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Influence of pre-treatments on nutritional qualities of tray-dried fig (*Ficus carica*) cultivars Bellary and Poona

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Abstract
The present investigation deals with the nutritional quality of dried fruits of fig (*Ficus carica* L) cultivars Bellary and Poona. The nutritional profiling of the dried fig fruits indicates that it is a good source of protein, sugars and dietary fiber with a fair low amount of fat. Among pre-treatments, fig fruits dipped in 50º Brix of honey for 12 hours has found maximum TSS (64.71º Brix), dry-recovery (29.14%), ascorbic acid (1.99 mg/100g), reducing sugar (48.48 %), crude protein (4.73 %), crude fibre (3.64%) and fat (1.08%) indicating nutritional richness of the dried product. Non-reducing sugar found highest in fruits dipped in 50º Brix of sucrose for 24 hours (9.82 %); titratable acidity was maximum in fig fruits dipped in 50º Brix of date syrup for 12 hours (0.14%). Fig fruits dipped in 50º Brix of invert sugar (50% glucose+50% fructose) for 24 hours shown maximum total sugar (55.00%) content and minimum titratable acidity (0.08 mg /100 g) with low moisture (17.35 %) content.

Keywords: dried fig, nutritional quality, dry recovery, *Ficus carica* L

Introduction
Fig fruits popularly known as “Anjeer” in India, a delicious fruit developed from a breed of Umbar. The common fig (*Ficus carica* L.) belongs to the family of Moraceae to which Umbar, Banyan, Peepul, Jack fruit and Mulberry belongs to. Fig fruit is one of the ancient fruits known to mankind in the world. Its mention has been made very early during 2900 B. C. by King Urukagina for its medicinal use. The name ‘fig’ originates from a Latin word called ‘ficus’ and an older Hebrew name called ‘feg.’ Figs are originated from southern parts of Arabian Peninsula and taken to America in the 1500s. Fig even mentioned in the Bible as a sign of peace and prosperity (Ganapat and Kulkarni, 2011) [15].

The area under fig is increasing rapidly due to its wide range of adaptability, low cost of production and high economic returns. However, post- harvest losses of fresh fig fruits are a major concern, as fruits are very delicate and hence easily damaged during harvesting, handling, and transportation. Further, as fruits have a very thin and delicate skin, the post-harvest physiological losses are higher. Hence, nearly 30 per cent of the crop is lost due to improper handling, transportation and storage condition (Madan and Ullasa, 1993) [9]. Though quality dried fig can obtained only by using fruits with high TSS, most of the varieties grown in India have a lower TSS in the range of 15 to 18ºBrix and are not suitable for getting a quality-dried fig. However, there is need to utilise the excess production during the peak season for processing in to dehydrated products from the varieties already being grown. This has necessitated develop new technologies to get a quality-dried fig by imposing pre-treatments. Developing an appropriate technology for drying of figs with longer shelf life has become imperative and therefore, an attempt has made in the present investigation to study the influence of pre-treatments on nutritional qualities of dried fruits of fig cultivars Bellary and Poona and their suitability for dehydration.

Material and Methods
The present investigation was carried out in the Department of Horticulture, College of Agriculture, Vijayapura, University of Agricultural Sciences, Dharwad, Karnataka during the year 2016-2017. The material used were fruits of fig cultivars Poona and Bellary, tray - dryer and chemicals for conducting experiment. The method employed for drying fig was tray - drying.

Procurement of fruits
Fruits of fig cultivar Poona were procured from Indian Institute of Horticulture Research (IIHR), Bengaluru and cultivar Bellary were brought from farmers field at Serigeri village, Bellary District, Karnataka. Fig fruits of uniform size, shape and maturity were selected and carefully packed in corrugated fibre boxes (CFB) having provision for ventilation with paper straw as cushioning material, brought for conducting experiment.

Fruits preparation for drying
Fig fruits of cv. Poona and Bellary having uniform colour, size and shape were selected and the diseased, bruised, immature, small sized and damaged ones discarded. Stalk of the fruits cut with knife and washed in clean potable water to remove dust and residues of chemicals present on the fruit skin.

