

A herd of Holsteins, Jerseys and Guernseys feed on the rich grasses of Scotts Valley in their never-ending production of milk

for the Santa Cruz Dairy Farms at 601 Glenwood drive. A certain amount of strontium-90 falls from the atmosphere from

the world's atomic tests over the county, but not enough to excite nuclear specialists and public health experts. Even so,

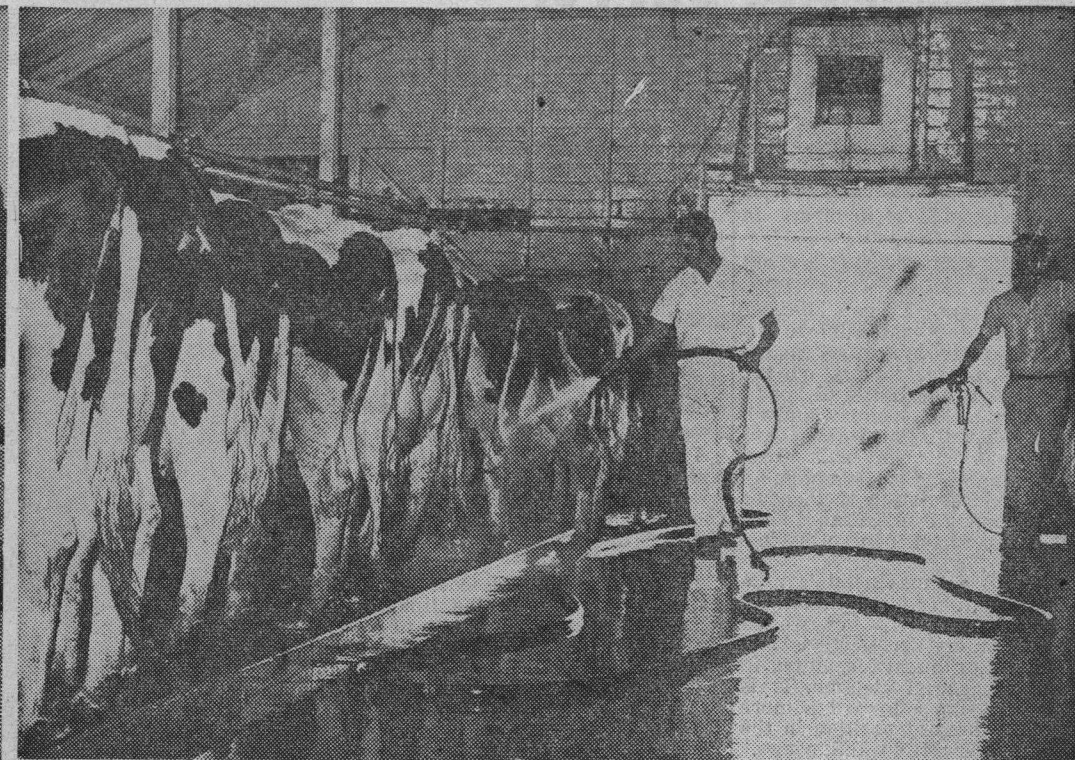
Mother Nature has provided cows with the physical properties to remove six-sevenths of the strontium-90 from their

milk. This is not done for milk drinkers, but for their own young. Silva has about 400 cows in his herd.

Santa Cruz Dairy Farm cattle are washed down twice a day as they are brought into the milking barn, a requirement

standard among Grade-A dairy farms. This practice has nothing to do with fallout. It's just plain, ordinary good sanitary

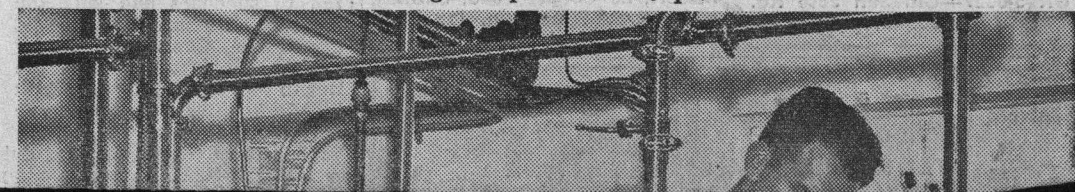
practice. Manning the hose is Johnnie Silva, owner and operator of the dairy. Behind him is Anselmo Sousa, an employee.



