# Essentials

OF

PRODUCING

Good Milk

UNIVERSITY OF IDAHO

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#### The

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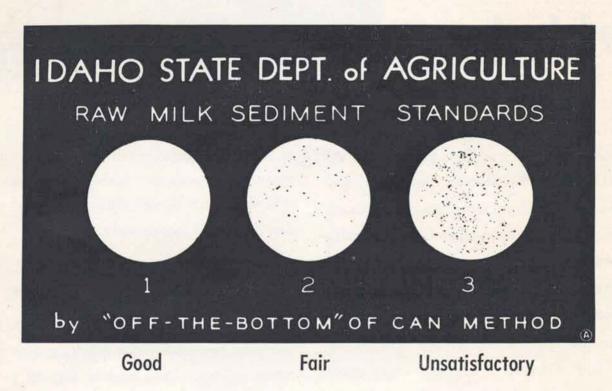
# Good Milk



- 2. Clean, healthy milkers, using good methods and well made utensils
- 3. Clean, sterile utensils
- 4. A clean barn and clean cows
- 5. A suitable milk house
- 6. Proper straining and prompt, proper cooling
- 7. Prompt, proper delivery





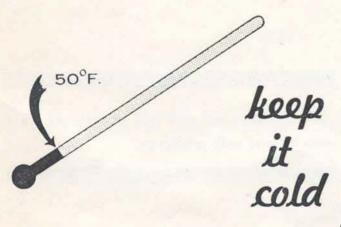


#### Quality Dairy Products are "A MUST"

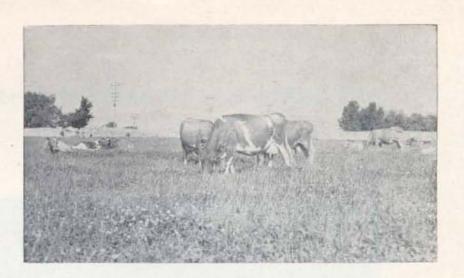
If Idaho's dairy industry is to keep its market for milk and milk products, the state's milk producers must make it an *iron clad rule* to produce and offer for sale only milk of the highest quality. The basis of high quality dairy products, desired by all consumers, is good raw milk. Such milk must be fine flavored, from healthy cows, free from dirt, and containing only a small number of bacteria none of which are harmful.

Dairymen who follow a few simple procedures find little difficulty in producing good milk. In this circular, you will find the essential procedures, briefly discussed.

Keep milk clean and keep it cold are the first considerations.



# healthy cows good feed—



Healthy cows and good feed, properly fed, are essential to good milk production. Animals infected with bovine tuberculosis, brucellosis or mastitis are dangerous from the standpoint of human health and their presence in the herd raises the cost of milk production. All animals should be examined at regular intervals by a veterinarian and all diseased animals disposed of or isolated from the rest of the herd. Mastitis in advanced stages causes stringy, flaky milk, which must be discarded. The milk from cows treated for mastitis with such antibiotics as penicillin, streptomycin and aureomycin or sulpha drugs should also be discarded for three days after the treatment has stopped. Failure to do

so will cause difficulty in the manufacture of certain dairy products. Idaho law specifies that milk should not be sold during the period of 15 days before and four days after calving.

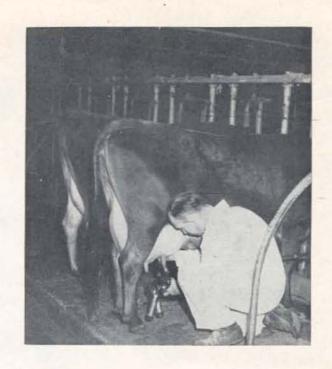
Milk is frequently made unsalable by feed and weed flavors. These flavors are eliminated by feeding all highly flavored feeds, such as silage or wet beet pulp, immediately after milking and never just before milking. Cows must be kept off pastures infested with such weeds as wild onions, fan tail and others or remove the animal from the pasture at least four to six hours before milking.



