

MILK EQUIPMENT AND MASTITIS

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The relationship of milking equipment to the incidence of mastitis or the leucocyte count has received increased attention in recent months. However, a suspected relationship has existed since milking machines were first used. To properly utilize milking equipment, the dairyman or manager needs to understand the cow, the milking process, and the man operating the milking machine. Regardless of how efficient the machine is mechanically, an inadequate stimulation of the cow prior to milking and too long a delay between stimulation and putting on the teat cups will result in faulty milking practices.

Misuse of the milking machine causes tissue damage. This includes placing the machine on too quickly or leaving the machine on too long after the flow of milk has ceased. Excessive machine stripping should be avoided and is not necessary if the machine is operating efficiently with the right type, condition, and design of inflation.

A properly functioning milking machine allows the cow to be milked and at the same time gives relief to the blood congested in the teat. This is accomplished by the alternate onset and release of vacuum. At the onset of vacuum between the teat cup shell and the inflation liner, the liner springs back to a normal position and vacuum from the milking machine causes the milk to flow from the teat. The same vacuum that sucks the milk out of the mammary gland cisterns also allows the rubber inflation to close long enough to massage the teat. The resulting massaging action on the teat allows the sphincter muscle to rest, thereby preventing congestion of blood and permanent damage to the teat.

An improper vacuum level or faulty inflations may prevent the teat cup liners from closing properly. This often occurs when there are milk blocks or restrictions in the milk hoses or inflations. Old or badly worn inflations lose their shape and resilience strength, resulting in teat cups creeping up the teat. Conditions of this nature will quickly lead to stresses and possible tissue damage. Narrow bore inflations are helpful in correcting this problem.

The milking machine is an important tool and is used more hours during the year than any other piece of equipment. For this reason, a good understanding of its function is necessary in order to maintain top efficiency.

The incidence of new intramammary infections has consistently been reduced by 30 to 50% or more over extended periods. Teat dipping with an antiseptic solution removes or dilutes any residual milk left on the end of the teat which is a favorable site and media for bacterial growth. In addition, the antiseptic solution kills bacteria on the end of the teat that could grow their way through the teat canal. Progress in reducing herd mastitis infection levels by teat dipping is a gradual process over a period of months, and visible improvements should not be expected "overnight".

Teat dipping and dry cow medication offers the dairyman an effective means to reduce the incidence of mastitis. However, these processes should only be a part of a mastitis control program which also includes good milking practices, proper maintenance of milking machines, effective sanitation practices, segregation of infected and non-infected cows and utilization of non-infected herd replacements.