International Journal of Chemical Studies

P-ISSN: 2349–8528
E-ISSN: 2321–4902
IJCS 2019; 7(4): 2874-2875

Received: 28-05-2019
Accepted: 30-06-2019

Waghmare SS
Assistant Professor, College of Agriculture, Badnapur, Jalna, Maharashtra, India

Andhare BC
Assistant Professor, College of Agriculture, Badnapur, Jalna, Maharashtra, India

Supekar SJ
Assistant Professor, College of Agriculture, Badnapur, Jalna, Maharashtra, India

Correspondence
Andhare BC
Assistant Professor, College of Agriculture, Badnapur, Jalna, Maharashtra, India

Cost of production of *Shrikhand* blended with ginger powder

Waghmare SS, Andhare BC and Supekar SJ

Abstract
An attempt was made to improve the nutritional quality of desert *'Shrikhand'* with supplementation of ginger powder. In the present study the *shrikhand* was prepared from buffalo milk using ginger powder at different level viz. 2 per cent (T_1), 4 per cent (T_2), 6 per cent (T_3), 8 per cent (T_4) of *chakka*. This prepared *shrikhand* was compared with control *shrikhand* (T_0) i.e. without ginger powder. The most acceptable quality *shrikhand* can be prepared by using 04 per cent ginger powder followed by normal *shrikhand*. he production cost of most acceptable quality ginger *shrikhand* (T_2) was Rs.153.1 per Kg. The cost of production of developed ginger *shrikhand* is quite higher as compared to normal *shrikhand*.

Keywords: Buffalo milk, ginger powder, *shrikhand*, Cost of production

Introduction
In the recent year trend of cautious towards health, fitness and figure has increased. Energy imbalance between calories expanded and excessive consumption of sugary foods along with more fat, especially saturated fat leads to obesity in Indian population. So the growing health awareness today has increased demand for food product that support better health consumers are demanding greater variety of low fat, sugar free, that is low calorie products as they strive to make healthier food choices. Shelke *et al.* (2014) stated that India has very rich variety of fermented foods prepared from milk, pulses, cereals, vegetables, fruits and fishes, milk and milk products like curd, buttermilk, lassi and *shrikhand* is indispensible dish in a regular diet of Indians. In all these milk based products, the bacterial change is the production of lactic acid from lactose by lactic acid bacteria like lactococci, streptococci and lactobacilli. Fermented milk products constitute a vital component of the human diet in many regions of the world. In the Indian sub-continent such products are also classified as "Indigenous milk products" like *dahi* (curd), *lassi*, *shrikhand* etc. which are prominent in peoples diet. Swapna *et al.* (2013) [4].
The keeping quality of *shrikhand* largely depends upon its initial micro flora like yeast, mould and other microorganisms. Under ambient condition (30^0 c) it trends to spoil within 2-3 days. Under refrigerated condition (5^0 c) it can be kept for 40 days for deterioration. So in order to increase the milk availability during lean periods summer months the *shrikhand* preparation is best under Indian condition. Singh *et al.* (2015). *Shrikhand* is pre-prepared on small scale in a highly unorganized manner, which has great impact on microbiological characteristics of *shrikhand*. The large variation have been reported in the organoleptical, microbiological and chemical qualities of *shrikhand*. Sarkar and Mishra (1997) showed its variation in preparation of production technique. Herbal sweet preparation is a new concept in dairy industry. Herbal such as ginger juice is being used in limited extent as a flavoring agent in tea by household, besides it has medicinal properties against cough, cold etc. and is used extensively in ayurvedic medicine. Ginger flavored *shrikhand* can be considered as herbal *shrikhand* looking to diversified benefits and medicinal value of ginger. It was thought to prepare *shrikhand* by incorporation of ginger powder. Ginger has a several medicinal properties. *Shrikhand* is served as special delicacy during festivals and ceremonial occasions. Consumption of *shrikhand* is reported to be effective in treatment of many diseases like diarrhoea, acidity, gastro-intestinal (Patel and Schequen, 1999).

Material and Methods

Materials

The whole fresh and clean buffalo milk required for present study was collected from Department of Animal Husbandry and Dairy Science, College of Agriculture, Latur. Milk was clarified before use to remove dirt and other extraneous matter. Good quality dried ginger was purchased from the local market. Dahi culture, muslin cloth, sugar, electric mixer, glassware.

Statistical Analysis

For present investigation, CRD i.e. Completely Randomized Design was employed using three replications. The data were tabulated and analyzed according to Snedecor and Cochran (1994).

