

Pilot project about online ante mortem inspection in cattle farms

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Warning - the presentation contains photos of animals which some people may find distressing!

Necessity is the mother of invention – or what we learned from the Corona pandemic



Use of online tools to facilitate work areas grew rapidly. E.g., Remote food safety audits from 3. countries



Examples are virtual applications and services for online meetings like Teams, Skype and Zoom



Use of video consultations for human health care



Use of online shopping for both daily necessities and almost everything else



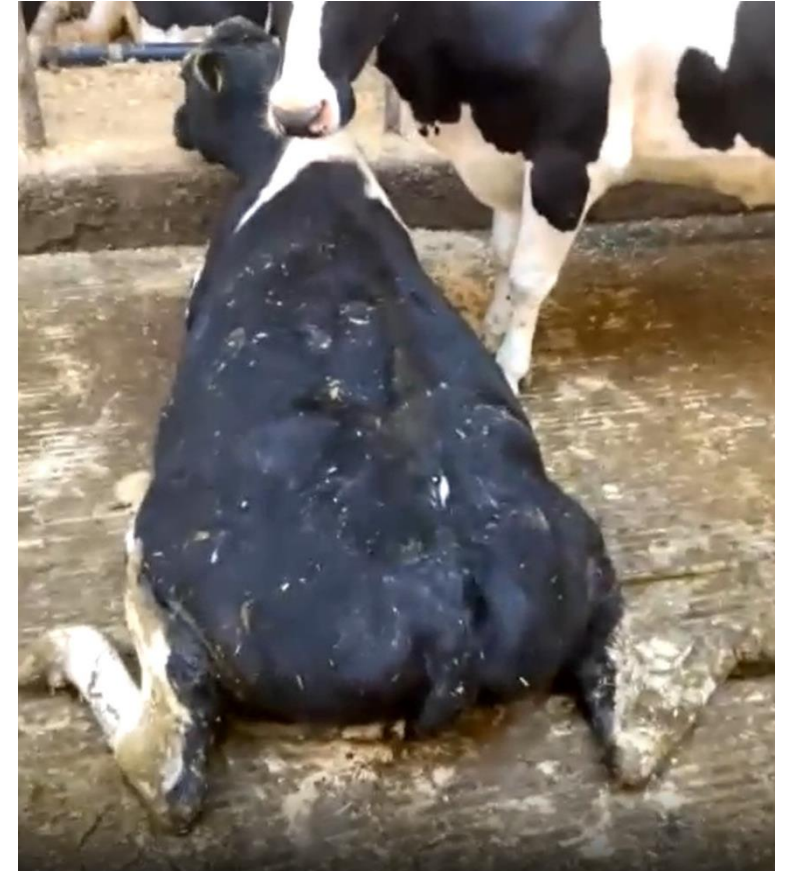
Persons unfamiliar with the technology rapidly adjusted to new circumstances and suddenly new ideas took shape

Current EU legislation

- Requests use of official veterinarians (OV) for AM inspection of cattle that might be emergency slaughtered in a herd
- OV might have a long way to drive, and it will take time before the animal can be inspected:
 - decrease animal welfare
 - higher cost → killing and rendering → food waste
- Earlier any practicing veterinarian could perform AM inspection in a herd

Current EU legislation: Physical examination

Our vision in near future: Remote online AM inspection as a possibility when appropriate – not only in cattle



Aim of project



- Test the hypothesis that an online AM inspection of a bovine is comparable with a physical AM inspection
- Investigate whether stunning and bleeding of a bovine can be documented by video