Blanching
Before drying, blanching of fruits done to inactivate the enzyme and prevent microbial contamination in subsequent operations. The cleaned fruits were subjected to hot water treatment at 90º C for 4 minute, then cooled to room temperature and dipped in 0.2 per cent potassium metabisulphite (KMS) solution for 5 minute followed by 0.25 per cent citric acid for 4 minute (Fig 1) and then drained (Rajendra, 2005) [16] to keep the fruits ready for pre-treatments.

Pre-treatments
After blanching and treatment with chemical preservative and antioxidant, Poona and Bellary figs (2 kg each) pre-treated (dipped) with sucrose, honey, date and invert sugar syrup at 50 ^{0} Brix for different duration (Fig 2 & 3) to study the influence of pre-treatments on quality of dried figs. The statistical design adopted in the experiment was factorial completely randomised design (FCRD) with three replications.

Drying (Tray-drying)
For drying, pre-treated figs spread uniformly on the trays in a single layer. The loaded trays placed in a tray-dryer and then dehydrated. During the process of drying, the temperature 55±4º C maintained and dried for 46–52 hours to the moisture level of 20 %, as per the protocol given by Thonta and Patil (1988). Partially dried fruits, when about 50-60 % moisture removed, taken out and pressed carefully (Fig 4). After drying, the samples packed in poly pouch and kept hermetically sealed under ambient conditions.

Chemical analysis of dried figs
After tray-drying, dried figs were analysed for dry recovery, moisture, total soluble solids, titratable acidity, sugars (total, reducing, non-reducing), crude protein, fat and crude fibre content, following standard analytical procedures.
The moisture content of dried fruits was determined using Ohaus halogen moisture analyser and expressed in percentage. The total soluble solids (TSS) measured by using a hand refractometer and expressed in terms of ºBrix. The pulp of dried fig fruits were prepared by grinding in mixer and homogenised with the help of pestle and mortar. Ten grams of well mixed pulp sample was taken in 250 ml of volumetric flask to which 25 ml of distilled water was added. Thus prepared sample was titrated against 0.1 NaOH using phenolphthalein as an indicator (AOAC, 1990) [4]. The ascorbic acid content of dried fig fruits was estimated titrimetrically using 2, 6-dichlorophenol indophenol dye as per the modified procedure of AOAC (1990) [4] and expressed as mg /100 g of fruit. The reducing sugar from the powdered fig fruits extracted with 80 per cent alcohol using a centrifuge at 4000 rpm and the alcohol free extract was used for estimation of sugar as per the Dinitro-salicylic acid method (Miller, 1972) and the values expressed in percentage on dry weight basis. The total sugar present in dried fruits was estimated by the Dinitro-salicylic acid method (Miller, 1972) as in the case of reducing sugar after the inversion of non-reducing sugar using dilute hydrochloric acid (Anon., 1984) and the values obtained expressed as percentage on dry weight basis. The percentage of non-reducing sugar was estimated by subtracting the values of reducing sugar from total sugar. Crude protein content of dried figs was estimated by Micro kjeldhal digestion method given by the procedure of AOAC (1990) [4]. Crude fibre and fat content of dried figs was determined using the procedure developed by AOAC (1990) [4]. The ratio of fresh and dry weight of fig fruits obtained from each treatment noted down and the per cent recovery of dried fruit was calculated.

Statistical analysis
The data on physico-chemical parameters characters recorded in the experiment subjected to factorial completely randomised design (FCRD). Interpretation of data carried in accordance with Panse and Sukhatme (1985) [14]. The level of significance used in 'F' test and 'T' test was p = 0.05 (at 5 %). A critical difference (CD) was determined whenever 'F' test was significant.

Results and Discussion
Moisture
Among the pre-treatments, more loss of moisture recorded in invert sugar pre - treated (17.35 %) figs for 24 hours. Less loss of moisture was recorded in untreated (control) samples (18.76 %) followed by honey pre – treated figs for 12 hours. The higher final moisture content in case of control could be attributed to higher initial moisture level. However, there was no significant effect among cultivars, though, highest moisture content recorded in cv. Bellary (18.17). Significant effects were recorded due to interaction effect and maximum moisture content retained in untreated samples (18.88 %) of Poona fig and minimum retention was in Poona figs pre-treated with invert sugar (17.12 %) for 24 hours. This may be due to more penetration of invert sugar solution to the product during drying results in evaporation of moisture from the product and higher dissolution of solution from the fruit. Similar results were obtained by Vaghani and Chundawat (1986) [23] in sugar syrup pre-treated figs and Naikwadi *et al*, (2010) [13] in steam treated Deanna fig fruits.

