

Original Research Article

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## Standardization of a Recipe for the Preparation of Candy from Ber

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### ABSTRACT

The present experiment was carried out during December 2019 to March 2020 in Post Harvest Laboratory of Department of Horticulture, SHUATS, Prayagraj. The experiment was conducted in Completely Randomized Design (CRD), with nine treatments, replicated thrice. the treatments were T<sub>1</sub> (Steeping in 65<sup>0</sup>Brix syrup), T<sub>2</sub> (Steeping in 70<sup>0</sup>Brix syrup), T<sub>3</sub> (Steeping in 75<sup>0</sup>Brix syrup), T<sub>4</sub> (Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution), T<sub>5</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution), T<sub>6</sub> (Steeping in 75<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution), T<sub>7</sub> (Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), T<sub>8</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) and T<sub>9</sub> (Steeping in 75<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid). From the present investigation it is found that treatment T<sub>7</sub> and T<sub>8</sub> was found superior in respect of the parameters Total Soluble Solids, Acidity, pH, Moisture content, Score for Colour and Appearance, Flavour and Taste, Texture and Overall Acceptability of Ber Candy. In terms of benefit cost ratio the highest net return, Benefit cost Ratio was also found in T<sub>8</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) and minimum was recorded in treatment T<sub>1</sub> in all the parameters.

#### Keywords

Ber, Candy,  
Standardization,  
TSS, Acidity,  
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#### Article Info

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### Introduction

Ber (*Z. mauritiana*) is a fast growing, spiny, thicket-forming shrub or tree, which can fruit prolifically and disperse seeds over a wide area using mammalian and avian vectors. However, it is also a valuable commercial fruit crop in its native Asia, mostly in India and China, Ber are mainly grown for fruit and can produce large quantities, up to 600 kg/tree per year. The fruit is eaten fresh, dried, pickled or made into preserves. It is rich in vitamin C and sugars and provides edible

exudates. In India and Pakistan, Ber is an important agroforestry and silvopastoral species in arid and semi-arid regions, and is frequently found in and around arable fields and meadows. It is also planted for erosion control, soil and riverbank stabilization, and land reclamation. The tree is also used for live fencing around houses, and the branches are used as dead fencing to deter cattle.

The fruits of cultivar Gola were suitable for eating for up to 8 days of storage. In contrast to this that Ber fruits stored at ambient

temperature had a short life of 3 days only. Extensive studies have been carried out using Ber fruits to prepare various processed products, such as candy dehydrated products juice and wine jam, jelly, shreds and powder with increased production of a particular fruit in a season, there is a glut in the market and the farmer is at loss due to low market price for his produce. This is also true in case of Ber. It is therefore necessary to develop suitable technology for processing of the fruits. Thus the processing of Ber into marketable demanded products likes, pulp, juice concentrates, jams, jelly, syrup, Ber candy, Ber powder, tutti-fruity, slices, shreds and wine will help to increase the shelf life, minimize the glut in the market during its peak season of production, reduces post-harvest losses, enhances the export, which ultimately fetches the valuable foreign exchange and improves socio economic conditions of farmers, processors and entrepreneurs.

Fruit and vegetable are highly perishable commodities as they are living tissues that are subject to continuous changes after harvest, because of their peculiar characteristics, *i.e.* high moisture content and rapid rate of metabolism, they are prone to deteriorate rapidly after harvest and also due to lack of adequate post harvest losses due to spoilage are very high. An attempt is made to prepare Candy from Ber and to know the better combination between the treatments.

### **Materials and Methods**

The Experimental was conducted in Completely Randomized Design (CRD) with 9 treatments of and three replications in the Post Harvest Laboratory of Department of Horticulture, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj during December, 2019 to March, 2020. Total number of treatments were nine viz. T<sub>1</sub>(Steeping in 65<sup>0</sup>Brix syrup), T<sub>2</sub>

(Steeping in 70<sup>0</sup>Brix syrup), T<sub>3</sub> (Steeping in 75<sup>0</sup>Brix syrup), T<sub>4</sub> (Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution), T<sub>5</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution), T<sub>6</sub> (Steeping in 75<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution), T<sub>7</sub> (Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), T<sub>8</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) and T<sub>9</sub>(Steeping in 75<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) Gola variety of Ber was used for processing.

