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SENSORY ACCEPTABILITY AND STORAGE STABILITY OF ALOE BASED FRUIT SQUASHES

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INTRODUCTION

The word 'aloe' has its roots in the Arabic word 'alloeh', which means 'radiance'. A native plant of Somalia with a history dating back to the fourth century B.C, Aloe Vera also figures prominently in Egyptian, Chinese, Greek, Indian and Christian literature. The Arabs have a tradition of placing it at graves as a symbol of regeneration and resurrection, the African hunters used its gel as a deodorant. Aloe Vera is witnessing a new renaissance across the world (Atherton, 1998). Aloe Vera is called Kumari or Goddess because many of the East Indian women use it daily to maintain beauty and counteract the symptoms of aging. Aloe Vera is still widely used to help treat burns and wounds (Guraya, 2007). Plant based foods, such as fruit, vegetables, and whole grains, which contain significant amounts of bioactive phytochemicals, may provide desirable health benefits beyond basic nutrition to reduce the risk of chronic diseases (National Academy of Sciences, 2000). Food preservation is the process of treating and handling food in a way that preserves its value as food. The main effort is to stop or greatly slow down spoilage to prevent foodborne illness (Deeley, 2006). Pineapple is an excellent source of vitamin C and manganese. It is also a good source of vitamin B1, vitamin B6, copper and dietary fiber (Fortin, 1996). Papaya is an excellent source of vitamin C. It is a very good source of folate and potassium. In addition, it is a good source of dietary fiber, vitamin E, vitamin A and vitamin K. The papaya is an amazingly rich source of the proteolytic enzymes. These are the chemicals that enable the digestion of protein. Papain, which is the most important of these enzymes in the papaya, is extracted and dried as a powder for use to aid the digestion, and it is often used as a meat tenderizer (Maxwell et al., 1994).

Value-added food products are raw or pre-processed commodities whose value has been increased through the addition of ingredients or processes that make them more attractive to the buyer and/or more readily usable by the consumer. It is a production/marketing strategy driven by customer needs and perceptions (Department of Food Science and Technology, Oregon state university, 2005). Aloe vera can be used as a potential source to develop a wide variety of food products. It can also be incorporated in other food products to enhance their nutritional value. Wei et al., (2004) prepared a health beverage from fresh Aloe Vera leaves. The leaves were washed, ground, pulped, and filtered then mixed with different concentrations

of other fruit squashes and herbs. Aloe Vera has immense medicinal and nutritive properties. There are many health drinks available in the market but as a combination of Aloe Vera juice with various fruit squashes is not available. An effort was taken to combine both aloe vera and fruits in the form of a squash

The main objectives of the study were:

- To formulate and standardize the fruit squashes with aloe vera juice.
- To assess the sensory acceptability of the prepared squashes over different storage periods.
- To findout the storage stability of the prepared squashes stored at room and refrigerated temperature over different storage periods

MATERIALS AND METHODS

The fruits selected for the preparation of squash are Mango, Lime, Papaya and Pineapple. Ripened fruits having good colour, flavour, aroma, firm texture were selected for the preparation of fruit squashes. The raw ingredients required for the preparation of squash was purchased from the local market.

FORMULATION OF SQUASHES

Two groups of the squashes were formulated with the juices of Mango, Lime, Papaya and Pineapple. In the control group, three different variations of the squashes were prepared for each fruit (Mango, Lime, Papaya and Pineapple) by altering the composition of the fruit pulp and sugar. In the experimental group, three different variations of the squashes were prepared for each fruit (Mango, Lime, Papaya and Pineapple) by altering the composition of the fruit pulp and Aloe juice. The variations are shown in Table-I and II.

Table-I

FORMULATION OF SQUASH (CONTROL)

VARIATIONS	FRUIT PULP	SUGAR
Variation I	55 ml	45 g
Variation II	50 ml	50 g
Variation III	45 ml	55 g

Table-II

FORMULATION OF SQUASH (EXPERIMENTAL)

VARIATIONS	FRUIT PULP	SUGAR	ALOE JUICE
Variation I	30ml	50 g	20ml
Variation II	25ml	50 g	25ml
Variation III	20ml	50 g	30ml

PREPARATION OF FRUIT SQUASHES

The pulp of the fruits was extracted by the traditional method. A pinch of sodium metabisulphite and citric acid were added as a preservative.