Total soluble solids
The differences in TSS due to pre – treatment of fig cultivars Bellary and Poona were significant. The highest total soluble solids (TSS) observed in honey (64.71º Brix) pre - treated figs for 12 hours and low TSS observed in untreated samples (40.25º Brix). More TSS content observed in cv. Bellary (60.62ºBrix) than in cv. Poona (57.89º Brix) and this might be due to mass and heat transfer depends on the variety that varies in their biochemical composition (Ravi *et al*., 2013) [18]. Interaction effect due to cultivars and pre – treatments were non – significant, though highest TSS content observed in sucrose (65.60) pre – treated Bellary fig for 24 hours. This

may be due to the high osmotic pressure of honey that will increase intake of solution to the product during drying that will enhance the TSS content of dried fig. Bawa and Gujaral (2000) [5] have also made similar observations in honey pre-treated grapes.

Dry recovery

It was obvious from the data that the recovery of dried fig fruits found maximum in honey (29.14 %) pre - treated figs for 12 hours and minimum recovery was observed in control samples (22.55 %) irrespective of cultivars. Fig cultivar Bellary had maximum recovery (27.23 %) compared to Poona (25.86 %). This might be due to mass and heat transfer depends on the variety, which varies in their biochemical composition (Ravi *et al*., 2013) [18]. Interaction effect among cultivars and pre – treatments found non-significant and maximum dry recovery recorded in Bellary fig dipped in honey (29.54%) for 12 hours and minimum of it in untreated Poona fig (21.28 %). This may be due to as mentioned earlier, effect of high osmotic pressure of honey will enhance intake of solution to the product during drying that will increases the recovery of dried figs. These results are supported by Sultan *et al.* (2015) [20] in dried banana slices prepared by steeping, sulphating and pre-treated with honey.

Titratable acidity

Pre-treatments had significant effect on titratable acidity. Highest values for titratable acidity estimated in date syrup (0.14 %) pre - treated figs for 12 hours followed by honey (0.13 %) pre - treated figs for 12 hours. This may be due to presence of high acidity in raw date syrup. This will leads to increase acidity of dried fig fruits. Whereas, minimum titratable acidity were recorded in invert sugar (0.08 %) pre – treated figs for 24 hours followed by sucrose pre - treated figs for 24 hours. The interaction effect due to pre-treatments and cultivars was non-significant; however, maximum acid content recorded in Poona fig dipped date syrup (0.15 %) for 12 hours and minimum titratable acidity of dried figs recorded in Bellary fig dipped in invert sugar (0.07 %) for 24 hours. This may due to acids present in fruit lost with the outflow of water under osmotic pressure (Afrin *et al*., 2016) [2]. Significant changes in titratable acidity obtained among cultivars. The maximum titratable acidity was observed in cv. Poona (0.13%) compared to cv. Bellary (0.10%). This may attributed to high titratable acidity in fresh Poona fig. Similar results obtained by Gawade *et al.* (2004) [6] in Poona fig and by Mhalaskar *et al.* (2012) [12] in fig toffee, Naikwadi *et al.* (2010) [13] in Deanna fig and Manal and Gend (2014) in osmotic dried fig.

Ascorbic acid (mg/100g)

Maximum ascorbic acid retention recorded in cv. Bellary (1.74 mg/100g) than in cv. Poona (1.64 mg/100g). However, there was no significant effect among pre - treatments as a result of ascorbic acid content remained more or less same. Though, maximum ascorbic acid retention was registered in honey pre – treated figs for 12 hours and minimum in untreated figs. Interaction effect also found non – significant; maximum ascorbic acid content recorded in Bellary fig pre - treated with honey (2.09 mg/100g) for 12 hours, while minimum ascorbic acid content in untreated Poona fig (0.96 mg/100g). This may attributed to the native ascorbic acid contents in figs, the type of osmotic solutions used and the immersing time in osmotic solution. This result was is in line with that reported by Zinash *et al.* (2015) [24] in honey dipped banana slices, Surabhi and Devina (2013) [21] in honey-lemon RTS, Sultan *et al*. (2015) [20] in dried banana slices dipped in honey, Indudhara (2003) [7] and Abhay (2004) [1] in case of dried fig but with sugar syrup.