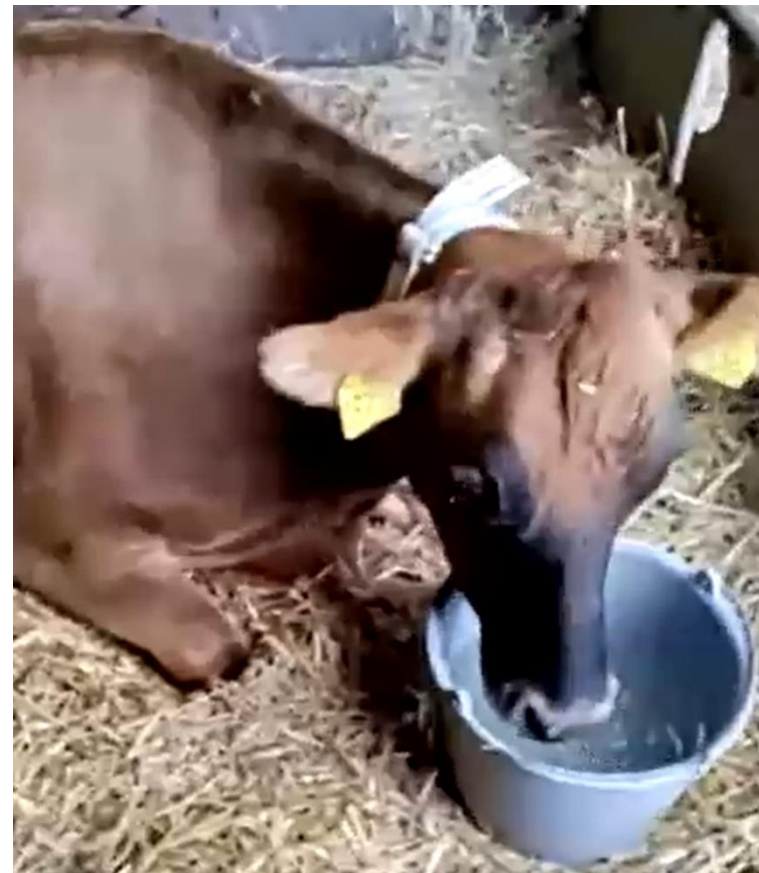
Involved in project

Project coordinators and participants

- DAFC and Seges Innovation
- Selected veterinarians and their clients

Stakeholders

- Danish cattle industry
- Danish Veterinary and Food Administration
- Danish Veterinary Association



Project set-up considerations



- Number of emergency slaughtered animals needed for proper evaluation
- Technology and equipment
- Number of veterinary practices and clients needed
- Duration of the project
- Project design
- Inclusion and exclusion criteria
- Appointing and information of participants
- Documentation needed
- Evaluation and reporting

Final project set-up

- Data collection goal: 50 online AM inspections of potential emergency slaughtered animals
- Timeframe: April 2022 – July 2023
- Technology: SMS-to-video-contact using cell phones and a special video platform set-up made by a Danish company.
- Checklist for clinical examination is used to ensure a uniform AM online inspection.
- The AM inspection is first performed online and then physically on the farm.
- OV describes relevant findings not possible to register on video.
- Videos of AM inspections are recorded and saved for a certain time period.
- Videos are evaluated by other OV to compare agreement

...undersøgelse:

Parametre sæt kryds X

Bevægelse	<input type="checkbox"/> Normal <input type="checkbox"/> Unormal (f.eks. Nervøs adfærd) <input type="checkbox"/> Halt <input type="checkbox"/> Ligger ned
Øjne	<input type="checkbox"/> Normal <input type="checkbox"/> Dehydreret <input type="checkbox"/> Smerte
Næsebor	<input type="checkbox"/> Normalt fugtige <input type="checkbox"/> Moderat tørre <input type="checkbox"/> Tørre og smudsige
Tænderskæren	<input type="checkbox"/> Normal <input type="checkbox"/> Alvorlig
Vomfylde	<input type="checkbox"/> Normal ift. alder/laktation <input type="checkbox"/> Let indfalden <input type="checkbox"/> Meget indfalden
Hårlag	<input type="checkbox"/> Normal blankt <input type="checkbox"/> Mat, strittende

Used technology

- SMS-to-video-contact using cell phones and a special video platform set-up made by a Danish company
- Each AM online inspection creates two separate videos – one from the OV and one from the farmer
- The videos are clipped into one video
- Next slide shows small part of an online AM inspection between farmer and OV
- OV interviews farmer about incident, identity of the cow, body temperature, general affection, lameness e.g according to checklist



Challenges



Technical issue with inefficient internet connection and video clipping

To have enough emergency slaughter animals for the project during the project period

- Farmers are often too busy to participate
- Some emergency slaughter animals are inspected when the veterinarian already is visiting the farm for other reasons

Project status May 2023

Status:

