

Safe Use of Milk From Your Arizona Goats



MacConkey plate with many coliforms present. Note black colonies signifying fecal contaminants.



Blood agar plate with several staph aureus present mixed with other organisms.



Stir heated milk frequently to prevent burning. Use either 151F for 15 seconds or 145F for 30 minutes for pasteurization.



Cool milk quickly to prevent bacteria growth. Store in a sterile containing for up to 7 days at 45F or lower.

Many people in Arizona are enjoying the benefits of raising their own goats and drinking the milk they provide. Milk provides many nutritional benefits and is a healthy part of your diet. When milking your goat, remember to practice good hygiene.

To ensure a clean product, first, dip the teats using a good quality pre-dip. Wipe the pre-dip off the teats with a clean paper or cloth towel and ensure the teat is thoroughly clean. Milk the goat into a clean container. When finished, dip the teats using a high-quality post-dip.

The purpose of these precautions is to ensure you have as clean a milk product as possible. Bacteria can grow quickly in milk, effectively doubling their count every 20 minutes when at an optimum temperature for growth. Milk can look normal, even with high bacterial counts. It is recommended if you are milking your own animal that you save a sample of the milk and have it tested for the bacterial load at least on a weekly basis, and more frequently if the milk changes color or consistency. This is called a "standard plate count" and is performed every day at the [Herd Health Management Milk Quality Lab](#) here in Arizona.

What To Do If You See Abnormal Looking Milk

If you see abnormal-looking milk, a sample should be caught in a clean transport container and brought to our [Veterinary lab in Gilbert, Arizona](#), to determine what organism is present, if any.

It is highly recommended to pasteurize your milk prior to consumption. Pasteurization is a process to kill bacteria by heating the milk to a set temperature for a specific period of time. These temperature-time sets are developed to ensure the destruction of harmful bacteria such as Salmonella, E. coli, Listeria and Campylobacter.

Pasteurization of small batches of your milk at home is relatively simple with a few pieces of equipment. An easy method of pasteurization can be performed with a double boiler, a thermometer, an ice bath, and a whisk or spoon to stir.

A simple recipe for home pasteurization:

- Fill the lower pan of the double boiler with several inches of water.
- Place a clean and sanitized thermometer into the top pan of the double boiler.
- Add milk to the top pan of the double boiler and stir frequently while heating.

It is recommended to pasteurize using one of two USDA approved temperature-time sets: 161F for 15 seconds (High-Temperature Short Time) (HTST) or 145F for 30 minutes (Low-Temperature Long Time) (LTLT).

HTST tends to be better for taste and color and LTLT is best if there is a concern for overheating the milk.

- After pasteurizing for the recommended time, immediately remove the milk from heat and place the top pan into a prepared ice bath.
- Stir frequently and continue replacing ice until the milk cools to 40F.
- Place cool milk into clean and sterilized containers.

Milk prepared in this manner will be safe for approximately seven days in the refrigerator at cool temperatures (45F or lower).

Enjoy your home raised milk from your own fur friends!