Healthy cows and good feed properly fed are a must to good milk production.

a clean healthy milker using good methods and well made utensils

More Links In The Chain of



#### GOOD MILK

Milkers and the methods and equipment they use are important in producing good quality milk. Milkers must be healthy. They must be aware of and practice rules of health and sanitation as they work with and around milk. Clean clothing and clean, dry hands are a first thought with all good dairymen. All sanitary precautions must be observed also in the use of milking machines. In no way does a milking machine eliminate the need for personal cleanliness.

All milk containers must be well made. Stainless steel or well-tinned equipment with rounded corners is satisfactory and easily cleaned. It is very difficult to clean utensils that have open seams. Use small-top milk pails. They help keep dirt out of milk. Foreign material must be kept out. Straining it out only helps appearance.

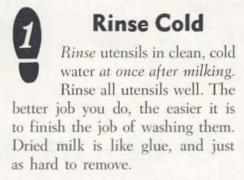


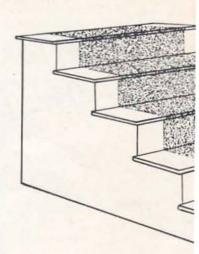


## Five S CLEAN, STERI



Milk with only few bacteria in it cannot be productor amount of sterilizing will make an improperly steps will insure clean sterile utensils that will be







Scrub

Scrub all equipment with warm (110°-120° F.) solution of clean water and a soapless cleaner. Do not use soap. It may leave a film in which millions of bacteria can grow. Use a brush, not a rag.

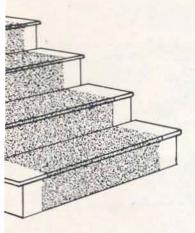


Rinse uten water. It ren ing solution sils and helps then

Clean Milk
can come only from
Properly Washed Utensils

## eps to LE UTENSILS

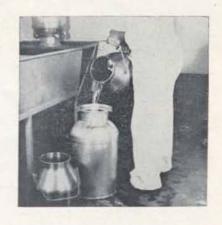
l in dirty, unsterilized milk utensils. No method washed utensil fit to hold milk. The following you produce quality milk.

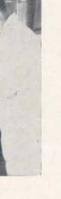


Sterilize

Sterilize all utensils immediately before milking. Use steam or water at 180° F. for 15 minutes or an approved chemical sterilizer as directed on the container. This chemical solution may be used to wash the cows' udders prior to milking. The time to sterilize utensils is just before

they are used.





Hot s with hot es the washm the utenlry quickly. Protect

Place utensils to drain and dry in a place protected from flies, dirt and dust un-

til the next milking. Bacteria do not grow on dry surfaces. Dust and flies carry large numbers of bacteria. Keep them away from milk utensils.



Continuing Good Milk Markets

depend on

Good Milk Every Day





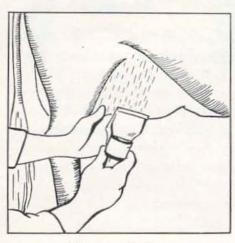
### Clean Barn-Clean Cows

It is impossible to produce good, clean milk from dirty cows in a dirty barn. An elaborate expensive barn is not necessary. However, a tight ceiling prevents dust and chaff from falling into the milk,

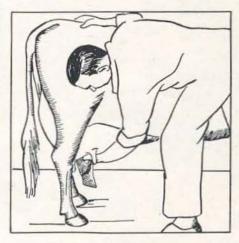
and a waterproof floor is the easiest to clean. The floor should be cleaned twice a day. An abundance of light helps to locate dirty conditions, and undesirable odors are kept down by good ventilation.



