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STUDIES ON DEVELOPMENT OF APRICOT BASED LASSI

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Abstract:

The study explores the development and evaluation of apricot Lassi a novel variation of the traditional yogurt based beverage. Apricot lassi combines the creamy texture and probiotic benefits of yogurt with the sweet, Tangy flavor and nutritional richness of apricot. Apricots are a valuable source of vitamins A&C, dietary fiber and antioxidants, enhancing the health benefits of lassi. The research investigate the physico-chemical; properties ,sensory attributes ,and nutritional profile of apricot lassi Physico-chemical test, including pH, viscosity, density, calorimetric analysis, and total soluble solids, where conduct to determine the impact of apricot pure in the lassi. Sensory evaluation was performed to excess the consumer acceptability based on the taste, aroma, colour, flavor, and all over preferences. In conclusion , Apricot Lassi not only enhance the traditional lassi with a unique flavor but also boosts its nutritional values , making it an appealing and health ful drink choice, this study supports the potential for Apricot Lassi to become a popular addition to the function beverage market.

Key words: Apricot, Yogurt, Cashew.

INTRODUCTION:

Apricot(*Prunus armeniaca* L) belongs to the family Rosaceae in angiosperms , Rosaceae is one of the largest family having above 3,400 species, including Almonds, peaches, apples, plums, cherrys , berries ,distributed throughout the northern temperature regions of the globe.Apricot has been named by romans most probably from the mixed

accent of two word s” Preacocia” from latin mea ning “early matured or alberquq” from Arabic meaning short ripening period it is a temperature fruit and growing climates with well differentiated season. It requires a fairly cold winter and moderately high temperatures in the spring and early summer (Ahamdi etc.,) The apricot tree is a needs relatively cold winter for proper.

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Dormancy and flower bud development and (400-600 hrs below 7.2°C during winter). The cultivation of apricot is not suitable in areas with a subtropical climate. Among stone fruit apricot is a carbohydrate rich , commodity and is a good source of fibers , minerals and vitamins, carbohydrate concentration in fresh apricot ranges from 11-13% and provides 50cal of energy per 100g on fresh weight basis (Leccese et.al.,2007). It is also rich in bioactive photochemicals that have certain role in the biological system and effective in prevent oxidative stress (Leccese et.al.,2011).Apricot also carries the reasonable amount of dietary fiber that ranges from that 1.5-2.4 g per 100g on fresh weight bases (Ali et.al., 2011). Fiber provides necessary roughage and bulk to the food consumed , Stimulates normal gastric mobility and prevent the Constipation , as an animal modern studies of apricot fiber significantly improved faecal output (Akin et.al., 2007; Tamura et.al., 2011).Soluble fiber lowers the blood cholesterol, maintain the blood sugar level and helps in reducing body weight . apricot contains varied amounts of essential mineral like the major elements are K,P,Ca,Mg,Se. (Akin EB et.al., 2007). While Na, Mn, Zn & Cu are also present in small amounts(Lichou et.al.,2003; USDA ,2010). Similarly , the vita ins found apricot are Pro Vitamin A,C, K,E , B1,B2,B6,B9 and panthonic acid. Apricot containsorganic acids i.e., Malic acid (500-900mg/100g) Citric acid (30-50mg/100g) as a major acids (Gurrier et.al., 2001) , while presence of tartaric ,succinic , oxalic, galatoric,malonic, acetic and fumaric acid has also been reported (Hasib et.al.,2002).From a nutritional point of view

organic acid maintain acid-base balance in the intestine and improve bioavailability of Iron . proteins and fats are found in minute quantities the flesh : however , apricot kernel has appreciable amounts of the both 20-30% and 40-52% respectively (Alpaslanand Hayta,2006). Average ranges of protein and fat in apricot Fruit is 1.4-2% and 0.4-0.6% respectively. The oil content of seed ranges from 40-52%, which is rich in unsaturated Fatty acis (Alpaslan and Hayta,2006).

Apricot lassi is a delightful and refreshing beverage that combines the creamy richness of traditional Indian yogurt –based lassi with the sweet and slightly tangy flavor of apricots. This fusion drink not only satisfies the palate but also offers a unique twist on the classic lassi , making it a perfect choice for a hot summer day or as a nutritious snack. Blending fresh or dried apricots with yogurt, a hint of honey or sugar , and a touch of cardamom, apricot lassi is both delicious and healthful,providing a burst of vitamins and probiotics in every sip.

Materials and Methods:

The materials needed for the preparation of lassi are apricot, curd, sugar, cashew.

