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Session 6 – Equine milk for human health

Mechanical milking of equines, the european proposal

Simoni A.¹, Drogoul C.², Salimei E.³

1 Di SAVA, Università degli Studi del Molise, Campobasso (IT)

2 LEGTA Semur Chatillon, Chatillon sur Seine (F)

3 Di. STAAM, Università degli Studi del Molise, Campobasso (IT)



salimei@unimol.it

Portable milking machine for mares

(Le Du, 1986 photo Faubladier, 2005)

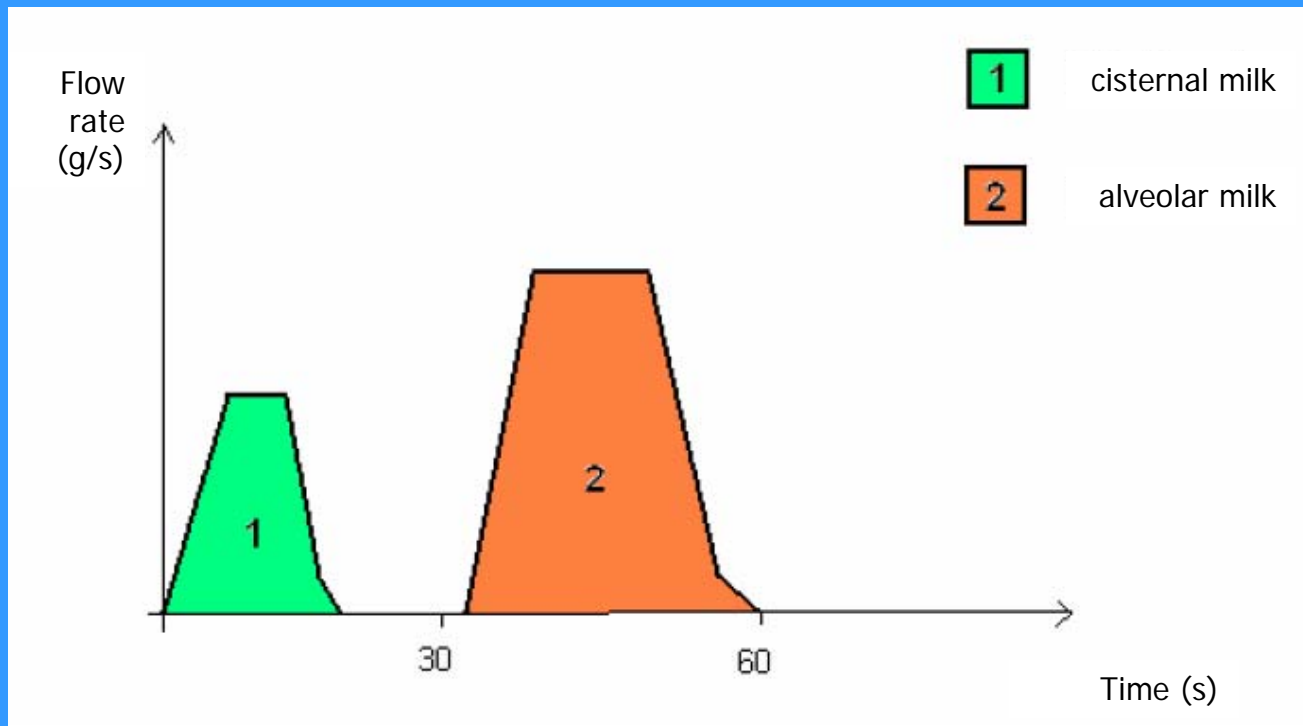


Milking trolley for mares: portable milking machine equipped with a graduated jar

(photo Salimei 1996)



Milk ejection in mare



Le Du, 1986

MILK FRACTION	FAT CONTENT, %
Cisternal milk	0.15
Alveolar milk	0.5 – 1.1
Stripping	1.1 – 1.4
Residual milk (~ 30% total yield)	3.5 – 7.2

