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**STUDIES ON INDIGENOUS METHOD
OF KHOA PRODUCTION : EXISTING
TRADE PRACTICE AND IT'S YIELD
IN BEED DISTRICT OF M.S.**



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ABSTRACT

Beed district is major khoa producing district of Marathwad region of Maharashtra. Khoa is produced by traditional method. Daily, on an average 604.25 Kg. khoa is produced in Beed district which is transported to various cities like Poona, Mumbai, Aurangabad, etc. for preparation of sweetmeats. Due to lack of storage facilities, lack of milk collection centers, lack of transportation facilities and less demand of milk in rural area, milk producers convert their milk to khoa which is having demand in Urban area. The study identifies indigenous method of khoa production, existing trade practices, its yield, packaging, storage and marketing in Beed district of Maharashtra state.

Keywords : Khoa production, Traditional method, Yield, Major Khoa producing area, Packaging, Storage, Marketing.

Introduction

Beed district is situated at central part of Marathwada region of Maharashtra state. It lies between 18° 28' to 19° 40' the North latitude and 74° 51' to 76° 7' the West latitude. Geographical area of distribution is 10615 km, The district rank 14th and 4th in Maharashtra state and Marathwada region, respectively, in terms of area. There are total 11 tahsils (talukas) in Beed district, viz. Ambajogai, Ashti, Beed, Dharur, Georai, Kaij, Majalgaon, Parli, Shiroor, Patoda and Wadwani, geographically located in mountain ranges of Balaghat.

About 25% of total khoa produced in Marathwada is produced in Beed district, Dharur, Parli, Ambajogai, Kaij & Wadwani talukas are well known for its production and marketing. Khoa is produced by ingenious and traditional method. There is no organized marketing system.

Materials and Methods

The study has been carried out in 11 talukas of Beed district. In each taluka five khoa producers are randomly selected. The information has been collected with the help of interview schedule, observations, questionnaires and group discussions. As no single method is sufficient for such study.

Result and Discussion

1. Existing Trade Practices of Khoa production in Beed District—In study area for boiling, source of fuel used is wood available locally at cheaper rate in rural area. Milk is taken in iron Karahi. It is heated up to boiling and above over non smoky fire with controlled heating by continuous stirring – cum – scrapping by using Khunti till it reaches to a semisolid (dough) consistency.

The milk is stirred vigorously and constantly with a circular motion by Khunti. During this operation all

parts of the pan with which the milk comes into contact are lightly scraped to prevent the milk from scorching. Evaporations of moisture takes place by which milk thickens progressively. When concentration becomes 40% of original volume, there is heat coagulation of proteins and concentrated becomes progressively insoluble in water. There is abrupt change in colour. The heating is continued with control and speed of stirring cum scrapping increased. There is appearing of viscous mass with pasty consistency and begins to dry up. Very close attention is paid to the last stage. The final product is ready when it shows sticking together. The khoa pat is invariably made after removing the pan from fire and working the contents up and down in to a single compact mass, it is generally marked in different sizes and shapes.

According to Rangappa & Acharya (1974) Khoa is traditionally obtained by coagulation of milk concentrated by boiling under atmospheric condition. Arora et al (1976) recommended that under traditional method, khoa is produced in open vessel in the premises which cells for protection against contamination with external material. There is need for designing model shades ensuring sanitary environment for khoa making. Very few investigations on preservation of khoa have been reported.

According to De. S. & Ray S.C. (1952) investigations on indigenous method of concentrating milk into form khoa showed that the best quality product was obtained by boiling milk with stirring until it reaches a pasty consistency then lowering the temperature, khoa pat is formed. Cow milk gave yield of 18.3% and Buffalo milk 21.6%. Anup and Bikramkumar (1980) developed a furnace working on paddy husk and dung cakes for boiling of milk and converting it into khoa at village level.