SENSORY EVALUATION OF FORMULATED SQUASHES

Sensory evaluation is the process of evaluating according to the knowledge acquired via human senses like sight, taste, touch and smell (Yager, 2000). The sensory characteristics like Appearance, Flavour, Taste, Consistency and Overall acceptability were evaluated through 5-point scale from 10 panel members. From the sensory evaluation, two squashes namely pineapple and papaya squashes were selected for the further study as they were highly acceptable and palatable than the other two squashes (Lemon and Mango). In the control group variation II was selected from both (pineapple and papaya) the fruit squashes. In the experimental group variation I was selected from both (pineapple and papaya) the fruit squashes as they obtained highest score for all the sensory attributes from the organoleptic evaluation.

STORAGE STABILITY OF FORMULATED SQUASHES

Storage is the method followed when the food is available in abundant amount and thus the food is kept for future use without affecting its nutrient quality, taste and acceptability. Usually storage is done in low temperature especially for fruits. The most acceptable squash selected from organoleptic evaluation from both control and experimental were stored in room temperature and refrigeration temperature for 90 days. The sensory attributes were evaluated for every 15 days during the study period (90 days) to find out the storage stability of the prepared squashes.

RESULTS AND DISCUSSION

MEAN ORGANOLEPTIC SCORES OF THE PINEAPPLE SQUASH

The mean organoleptic scores of the pineapple squash is presented in the Table – III.

Table - III

S.No	Criteria	Control Squash			Experimental Squash		
		1	**2**	**3**	**1**	**2**	**3**
1	A*	4.5±0.8	**4.8±0.4**	4.6±0.5	**4.7± 0.5**	4.5±0.5	3.8±0.6
2	F*	4.7±0.5	**4.9±0.3**	4.7±0.5	**4.5± 0.5**	4.4 ± 0.5	3.8±0.6
3	T*	4±0.8	**4.9±0.3**	4.1±0.3	**4.8 ± 0.4**	4.8 ± 0.4	3.8±0.8
4	C*	5±0	**5±0**	5±0	**5±0**	5±0	5±0
5	OA*	4.5±0.5	**4.8±0.6**	4.4±0.5	**4.6 ± 0.4**	4.4±0.5	3.3±0.5

A* - Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

The above table indicates that in control pineapple squash Variation II had got highest mean score for all the criteria (Appearance - 4.8±0.4, Flavour - 4.9±0.3, Taste - 4.9±0.3, Consistency - 5±0 and Overall Acceptability - 4.8±0.6). In experimental pineapple squash Variation I scored highest mean for all the criteria (Appearance - 4.7±0.5, Flavour - 4.5±0.5, Taste - 4.8±0.4, Consistency - 5±0 and Overall Acceptability - 4.6± 0.4).

MEAN ORGANOLEPTIC SCORES OF THE PAPAYA SQUASH

The mean organoleptic scores of the papaya squash is presented in the Table – IV.

Table - IV

S.No	Criteria	Control Squash			Experimental Squash		
		1	**2**	**3**	**1**	**2**	**3**
1	A*	4.5±0.6	**4.6±0.5**	4.1±0.7	**4.5±0.8**	4.2±0.6	3.8±0.6
2	F*	4.4±0.5	**4.5±0.7**	4.4±0.5	**4.2±0.8**	3.8±0.6	3.6±0.6
3	T*	4.1±0.3	**4.8±0.4**	4.2±0.9	**4.8±0.4**	3.4±0.6	3.1±0.9

A* -	4	C*	5±0	**5±0**	5±0	**5±0**	5±0	5±0
	5	OA*	4±0.8	**4.5±0.5**	4.1±0.5	**4.4±0.7**	3.7±0.9	3.3±0.7

Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

The above table reveals that in control papaya squash Variation II had got highest mean score for all the sensory attributes viz. Appearance (4.6±0.5), Flavour (4.5±0.7), Taste (4.8±0.4), Consistency (5±0) and Overall Acceptability (4.5±0.5) compared with other variations. 50g of pulp and 50ml of sugar syrup (prepared with 50g of sugar) were added in the preparation of Variation II, which is obviously seems to be the right proportion as it had obtained the maximum score in comparison with other two variations. In experimental squash Variation I scored highest mean for all the criteria (Appearance - 4.5±0.8, Flavour - 4.2±0.8, Taste - 4.8±0.4, Consistency - 5±0 and Overall Acceptability - 4.4±0.7), in which 30ml of pulp, 20ml of aloe vera juice and 50ml of sugar syrup (prepared with 50g of sugar) were added. The palatability of a drink is very important because it stimulates consumption and hence increases the intake of fluid. In addition, the taste and flavour of a drink may also influence the rate of gastric emptying (Brouns and Cargill 2002).