Johnnie Silva demonstrates how the mechanical suction cups are placed on the cow's

teats. Milk drawn from the cows flows unexposed to a refrigerator tank where it is held until being transported to the pro-

cessing plant. Silva said that about 300 cows are milked twice a day at the dairy.



Milk Excellent Defense For Nuclear Fallout

How safe is your milk from nuclear fallout?

How safe is it from other impurities?

A number of authorities on radiation and public health have

director of nuclear activities for the University of Florida, has to say:

"Milk is a good buffer against dangerous radioactive isotopes that accumulate in the human

son for undue concern about radioactive fallout contamination in California from recent Soviet tests."

He noted that there has been some public concern about use of

fallout indicate there is no need to alter dietary or other living habits, because of fallout from nuclear tests.

"Assuming no more atmosphere tests and a life span of 70 years,

jects, especially to dispersal of the ill-famed strontium-90—a chemical coming from nuclear blasts. It has been hinted by a number of scare stories that it dangerously affects the milk you drink.

In Santa Cruz county there are 12 Grade-A dairies and about an equal number of dairies which supply milk for canning.

Last year about 867,400 gallons of fresh milk were produced in the county. Another 662,790 gallons went for condensed milk, cottage cheese, and other dairy products.

In value fresh milk brought in \$343,000, while milk for the manufacturing of dairy products was worth \$172,000.

Milk is said to be one of the important health defenses against fallout.

Dairy cows actually have the ability to screen out six-sevenths of the strontium-90 from their feed before making milk.

This protective ability is a provision Mother Nature designed to be passed on to the cow's offspring. It has been in effect long before people began to be concerned over the strange-sounding chemical that has the power to accumulate in bone structure.

Scientists find the cow's uncanny ability to screen out these radioactive isotopes is passed along to humans who drink milk. Here is what Dr. George Davis,

the field of animal nutrition and claims that a diet strong in milk, meat and eggs actually "washes out much of the long lived strontium-90 from the human system".

Although this is one of the more dangerous isotopes resulting from nuclear reactions, it is said the strontium-90 follows the same pathways as calcium does in the body.

Scientists working with isotopes have found that increasing the level of calcium helps the body reduce the amount of strontium-90 that may accumulate in it.

Milk is rich in calcium. So actually the amount of Strontium-90 deposited in human bone is reported likely to be less from milk than from other foods.

In his explanation of Bossy's radioactive screen processes, Dr. Davis said that should there be a case of heavy fallout the populace must of course rely immediately on canned foods.

"But with the renewed use of freshly produced foods, milk again becomes one of the most important protective items in our diet," he said.

"Not only will it be lower in strontium-90 as compared to vegetables, but the high level of calcium will permit the human body to accumulate less of the dangerous isotope and 'wash out' some of it already accumulated".

Dr. Malcolm H. Merrill, California health director, emphasized recently that "there is no rea-

our food, water and air have been, and are, far below those that would be cause for taking action to limit intake of fallout material," he said.

"No one should hesitate to use any food available for purchase through regular commercial channels.

"Failure to eat the proper foods — milk, eggs, and meat — could actually do more damage to the individual than the fallout radiation that has them frightened."

Dr. Gaylord Whitlock, program leader in family and consumer sciences at the University of California in Berkeley, has summed it up like this:

"The worst thing one could do, in an effort to avoid fallout from food, would be to stop drinking milk," he said.

Another testimonial comes from Sidney Dombes, director of the state health department radiation laboratory in Berkeley.

"We've been running tests for a long time on milk, and on all other kinds of food. We even run tests on the rain that falls in the bay area," he reported.

"So far we have not found anything to cause alarm. If we ever do—you'll hear about it."

Dr. G. L. Dunnahoo, director of the Santa Cruz county health department had this statement:

"Continuing measurements as assessments of radiation from

the radiation dosage he would normally receive from natural sources.

"In the unlikely event that the radiation levels should significantly increase, the information will be widely known together with any remedial steps that become necessary."

Depending on several factors, such as the power of the explosion and the height at which the detonation occurs, most of this debris is deposited within a few hundred miles of the test site.

It may blow into the stratosphere. The material is vaporized by the explosion. It condenses and falls toward the earth under the influence of gravity. As it falls, winds carry it.

