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Instant Orange Juice Premix

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Instant Orange Juice Premix is a refreshing and convenient beverage product prepared from fresh oranges and sugar. It is designed to provide the natural taste and flavour of oranges in a ready-to-dilute form. The premix can be easily mixed with water to prepare a refreshing orange drink within a few seconds. The product is prepared using fresh orange juice without adding artificial colours, flavours, or preservatives. It offers a simple and convenient alternative to commercially available packaged orange drinks. Its pleasant taste, citrus flavour, and ease of preparation make it suitable for children and adults alike.

Importance of Orange Juice Premix

Orange juice is known for its vitamin C content, which supports normal immune function and helps the body absorb iron from plant-based foods. Preparing an orange juice premix using fresh oranges provides an opportunity to enjoy the natural flavour of fruit in a convenient form. Many commercially available orange-flavoured beverages contain added colours, flavours, sweeteners, or preservatives, depending on the product. A homemade premix allows better control over the ingredients used and reduces dependence on heavily processed drinks. It can be a useful beverage option for children when prepared with appropriate amounts of sugar and served as part of a balanced diet. The product also demonstrates the potential for developing value-added products from locally available fruits. It can be explored as a small-scale food-processing venture, although its shelf life and commercial safety must be established through proper testing.

Objectives

- To prepare an instant orange juice premix using fresh oranges.
- To develop a convenient beverage that can be prepared by simply adding water.
- To retain the natural taste and flavour of oranges without artificial colours, flavours, or preservatives.
- To demonstrate a simple method of fruit processing and value addition.
- To explore the potential of orange-based products for small-scale food processing.

Ingredients Required

The following ingredients are required for preparing the orange juice premix:

1. **Fresh oranges:** The main ingredient used to obtain natural orange juice.
2. **Sugar:** Added to improve sweetness and help form a concentrated syrup.
3. **Salt:** A small pinch to balance the sweetness and enhance the flavour.
4. **Water:** Required for diluting the premix before serving.
5. **Food colour:** orange food colour was used

Suitable variety: Nagpur mandarin

Preparation Method

Step 1: Selection of oranges- Fresh, ripe, healthy oranges were selected for preparation. Damaged, rotten, or spoiled fruits were discarded to ensure good quality.

Step 2: Washing and peeling- The selected oranges were thoroughly washed under clean running water to remove dirt and surface impurities. The fruits were then peeled, and the edible portions were separated.

Step 3: Juice extraction- The peeled oranges were processed using a juicer to extract fresh orange juice. The extracted juice was checked for seeds and unwanted pulp, and it was strained if required.

Step 4: Addition of sugar- Sugar was added to the extracted orange juice in a ratio of **2:1 (orange juice to sugar, by volume)**. For example, two glasses of orange juice were mixed with one glass of sugar. The mixture was stirred until the sugar was properly dissolved.

Step 5: Heating and concentration- The orange juice and sugar mixture was heated gently in a clean vessel while stirring continuously. Heating was continued until the mixture reached the desired consistency for a concentrated premix. Excessive heating was avoided to minimise the loss of fresh citrus flavour and heat-sensitive vitamin C.

Step 6: Addition of salt and optional flavouring- A small pinch of salt was added to balance the sweetness. A little cardamom powder could also be added if a mild additional flavour was desired.

Step 7: Cooling and storage- The prepared mixture was allowed to cool in a clean, hygienic environment. It was then transferred to a clean, food-grade container. Since the product was prepared without preservatives, it should be refrigerated and used promptly unless its shelf life has been scientifically established.

Step 8: Preparation of the beverage- To prepare the drink, the premix was diluted with clean, potable water and stirred well. The quantity of water could be adjusted according to the desired sweetness and flavour. The drink was then ready to serve.

Flow Chart of Preparation

Selection of fresh oranges
↓
Washing and peeling
↓
Extraction of orange juice
↓
Straining, if required
↓
Addition of sugar in a 2:1 juice-to-sugar ratio
↓
Gentle heating and concentration
↓
Addition of a pinch of salt and optional flavouring
↓
Cooling and hygienic packaging
↓
Dilution with water
↓
Instant Orange Juice Ready to Serve

Advantages of the Product

- **Convenience:** The beverage can be prepared quickly by adding water to the premix.
- **Natural fruit flavour:** Fresh oranges provide the characteristic citrus taste and aroma.

- **Control over ingredients:** The preparation method allows control over the amount of sugar and the use of optional flavourings.
- **No added artificial colours, flavours, or preservatives:** These are not intentionally added in the described preparation.
- **Value addition:** Fresh oranges can be converted into a convenient beverage product.
- **Small-scale business potential:** The product may offer opportunities for local food-processing enterprises after appropriate food-safety and shelf-life validation.

Conclusion

The preparation of Instant Orange Juice Premix is a simple and useful method of adding value to fresh oranges. The product combines the refreshing taste of oranges with the convenience of a concentrated preparation that can be diluted with water whenever required. The use of fresh fruit and the absence of intentionally added artificial colours, flavours, and preservatives make the formulation appealing to consumers seeking simpler beverage options. This practical activity also highlights the importance of fruit processing, hygiene, ingredient selection, and product development. With suitable improvements in processing, packaging, and validated storage methods, the product may have potential for further development as a small-scale food-processing enterprise.