SENSORY ANALYSIS OF FORMULATED SQUASHES OVER DIFFERENT STORAGE PERIODS

MEAN SENSORY ATTRIBUTES OF PINEAPPLE SQUASH STORED AT ROOM TEMPERATURE

The mean sensory attributes of Pineapple squash stored at room temperature is presented in Table – V.

TABLE-V

Storage Period	Group	SENSORY ATTRIBUTES				
		A*	F*	T*	C*	OA*
Initial	Control	4.8±0.4	4.9±0.3	4.9±0.3	5±0	4.8±0.6
	Experimental	4.7± 0.5	4.5± 0.5	4.8 ± 0.4	5±0	4.6 ± 0.4
15 Days	Control	4.8±0.5	4.9±0.3	4.9±0.5	5±0	4.8±0.4
	Experimental	4.7± 0.5	4.4± 0.5	4.8 ± 0.4	5±0	4.6 ± 0.4
30 Days	Control	4.6±0.4	4.6±0.2	4.7±0.3	4.5±0.5	4.5±0.3
	Experimental	4.4±0.6	4±0.5	4.4±0.6	4.6±0.5	4±0.6
45 Days	Control	4.4±0.5	4.5±0.5	4.5±0.4	4.2±0.7	4.5±0.5
	Experimental	4.2±0.6	3.7±0.6	3.8±0.7	4±0.6	3.8±0.6
60 Days	Control	4.2±0.9	3.9±0.9	4.2±0.8	4.1±0.1	4.2±0.8
	Experimental	3.5±0.5	3.4±0.6	3.4±0.5	3.3±0.6	3.2±0.6
75 Days	Control	3.9±0.5	3.7±0.6	3.8±0.6	3.7±0.6	3.9±0.3
	Experimental	3.4±0.3	3.3 ±0.6	3.3±0.5	2.7 ±0.4	3.1±0.3
90 Days	Control	3.7±0.6	3.6±0.6	3.5±0.5	3.5±0.5	3.8±0.6
	Experimental	2.9±0.4	2.7 ±0.4	3±0.6	2.5 ±0.5	2.6 ±0.4

A* - Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

The above table reveals that in the initial stage all the sensory attributes of both control and experimental squashes received higher order of preference. On 15th day no change was noticed in the sensory attributes of control squash except overall acceptability and in the experimental squash slight reduction in flavour (4.4±0.5) was noticed. From day 15 both control and experimental squashes showed changes in the mean of all the sensory attributes. Overall acceptability of the control squash on 90th day was 3.8±0.6 as against the initial score 4.8±0.6. Experimental squash received lowest mean for all the sensory attributes in comparison with control squash. The overall acceptability of the experimental squash was 4.6±0.4 initially which was reduced to 2.6±0.4 during the end of the storage period. In the room temperature squashes received very low preference for all the sensory attributes at the end of the study period.

MEAN SENSORY ATTRIBUTES OF PINEAPPLE SQUASH STORED AT REFRIGERATION TEMPERATURE

The mean sensory attributes of Pineapple squash stored at refrigeration temperature is presented in Table – VI.

TABLE-VI

Storage Period	Group	SENSORY ATTRIBUTES				
		A*	F*	T*	C*	OA*
Initial	Control	4.8±0.4	4.9±0.3	4.9±0.3	5±0	4.8±0.6
	Experimental	4.7± 0.5	4.5± 0.5	4.8 ± 0.4	5±0	4.6 ± 0.4
15 Days	Control	4.8±0.4	4.9±0.3	4.9±0.3	5±0	4.8±0.6
	Experimental	4.7± 0.5	4.5± 0.5	4.8 ± 0.4	5±0	4.6 ± 0.4
30 Days	Control	4.7±0.3	4.6±0.3	4.8±0.3	5±0	4.6±0.6
	Experimental	4.5±0.4	4.3±0.5	4.7±0.6	4.8±0.7	4.5±0.3
45 Days	Control	4.6±0.7	4.5±0.6	4.7±0.4	4.8±0.8	4.5±0.4
	Experimental	4.3±0.9	4.1±0.7	4.6±0.6	4.6±0.9	4.4±0.8
60 Days	Control	4.5±0.5	4.5±0.5	4.7±0.4	4.7±0.8	4.4±0.7
	Experimental	4.2±0.5	4±0.3	4.5±0.5	4.3±0.8	4.2±0.7
75 Days	Control	4.5±0.5	4.5±0.5	4.7±0.5	4.6±0.5	4.3±0.5
	Experimental	4.1±0.7	3.9±0.7	4.4±0.5	4.2±0.6	4±0.5
90 Days	Control	4.4±0.8	4.4±0.5	4.5±0.7	4.6±0.5	4.2±0.9
	Experimental	3.8±0.5	3.9±0.5	4.2±0.6	3.9±0.4	3.8±0.6

A* - Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

From the above table, it was observed that in the initial stage the preference of all the sensory attributes like Appearance, Flavour, Taste, Consistency and Overall Acceptability of the experimental squash is less when compared to control squash. During 15th day, both in control and experimental squash the mean score of all the sensory attributes remains same. On 90th day the mean scores of all the sensory attributes of the control squash decreased. In experimental the same was noticed but the preference for taste remains high when

compared to other sensory attributes. Initially the mean score for the taste of experimental squash was 4.8 ± 0.4 and was decreased to 4.2±0.6 during the end of the study period.

MEAN SENSORY ATTRIBUTES OF PAPAYA SQUASH STORED AT ROOM TEMPERATURE

The mean sensory attributes of Papaya squash stored at room temperature is presented in Table –VII

TABLE-VII

Storage Period	Group	SENSORY ATTRIBUTES				
		A*	F*	T*	C*	OA*
Initial	Control	4.6±0.5	4.5±0.7	4.8±0.4	5±0	4.5±0.5
	Experimental	4.5±0.8	4.2±0.8	4.8±0.4	5±0	4.4±0.7
15 Days	Control	4.6±0.5	4.5±0.7	4.8±0.4	4.5±0.7	4.5±0.5
	Experimental	4.5±0.8	4±0.5	4.5±0.7	4.5±0.5	4.2±0.5
30 Days	Control	4.3±0.5	4.4±0.7	4.4±0.4	4.2±0.7	4.3±0.6
	Experimental	4±0.8	4±0.8	4.2±0.4	4±0.5	4±0.5
45 Days	Control	4.2±0.5	4±0.7	4.3±0.4	4±0.5	4.1±0.5
	Experimental	4±0.8	3.7±0.5	4±0.4	3.6±0.6	3.8±0.6
60 Days	Control	4±0.5	3.6±0.7	4±0.4	3.4±0.6	3.8±0.6
	Experimental	3.7±0.8	3.5±0.8	3.8±0.4	3±0.5	3.5±0.5
75 Days	Control	3.9±0.5	3±0.7	4±0.4	2.9±0.3	3.5±0.5
	Experimental	3.5±0.8	2.8±0.5	3.2±0.4	2.6±0.5	3±0.5
90 Days	Control	3.5±0.5	2.6±0.7	3.4±0.4	2.4±0.5	3.1±0.3
	Experimental	3.2±0.8	2.2±0.8	2.7±0.4	2.1±0.7	2.6±0.5

A* - Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

The above table reveals that, both control and experimental squashes receives highest mean score for consistency (5±0) initially. On 15th day in control squash the mean of all sensory attributes remains same except consistency (4.5±0.7). In experimental squash only the appearance remains same (4.5±0.8) other sensory attributes gets decreased (Flavour - 4±0.5, Taste - 4.5±0.7, Consistency - 4.5±0.5 and Overall acceptability - 4.2±0.50) as against the initial mean score (Appearance - 4.5±0.8, Flavour - 4.2±0.8, Taste - 4.8±0.4, Consistency - 5±0 and Overall Acceptability - 4.4±0.7). On 90th day the mean score for consistency of control and experimental squashes were 2.4±0.5 and 2.1±0.7 respectively. Overall acceptability was 3.1±0.3 for control and 2.6±0.5 for experimental as against the initial score of 4.5±0.5 and 4.4±0.7 respectively. On the whole both control and experimental squashes received very less mean score for all the sensory attributes ranking from consistency, flavour, overall acceptability, taste and appearance. Storage at room temperature might be the primary cause for this effect.

MEAN SENSORY ATTRIBUTES OF PAPAYA SQUASH STORED AT REFRIGERATION TEMPERATURE

The mean sensory attributes of Papaya squash stored at refrigeration temperature is presented in Table –VIII.

