11. Milking

The measures against mastitis.

The measures to mastitis is primary importance, since, the body cell of a normal udder may be increasing apparently, and a frequent check is required. The range of body cell unusual is 300,000/ml in European countries.

45

(1) The milk squeeze out 3 to 4 times from each nipple to the cup before udder washing and the existence of un-usual milk is checked. Do not carry out on the floor.

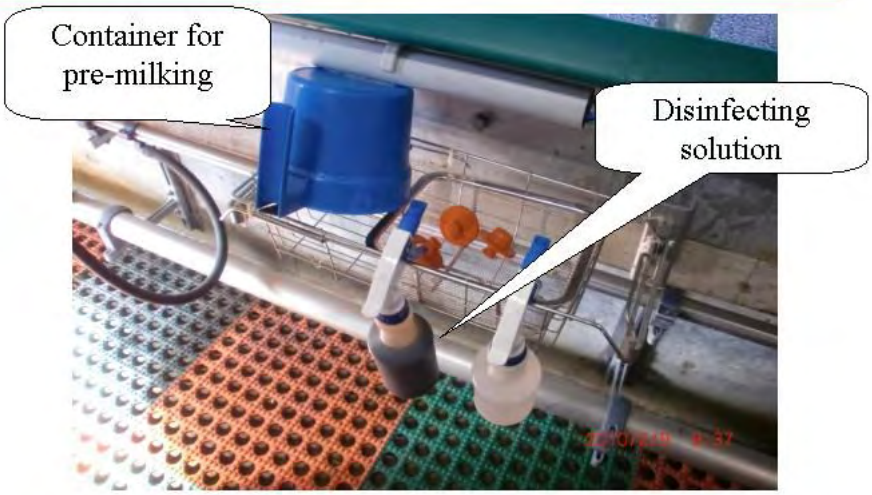
(2) Management of milking apparatus and fresh milk. Since milking apparatus contacts fresh milk directly, at the time of the end of work washing and its disinfection are important. Furthermore, about fresh milk, cooling immediately after milking is important.

46

Where is the container for pre-milking?

- Pre-milking can be done to any container.
- Do not pre-milk on the floor, because it can lead to bacteria increase, and if a cow suffers mastitis this method can lead to contamination of other cows laying on the same bed.

47



- Container for pre-milking and medicine for disinfection of the nipples after milking
- (the picture was taken in Japan)

48

Udder washing should be done with clean water.

- The udder should be washed away with clean water, and water should be changed frequently especially during winter time. because udder is so dirty with manure.

49

Wiping udder before attaching milking device.

- After wash the udders, the udder should be wiped with dry and clean cloth before attaching milking device. Because if udder is wet, the dirty water with bacteria is easily get inside the milking device, then, it will be mixed with raw milk.

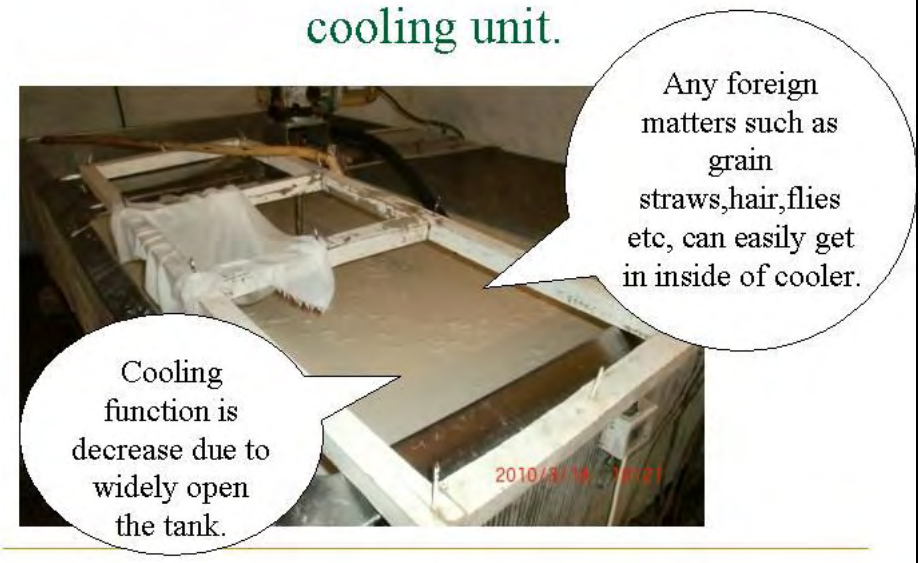
50

Do not allow foreign matters to get into milk!