Sugars

Pre - treatments had significant effect on reducing sugar content. Honey pre - treated figs (48.48 %) for 12 hours registered significantly higher reducing sugar content over other treatments and least of it observed in untreated (41.68%) samples. The reducing sugar content of dried figs was also differed significantly for cultivars. Highest reducing sugar content recorded in cv. Bellary (47.07 %) than in cv. Poona (45.16 %). The interaction effect between pre - treatments and cultivars on the other side found non-significant, however, the highest values of reducing sugar found in Bellary fig dipped honey (49.65 %) for 12 hours, and the lowest reducing sugar content observed in untreated Poona fig (40.27%). This may be due to inversion of sucrose to glucose and fructose by the acids of honey. These results are supported from the results reported by Sultan *et al.* (2015) [20] and Zinash *et al.* (2015) [24] in case of banana and Surabhi and Devina (2013) [21] in honey-lemon RTS.

Non-reducing sugar of dried fig found significantly highest when pre - treated with sucrose (9.82 %) for 24 hours and it was minimum in untreated figs (4.57 %). Interaction effect found non-significant, though highest non – reducing sugar content found in Bellary fig dipped in sucrose (10.22 %) for 24 hours. Whereas, minimum values for non-reducing sugar content recorded in untreated Poona fig (4.50%). Parallel observations made by Thonta and Patil (1988) in sugar pre-treated figs, and Naikwadi *et al.* (2010) [13] and Rajneesh (2012) [17] in sucrose-dipped figs.

Total sugar content of dried figs found affected by pre – treatments imposed before drying. Significantly, highest value for total sugar recorded in invert sugar (55.00 %) pre - treated figs for 24 hours and lower value recorded in untreated figs (46.25 %).The effect of interaction between pre - treatments (T) and cultivars (C) was also significant. Highest total sugar content of 55.23 per cent registered in Bellary fig dipped in invert sugar for 24 hours and least total sugar content of 44.78 per cent found in untreated Poona fig. This may be due to hydrolysis of complex sugars to sucrose and monosaccharides. Similar findings are reported by Sultan *et al.* (2015) [20] in case of dried banana slices and Surabhi and Devina (2013) [21] in case of honey lemon RTS. The maximum total sugars recorded in the cv. Bellary (53.14%) than the cv. Poona (51.86 %). This was due to combined effect of varietal sugar composition and osmotic dehydration process leading to absorption of sugar. Similar findings also recorded in osmotically dehydrated products of banana cultivars (Ravi *et al*., 2013) [18].

Crude protein

Among the various pre-treatments tried, the crude protein content of the dried figs pre - treated with honey (4.73 %) for 12 hours had highest and minimum value for crude protein content recorded in untreated sample (4.08 %). However, protein content among cultivars found to be non-significant, as a result of protein content remaining more or less same. Though, highest protein content fond in cv. Bellary (4.54) compared to cv. Poona. The interaction effect due to cultivars and pre-treatments also found non-significant. However, highest values for crude protein content was recorded in Bellary fig dipped in honey (4.71 %) for 12 hours and lowest

value for crude protein was recorded in untreated Bellary fig (3.96 %). This may be due to the high osmotic pressure of honey that will increase the intake of solution to fruit. In addition, fresh honey had small amount of protein content that will influences the increase in crude protein content in dried figs. These values were in close agreement with the findings of Pawar *et al*. (1992) [15] and Mali (1997) [10] in dehydrated fig and Sultan *et al.* (2015) [20] in dried banana slices.

