

<https://www.danmap.org/reports/2020>

A Stable School focusing on low(er?) antimicrobial use (AMU) in rosé veal calves

Based on 1 year action research case study of stable school with 6 farmers within the Robust Calves-project

Dorte Bay, DVM, PhD, assistant professor, KU Sund



Related research since 2007 in Northern EU

– but not in conventional rosé-veal-production


> *J Dairy Sci.* 2007 May;90(5):2543-54. doi: 10.3168/jds.2006-607.

Danish stable schools for experiential common learning in groups of organic dairy farmers

M Vaarst¹, T B Nissen, S Østergaard, I C Klaas, T W Bennedsgaard, J Christensen

Reducing antibiotic usage in organic dairy farms - The stable school approach

November 2012 · *Cattle Practice* 20:157-161

 Mette Vaarst




J. Dairy Sci. 104

<https://doi.org/10.3168/jds.2020-18874>

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A participatory, farmer-led approach to changing practices around antimicrobial use on UK farms

Lisa C. Morgans,^{1*}  Sarah Bolt,²  Elizabeth Bruno-McClung,³  Lisa van Dijk,⁴  Maria P. Escobar,⁵
Henry J. Buller,⁶  David C. J. Main,⁴  and Kristen K. Reyher⁵ 

¹Innovation for Agriculture, Arthur Rank Centre, Stoneleigh Park, Stoneleigh, Warwickshire, CV8 2LZ, UK

²Kingshay (part of the VetPartners Group), Bridge Farm, West Bradley, Glastonbury, Somerset, BA6 8LU, UK

³Department of Public Health (Distance Learning), London School of Hygiene and Tropical Medicine, Keppel Street, London, WC1E 7HT, UK

⁴Royal Agricultural University, Cirencester, Gloucestershire, GL7 6JS, UK

⁵Bristol Veterinary School, University of Bristol, Langford House, Stock Lane, Langford, North Somerset, BS40 5DU, UK

⁶School of Geography, University of Exeter, Amory Building, Rennes Drive, Exeter, EX4 4RJ, UK

