



Unit V - Topic 4
Quality of water used in beverages

What are the qualities of a good beverage?

The success of beverage products that are distributed and sold hinges on ensuring the quality and safety of the product at all times.

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Water Safety

- No suspended materials.
- Clear and colorless.
- No unpleasant taste and odor.

- Physical quality of water should be good:

- No suspended materials
- Clear and colorless
- No unpleasant taste and odor

How to make your drinking water safe?

- Know and understand the hazard
- Know your water supplier
- Make sure the water storage is clean
- Make sure water quality is tested regularly

IMPORTANCE OF WATER QUALITY IN THE FOOD AND BEVERAGE INDUSTRY

Impacts of Water Used in or Touched by the End Product Health of the Consumer

Consumers, of course, want their food and beverages to be free of contamination. As a result, all water that comes into contact with any aspect of the food manufacturing process (ingredients, packaging, bottles, pipes, and food processing equipment) must pass strict purity tests. According to **WHO guidelines**, any water used in the preparation, washing, or processing of food must be disinfected to high drinking-water standards using a method like industrial-grade reverse osmosis.

A plant producing food or drink must have rigorous sanitation requirements across the board, regardless of what touches the ultimate consumer product. Even if those goods are washed outside of the food production area, this includes water used for washing packaging equipment, storage, and transportation vehicles.

Efficient Utility Means Clean Water

Impurities of any kind can cause inefficiencies in the food and beverage sector, even if they don't contact the final product. Water used in boilers and cooling towers, for example, must also fulfill high purity criteria, with a



low concentration of concentrated solids passing through these systems. Impure water can accelerate wear and tear, corrosion, and scale buildup, reducing efficiency, causing costly downtime, and increasing repair and maintenance costs. Because the water utilized in these systems is clean, a high-quality industrial reverse osmosis water purification system can increase efficiency, decrease downtime, and lower repair and maintenance costs.

Food and beverage manufacturers have more control by reusing water

With today's uncertain water supply, it's critical for food and beverage facilities to have an industrial water purification system that can convert feed and waste into purified water that can be reused safely for a range of purposes. Closed Circuit Reverse Osmosis (CCRO), a smart, autonomous, and advanced industrial reverse osmosis system, enables food and beverage firms to reclaim water and minimize water waste much beyond the ability of prior industrial reverse osmosis systems. This allows businesses to have significantly more control over their water supply, water costs, and total operational costs.

CONCLUSION

Water is essential for food safety operations; hence the food business must have access to it. Water quality and its impact on food safety are, unfortunately, little known. Water mismanagement, equipment operation and maintenance concerns, loss of income, food product quality, and safety are all consequences of this deficiency or lack of awareness about the importance of water quality in food production.

As a result, it's critical to educate those involved in food production and safety about the significance of water quality. Apart from that, consumers should be educated about how water quality issues at various stages of food production can jeopardize the end product's safety.