Rainfall or snow, at the proper time, can be agents in the amount of fallout in any one given area.

A maximum deposit is expected next spring from the most recent tests. But scientists don't anticipate it will be enough to cause any alarm.

Milk is probably the most closely guarded of all our food stuffs.

Francis H. Gardiner, milk and dairy inspector for Santa Cruz county, conducts weekly and bi-weekly checks on the county's 14 dairies and eight processing plants.

He said these tests are run solely to safeguard the consumer.

There are no radio-active tests made on the county level. Gardiner's duty is to run checks on bacteria count, butterfat and solids-nonfat contents of all Grade-A milk.

He also checks to determine that pasteurization has been correctly carried out.

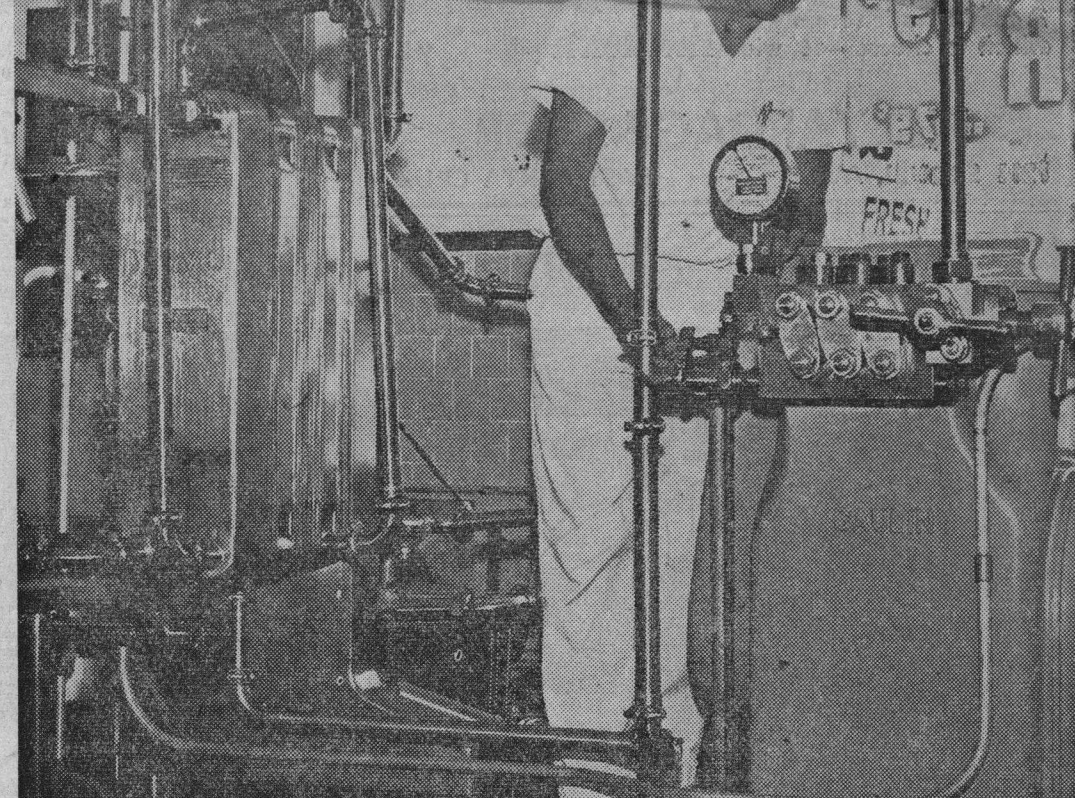
Gardiner's work does not stop in the laboratory. The dairies themselves are checked. Dairies must score a minimum of 70 per cent on general sanitation of the corrals and pens, the milking barn, the milk house, cold storage room, ventilation, washing facilities, containers and pails.

Dairymen must shave their cows around the milking area twice a year. Their hands and clothing must be clean.