Organic Farming | 2020 | Volume 6 | Issue 1 | Pages 13–23

DOI: 10.12924/of2020.06010013

ISSN: 2297–6485



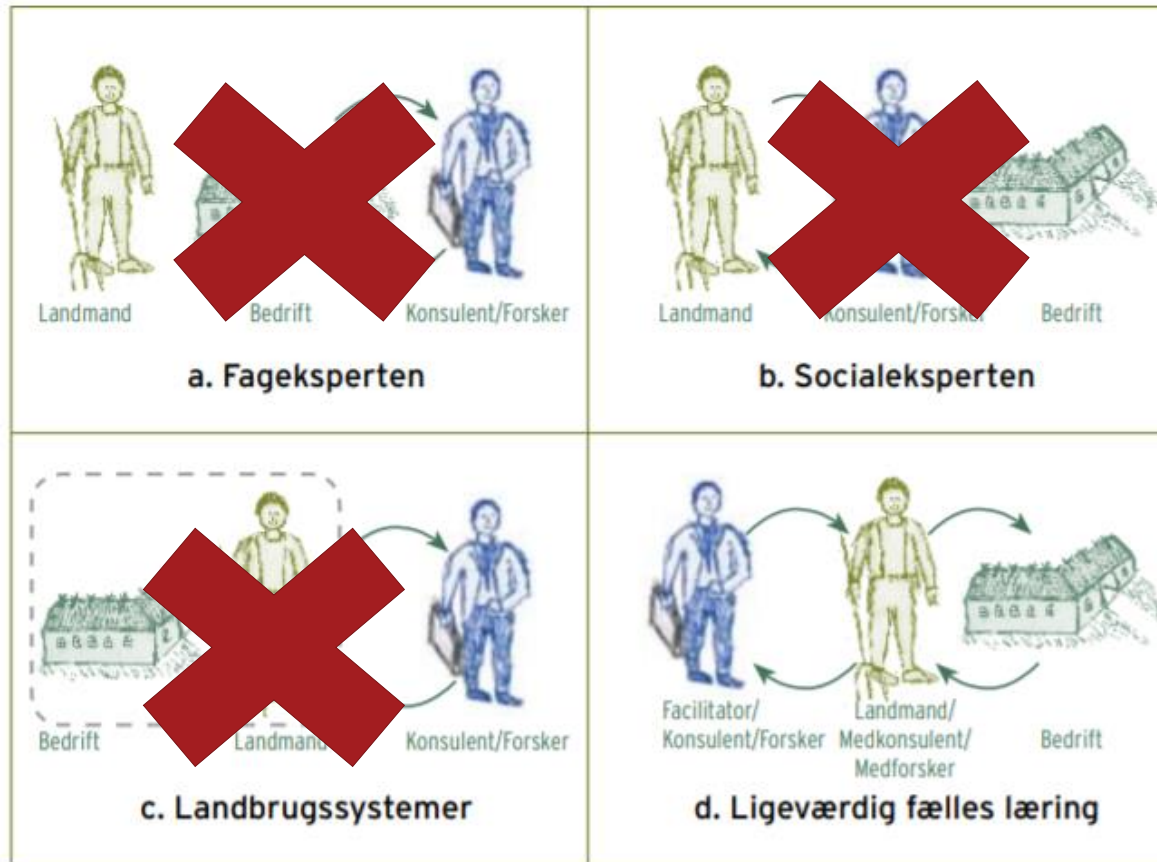
Research Article

Modified ‘Stable Schools’ as a Consulting Tool for Organic Dairy Herds

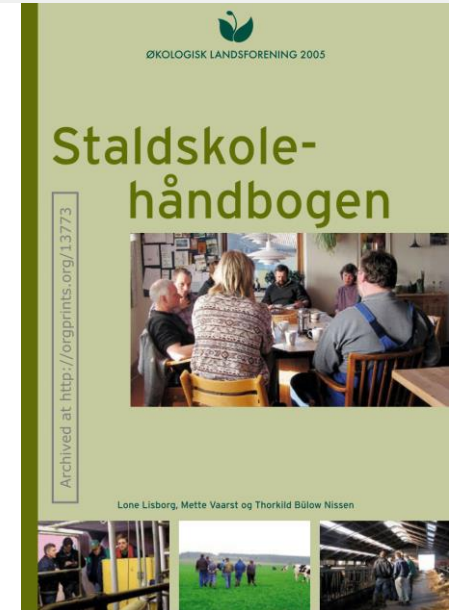
Verena K. Hansmann¹ Otto Volling² and Volker Krömker^{3,*}

Why 'Stables Schools'?

- instead of classical expert advisory services



Figur 1. Rådgivningsformer i landbruget.



<https://orgprints.org/13773/>

The idea is...

A common goal

A binding relationship between peers

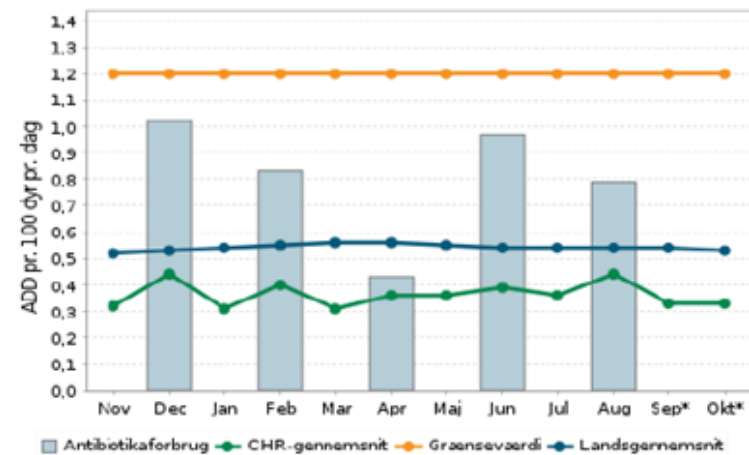
No/little power imbalance between participants

