



# Prevent Off Flavors IN MILK AND CREAM

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North Dakota Dairymen:

High quality and good flavor are important factors for continuing sales of dairy products.

It is that fresh clean flavor, along with high nutritive value, that keep the homemaker and her family asking for milk, ice cream, cheese and butter.

Food value alone will not sell dairy products. They must be rich in flavor and taste appeal to bring repeat sales. Any off-flavor will bring complaints from consumers and reduced consumption.

Therefore good flavor and quality is of tremendous importance to you as dairymen, and to the future success of the whole dairy industry.

Since milk flavor and quality standards begin on the farm, your production methods and handling practices should be aimed at marketing milk of only the highest quality.

This leaflet deals with the most common causes of off-flavors which occur in market milk and offers recommendations for preventing them.

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# Cause and Prevention of Off-Flavors in Milk

## Feed Flavors

Feed flavors are among the most frequent causes of off flavors in milk which make it undesirable from a market standpoint. Any foreign flavor in bottled milk or manufactured dairy products is objectionable and will cut down consumption and reduce sales immediately.

Feed flavors can be prevented by correct feeding practices. Avoid feeding strong-flavored feed before and during milking.

To avoid feed flavors that occur when the cows are in the barn, feed silage or any strong-flavored feeds after and never just before or during milking.

Feed flavors result when a cow breathes air heavily saturated with a strong feed odor or eats such feeds just before or during milking.

## Grass and Weed Flavors

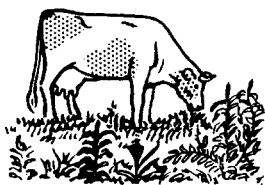
Grass and weed flavors are troublesome in spring especially and cause objectionable flavors in milk, as well as in dairy products made from milk. Undesirable flavors caused by plants the cows eat in the pasture, such as sweet clover, alfalfa, rye or wild onions, frenchweed, mustard, etc., may be reduced by bringing the cows in from the pasture three hours before milking. If these off flavors are still present it may be necessary to take cows off pasture earlier.

Sudden changes in feeding from dry feed in the barn to pasture always bring about a grass flavor in milk. Turn your cows out to pasture only a short time each day to start with, preferably in the morning, then gradually increase the time until you can leave the cows on pasture all day. Or, take your cows off pasture and feed dry hay for several hours before milking. This also tends to reduce danger from bloat as well as to increase milk production.

## Proper Ventilation

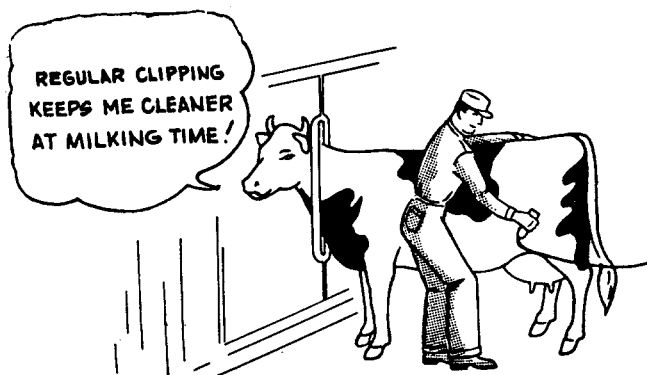
Barny odors often called cowy or unclean flavor in market milk are the result of poorly ventilated dairy barns. Frost accumulating on walls, dampness and foul smelling barns are other indications of improper ventilation.

Barny or unclean flavor in raw milk generally is the result of cows breathing foul barny odors. These odors go into the lungs and are picked up by the blood stream and carried to milk secreting cells in the udder. In this way milk becomes tainted before it is drawn.



Avoid grass and weed flavors in milk.

To prevent these odors from getting into the milk, install a forced air ventilation system with electric fans thermostatically controlled to rid the stanchion type dairy barn of dampness and barny odors.



## *Cleanliness*

Clean cows, clean barn and clean utensils are essential to producing milk of good flavor and low bacteria count.

Bacteria frequently cause off-flavors and souring of milk and cream. They get into milk during and after milking from such sources as barn dirt, straw and manure, and from the cow's udder and teats.

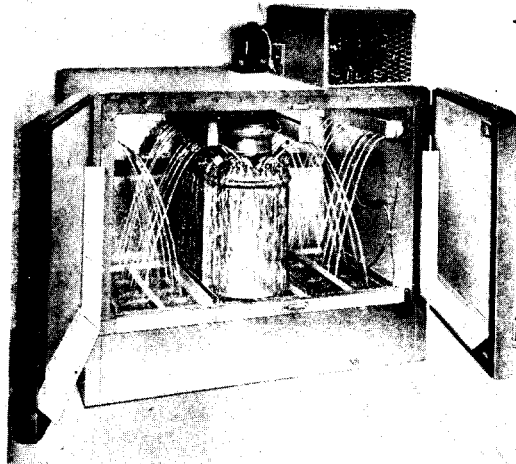
Regular clipping of cow's udder and flanks, and washing udder and teats before each milking, will keep down this source of bacterial contamination and reduce sediment.

Careless washing of milking machines and pails is most frequently the source of high bacteria counts in milk. Milking machine and milk pails left overnight without washing (or wet) will cause high bacteria counts in milk and a build up of milkstone in equipment. Milkstone offers a hiding place for bacteria to grow and multiply.



Wash udder before milking.

To prevent off-flavors in milk and cream caused by bacteria growth, eliminate the source of contamination and cool promptly to 45° F. or below. Mechanical milk cooler has proved most satisfactory.



Protect the quality of milk by mechanical cooling.