The Danish Dairy Cattle Living Lab

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Dairy cow and calf sector

Dairy cattle

The Danish Dairy Cattle Living Lab consisted of a new group of participants from 8 types of organisations (SEGES, Vet.Society), universities (Copenhagen and Aarhus) and companies (Arla Foods, Himmerlandskød, Calvex, vet.practices) to come up with ways to reduce antimicrobial use (AMU). They worked as a core group, under which three thematic groups were formed. They carried through different 'actions', which involved a number of other stakeholders, and were called 'Action Labs'. The Living Lab was initiated in October 2020 and the process is still on-going. We have had seven core group meetings and a number of thematic group meetings working with legislation, education and changes of practices).

The strategy tested in the Living Lab

Small tests initiated by different Action Labs, and a larger more systemic and comprehensive change increasingly in focus on calves from dairy herds to calf herds.

Different strategies were implemented and are still in process, such as initiate dialogues with agricultural colleges, create debate in professional environments e.g. at the Danish Cattle Conference, and test how experience exchange groups among foreign farm workers could increase focus on animal health and reduced AMU. We started to produce inspiration videos from farmer to farmer. However, much focus was directed towards the calves, because they generally have a high AMU, and the situations of both calves and those caring for them was complex and under pressure.

The roadmap to implementation

The Danish ROADMAP cattle LL initially focused on the necessity of changes in the systems and structures beyond the farms, instead of the usual 'things should be done better at farm level', although still acknowledging that the big difference between farms regarding AMU was also necessary to address. Many initiatives were discussed and partly broad out in the surroundings of the participants in the LLs. It was a challenge that analysis of 'the system' remained big and complex, and involved more actors and levels than what was represented in the LL core group. The Living Lab core group will follow up on the Action Lab activities and conclude, and if possible find funds to continue. This will happen during spring 2023.

The impact created by the Living Lab

- Animal Health: Stronger focus among some actors in the sector regarding the imbalance between cows and calves in terms of focus and priority in the dairy herds and cattle sector.
- Costs and savings: To bring down AMU in calves will require some systemic changes, which in many cases will be costly. LL participants have been exploring potential strategies, and the ROADMAP team works on these strategies with a focus on cost-effectiveness of selected strategies out of the seven, which were debated. It was concluded that systemic changes were required, and these would be costly because they both implied physical changes (more space, air etc.), but in particular logistic changes to ensure that calves were mixed less, and had more similar health and disease status.
- AMU: We did not experience impact, as it requires a longer transition, but we continue to explore possibilities with actors to ensure stronger calves and more gentle transitions from dairy to calf herds in practice. Since that is where most AMU is used, an effort will impact the AMU in the sector, and the focus on this has increased among many actors.

The Cattle LL co-learning between countries; the calf-debate and the stand at the Danish cattle Conference

Challenges

- Time constraints, especially to do things between meetings for stakeholder representatives
- The LL core group may need broader stakeholder participation, but this was not planned
- Often the focus still is the primary sector rather than the entire sector / bigger system

Successes

- Focused and well-structured dialogues with set goals on AMU between different stakeholders valuable to articulate issues,
- 'Rings in the water' / Ripple effect
- Core group structure with bigger gatherings in Action Lab in-between created focus and interaction

Reducing AMs means taking away something, on which the sector relies, and cannot be done without challenging systems changes. Innovations can be relevant, but we work with changes beyond innovations.

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Picture credits: Mette Vaarst