Practical implementable concrete advice

An qualitative case study

-empirical data; observations, individual interviews, group-discussions

- One stable school; 5-6 conventional veal-calf-farmers (selected with low to medium ADD, low to medium calf mortality, rearing 300-500 calves a year)
- 6 herd visit of 3 hours; 1 hour in the stable – 2 hours around the table
- 2 x 6 individual interviews (1-1,5 hours) on perception of AMU
- 2 meetings of 2-3 hours on clinical calf appearance/the psychology of change and a potential future of OUA-veal-production (Reared without antibiotics – similar to OUA-pigs)
- Analysis ongoing

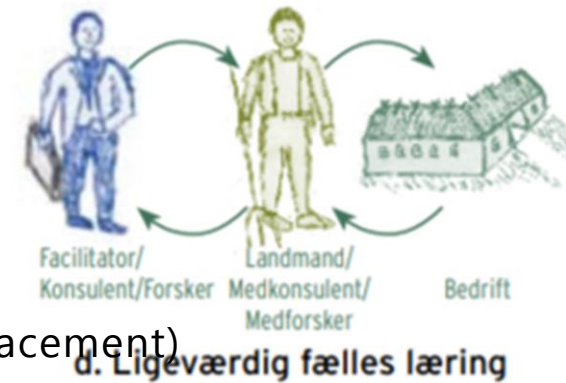


*Antibiotikaforbruget i disse måneder er ikke endeligt opgjort og kan derfor ændre sig.



Lessons learned from the stable schools

-supported by PhD-studies of stables schools
in conventional dairy farms by Nanna Krogh Skjølstrup



One clear common goal for a stable school (e.g. here AMU - Reduction, Refinement, Replacement)

Participation driven by motivation

Commitment to both own and/or common goal and choices of solutions

Participation in 'all' meetings are important for equal group dynamic

The diversity in the group related to the common goal must be considered when making the groups (e.g. level of AMU, conventional/organic, different production systems,..)

The diversity in the group related to human factors (age, experience in farming,..) must be considered when making the groups

Issues on power imbalances in the group must be addressed by facilitator immediately if present

Primarily an advisory form for farmers that are process-orientated compared to result orientate (e.g. not a competitive environment)

Facilitator must have competences within the procedures and willingness to depart from being a classical expert, until asked at the end or after meetings.

Valid monitoring tools on herd level (quantitative data) should be available at the beginning of the stable school

Identified factors among 'low AMU veal-calf-farmers'

Time to work and think

Milk and water for smaller calves

Eminent skills in observation on changed individual calf behavioural patterns before clinical signs

No or little experience in systematic AMU

Attitude against necessity of treatment

Calf death is feared and not acceptable

Treatment can be too low – need of escape therapy to save animals lives

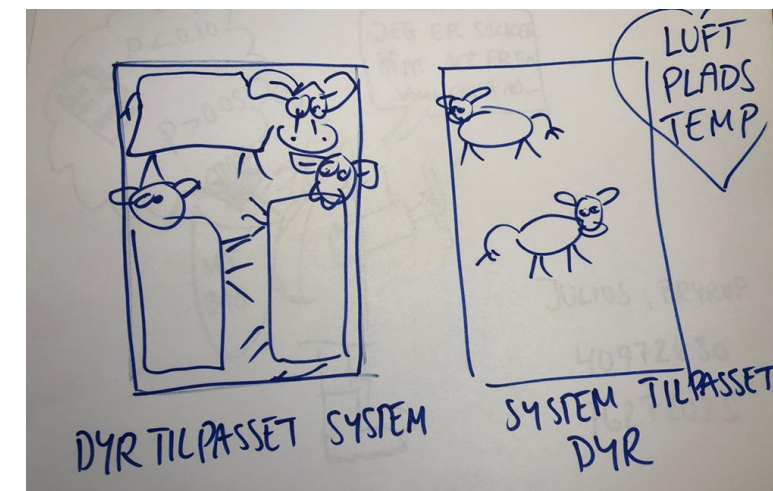
Space (low stocking density) and separate units for different age groups

