

# Process of making Mulberry RTS

*(Ready to Serve beverages)*

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## ABSTRACT

*Mulberries are small, juicy berries. They are packed with essential nutrients, making them a popular choice for both fresh consumption and culinary creations. In this article, we will explore the process of making ready-to-serve mulberry beverages. We will delve into the selection and preparation of mulberries, and the processing techniques involved. When it comes to making ready-to-serve mulberry products, the selection and preparation of the berries play a crucial role. Ripe, plump mulberries should be chosen, ensuring they are free from any signs of spoilage or damage. Washing and sorting the berries is essential to removing any dirt or debris, ensuring a clean and safe final product, which also leads to huge opportunities for employment generation as well as increasing the income generation of mulberry farmers.*

**Keywords:** *consumption, essential nutrients, processing*

## INTRODUCTION

Mulberries belong to the Morus genus and are part of the Moraceae family, which also includes figs and breadfruit. The most common species of mulberry is Morus Alba, but there are other species like Morus rubra (red mulberry) and Morus Nigra (black mulberry) as well.



## Nutritional value of mulberry beverages

Ready-to-serve mulberry beverages are a good source of vitamin C. Vitamin C is a powerful antioxidant that boosts immune function, helps in collagen production for healthy skin, and aids in iron absorption. Potassium is essential for heart and muscle function, as well as regulating blood pressure. Mulberry beverages also contain trace amounts of other beneficial nutrients such as iron, magnesium, and vitamin K.

## Health benefits of mulberry RTS

### 1. *Antioxidant Power:*

Rich in antioxidants, which reduces the risk of chronic diseases. It contains anthocyanins, powerful antioxidants that give mulberries their deep purple color.

### 2. *Immune Support:*

Supports the immune system due to its vitamin C content. Vitamin C helps the immune system, increases WBC (white blood cell) in our body, helps to fight with toxicants.

**3. Digestive Health:**

promotes healthy digestion and regular bowel movements with its dietary fiber content. Fiber adds bulk to the stool, preventing constipation and supporting a healthy digestive system.

**4. Weight Management:**

Supports weight management goals due to its low calorie and fiber content. Fiber promotes feelings of fullness and reduces overall calorie intake.

**5. Muscle and Nerve Function:**

It provides a good source of potassium which helps in maintaining healthy muscle contractions and supports nerve transmission.

**6. Iron Boost:**

It contains iron, which is important for red blood cell production and preventing anemia.

**7. Bone Health:**

Supports bone health with its calcium content. Calcium is essential for maintaining strong bones and teeth.

**8. Skin Health:**

It helps maintain healthy skin, thanks to its vitamin C and antioxidant content.

**9. Anti Inflammatory Properties:**

Anti-inflammatory properties, help to reduce inflammation in the body. Antioxidants in mulberries help combat inflammation and support overall health.

**10. Brain Health:**

It supports brain health and cognitive function due to its antioxidant content.

**11. Energy Boost:**

It provides energy due to its carbohydrate content. Carbohydrates are the body's primary source of energy.

**12. Blood Sugar Regulation:**

It helps to regulate blood sugar levels with its fiber content.

**13. Cardiovascular Support:**

It supports a healthy cardiovascular system due to its potassium and antioxidant content. Potassium helps to maintain a proper heart rhythm, while antioxidants protect against heart disease.

**14. Anti-Cancer Properties:**

May have anti-cancer properties, thanks to its antioxidant and phytochemical content. Antioxidants and phytochemicals in mulberries help neutralize free radicals and inhibit the growth of cancer cells.

**15. Liver Health:**

Supports liver health and detoxification processes. Antioxidants in mulberries help protect the liver from damage and support its detoxification functions.

**16. Eye Protection:**

It helps to reduce the risk of age-related muscular degeneration (AMD) with its antioxidant content. Antioxidants protect the eyes from oxidative damage and reduce the risk of vision loss.

**17. Hydration and Refreshment:**

It provides a refreshing and flavorful alternative to sugary beverages, promoting overall hydration and well-being. Mulberry beverages can be a delicious and hydrating option to quench your thirst.

### The Process of making RTS

- **Harvesting:** Ripe mulberries are harvested. Typically, around 1-2 pounds (450-900 grams) of mulberries are needed for a batch of mulberry beverage.
- **Washing and Sorting:** The harvested mulberries are washed thoroughly to remove any dirt or impurities. Around 1-2 cups (240-480 milliliters) of water can be used for washing.
- **Extraction:** The cleaned mulberries are crushed or pressed to extract the juice. This can be done using a blender or juicer. Approximately 1-2 cups (240-480 milliliters) of mulberry juice is obtained from the extracted pulp.
- **Straining:** The extracted juice is strained through a fine mesh strainer or cheesecloth to remove any seeds, pulp, or solids. This ensures a smooth liquid consistency.
- **Pasteurization:** The strained mulberry juice is heated to pasteurize it and ensure food safety. It is typically heated to a temperature of around 160°F (71°C) for about 15-20 seconds. This step helps extend the shelf life of the beverage.
- **Flavoring and Sweetening (optional):** Depending on personal preference, additional flavorings or sweeteners can be added to enhance the taste. This can include ingredients like honey, sugar, or lemon juice. The amount of sweetener used can vary based on the desired sweetness, typically around 1-2 tablespoons (15-30 grams) of sweetener can be added.
- **Packaging:** The mulberry beverage is then poured into sterilized bottles or containers. The amount of beverage produced will depend on the quantity of mulberries used, but it can typically yield around 2-3 cups (480-720

milliliters) of mulberry RTS beverage.

- **Quality Control:** Before distribution, quality control measures are taken to ensure the product meets desired standards. This may involve testing for pH levels, sugar content, and overall product quality.
- **Distribution:** Once quality control is passed, the mulberry RTS beverage is ready for distribution and can be made available for purchase.

### Employment opportunities in Mulberry RTS

- I. **Mulberry Cultivation:** Farmers can engage in mulberry cultivation to meet the demand for mulberry RTD production. This involves planting and maintaining mulberry trees, which can create employment opportunities for farmers and agricultural workers.
  - I. **Harvesting:** The harvesting of mulberries is a crucial step in the production of mulberry RTDs. Farmers can employ additional labor during the harvest season to ensure a sufficient supply of fresh mulberries for processing.
  - II. **Supplier Contracts:** Mulberry RTD manufacturers may establish long-term contracts with farmers to ensure a consistent supply of high-quality mulberries. These contracts can provide farmers with a stable source of income and employment opportunities.
  - III. **Value-Added Processing:** Some farmers may choose to process their own mulberries into mulberry juice or concentrate, which can be sold to mulberry RTD manufacturers. This value-added processing can create additional employment opportunities for farmers and their workers.

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