Preparation of apricot lassi:

Pour the milk into a clean pot and bring it to a boil. This step help to kill any unwanted bacteria and makes the suitable environment for the beneficial bacteria in the lassi. Stir occasionally to prevent the milk from burning at the bottom .let the boiled milk cooled down to aluke warm temperature (around 110°F or 43°C). you can check this by dipping your finger into the milk. It



should feel warm-Add the lassi to the luke warm milk. Stir gently to ensure the lassi is well distributed in the milk. The lassi a lid or a clean cloth. Place the pot in a warm place.

Such as a inside and oven (turned off but with the light on) or wrap it in a thick to well to maintain a consistent temperature.- let sit side undisturbed for 6-8 hours, or until the milk has set into curd. The fermentation time can vary depending on the ambient temperature. Warmer temperatures will speed the process, while cooler temperatures will slow it down.- after the fermentation period ,check the curd. It should firm have a slight tangy smell. If it hasn't set properly, give it a few more

contains live bacteria that will ferment the milk and turn it into curd cover the pot with

hours.-once the curd is set. Refrigerate it to stop the fermentation process and to keep it fresh. Chilling he curd also improves it texture. Take apricot and make them into pieces and blend the mixture until smooth and creamy. If u like it chilled, added a few ice cubes and blend again taste and adjust the sweetness if needed by adding more honey or sugar. Pour the apricot lassi into a glasses and garnish with a sprinkle of cashew or a small pieces of apricot if desired.



Figure-1: Yogurt & Apricot pulp

Lassi can be prepared with three different formulations are shown in table:

Table-1: Different formulations of apricot lassi:

Ingredients	T1	T2	T3
Curd	100gms	100gms	100gms
Apricot	10gms	15gms	20gms
Sugar	25gms	25gms	25gms
Cashew	5gms	5gms	5gms

RESULTS AND DISCUSSION:



Sensory Evaluation:

The sensory evaluation helps to determine the sensory attributes of lassi i.e, senses like colour,taste,appearance,odour,flavor,texture and overall acceptability.

Table-2 : Sensory attributes:

Physico-chemical Analysis:

Sensory attributes	Control	T1	T2	T3
Colour	9	7	9	8
Taste	9	8	8	7
Appearance	9	8	8	7
Odour	9	7	8	7
Flavour	9	7	8	8
Texture	9	8	7	7
Overall acceptability	9	7	8	7

Physicochemical tests are analytical methods used to assess the physical and chemical properties of lassi-

pH Measurement:

Apricots contribute acidity to lassi. Measure the pH using a pH meter or pH strips. Apricots typically have a pH range of 3.5 to 4.5, so lassi containing apricot should show a slightly acidic pH.

Viscosity:

Apricot puree can affect the viscosity (thickness) of the lassi. Use a viscometer to measure viscosity differences between plain lassi and apricot lassi.

Total Soluble Solids (TSS): Apricots contribute sugars and other soluble solids.

Measure TSS using a refractometer to assess the total sugar content, which can indicate apricot presence.

Titrateable Acidity:

This test measures the amount of acid present in the lassi. Perform titration with a standardized base solution (e.g., sodium hydroxide) and phenolphthalein indicator to determine acidity levels influenced by apricot content.

Protein test:(Biuret Method)

This method involves a colorimetric assay where proteins react with copper ions under alkaline conditions, producing a color change that can be measured spectrophotometrically.



Fat: (Soxhlet extraction)

A more general method suitable for a variety of foods, where fat is extracted using a solvent.

Carbohydrates: To determine carbohydrates Anthrone test is used

These physicochemical tests provide a comprehensive analysis of apricot lassi, covering its acidity, viscosity, protein, fat, carbohydrates These assess its impact on the lassi's overall composition and quality given in table3.

Table 3: Nutritional composition of protein rich kova

Nutrition	Control	Sample
Total soluble solids	10%	16%
Fat	15%	16%
Protein	12%	14%
Carbohydrate	12%	15%

The water content in apricots and the liquid base of yogurt or milk help keep you hydrated. The fiber from apricots and probiotics from yogurt support a healthy digestive system. Vitamins A, C, and probiotics boost the immune system. The natural sugars from apricots and the protein from yogurt provide a balanced source of energy. The protein and fiber content can help with satiety and weight management. Apricot lassi is a nutritious, refreshing, and versatile drink that combines the health benefits of fruits and dairy, making it a great addition to a balanced diet.

CONCLUSION:

In conclusion, apricot lassi is a delightful and nutritious beverage that combines the creamy texture of traditional yogurt-based lassi with the sweet, slightly tangy flavor of apricots. This fusion not only enhances the taste but also provides numerous health benefits, thanks to the vitamins, fiber, and

antioxidants present in apricots. Perfect for a refreshing summer drink or a healthy snack, apricot lassi is easy to prepare and can be enjoyed by people of all ages. Its unique flavor profile makes it a standout choice for those looking to try something new and delicious.

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