- The milk put into the bucket after milking. There are some foreign matters such as grain straws. Do children want to eat straws with bacteria??

51

Do not take off the lid of the milk cooling unit.



52

Why the bacteria like to live with milk?

53

The necessary conditions for increasing bacteria

- Adequate moisture
- Adequate temperature
- Adequate nutrition

54

How about milk?

- Among the food, milk has the most suitable condition to increase bacteria.

1. Temperature of milk is 38 degrees
2. Amount of moisture is 87%
3. Amount of nutrient is “good enough”

55

How do bacteria grow up?

- One bacterium will grow up to one million after 10 hours with the condition of 32 degrees, 80% moisture and enough nutrients.

56

Do not put milking machines on the floor!

- There are many cases recognized that the milking machines are put on the floor during milking time.
- Any hanging tools should be prepared.

57

- All milking equipment must be well washed after milking

(the picture was taken in Japan)

58

The room for the milking machinery is very clean
(the picture was taken in Japan)

59

Equipment washing is very important.

- Carefully check the temperature of the water (never below than 40 degrees) during washing the equipment after milking.
- Washing should be done at the proper washing room
- Washing should be done using hot water and running water.
- Washing should be done under bright environment.

60

It is too dark for careful washing!!
Do not put the equipment on the dirty floor. The table should be prepared.
61

After washing the milking device you need to rinse it again with clean water before putting it for drying
The floor is dirty. A table for milking devices should be prepared.
62

Sanitary drying is important.

- The equipment should be dry as soon as possible in order to prevent increasing bacteria.
- The equipment parts such as packing should be attached after dried of them.
- Drying equipment with hanging method is advisable.

63

64

Washing plates and washing milking machineries

- You must keep in your mind about deference's of washing dish at home and washing milking machineries at dairy farm, that is, the aim of washing dish is just clean the dish, but the aim of washing milking machineries are to avoid living environment of bacteria.

65

Remember again what is important

- **Maintain udder and nipples of the cows clean**
- **Provide washing of the udder and avoiding invade of any bacteria into nipples.**
- **Regularly milking procedure is important.**
- **Always to take care about the condition of milk quality**
- **Always to take care about the data concerning number of bacteria.**
- **To check carefully the condition of milking machines before milking time.**

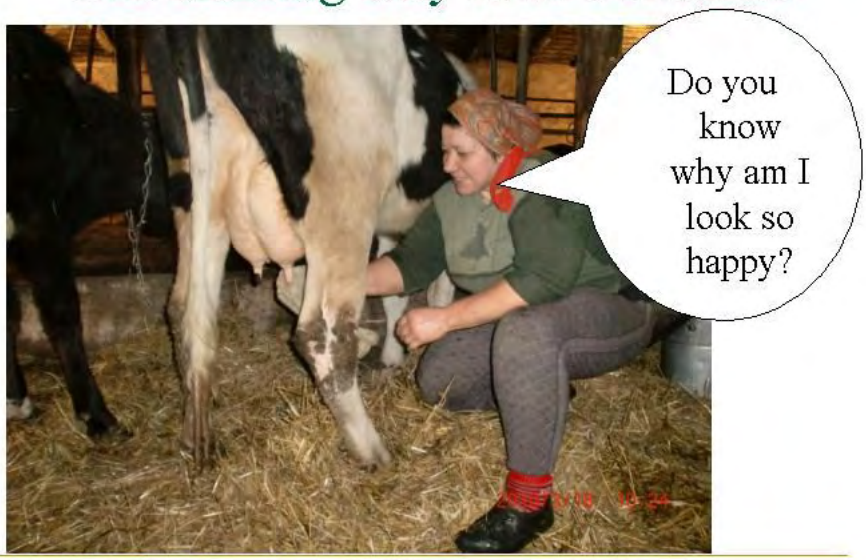
66

If you found abnormality of your milk

1. To check if increasing number of bacteria is caused by cow shed environment or mastitis.
2. To check and find out about all sources of bacteria.
3. To discuss how to improve present condition.
4. To make action plan in order and start improvement activities.

67

The milking lady is so beautiful!