Amount of bedding material is important for health

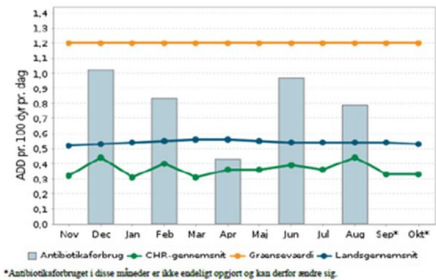
Interaction between hygiene, group size after arrival and number of calf suppliers

Strong relationships with suppliers of calves (dairy farmers or calf-dealer)

No economical, legal or moral incentives to reduce AMU level further.



Identified dilemmas among 'rational' veal-calf-farmers



Feeding, Housing and Bedding

Figure 2

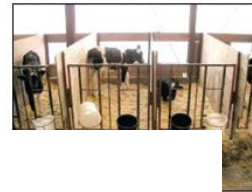
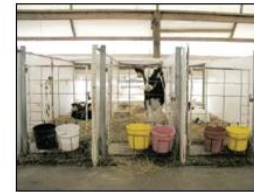


Figure 3



Nesting Score 2
Legs partially visible when laying*

Figure 4



Nesting Score 3
Legs generally not visible when laying*



Identified dilemmas among 'imperfect rational' veal-calf-farmers

<https://docplayer.dk/523162-Pisk-eller-gulerod-incitament-og-virkemidler-til-fremme-af-energiebudspariser-i-bygninger.htm>

Fear of increased calf mortality
Fear of breaking present social norms within sector
Hygiene – a personal taboo?

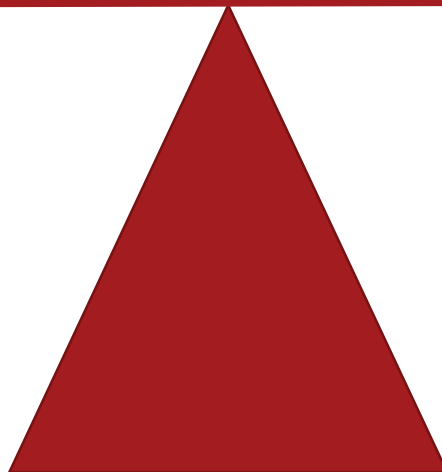
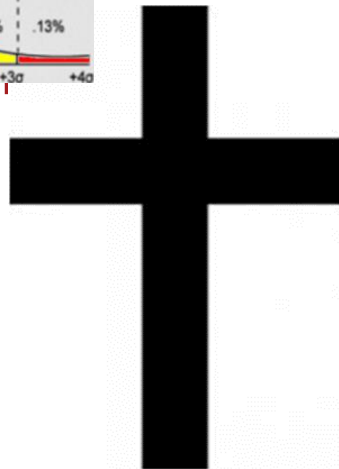
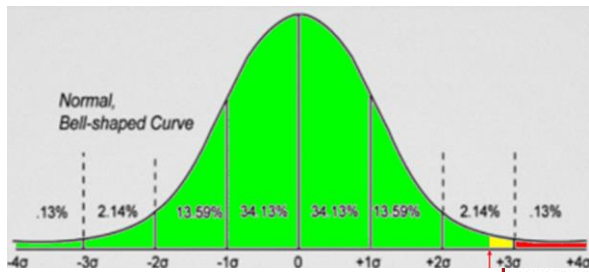


Figure 1 Antibiotics as a quick fix.
 Denyer Willis, L., and C. Chandler. 2019. Quick fix for care, productivity, hygiene and inequality: Reframing the entrenched problem of antibiotic overuse. *BMJ Glob. Heal.* 4:1–6. doi:10.1136/bmjgh-2019-001590.