### **Climatic condition in the experimental site**

The area of Prayagraj district comes under subtropical belt in the south east of Uttar Pradesh, which experience extremely hot summer and fairly cold winter. The maximum temperature of the location reaches up to 46<sup>0</sup> C- 48<sup>0</sup> C and seldom falls as low as 4<sup>0</sup>C- 5<sup>0</sup>C. The relative humidity ranges between 20 to 94 %. The average rainfall in this area is around 1013.4 mm annually. However, occasional precipitation is also not uncommon during winter months.

### **Results and Discussion**

The present investigation entitled “Standardization of a recipe for the preparation of Candy from Ber” was carried out during December 2019 to March 2020 in Post Harvest Laboratory of Department of Horticulture, Naini Agricultural Institute, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj (U.P.) India. The results of the present investigation, regarding the standardization of recipe for the preparation of candy from Ber, have been discussed and interpreted in the light of previous research work done in India and abroad. The experiment was conducted in Completely Randomized design with 9 treatments, and three replications (Table 1–3).

The results of the experiment are summarized below.

### **Total Soluble Solids (<sup>0</sup>Brix)**

In terms of TSS, maximum score (71.65, 72.01, 72.61, 73.78 and 74.89 <sup>0</sup>Brix) at Initial, 20, 40, 60 and 80 days after storage was observed in treatment T<sub>7</sub> (Steeping in 65 <sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), followed by treatment T<sub>8</sub>(Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) with (70.70, 71.08, 71.53, 72.46 and 73.40 <sup>0</sup>Brix) at Initial, 20, 40, 60 and 80 days after storage, whereas the minimum score was observed in treatment T<sub>1</sub> (Steeping in 65<sup>0</sup>Brix syrup) with (66.03, 66.31, 66.78, 67.62 and 68.49 <sup>0</sup>Brix)during 80 days storage. The total soluble solids content of Ber candy was showed increasing trend in all treatments during storage. An increase in total soluble solids content of Ber Candy during storage may possibly be due to conversion of polysaccharides starch etc, in to sugars. Manivsagan (2011) in Karonda candy has also been reported to increase during storage and Navitha and Mishra (2018) in Ber Candy.

### **Acidity (%)**

In terms of Acidity lowest score (0.89, 0.97, 1.14, 1.29 and 1.46 %) at Initial, 20, 40, 60 and 80 days respectively after storage was observed in treatment T<sub>1</sub> (Steeping in 65<sup>0</sup>Brix syrup), followed by treatment T<sub>4</sub>(Steeping in 65<sup>0</sup> Brix syrup + blanching in 0.2% KMS solution) with (0.92, 0.99, 1.13, 1.33 and 1.49 %) at Initial, 20, 40, 60 and 80 days after storage, whereas the maximum score was observed in treatment T<sub>2</sub> (Steeping in 70<sup>0</sup> Brix syrup) with (1.40, 1.47, 1.57, 1.75 and 1.96%) during 80 days storage. The acidity (%) of Ber candy was showed increasing trend in all value added Ber candy during storage. An increase in acidity (%) of Ber candy during storage might be attributed to

the chemical interaction between constituents of Ber candy induced by temperature and action of enzymes. Deka, (2000) and Deka *et al.*, (2004) reported similar finding with lime-aonla blended RTS and Nath and Yadav, (2005b) with ginger-kinnow squash. Agarwal and Sandhu (2006) in kinnow candy and Navitha and Mishra (2018) in Ber Candy.