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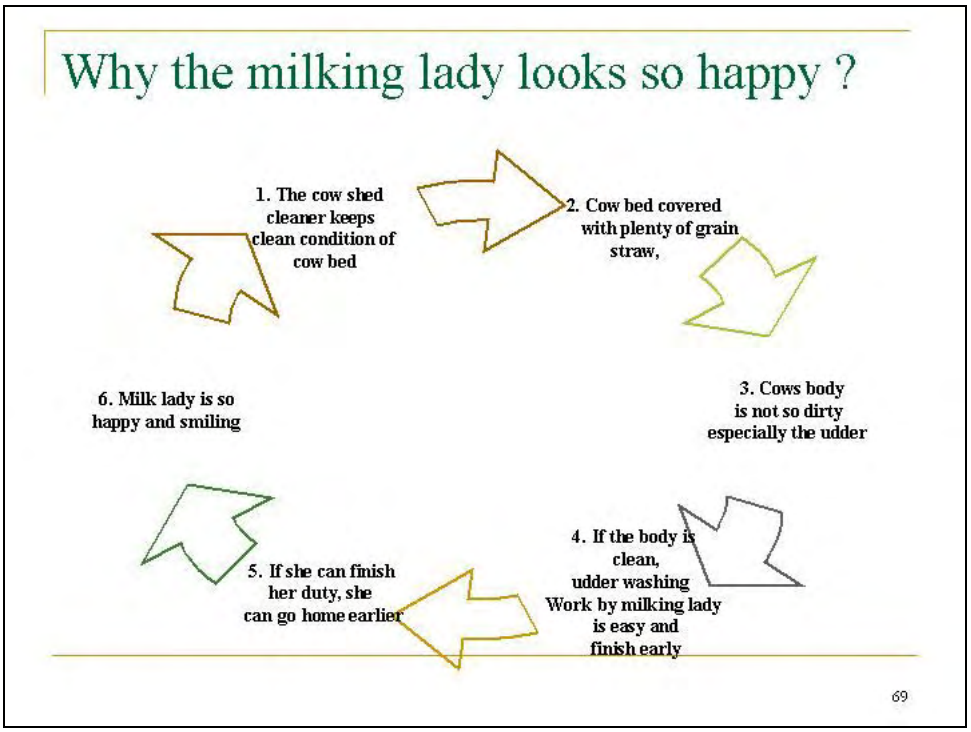
Why the milking lady looks so happy ?
1. The cow shed cleaner keeps clean condition of cow bed
2. Cow bed covered with plenty of grain straw,
3. Cows body is not so dirty especially the udder
4. If the body is clean, udder washing Work by milking lady is easy and finish early
5. If she can finish her duty, she can go home earlier
6. Milk lady is so happy and smiling
69

Quality milk is the "BOSS" only strong corporation can make quality milk
Cow shed cleaners
Farm manager
Dairy milk company
Quality milk
Milking ladies
Owner of dairy farm
Technicians such as veterinarians
70

The owner of dairy farm should remember

- The owner of dairy farm should not forget that "I am a farmer." Whenever visit his farm, do not wear neck tie but wear working cloth and work shoes. Any good employee does not care about your dairy farm as you are doing.
- He should initiate holding staff meeting and discuss the condition of the farm

71

What is clean cow shed????

- Any person has difficulty to do without good example.
- The owner of dairy farm have to seek good example for his staff.
- The owner of dairy farm have to send the staff to see and learn about good example
- The staff can understand "what is clean cow shed"
- The staff can introduce the way of cleaning to his farm.

72

Adequate management of black and white cow.

- Increasing number of the farmers introducing black and white cattle. Why?
- Because she has an advantage which native cow does not have, that is more milk production.
- On the other hand, black and white cow is need to special care more than native cow.

73

- It is necessary to have any opportunities to introduce adequate management about black and white cattle before too late especially feeding management.
- In my observation, there are some cases already happening not so good management about black and white cattle.
- How can we find and introduce those useful techniques to the farmer?

74

To learn from success story is best way for that.

- One of the examples is Zenchenko dairy farm.
- It is necessary to analyze about management of Zenchenko dairy farm especially feeding management.
- It is necessary to make technical transfer system for the needed people.

75

- Dairy farm of Zenchenko

76

What are strong points of Zenchenko dairy farm?

- Their milking procedure is very sanitary and practicing dipping after milking.
- They cultivate corn about 2000 ha for making whole crop corn silage.

77

- They are cultivating legumes such as alfalfa for 260 ha
- They are giving haylage and silage throughout the year.
- Their cattle shed are so clean and the body of cow is also clean.
- They are making haylage made from oat, wheat and barley and give 20 kg per head

78

- Please, come to Japan.

The mount Fiji is waiting for you. Thank you!!!

79