1.96	10.50
R3	7.06	7.30	7.26	7.00	17.27	2.66	1.83	9.50
R4	7.05	7.46	7.30	7.03	17.17	2.53	1.70	11.60
R5	7.03	7.29	7.23	7.13	16.17	2.56	1.53	10.30
R6	7.16	7.03	7.36	7.20	15.80	2.60	1.60	8.00
MEAN	7.11	7.25	7.33	7.08	16.17	2.64	1.77	10.15
SEM±	0.00961	0.00262	0.004528	0.00548	0.002578	0.009624	0.00164	0.09878
CD AT 5%	0.002756	0.0075	0.12987	0.001571	0.007393	0.0027603	0.00663	0.400694
FACTOR B								
v1	7.430	7.580	7.500	7.280	17.300	3.110	1.990	13.590
v2	7.000	7.300	7.280	7.150	16.660	2.900	1.860	11.52
v3	6.900	6.900	7.060	6.830	16.580	1.930	1.650	10.15
MEAN	16.730	17.180	17.133	16.707	39.487	6.653	4.400	28.4
SEM±	0.001359	0.0037	0.001008	0.00548	0.003645	0.01361	0.00231	0.139704
CD AT 5%	0.003891	0.001061	0.00289	0.001571	0.010456	0.039	0.00663	0.400694
AXB								
R1V1	7.40	7.60	7.80	7.30	18.32	3.00	2.20	15.30
R2V1	7.50	7.50	7.70	7.20	18.70	3.30	2.00	13.20
R3V1	7.50	7.70	7.30	7.00	17.34	3.10	1.90	11.39
R4V1	7.30	7.70	7.50	7.40	17.14	3.00	1.80	15.80
R5V1	7.40	7.60	7.70	7.50	16.30	3.10	1.50	14.05
R6V1	7.50	7.40	7.40	7.30	16.26	3.20	1.60	11.80
R1V2	7.10	7.50	7.50	7.10	18.48	3.00	2.00	13.30
R2V2	6.90	7.20	7.20	7.20	18.40	3.10	2.10	11.05
R3V2	6.90	7.50	7.10	7.10	17.40	2.87	1.90	9.00
R4V2	7.00	7.50	7.20	7.00	17.25	2.70	1.80	12.05
R5V2	7.00	7.30	7.30	7.00	16.22	2.80	1.70	13.08
R6V2	7.10	7.00	7.10	7.50	16.08	2.89	1.60	10.30
R1V3	6.80	7.10	7.20	6.90	18.00	2.90	1.90	12.00
R2V3	7.30	6.80	7.20	6.80	16.20	2.20	1.80	10.50
R3V3	6.80	6.70	7.00	6.90	17.09	2.00	1.70	8.50
R4V3	6.90	7.20	7.00	6.70	17.12	2.00	1.50	11.60
R5V3	6.70	7.00	7.10	6.90	16.00	1.90	1.40	10.30
R6V3	6.90	6.70	7.00	6.80	15.09	1.80	1.60	8.00
SEM±	0.002354	0.00641	0.001745	0.001342	0.006314	0.0401	0.0401	0.241975
CD AT5%	0.006751	0.001838	0.005006	0.003849	0.01811	0.001149	0.001149	0.694023

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