Cherepanova and Belokobylenko, 1974

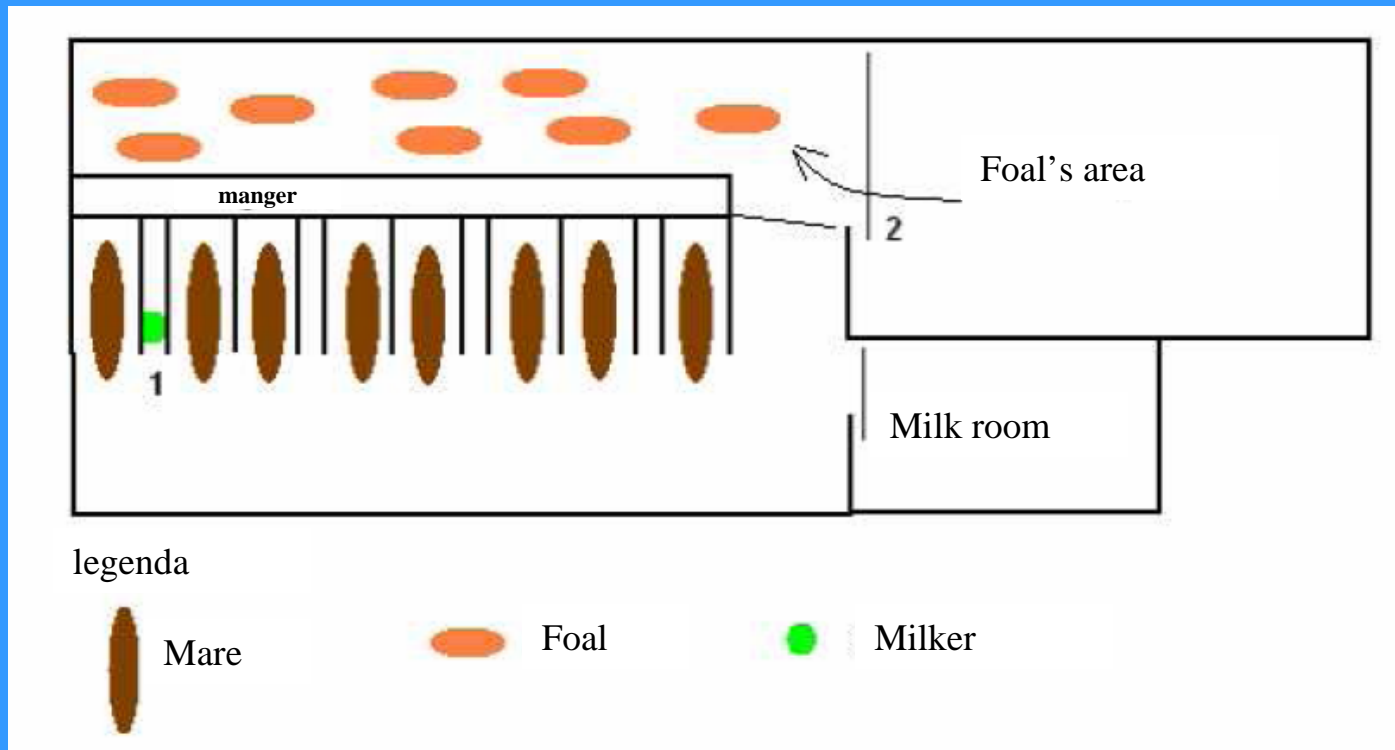
Characteristics of portable milking machine (*Le Du, 1986*)

Pulsation rate	120 cycles/min
Pulsation ratio	50%
Vacuum level	42 kPa (37 ÷ 50 kPa)
Cluster (unit)	Sheep or goat type
Bucket	Pour milk gently in order to avoid physical stress

Dairy mare – machine milking management (*Bayle-Labouré, 2007*)