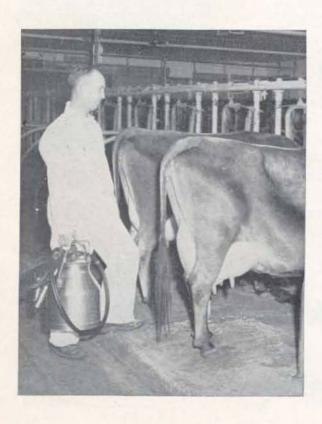
Water and Brush Make It Easy



Clipping Makes Cleaning Easier



Washing Before Milking. A Must

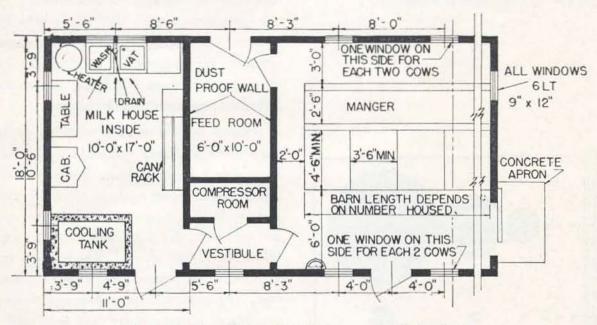


Cows must be brushed and udders washed with a dilute sterilizing solution before milking. Frequent clipping of long hair from the udder, flanks, and belly make it easier to clean the cows at milking time. Plenty of bedding, regularly cleaned barns, and well drained cow yards free from piles of manure will make the daily cleaning much easier. For suggestions on dairy barn construction ask your county agent for Extension Circular No. 104.

#### a suitable milkhouse

As soon as milk is drawn from the cow, it must be removed from the barn to a clean, well-ventilated milk house or milk room for straining, cooling, and storage. The milk house should be located on a clean, well-drained site, away from any contaminating surroundings, especially manure piles. The milk house need not be more than a few feet from the barn. It may even be a part of the barn, if the entrance from the barn is through self-closing doors having a vestibule between them and so arranged that both doors are not open at the same time. The

milk house should be conveniently located and arranged in order that the milk can be handled quickly and efficiently in a sanitary manner. In order that it can be kept clean easily, the floor should be water-tight and have good drainage. Tight smooth walls and ceilings are desirable. Windows and doors should be screened. Detailed plans for milk houses are given in Idaho Extension Bulletin No. 118, Farm Dairy Structures, and Idaho Extension Circular No. 104, Idaho Dairy Barn and Milkhouse Requirements for Graded Milk Production.



A Suggested Floor Plan of Milk Room and Milking Parlor





# COOLING



# The DANGER ZONE, Above 50° The SAFETY ZONE, Below 50° O24 9 12 15 TIME HELD, HOURS EFFECT OF TEMPERATURE ON BACTERIAL GROWTH

# prompt proper

Keep milk clean by keeping sediment and foreign matter out. Do not depend upon straining to remove foreign material. Straining merely improves the appearance of milk. It does not help the flavor or remove the bacteria and soluble parts of extraneous material. Strainers that use single service cotton discs should be used. Cloth and wire strainers are difficult to clean and sterilize properly.

Prompt cooling of milk to 50° F. or below is essential to good milk production. Mechanical refrigeration is most efficient. Water is 21 times as efficient as a cooling media as air at the same temperature. Stirring hastens cooling. Do not mix warm and cold milk. Running water with a temperature below 50° F. may be used. The temperature varies with source and season. Check your water temperature. The most efficient cooling system using large volumes of running water, will only cool milk to within 2 to 5 degrees of the water temperature. Plans for cooling milk are given in Idaho Farm Electrification Leaflet No. 2, Milk Cooling on Idaho Farms.

#### KEEP IT CLEAN KEEP IT COLD

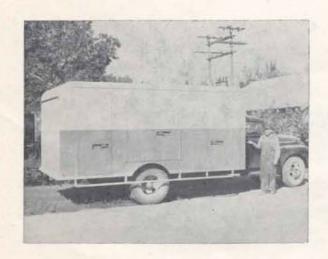
#### MILK DELIVERY



prompt – clean –

in closed trucks—

Milk must be delivered to the processing plant daily. To insure that the milk delivered to the processing plant is the same well cooled, high quality milk that left the farm, it is necessary to protect the milk while in transit. Milk trucks must be either of the enclosed type or provide protection for the milk cans by use of canvas or blanket covers. This is necessary in order to protect the milk from heat in the summer and from freezing in the winter. Trucks used for hauling milk must be kept clean in order to prevent contamination of the milk. A clean well-cared-for milk truck reminds the public that milk is handled in a sanitary manner.





Cooperative Extension Work in Agriculture and Home Economics, D. R. Theophilus, Director University of Idaho College of Agriculture and United States Department of Agriculture Cooperating

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