Cost of production of ginger *shrikhand*

All the ingredients need for preparation of *shrikhand* by using *ginger* powder was rated as per the prevailing market price (2017-18). The cost structure of *shrikhand* by using ginger powder is shown table no.35. All the ingredients were rated according to the prevailing prices in the market (2017-2018).

The cost of production of *shrikhand* prepared by using *ginger* powder under treatment T_0, T_1, T_2, T_3, and T_4 were Rs.140.6, Rs.146.9, Rs153.1, Rs.159.4 and Rs.165.7 per kg respectively. cost of production of one kg *shrikhand* prepared by ginger powder was higher as compared to the cost of production of *ginger shrikhand* from T_0 (Rs.140.6), T_1(146.9) and lower than T_3 (153.1) and T_4 (159.4) from the above cost of production concluded that as the proportion of *ginger* powder level increased the cost of production considerably.

The study indicates that the good quality *shrikhand* prepared by using ginger powder comparatively at higher cost as prepared by the traditional *shrikhand*. It could be possible for common consumer as far as purchasing.

Table 1: Cost of production of *shrikhand* prepared by using ginger powder (Rs/.kg)

S. No.	Particulars	Cost	Treatments									
			T_0		T_1		T_2		T_3		T_4	
		(Rs./kg.)	Qty (gm)	Amt (Rs)	Qty (gm)	Amt. (Rs)	Qt (gm)	Amt (Rs)	Qty (gm)	Amt. (Rs)	Qty (gm)	Amt. (Rs)
1	Milk	45	1000	45	980	44.1	960	43.2	940	42.3	920	41.4
2	*Chakka*	--	350	--	343	--	336	--	329	--	322	--
3	Ginger powder (50 Rs/gm)	30	--	--	07	4.2	14	8.4	21	12.6	28	16.8
4	Culture	--	--	5	--	5	--	5	--	5	--	5
5	Sugar(gm)	40	175	7	175	7	175	7	175	7	175	7
6	Labour charges	--	--	05	--	05	--	05	--	05	--	05
7	Fuel charges	--	--	10	--	10	--	10	--	10	--	10
8	Miscellaneous charges	--	--	2	--	2	--	2	--	2	--	2
9	Cost of *Shrikhand*		525 gm	74	525 gm	77.3	525 gm	80.6	525 gm	83.9	525 gm	87.2
10	Total cost of *Shrikhand* per kg	--	1 Kg	140.6	1 Kg	146.9	1 Kg	153.1	1 Kg	159.4	1 Kg	165.7

Conclusion

From the results of the present investigation, it may be concluded that ginger powder could be successfully utilized for preparation of *shrikhand*. Addition of ginger powder in *shrikhand* improved the sensory quality and acceptability of the product. Besides typical flavor, it also adds medicinal properties to the product. Such flavoring did not appreciably affect the composition of *shrikhand*. The most acceptable quality *shrikhand* can be prepared by using 04 per cent ginger powder. The production cost of most acceptable quality ginger *shrikhand* (T_2) was Rs.153.1 per Kg. The cost of production of developed ginger *shrikhand* is quite higher as compared to normal *shrikhand.* So it is clear from analysis that the cost of production of ginger *shrikhand* is very quite expensive as compared to *shrikhand.* The developed ginger *shrikhand* with health benefits is expected to impart all health benefits of ginger gives equivalent pleasure, taste and mouth feel as that of conventional *shrikhand* to health conscious populations. In the current food regime, where the consumers are ready to pay out extra money for such health beneficial product which posses nutritional quality one product over the current available conventional *shrikhand.*

References

1. Jadhav Sonali. Preparation of ginger (*Zingiber officinale* L.) milk shake M.Sc. Thesis Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli (MS), 2012.
2. Mehrotra R, Singh D, Tiwari A. Physico-chemikal analysis of low calorie high protein shrikhand prepared using stevia leaf powder. Innovare Journal of Food Science. 2014; 2(1):26-28.
3. Patel S, Prasanth S, Choudhary PL, Shau C. Techno-economic feasibility of whey based mango herbal (Ginger) beverage. Indian J. of Dairy Sci. 2007; 60(3):149-155.
4. Swapna G, Chavannavar SV. Shrikhand – value added traditional dairy product. International J. of food and nutritional sciences. 2013; 2(4):2320-7876.
5. Singh R. Characteristics and technology of traditional Indian cultured dairy product. Indian Dairyman. 2006; 58(11):49-56.