2. Yield of Khoa—Yield of the Khoa depends on type of milk, type of milk, quality of milk extent of hydration and losses in handling. Khoa containing high moisture content shows high yield. Buffalo milk having high content of total solids give higher yield. Quality depends to high total solid content. Extent of dehydration refers to moisture retained in khoa more dehydration reduces yield. Losses in handling includes overflow which lowers yield of Khoa. Normally in

study area average milk required to produce 1 Kg. khoa is 4.5 Litres. Yield of khoa obtained is 21.8%. More (1983) developed khoa making equipment requiring time for milk handling is 7.5 minutes for 1 Kg milk and overall evaporation rate was 11.69 gram of water per minute.

3. Identification of major Khoa producing area of the district.

Rajorhia (1976) made extensive survey of some major khoa manufacturing and marketing centers in Delhi, Hariyana, M.P., U.P., Gujrat, Rajasthan, A.P., TamilNadu, Bihar, West Bengal and Punjab of all these Delhi is the largest khoa marketing center, about 80 tones of khoa received per day in Delhi from adjoining states.

It is obvious from the table that annual khoa production is 216879 Kg. Dharur taluka is first major khoa producing taluka of the district produces 46004 Kg. khoa. Parli is Second largest khoa producer having 39441 kg production. Kaij taluka annually produces 39212 Kg. khoa. Ambajogai and Wadvani talukas produces 26582 Kg and 23635 Kg. Khoa respectively. Hence these taluka are known for Major Khoa producing area of the district.

4. Packaging of Khoa—In study area packaging cost is very low as nobody using costly materials like Aluminium foils, tin containers, duplex moulded, paper boxes etc. for packaging. In rural area till today some producers from Kaij and Dharur area are using palas leaves (*Butea monosperma* family – fabaceae) for packaging of khoa. In Ambajogai, Wadvani and Parli area low density polythene papers are used for packaging of khoa. Goyal G.K. (1997-98) reported that traditional packaging does not provide sufficient protection to the product from atmospheric contamination and also do not have functional properties in order to preserve initial quality of the product for longer period.

5. Storage of Khoa—Rural Khoa producers do not store khoa for more than two days as cold storage facilities are not available in rural area. When khoa producers directly sell their produce to middle man in rural area who have cold stores, refrigerators for storage of khoa. Collected khoa samples are stored for 2-3 days and then transported to urban area whenever

demand. Rajorihia and Shrinivasan (1979) reported that Shelf life of khoa is about 3 days at room temperature and 14 days under refrigerated conditions.

Values of Khoa production in each taluka of Beed District in Year 2007-2008.

Sr No	Taluka	Annual Production (in Kg)	Percentage
1.	Ambajogai	26582	12.25
2.	Ashti	8039	3.70
3.	Beed	8179	3.77
4.	Dharur	46004	21.21
5.	Georai	5398	2.48
6.	Kajj	39212	18.08
7.	Majalgaon	7517	3.46
8.	Parli	39441	18.18
9.	Patoda	8006	3.69
10.	Shirur	4866	2.24
11.	Wadwani	23635	10.89
Total Production		216879	100

6. Marketing of Khoa—There is no organized marketing system. Khoa producers from villages either sell their khoa to urban consumers near by villages or they sale their produced to middle man. Middle man collects khoa from rural producers at cheaper rate and sale this to big cities like Poona, Mumbai, Aurangabad etc. where there is great demand. In Dharur market there is daily auction of khoa by commission agents.

Conclusion :-

Khoa production in study area is characterised by unorganized nature of business there is no specialized marketing system, lack of collection centre and lack of processing facilities. Producers are not

having scientific knowledge. Development of suitable equipment is necessary for mass production of uniform quality with long shelf life. It is essential to improve market infrastructure storage, regular and cheaper transportation facilities. Number of mediators should be small or eliminated. Modern practices should be blended with indignous method so that total production can be increased without hampring sustainability of the system. Considerable need exists for restructuring this sector for attaining product standardization and quality assurance within the scope of regional influences.

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