“Designing future udder”

-Which conformation traits gives most value in relation to work using AMS data

NAV workshop

Copenhagen, January 2016

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Repetition from webinar

Weight on Udder in NTM

What carries the value of a good udder – present situation?

Less work

Better health

More beautiful cows

Longer living cows

NAV

Less work: Value of traits in Udder

Problem: No good objective measure of value!

- **How clean is the udder** (fore udder attachment, udder depth)
- **How fast can you put on the machine** (teat placement)
- **Do cow loose machine during milking** (teats, udder balance)
  - Largely affected by right settings of hoses and liners


Liners

NEW!
AMS data

- Approx. 12.000 Danish 1. lact. Holstein cows
- Data from Lely AMS
- 15 percent classified

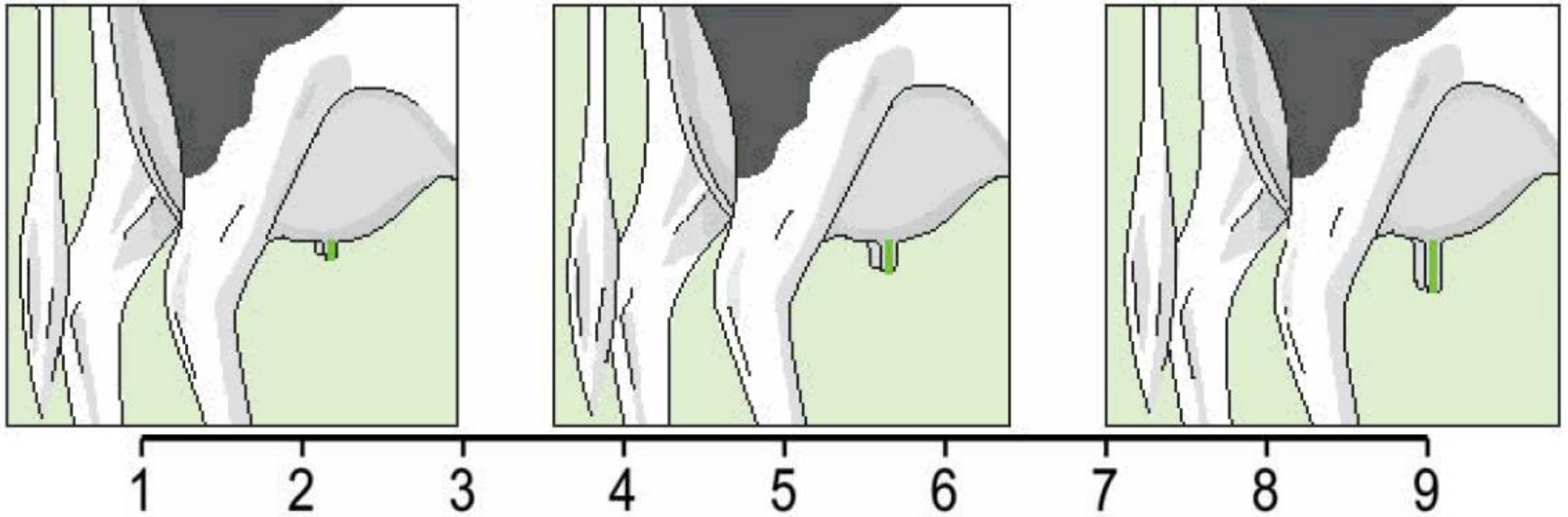
Breeding for shorter attachment time

Favorable correlation to:

- Wider front and rear teats (0.19/0.16))
- Thicker teats (0.17)
- Higher udders (0.14)
- More narrow rear udders (0.11)
- Longer teats (0.08)

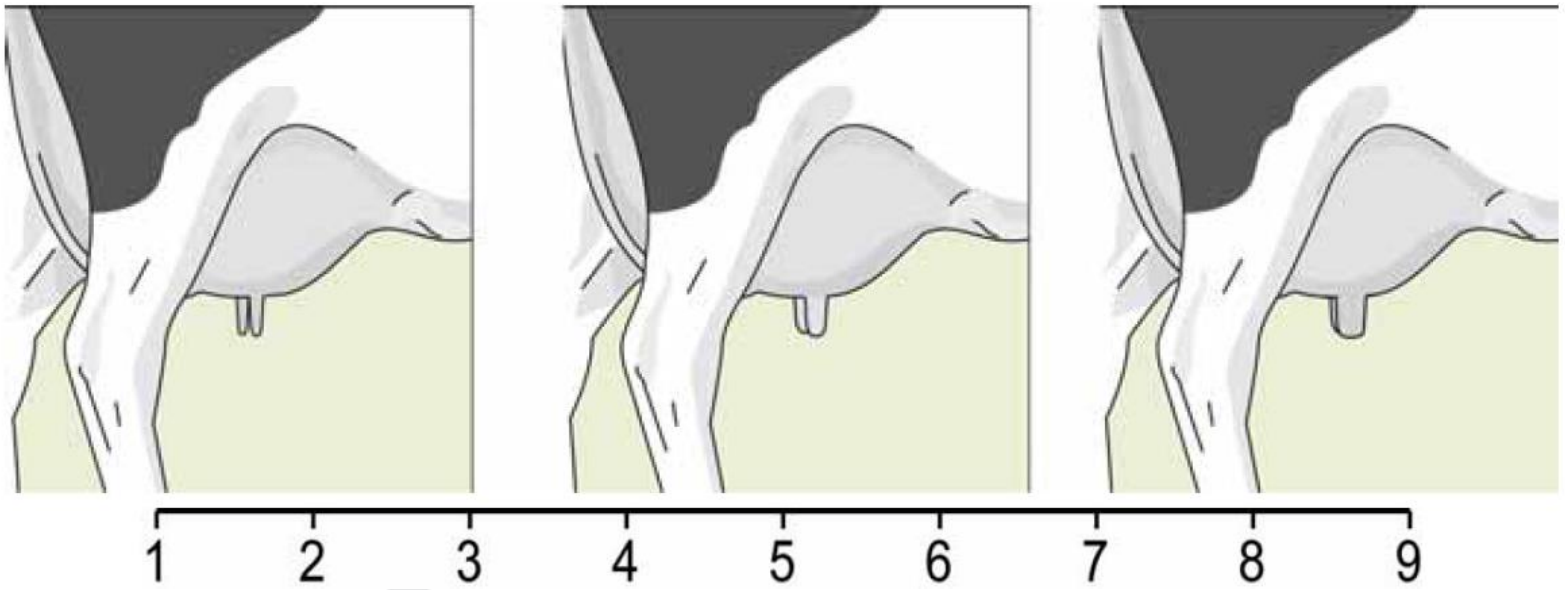
Other traits not important

Teat length affects attachment time



Classification	3	4	5	6	7
No.	228	514	519	344	194
Attach. Time (seconds)	Ref.	-1.5	-1.4	-0.5	0.2

Teat thickness affects attachment time



Classification	3	4	5	6	7
No.	141	484	607	442	162
Attach. Time (seconds)	Ref.	-1,3	-1.0	-1.5	-0.8

Conclusion

- Within normal range for udder traits - only limited effect on attachment time – low correlation!
- Very short and thin teat only gives extra 3 seconds attachment time – average 42 seconds
- Unfavorable correlation between milking speed and teath length and thickness – average milking time 800 seconds
- Bevare: Still no information on extra work load during rest of milking + other milking systems