TABLE-VIII

Storage Period	Group	SENSORY ATTRIBUTES				
		A*	F*	T*	C*	OA*
Initial	Control	4.6±0.5	4.5±0.7	4.8±0.4	5±0	4.5±0.5
	Experimental	4.5±0.8	4.2±0.8	4.8±0.4	5±0	4.4±0.7
15 Days	Control	4.6±0.5	4.5±0.7	4.8±0.4	5±0	4.5±0.5
	Experimental	4.5±0.8	4±0.5	4.6±0.7	5±0	4.2±0.5
30 Days	Control	4.5±0.5	4.5±0.3	4.6±0.4	5±0	4.5±0.5
	Experimental	4.4±0.5	4±0.83	4.5±0.5	4.6±0.7	4±0.4
45 Days	Control	4.5±0.5	4.5±0.7	4.5±0.6	5±0	4.5±0.7
	Experimental	4.2±0.5	3.9±0.7	4.5±0.5	4.4±0.5	3.9±0.6
60 Days	Control	4.3±0.5	4.3±0.8	4.5±0.5	4.6±0.6	4.2±0.7
	Experimental	4±0.6	3.5±0.7	4.4±0.5	4.2±0.6	3.8±0.9
75 Days	Control	4.2±0.8	4.2±0.6	4.5±0.5	4.5±0.5	4±0.5
	Experimental	4±0.5	3.3±0.5	4.2±0.5	4±0.6	3.6±0.6
90 Days	Control	4±0.6	4±0.8	4.4±0.5	4.5±0.6	4±0.7
	Experimental	3.6±0.7	3.1±0.3	4±0.6	3.8±0.5	3.5±0.6

A* - Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

In control squash no change in the mean scores was noticed on 15th day in comparison with initial mean scores. In experimental squash only appearance (4.5±0.8) and consitency (5±0) remains stable. On 75th day the sensory attributes mean score of the experimental squash is more or less equal to control squash but the preference for experimental squash is goes on decreasing as days passes. On 90th day overall acceptability of control squash was 4±0.7 which was 4.5±0.5 initially. In experimental squash the overall acceptability was 3.5±0.6 which was 4.4±0.7 initially.

COMPARISON OF THE SENSORY ATTRIBUTES OF PINEAPPLE SQUASH STORED AT ROOM AND REFRIGERATED TEMPERATURE (EXPERIMENTAL)

The comparison of the sensory attributes of pineapple squash stored at room and refrigerated temperature (Experimental) is presented in Table – IX.

Table - IX

Storage Days	Criteria	SENSORY ATTRIBUTES					
		A*	F*	T*	C*	OA*	t' test
Initial	RT*	4.7±0.5	4.5±0.5	4.8±0.4	5±0	4.6±0.4	-

A* -		**RT****	4.7±0.5	4.5±0.5	4.8±0.4	5±0	4.6±0.4	
	15 days	**RT***	4.7±0.5	4.4±0.5	4.8±0.4	5±0	4.6±0.4	**0.006^{NS}**
		RT**	4.7±0.5	4.5±0.5	4.8±0.4	5±0	4.6±0.4	
	30 days	**RT***	4.4±0.6	4±0.5	4.4±0.6	4.6±0.5	4±0.6	**0.09^{NS}**
		RT**	4.5±0.4	4.3±0.5	4.7±0.6	4.8±0.7	4.5±0.3	
	45 days	**RT***	4.2±0.6	3.7±0.6	3.8±0.7	4±0.6	3.8±0.6	**0.170^{NS}**
		RT**	4.3±0.9	4.1±0.7	4.6±0.6	4.6±0.9	4.4±0.8	
	60 days	**RT***	3.5±0.5	3.4±0.6	3.4±0.5	3.3±0.6	3.2±0.6	**0.325^{NS}**
		RT**	4.2±0.5	4±0.3	4.5±0.5	4.3±0.8	4.2±0.7	
	75 days	**RT***	3.4±0.3	3.3±0.6	3.3±0.5	2.7 ±0.4	3.1±0.3	**0.370^{NS}**
		RT**	4.1±0.7	3.9±0.7	4.4±0.5	4.2±0.6	4±0.5	
	90 days	**RT***	2.9±0.4	2.7±0.4	3±0.6	2.5 ±0.5	2.6 ±0.4	**0.493^{NS}**
		RT**	3.8±0.5	3.9±0.5	4.2±0.6	3.9±0.4	3.8±0.6	

Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

RT* - Room Temperature t_e=1.734, 5%level ^{NS} – Not significant

RT** - Refrigerated Temperature

The experimental pineapple squash which is stored at room temperature reveals a drastic reduction in the mean scores af all the sensory attributes on the 90th day when compared to refrigerated temperature. Even though the reduction was noticed for all the attributes on 90th day the mean score for taste of room stored squash ranked first (3±0.6) in comparison with other attributes Appearance (2.9±0.4), Flavour (2.7±0.4), Consistency (2.5 ±0.5) and Overall Acceptability 2.6 ±0.4). The same was noticed in refrigerated squash (Appearance - 3.8±0.5, Flavour - 3.9±0.5, Taste - 4.2±0.6, Consistency - 3.9±0.4, and Overall Acceptability - 3.8±0.6). The decrease in the sensory mean scores of room stored squash in comparison with refrigerated squash was not statistically significant **(t = 0.493).** Benward and Benward (2000) reported that healthy baby infant formula beverage and healthy baby toddler formula beverage can be prepared from cow's milk, refined sugar along with aloe vera juice and water.

COMPARISON OF THE SENSORY ATTRIBUTES OF PAPAYA SQUASH STORED AT ROOM AND REFRIGERATED TEMPERATURE (EXPERIMENTAL)

The comparison of the sensory attributes of papaya squash stored at room and refrigerated temperature (Experimental) is presented in Table – X.

Table - X

Storage Days	Criteria	SENSORY ATTRIBUTES					
		A*	**F***	**T***	**C***	**OA***	**'t' test**
Initial	**RT***	4.6±0.5	4.5±0.7	4.8±0.4	5±0	4.5±0.5	**-**
	RT**	4.6±0.5	4.5±0.7	4.8±0.4	5±0	4.5±0.5	
15 days	**RT***	4.6±0.5	4.5±0.7	4.8±0.4	4.5±0.7	4.5±0.5	**0.030^{NS}**

A* -		RT**	4.6±0.5	4.5±0.7	4.8±0.4	5±0	4.5±0.5	
	30 days	RT*	4.3±0.5	4.4±0.7	4.4±0.4	4.2±0.7	4.3±0.6	**0.094^{NS}**
		RT**	4.5±0.5	4.5±0.3	4.6±0.4	5±0	4.5±0.5	
	45 days	RT*	4.2±0.5	4±0.7	4.3±0.4	4±0.5	4.1±0.5	**0.155^{NS}**
		RT**	4.5±0.5	4.5±0.7	4.5±0.6	5±0	4.5±0.7	
	60 days	RT*	4±0.5	3.6±0.7	4±0.4	3.4±0.6	3.8±0.6	**0.215^{NS}**
		RT**	4.3±0.5	4.3±0.8	4.5±0.5	4.6±0.6	4.2±0.7	
	75 days	RT*	3.9±0.5	3±0.7	4±0.4	2.9±0.3	3.5±0.5	**0.298^{NS}**
		RT**	4.2±0.8	4.2±0.6	4.5±0.5	4.5±0.5	4±0.5	
	90 days	RT*	3.5±0.5	2.6±0.7	3.4±0.4	2.4±0.5	3.1±0.3	**0.459^{NS}**
		RT**	4±0.6	4±0.8	4.4±0.5	4.5±0.6	4±0.7	

Appearance, F* - Flvour, T* - Taste, C* - Consistency, OA* - Overall acceptability

RT* - Room Temperature t_e=1.734, 5%level ^{NS} – Not significant

RT** - Refrigerated Temperature

The above table shows that both in room and refrigerated stored squashes reduction in the mean scores of all the sensory attributes was noticed. To conclude, squashes stored at refrigerated temperature received highest mean score for all the sensory attributes in comparison with room stored squashes. Even in room storage control squash was acceptable both in papaya and pineapple fruit but in experimental squash fruit flavor was concealed by aloe flavour during the end of the study period.

CONCLUSION

As the proverb goes “Health is Wealth”. A healthy life always goes hand in hand with healthy eating. Thus healthy eating refers to the consumption of balance diet. It includes intake of fresh vegetables and fruits in various forms. Hence this study was carried out to find the acceptability of the aloe based fruit squashes, which were stored at room and refrigeration temperature. On the whole refrigerated experimental pineapple squash was found to be the best as it received higher order preference for sensory acceptability till the end of the storage period.

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