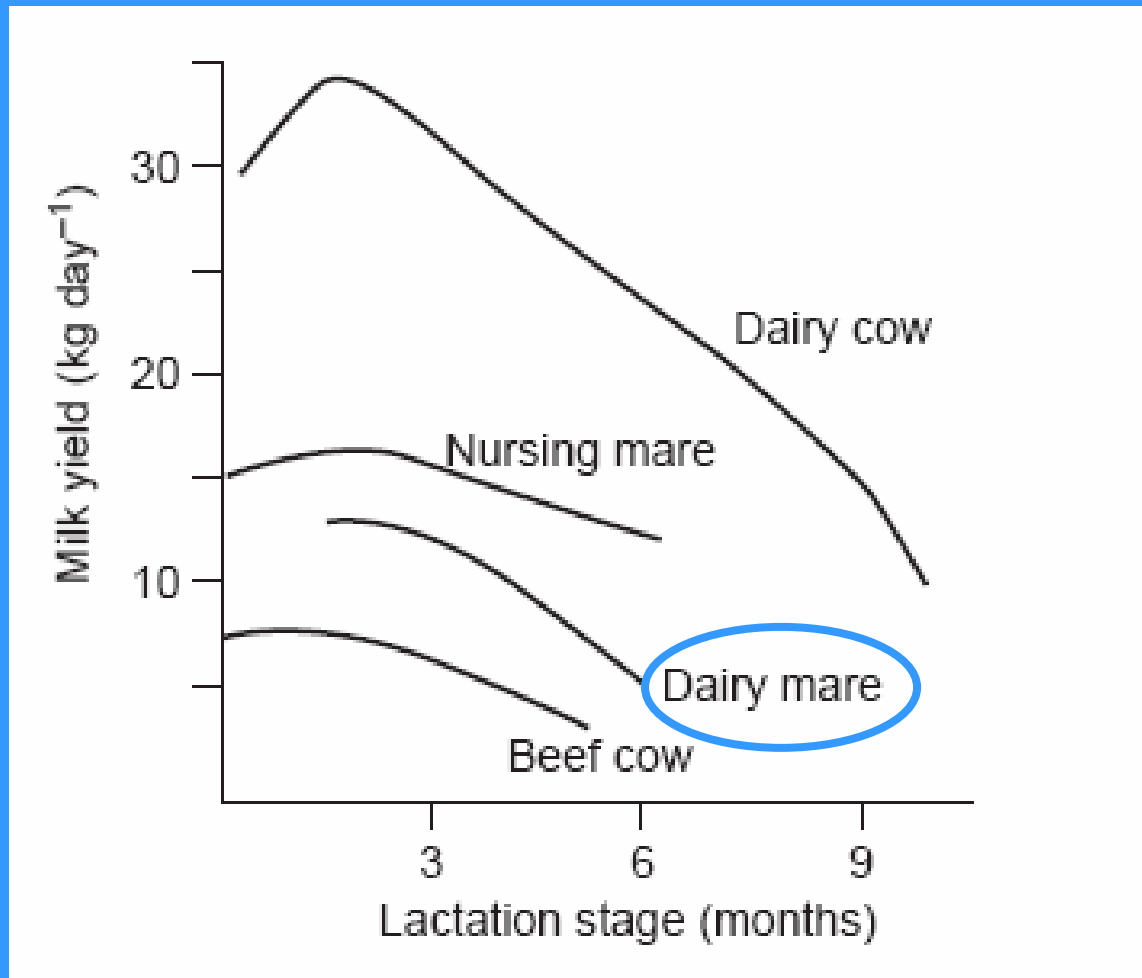
Milking frequency	Three times per day
Beginning of milking period	2 – 3 months after foaling
Milking period	From June to December (6 -7 months)
Milking routine	- 3 hr physical separation from foal - massage udder and manual stimulation - cleaning teat
Foal management	Foals nurse at night and during week-ends
Milk yield	2 ÷ 2.5 l/ milking (heavy breed) about 1000 l/mare·season
Facilities	Milking parlour close to milk room

Milking stable for mare



From Bayle-Labouré, 2007

Mare's milk production



Doreau and Martin Rosset, 2002



Milking facility in a dairy donkey farm



Project: Simoni, 2004; prototype Borghi





Dairy donkey farm: a proposal for marginal areas



Simoni, 2010



Photo: www.donkeywelfare.com

Andrea, Carole and Elisabetta thank you for your attention