### **pH**

In terms of pH content at different periods of storage, the lowest score of pH (4.16, 4.10, 4.02, 3.95 and 3.89) at Initial, 20, 40, 60 and 80 days respectively was observed in treatment T<sub>7</sub> (Steeping in 65<sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), followed by treatment T<sub>8</sub>(Steeping in 70<sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) with (4.27, 4.19, 4.09, 4.01 and 3.94) at initial, 20, 40, 60 and 80 days respectively, whereas the maximum score was observed in treatment T<sub>2</sub> (Steeping in 70 <sup>0</sup>Brix syrup) with (5.18, 5.12, 4.99, 4.86 and 4.63)during 80 days storage. The pH content of Ber candy was showed decreasing trend in all value added Ber candy during storage. There was a negligible change in pH content decreased of the candy during storage may possibly be due to increase in time interval, temperature and action of enzymes. Similar results were reported by Krishnaveni *et al.*, (2001) in Jackfruit and Jain *et al.*, (2004) in case of Papaya cubes and Navitha and Mishra (2018) in Ber Candy.

### **Moisture content (%)**

In terms of Moisture content at different periods of storage, the minimum score of Moisture content (17.26, 15.01, 13.67, 12.31 and 10.79 %) at Initial, 20, 40, 60 and 80 days respectively was observed in treatment T<sub>7</sub> (Steeping in 65 <sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), followed by treatment T<sub>6</sub>(Steeping in 75<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution)

with (17.73, 15.59, 14.08, 12.79 and 11.09%) whereas the maximum score was observed in treatment T<sub>3</sub> (Steeping in 75<sup>0</sup>Brix syrup) with (19.35, 17.49, 15.93, 14.46 and 12.91%) during 80 days storage. The Moisture content of Ber candy was showed decreasing trend in all treatments during storage.

Results indicated that Moisture content of candy decreased continuously during entire period of storage. This reduction may be due to increase in TSS attributed to the reduction in Moisture content of the product with storage, a tendency of weight reduction was shown with increasing the sugar concentration, Madhan and Dhawan (2005) in Carrot candy and Daisy and Gehlot (2006) reported in Aonla preserve and Navitha and Mishra (2018) in Ber Candy.

#### **Score for colour and texture**

In terms of score for colour and Texture and Body (8.75, 8.41, 8.03, 7.68 and 7.30 for colour) and (8.48, 8.22, 7.97, 7.68 and 7.33 for texture and Body) at Initial, 20, 40, 60 and 80 days respectively was observed in treatment T<sub>7</sub> (Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), followed by treatment T<sub>8</sub>(Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) with (8.57, 8.23, 7.89, 7.54 and 7.17 for colour) and (8.33, 8.07, 7.77, 7.44 and 7.11) whereas the minimum score was observed in treatment T<sub>1</sub> (Steeping in 65<sup>0</sup>Brix syrup) with (7.13, 6.88, 6.55, 6.22 and 5.87 for colour) and (6.93, 6.70, 6.41, 6.13 and 5.82) for texture during 80 days storage. The colour and appearance and Texture of Ber candy was showed decreasing trend in all value added Ber candy during storage due to increase in time interval, temperature and action of enzymes. Similar findings previously also reported by Babalola (2002) in Guava leather and Chavan (2010) in jackfruit product, Singh *et al.*, (2012) and Navitha and Mishra (2018) in Ber Candy.

#### **Score for flavour and taste**

In terms of flavour and Taste there were significant differences among all the treatments during storage. There was subsequent decrease in score for flavor and Taste at different periods of storage. The highest score of flavour (8.52, 8.26, 7.96, 7.61 and 7.25) and (8.41, 8.24, 8.05, 7.76 and 7.38 for taste) at Initial, 20, 40, 60 and 80 days respectively was observed in treatment T<sub>8</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), followed by treatment T<sub>7</sub>(Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) with (8.34, 8.12, 7.78, 7.41 and 7.05 for flavor) and (8.19, 8.03, 7.83, 7.60 and 7.22 for taste) whereas the minimum score was observed in treatment T<sub>1</sub> (Steeping in 65<sup>0</sup> Brix syrup) with (7.30, 7.08, 6.78, 6.44 and 6.10 for flavour) and (7.33, 7.17, 6.90, 6.60 and 6.17) during 80 days storage. The score for flavor and Taste showed in decreasing trend in all value added Ber candy during storage due to increase in time interval, temperature and action of enzymes. Similar results previously also reported by Navitha and Mishra (2018) in Ber Candy.

