
Machine milking problems: trouble shooting

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The Animal Health Service in The Netherlands employs certified specialists in the field of mastitis management, especially trained in the evaluation of the functioning of the milking machine and milking procedures. They visit, on a yearly basis, around 300 dairy farms with mastitis or problems related to the milking machine at the request of the farmer and/or local veterinary practitioner. They report their findings always to the farmer and the local veterinarian.

Two important problems related to the milking machine are restless cows during milking and disturbed milk ejection or removal. In this article possible causes of these two problems are discussed.

Cows should be quiet and relaxed during milking (Bruckmaier, 1998; Reneau 1995). It is considered a herd problem if over 10% of the clusters are kicked off or require reattaching. Possible causes and indications of restless cows during milking are (Aneshansley 1992; Mein 2003; Mein 2004; Southwick 1995) :

Causes	Indications
Insufficient functioning of the milking machine	teat affections restless cows at the end of milking
wrong use of concentrates	restless cows when there no concentrates reattaching is no problem
fly nuisance	cows also restless before milking cows restless during milking
sensitive teats	teat lesions cows restless during udder preparation
stray voltage	cows tripping cows are kicking quite suddenly

Introduction

Restless cows during milking

cow stalls too small parlour	cows are not eager to come into the milking cows are not standing straight in the stalls
restless milker	cows are afraid of the milker

Disturbed milk ejection/removal

Intramammary infections will exist longer if the udder is insufficiently milked out (I.D.F., 1987). The recommended maximum strip yield per udder is 0.5 kg (Mein & Hamann, 1995). The proportion of cows with more than 250 ml of strip yield should not be above 10% (Rasmussen, 2004). Possible causes of disturbed milk ejection/removal are (Bruckmaier, 1998; Reneau 1995):

Causes	Examples
Insufficient functioning of the milking machine	vacuum/pulsation failure, wrong liner design, cracked liners/tubes, wrong position cluster, wrong adjustment automatic cluster removal
insufficient udder preparation	udder prep-lag time too short
variable milking routine	different milkers/milking procedures
cow in bad shape	cow not healthy/in heat/stress
cow factors	udder shape, teat shape, milking speed

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