Crude fibre

Crude fibre content of dried figs found to be significant to the effect of pre – treatments followed and due to the cultivars. Maximum crude fibre content recorded in honey pre - treated figs (3.64 %) for 12 hours and minimum crude fibre recorded in untreated (3.00 %) figs. Cultivar Bellary had highest crude fibre content (3.37 %) than the cultivar Poona (3.21 %). However, no significant interaction effects observed between cultivars and pre - treatments. Interaction effect resulted in highest value for crude fibre content in Bellary figs dipped in honey (3.71 %) for 12 hours and lowest value for crude fibre recorded in untreated Poona fig (2.93. This might be due to the high osmotic pressure of honey that will increase the intake of solution to fruit and fresh honey had small amount of fibre content that will influences the increase in crude fibre content in dried fig. The observation analogous to fibre content reported by Pawar *et al*. (1992) [13] and Sowjanya and Rao (2004) [19] in dried fig.

Fat

Among the pre – treatments employed highest fat content (1.08) observed in Honey pre - treated figs followed by date syrup (1.00) pre – treated figs for 12 hours and lower amount was observed in untreated samples (0.81). Among two-fig cultivar, cultivar Bellary recorded highest fat content (1.00 %) compared to cv. Poona (0.91 %). Interaction effect between pre – treatments and cultivars found to be non-significant; maximum fat content registered in Bellary fig dipped in honey (1.04 %) for 12 hours and minimum fat content recorded in untreated Poona fig (0.76). This might be due to native fat content of honey (before dehydration) and hygroscopic nature of honey that will retain more fat content in dried fig fruits. These results supported by the outcome of khapre *et al*. (2012) [18] in case of fig powder.

Table 1: Effect of pre-treatments and cultivars on moisture content, total soluble and recovery of dried fig fruits

M	Moisture content (%)	Total soluble solids (^{O} Brix)	Dry Recovery (%)
T_1	18.76	40.25	22.55
T_2	17.86	63.35	25.86
T_3	18.46	64.71	29.14
T_4	18.16	63.80	28.05
T_5	17.35	64.16	27.12
Mean	18.11	59.26	26.54
S. Em.±	0.13	0.79	0.18
CD at 5 %	0.41	2.36	0.58
F_2 - Cultivars			
C_1	18.04	57.89	25.86
C_2	18.17	60.62	27.23
Mean	18.11	59.26	26.55
S. Em.±	0.08	0.50	0.29
CD at 5 %	NS	1.49	0.91
Treatments interaction			
T_1C_1	18.88	38.10	21.28
T_1C_2	18.64	42.40	23.81
T_2C_1	17.57	62.36	25.47
T_2C_2	18.14	65.60	26.25
T_3C_1	18.51	63.80	26.55
T_3C_2	18.40	65.20	29.54
T_4C_1	18.14	62.03	28.96
T_4C_2	18.10	64.33	29.31
T_5C_1	17.12	63.10	27.01
T_5C_2	17.57	65.56	27.23
Mean	18.11	59.25	26.54
S. Em.±	0.18	1.10	0.42
CD at 5 %	0.58	NS	1.29

Note: NS - Non significant
T_1- Control (Untreated)
T_2- fruits dipped in 50^{o} Brix of Sucrose for 24 hours
T_3- fruits dipped in 50^{o} Brix of Honey for 12 hours
T_4- fruits dipped in 50^{o} Brix of Date syrup for 12 hours
T_5- fruits dipped in 50^{o} Brix of Invert sugar (50% glucose + 50% fructose) for 24 hours
C_1- Poona
C_2- Bellary

Table 2: Effect of pre-treatments and cultivars on titratable acidity and ascorbic acid of dried fig fruits

F_1 – Pre-treatments	Titratable acidity (%)	Ascorbic acid (mg/100g)
T_1	0.12	1.02
T_2	0.09	1.64
T_3	0.13	1.99
T_4	0.14	1.83
T_5	0.08	1.74
Mean	0.11	1.64
S. Em.±	0.006	0.06
CD at 5 %	0.018	NS
F_2 – Cultivars		
C_1	0.13	1.64
C_2	0.10	1.74
Mean	0.11	1.69
S. Em.±	0.003	0.04
CD at 5 %	0.011	0.13
Treatments interaction		
T_1C_1	0.13	0.96
T_1C_2	0.10	1.08
T_2C_1	0.10	1.60
T_2C_2	0.08	1.72
T_3C_1	0.14	1.88
T_3C_2	0.12	2.09
T_4C_1	0.15	1.82