#### **Score for overall acceptability**

In terms of score for Overall acceptability at different periods of storage, The highest score of overall acceptability (8.46, 8.20, 7.91, 7.58 and 7.22) at Initial, 20, 40, 60 and 80 days respectively was observed in treatment T<sub>8</sub> (Steeping in 70<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid), followed by treatment T<sub>7</sub> (Steeping in 65<sup>0</sup>Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) with (8.40, 8.15, 7.85, 7.55 and 7.20) whereas the minimum score was observed in treatment T<sub>1</sub> (Steeping in 65<sup>0</sup> Brix syrup) with (7.17, 6.95, 6.65, 6.35 and 5.99) during 80 days storage.

**Table.1** Total Soluble Solids (<sup>o</sup>Brix), Acidity (%) and pH of Ber candy during storage in ambient condition

Treatment Symbol	Treatment Combination	Total Soluble Solids ( <sup>o</sup> Brix)					Acidity (%)					p <sup>H</sup>				
		Initial	20 DAS	40 DAS	60 DAS	80 DAS	Initial	20 DAS	40 DAS	60 DAS	80 DAS	Initial	20 DAS	40 DAS	60 DAS	80 DAS
T <sub>1</sub>	Steeping in 65 <sup>o</sup> Brix syrup	66.03	66.31	66.78	67.62	68.49	0.89	0.97	1.14	1.29	1.46	5.09	5.01	4.89	4.74	4.50
T <sub>2</sub>	Steeping in 70 <sup>o</sup> Brix syrup	67.86	68.14	68.62	69.51	70.42	1.40	1.47	1.57	1.75	1.96	5.18	5.12	4.99	4.86	4.63
T <sub>3</sub>	Steeping in 75 <sup>o</sup> Brix syrup	68.84	69.11	69.59	70.47	71.39	1.23	1.30	1.42	1.57	1.75	5.16	5.08	4.94	4.80	4.58
T <sub>4</sub>	Steeping in 65 <sup>o</sup> Brix syrup + blanching in 0.2% KMS solution	69.73	70.01	70.50	71.34	72.21	0.92	0.99	1.13	1.33	1.49	4.60	4.52	4.40	4.31	4.15
T <sub>5</sub>	Steeping in 70 <sup>o</sup> Brix syrup + blanching in 0.2% KMS solution	68.65	68.90	69.33	70.30	71.19	1.19	1.27	1.40	1.53	1.65	4.56	4.48	4.35	4.26	4.12
T <sub>6</sub>	Steeping in 75 <sup>o</sup> Brix syrup + blanching in 0.2% KMS solution	69.20	69.45	69.88	70.80	71.72	1.14	1.23	1.38	1.50	1.66	4.49	4.43	4.29	4.19	4.04
T <sub>7</sub>	Steeping in 65 <sup>o</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	71.65	72.01	72.61	73.78	74.89	1.02	1.11	1.26	1.39	1.57	4.16	4.10	4.02	3.95	3.89
T <sub>8</sub>	Steeping in 70 <sup>o</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	70.70	71.08	71.53	72.46	73.40	1.12	1.20	1.33	1.45	1.65	4.27	4.19	4.09	4.01	3.94
T <sub>9</sub>	Steeping in 75 <sup>o</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	69.80	70.11	70.60	71.54	72.31	1.33	1.41	1.52	1.71	1.90	4.31	4.23	4.14	4.07	3.99
<b>F-Test</b>		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
<b>SE(d)</b>		0.960	0.967	0.921	0.907	0.900	0.054	0.051	0.061	0.067	0.062	0.031	0.033	0.038	0.042	0.042
<b>C.V.</b>		1.701	1.704	1.614	1.568	1.536	5.823	5.140	5.527	5.431	4.555	0.818	0.881	1.036	1.178	1.228
<b>C.D. at 5%</b>		2.033	2.046	1.951	1.921	1.906	0.115	0.108	0.129	0.141	0.132	0.066	0.070	0.080	0.089	0.089