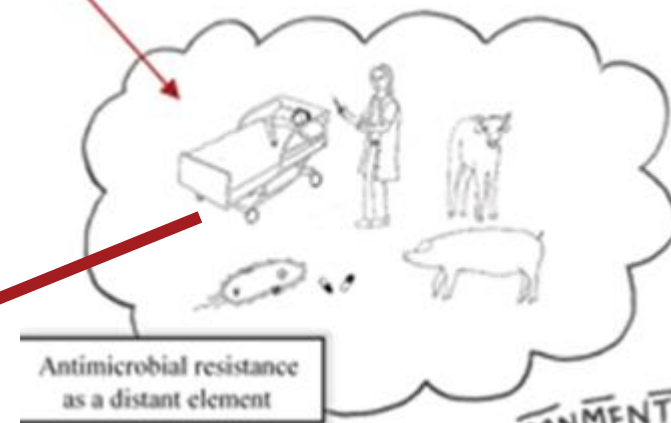
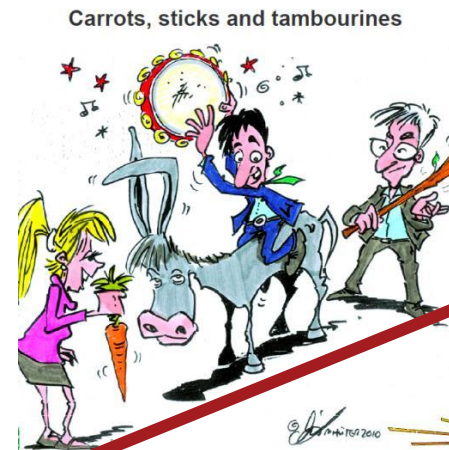
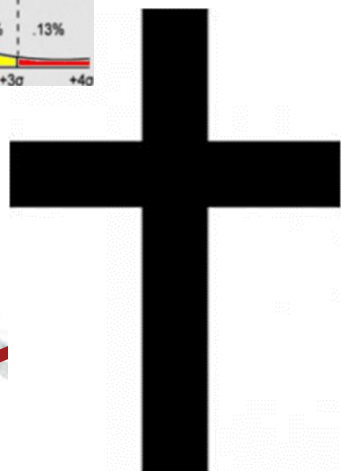
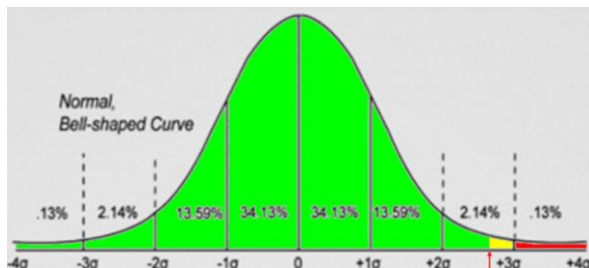
Antimicrobial resistance is perceived as a distant treat; if a treat at all
AMU is an 'infrastructure' in farming anno 2021
Lack of Structural and Economic incentives



Identified dilemmas among 'imperfect rational' veal-calf-farmers

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J. Dairy Sci. 104:11147–11164
<https://doi.org/10.3168/jds.2021-20562>
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 This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).
The antimicrobial landscape as outlined by Danish dairy farmers
 Nanna K. Skjeltung,^{1,*} Doris B. Lastein,¹ Carsten S. Jensen,² and Mette Vaara^{1,3}
¹Section for Production, Nutrition and Health, Department of Veterinary and Animal Sciences, Faculty of Health and Medical Sciences, University of Copenhagen, 1870 Frederiksberg, Denmark
²Department of Zoology, Faculty of Social Sciences, University of Copenhagen, 1353 Copenhagen, Denmark
³Department of Animal Science, Aarhus University, 8000 Tjele, Denmark

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Further analysis of data

Analyse factors within veal calf health and AMU related to the Salutogenetic model;

The reasons for and the development of calf health (and hence low AMU)

(in contrast to pathogenesis – reasons and development of disease)

Salutogenesis concept (Aaron Antonovsky)



<https://www.metasundhed.info/metasundhed/videnskab-kilder/>

