Trends for longevity of dairy cattle in the Netherlands

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Longevity of dairy cattle is an important trait from an economic and welfare perspective, as well as from a societal and government perspective. For a farmer it is beneficial to get older cows, as it will reduce costs for rearing. Dutch government aims to reduce environmental impact from livestock, and for that is also beneficial to have older cows. Older cows produce on average more, and feed is converted more efficient. Over the past 25 years all statistics on longevity metrics are favorable. These metrics are available in the annual statistics for herdbook cows. Productive life increased by 337 days to 1,445 days for cows culled in 2024. The increase in productive life was constant up to 2008, followed by plateau until 2015, a reduction from 2016 to 2018, followed by a steep increase. Main reason for this steep increase since 2018 was that farmers needed to reduce cow numbers to be below the threshold of their phosphate quota. Until 2015 milk quota were in place in EU, and in the Netherlands a new quota in the form of phosphate came in place in 2018. For farmers it became beneficial to limit the amount of young stock, to be able to produce more milk within a certain phosphate quota. Since 2018 productive life increased faster than in the past. Together with reduced amount of youngstock, the rearing period reduced by 40 days to 763 days. Number of calvings increased by 0.8 to 3.9 calvings. Lifetime production increased in 25 years by 14,329 kg to 38,283 kg of milk (with 4.40% fat and 3.58% protein), resulting in 1,684 kg fat and 1,369 kg protein. Production per day of life increased by 4.8 kg to 17.1 kg of milk. Genetically, longevity increased by 600 days, meaning that the full genetic potential is not yet utilized. The strong increase of genetic trend in longevity was supported by selection on udder health, claw health and feet & legs. Longevity is a result of management (e.g. feeding, housing and culling decisions), environment, and genetics. Long term trends show that all these factors together resulted in significant improvements for longevity and also lifetime production.

ADSA Discover Conference on Dairy Cattle Lifespan: Agreements, disagreements, and areas for further investigation

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In the fall of 2023, the American Dairy Science Association (ADSA) held a 3-day conference titled Dairy Cattle Lifespan: New Perspectives. The theme of the conference has continued to be much debated in the past year. Extended dairy cow lifespan is often said to be good for sustainability, and the image of the dairy sector. In practice, however, the topic is complex, and simple perceptions do not capture the breadth of the underlying questions. The conference was designed, therefore, to take an in-depth look at dairy cow lifespan and explore new perspectives in the modern era of dairy production. Speakers and attendees explored the many facets of lifespan including the underlying biology, genetics and genomic selection and important management factors including nutrition and housing. Importantly, economics and the environmental impact were assessed for herds under different production systems. Industry panels provided diverse ideas about goals for lifespan in different countries. The conference was successful in that there were topics that were generally agreed upon (replacement of an individual cow should be based on her competitive economic merit; long lifespan in itself should not be the goal; longevity is not a good measure of welfare). Disagreements existed on the importance of lifespan to consumer perspectives of dairying as well as its environmental impact. These disagreements identified important knowledge gaps and opportunities such as quantifying maturity and future cow performance, and the importance of early lactation culling. Rapidly changing genetics, technological advances that affect heifer supply (embryo transfer, sexed semen etc.), new lucrative markets for dairy farms (including meat from cull cows and the sale of beef-dairy crossbred calves) and legislative action on climate change will impact dairy farms and their decisions to keep or cull older cows. Despite advances in husbandry, precision dairy farming technologies and decision support tools, when dairy cattle should be replaced and what replacement rates should be remains an area for further investigation.