T_4C_2	0.13	1.84
T_5C_1	0.08	1.69
T_5C_2	0.07	1.78
Mean	0.16	1.64
S. Em.±	0.008	0.09
CD at 5 %	NS	NS

Note: NS - Non significant

Table 3: Effect of pre-treatments and cultivars on reducing sugar, non-reducing sugar and total sugar content of dried fig fruits

F_1- Pre treatments	**Reducing sugar (%)**	**Non- reducing sugar (%)**	**Total sugar (%)**
T_1	41.68	4.57	46.25
T_2	44.27	9.82	54.08
T_3	48.48	5.29	53.78
T_4	48.23	5.19	53.42
T_5	47.93	7.05	55.00
Mean	46.11	6.38	52.50
S. Em.±	0.34	0.33	0.24
CD at 5 %	1.04	1.01	0.77
F_2 - Cultivars			
C_1	45.16	6.69	51.86
C_2	47.07	6.07	53.14
Mean	46.11	6.38	52.50
S. Em.±	0.21	0.21	0.15
CD at 5 %	0.65	NS	0.49
Treatments interaction			
T_1C_1	40.27	4.50	44.78
T_1C_2	43.08	4.64	47.72
T_2C_1	44.09	9.41	53.50
T_2C_2	44.44	10.22	54.79
T_3C_1	47.31	6.03	53.35
T_3C_2	49.65	4.55	54.20
T_4C_1	47.12	5.83	52.95
T_4C_2	49.34	4.54	53.89
T_5C_1	47.03	7.70	54.74
T_5C_2	48.83	6.40	55.23
Mean	46.11	6.38	52.51
S. Em.±	0.48	0.47	0.35
CD at 5 %	NS	NS	1.09

Note: NS - Non significant

Table 4: Effect of pre-treatments and cultivars on crude fibre, crude protein and fat content of dried fig fruits

F_1 - Pre-treatments	**Crude fibre (%)**	**Crude protein (%)**	**Fat (%)**
T_1	3.00	4.08	0.81
T_2	3.23	4.49	0.93
T_3	3.64	4.73	1.08
T_4	3.32	4.67	1.00
T_5	3.26	4.42	0.95
Mean	3.29	4.48	0.95
S. Em.±	0.03	0.07	0.02
CD at 5 %	0.10	0.24	0.07
F_2 - Cultivars			
C_1	3.21	4.40	0.91
C_2	3.37	4.54	1.00
Mean	3.29	4.47	0.96
S. Em.±	0.02	0.04	0.01
CD at 5 %	0.06	NS	0.04
Treatments interaction			
T_1C_1	2.93	3.96	0.76
T_1C_2	3.06	4.20	0.85
T_2C_1	3.15	4.48	0.90
T_2C_2	3.30	4.51	0.94
T_3C_1	3.56	4.61	1.02
T_3C_2	3.71	4.71	1.04
T_4C_1	3.23	4.65	0.96
T_4C_2	3.41	4.43	1.03
T_5C_1	3.17	4.33	0.92
T_5C_2	3.34	4.49	0.97
Mean	3.29	4.43	0.97
S. Em.±	0.04	0.11	0.03
CD at 5 %	NS	NS	NS