**Table.2** Moisture content (%), colour and appearance and texture and body of ber candy during storage in ambient condition

Treatment Symbol	Treatment Combination	Moisture (%)					Score for Colour and Appearance					Score for Texture and Body				
		Initial	20 DAS	40 DAS	60 DAS	80 DAS	Initial	20 DAS	40 DAS	60 DAS	80 DAS	Initial	20 DAS	40 DAS	60 DAS	80 DAS
T <sub>1</sub>	Steeping in 65 <sup>0</sup> Brix syrup	19.31	17.42	15.86	14.31	12.75	7.13	6.88	6.55	6.22	5.87	6.93	6.70	6.41	6.13	5.82
T <sub>2</sub>	Steeping in 70 <sup>0</sup> Brix syrup	18.74	16.90	15.33	13.79	12.22	7.57	7.31	6.99	6.63	6.34	7.36	7.09	6.82	6.56	6.23
T <sub>3</sub>	Steeping in 75 <sup>0</sup> Brix syrup	19.35	17.49	15.93	14.46	12.91	7.34	7.08	6.74	6.38	6.03	7.11	6.87	6.58	6.32	5.99
T <sub>4</sub>	Steeping in 65 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution	19.22	17.10	15.59	14.21	12.33	7.79	7.47	7.15	6.93	6.58	7.56	7.31	7.07	6.84	6.49
T <sub>5</sub>	Steeping in 70 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution	18.65	16.53	15.03	13.73	11.82	7.89	7.58	7.27	6.94	6.60	7.67	7.41	7.14	6.86	6.54
T <sub>6</sub>	Steeping in 75 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution	17.73	15.59	14.08	12.79	11.09	7.60	7.29	6.97	6.76	6.41	7.37	7.10	6.89	6.61	6.25
T <sub>7</sub>	Steeping in 65 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	17.26	15.01	13.67	12.31	10.79	8.75	8.41	8.03	7.68	7.30	8.48	8.22	7.97	7.68	7.33
T <sub>8</sub>	Steeping in 70 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	18.87	16.62	15.24	13.88	12.37	8.57	8.23	7.89	7.54	7.17	8.33	8.07	7.77	7.44	7.11
T <sub>9</sub>	Steeping in 75 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	18.58	16.32	15.02	13.65	12.13	8.23	7.88	7.52	7.17	6.82	8.00	7.73	7.43	7.15	6.85
<b>F-Test</b>		NS	NS	NS	NS	NS	S	S	S	S	S	S	S	S	S	S
<b>SE(d)</b>		0.757	0.783	0.813	0.836	0.864	0.193	0.183	0.197	0.155	0.176	0.188	0.184	0.183	0.186	0.195
<b>C.V.</b>		4.975	5.793	6.598	7.484	8.783	3.000	2.965	3.337	2.741	3.282	3.006	3.056	3.150	3.334	3.664
<b>C.D. at 5%</b>		1.59	1.64	1.71	1.76	1.81	0.408	0.388	0.417	0.328	0.373	0.397	0.390	0.388	0.394	0.412

**Table.3** Score for flavour, taste and overall acceptability and benefit cost ratio of ber candy during storage in ambient condition.

