

Sources of Possible Milk Contamination

On The Farm * In the School * Transportation * At the plant

1. Mastitis infection
2. High bacteria rate/ Milk tank not cleaned
3. Milk was not cooled properly
4. Milk sat on the truck too long
5. Faulty Pasteurization
6. Expired expiration date
7. Cooler at School is not storing milk at the correct temperature
- 8.

Mastitis Infection

Mastitis in dairy cows is caused by udder infections, from bacteria introduced either during the milking process or from environmental contact.

Antibiotics can be administered to treat mastitis

Milk must be kept away from the bulk tank and cow must be milked into a separate treated tank

Sources of Bacteria on the Farm

Manure on tails not docked and swishing around udder * Teats not being dipped twice * Excessive hair on teats * Hand washing technique *Parlor vs. Pipeline * Not wearing gloves *Biosecurity* Personnel Foot Bath * Cow foot bath * Not sanitizing and cleaning the pipeline or the milk tank.



Maintaining Cooling

Refrigeration is the single most important factor in maintaining the safety of milk. By law, Grade A milk must be maintained at a temperature of 45 °F or below. Bacteria in milk will grow minimally below 45 °F. However, temperatures well below 40 °F are necessary to protect the milk's quality. It is critical that these temperatures be maintained through warehousing, distribution, delivery and storage.



Pasteurization & Expiration

Pasteurization is the process of heating milk up and then quickly cooling it down to eliminate certain bacteria.

For effective pasteurization, milk can be heated up to 145 degrees Fahrenheit for 30 minutes, but this method isn't very common.

If the milk has not been pasteurized correctly there can be rapid bacteria growth and can spoil faster.

The accepted rule of thumb is that if you're properly refrigerating it, your carton of whole milk expiration date is five days after the "sell-by" date.

Chunk o' Chocolate Cereal

Farm

Factory/Processing

Transportation

School

Transportation

- Improper storage during transportation
 - Exposure to other contaminants
 - Not shipping in timely manner
 - Proper heat/cooling during transportation

Farm

- Improper storage
 - Always store at appropriate temperatures
 - Store in sanitized environments
 - Keep separated from other products that could cross contaminate
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Factory/Processing

- Cross Contamination
 - Separating products in the plant
- Improper storage in facility
 - Maintaining appropriate temperature
 - Maintaining appropriate storage
 - Exposure to other elements
- General Sanitation of the plant
 - Proper cleaning/sanitation practices
- Employee sanitation
 - Proper cleaning/sanitation practices

School

- Sanitation in the school is not up to code
 - Proper cleaning
 - Cross contamination
- Serving expired food
 - Adhering to appropriate dates
- Cross Contamination
 - Proper cleaning
 - Separating foods