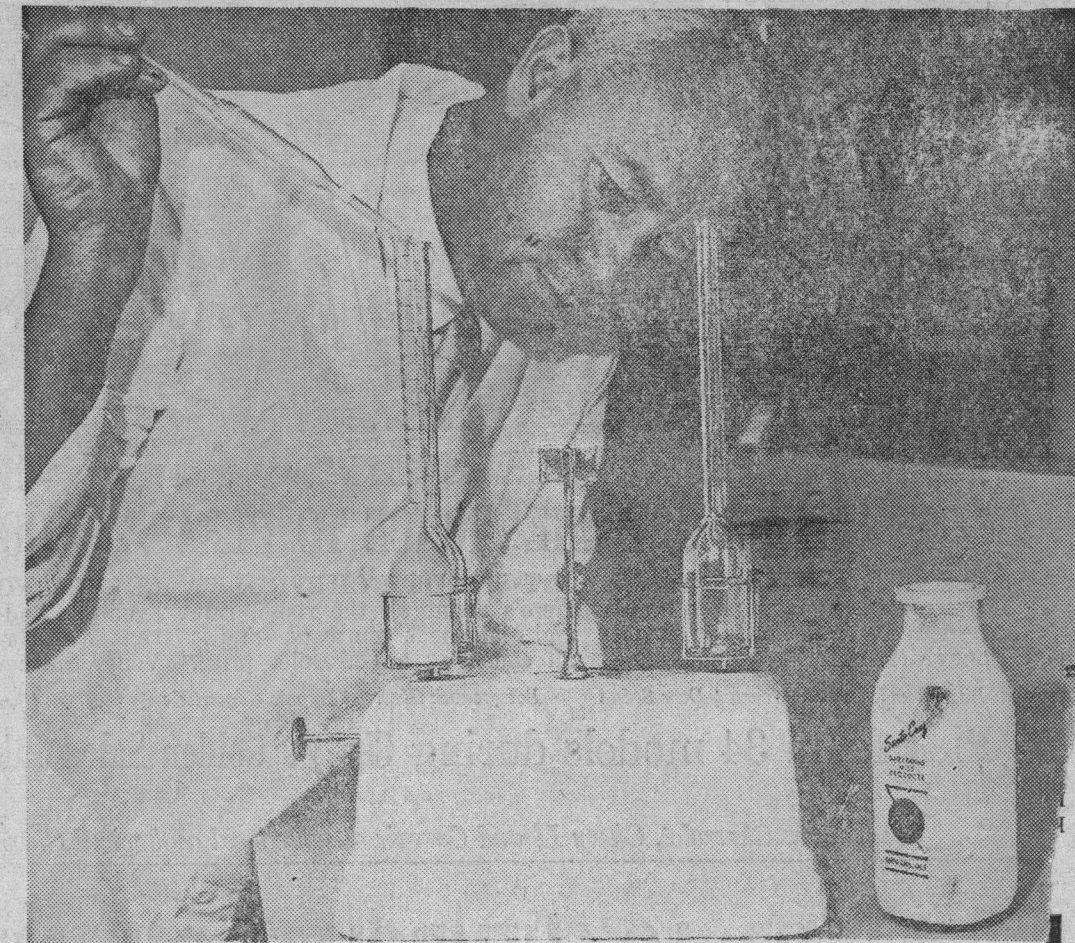
Processing and pasteurizing plants are inspected at least twice a month.

Periodic checks are made on milk in this county by the state department of public health. Samples are taken to the state radiation laboratory at Berkeley and checked for radioactivity.

Warren Crowder, in charge of one of six Santa Cruz Dairy Farm's drive-in milk depots, tends to a customer, Mrs. Charles Repass, 112 Princeton street, and her children, Lance and David, and Billy, a nephew. Milk is delivered to the drive-in within 12 hours after it leaves the cows, according to owner Johnney Silva. Milk is one of the best defenses against the accumulation of fallout chemicals in the body, says a nutrition expert in the article on this page. This drive-in is at 2202 Soquel avenue. Others are in Santa Cruz, Felton, Scotts Valley in the Aptos-Rio del Mar area and on Portola drive.



Tony Mello makes adjustments on the homogenizer which thoroughly mixes milk and cream at the Santa Cruz Dairy Farm processing plant at 2202 Soquel drive. Behind Mello is the pasteurizer which removes germs from the milk. Delivery is made once a day to the plant. ♦ ♦ ♦



Francis H. Gardiner, milk and dairy inspector for the Santa Cruz county department of public health, conducts a butterfat content test in his laboratory. Gardiner makes continual visits to the county dairies, inspecting the animals and men and equipment for cleanliness. ♦ ♦ ♦ Samples of milk are also taken to his lab for bacteria count. He does not check for fallout effects. This is handled by officials.