Treatment Symbol	Treatment Combination	Score for Flavour					Score for Taste					Score for over all acceptability					Cost: Benefit Ratio
		Initial	20 DAS	40 DAS	60 DAS	80 DAS	Initial	20 DAS	40 DAS	60 DAS	80 DAS	Initial	20 DAS	40 DAS	60 DAS	80 DAS	
T <sub>1</sub>	Steeping in 65 <sup>0</sup> Brix syrup	7.30	7.08	6.78	6.44	6.10	7.33	7.17	6.90	6.60	6.17	7.17	6.95	6.65	6.35	5.99	1.41
T <sub>2</sub>	Steeping in 70 <sup>0</sup> Brix syrup	7.70	7.48	7.17	6.85	6.48	7.37	7.21	7.01	6.73	6.33	7.50	7.27	7.00	6.69	6.34	1.45
T <sub>3</sub>	Steeping in 75 <sup>0</sup> Brix syrup	7.47	7.24	6.95	6.59	6.23	7.62	7.46	7.23	6.91	6.52	7.38	7.16	6.87	6.54	6.19	1.48
T <sub>4</sub>	Steeping in 65 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution	7.70	7.51	7.18	6.90	6.49	7.21	7.06	6.87	6.60	6.22	7.56	7.33	7.06	6.82	6.44	1.52
T <sub>5</sub>	Steeping in 70 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution	7.80	7.57	7.25	7.00	6.60	7.95	7.78	7.63	7.33	6.94	7.83	7.58	7.32	7.02	6.67	1.55
T <sub>6</sub>	Steeping in 75 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution	7.51	7.27	6.95	6.67	6.27	7.34	7.18	6.99	6.70	6.30	7.45	7.21	6.94	6.68	6.30	1.58
T <sub>7</sub>	Steeping in 65 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	8.34	8.12	7.78	7.41	7.05	8.02	7.86	7.66	7.44	7.12	8.40	8.15	7.85	7.55	7.20	1.62
T <sub>8</sub>	Steeping in 70 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	8.52	8.26	7.96	7.61	7.25	8.41	8.24	8.05	7.76	7.38	8.46	8.20	7.91	7.58	7.22	1.65
T <sub>9</sub>	Steeping in 75 <sup>0</sup> Brix syrup + blanching in 0.2% KMS solution + 1% citric acid	8.02	7.81	7.47	7.10	6.72	8.19	8.03	7.83	7.60	7.22	8.11	7.86	7.56	7.25	6.90	1.58
<b>F-Test</b>		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
<b>SE(d)</b>		0.168	0.178	0.189	0.203	0.202	0.170	0.176	0.193	0.188	0.174	0.152	0.155	0.163	0.149	0.153	
<b>C.V.</b>		2.625	2.864	3.188	3.583	3.759	2.705	2.846	3.209	3.252	3.190	2.401	2.515	2.760	2.625	2.849	
<b>C.D. at 5%</b>		0.355	0.376	0.401	0.431	0.427	0.361	0.372	0.408	0.398	0.369	0.322	0.327	0.345	0.315	0.324	

However, the organoleptic characters showed a gradual decreasing during storage due to increase in time interval, temperature and action of enzymes at room temperature. This finding was in conformity with Navitha and Mishra (2018) in Ber Candy.

### Economics

In terms of Economics the maximum Gross return, Net Return and Benefit cost ratio (Rs. 470.00), (Rs. 186.35) and (1.65) respectively was recorded in treatments T<sub>8</sub> (Steeping in 70 °Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) and minimum Gross return, Net return and Benefit cost ratio (Rs. 400.00), (Rs. 117.65) and (1.41) was recorded in treatment T<sub>1</sub> (Steeping in 65 °Brix syrup).

Based on findings of the present experiment it is concluded that treatment T<sub>7</sub> and T<sub>8</sub> was found superior in respect of the parameters Total Soluble Solids, Acidity, pH, Moisture content, Score for Colour and Appearance, Flavour and Taste, Texture and Overall Acceptability of Ber Candy. In terms of benefit cost ratio the highest net return, Benefit cost Ratio was also found in T<sub>8</sub> (Steeping in 70 °Brix syrup + blanching in 0.2% KMS solution + 1% citric acid) and minimum was recorded in treatment T<sub>1</sub> in all the parameters.

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