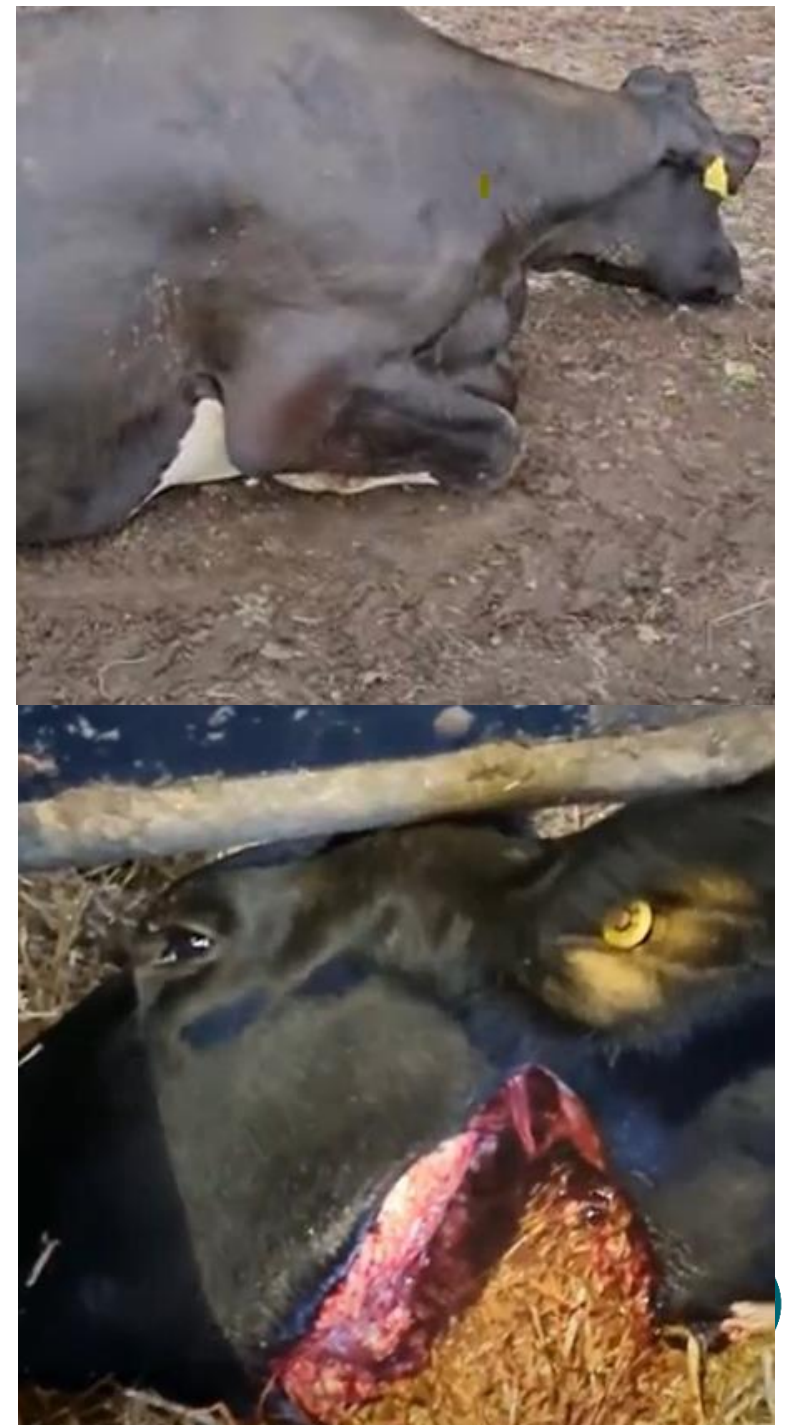
- 43 AM videos recorded
- Of these 29 videos fulfil the inclusion criteria
- The project will be extended to end of 2023 to achieve more data



Our vision

Hopefully, the project will show that:

- AM inspection using video consultation between the farmer and the OV is comparable with a physical AM inspection
- Stunning and bleeding of the animal can be monitored online



Next steps



Project report

- used as background material for an article to be published in an international journal

Project will be presented to the EU Commission in order to amend the current EU legislation so AM online inspection can be a possibility in the future

In that way reduce food waste og achieve better animal welfare

This example shows cattle, but the principles should apply to all animal species

Thank you for your attention

Questions?