Note: NS - Non significant

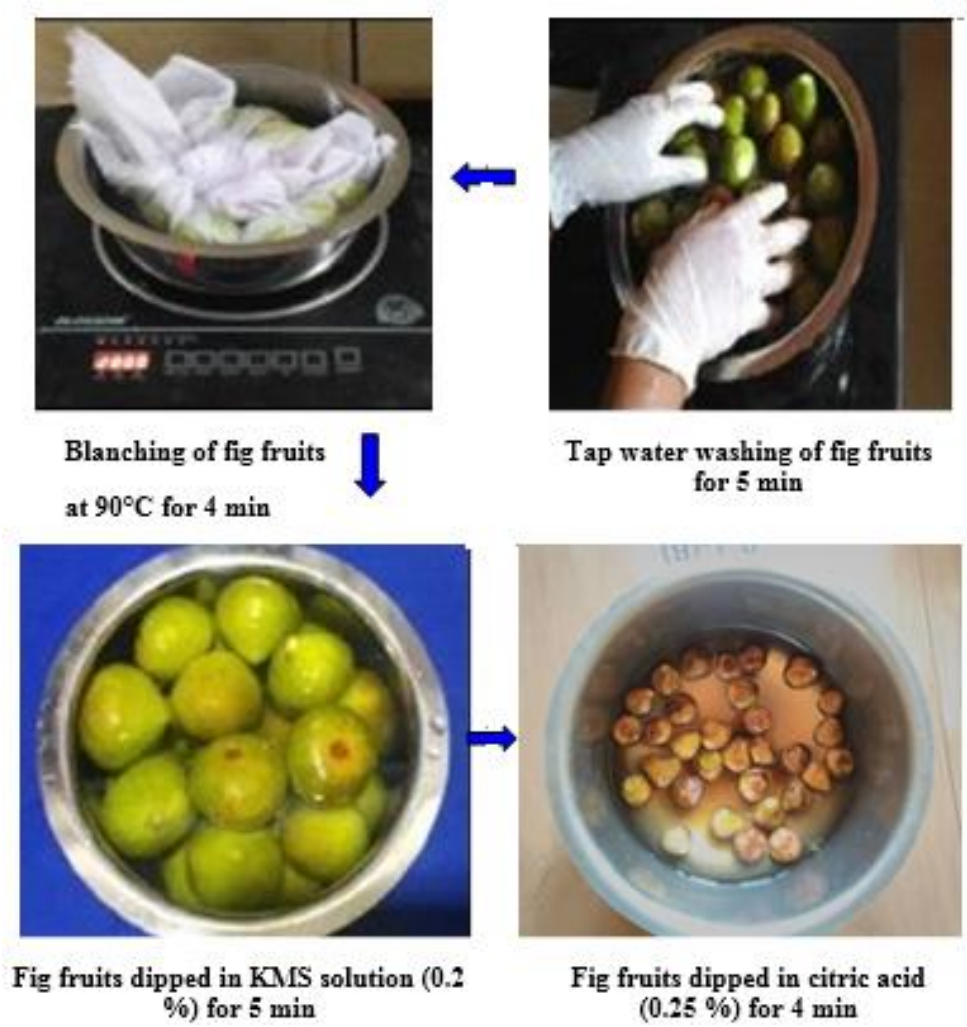

Fig 1: Preparation of fig fruits for dehydration

Untreated (control)

Sucrose (50º Brix) pre-treatment for 24 hours

Honey (50º Brix) pre-treatment for 12 hours

Date syrup (50º Brix) pre- treatment for 12 hours

Invert sugar (50º Brix) pre- treatment for 24 hour

Fig 2: Pre-treatments of Poona fig fruits before dehydration

Untreated (control)

Sucrose (50º Brix) pre Treatment for 24 hours

Honey (50º Brix) pre-treatment for 12 hours

Date syrup (50º Brix) pre Treatment for 12 hours

Invert sugar (50º Brix) pre treatment for 24 hours

Fig 3: Pre-treatments of Bellary fig fruits before dehydration

Fig fruits arranged in tray after pre-treatments

Pressing of fig fruits after 50% of moisture Removal

Trays with fig fruits arranged in an electric tray -dryer

Fig 4: Tray - drying of fig fruits

Conclusion

Fig fruits dipped in 50º Brix of honey for 12 hours has found maximum TSS, dry-recovery, ascorbic acid, reducing sugar, crude protein, crude fibre, fat, indicating nutritional richness of the dried product. On the other hand, non-reducing sugar found highest in fruits dipped in 50º Brix of sucrose for 24 hours: titratable acidity was maximum in fig fruits dipped in 50º Brix of date syrup for 12 hours. However, fig fruits dipped in 50º Brix of invert sugar (50% glucose+50% fructose) for 24 hours shown maximum total sugar content. Bellary dried figs being found higher moisture, TSS, dry recovery, ascorbic acid, total sugar, reducing sugar, crude protein, crude fibre, fat content and lesser titratable acidity and reducing sugar contents, indicates its preference over Poona figs for dehydration.

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