

Long-lived cows

Dairy cows usually go for slaughter after about six years. They are often put down for health reasons, but with the right approach they could have at least two more years of life. Which is good for the cow's welfare, for profit margins, and for the environment.

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For more than 20 years, the average lifespan of dairy cows has been barely six years. It is difficult for farmers to keep the animals healthy and productive for longer than that. But according to Roselinde Goselink, cow and animal nutrition expert at Wageningen UR Livestock Research, it is certainly possible to keep cows alive and well for longer, and to keep up the milk production. It is not easy, however, even though it is clear where things go wrong in older cows. 'Loss of fertility, mastitis and hoof problems are all common,' says Goselink. 'That leads to lower milk production.' And that is enough reason for the farmer to take the cow to the slaughterhouse.

It would be better for both the animal and the farmer if cows led longer healthy lives. During its first two years of life, the farmer invests a lot in the growing animal. Only after the first calf, when the cow is about two years old, does it begin to supply milk so that the farmer starts to get a return on his investments. The longer the cow stays healthy and gives milk, the better for the farmer's purse and for the cow's welfare. Not to mention the environmental benefits of cows living longer. In their first few years, growing cows use up large quantities of nutrients, minerals and vitamins, while producing no milk and plenty of manure. The longer the animal can live, the lower the environmental cost of each litre of milk. In 2011, the Dutch Federation of Agriculture and Horticulture LTO's dairy farming sector formulated the wish to raise the average lifespan of dairy cows by two years by 2020. According to Jelle Zijlstra, an expert in dairy farming systems at Wageningen UR Livestock

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Research, this is not a realistic target in the short term. ‘It is a complex process in which we have to improve many aspects of dairy farming,’ he explains. ‘It will definitely take a few decades before that target is reached.’

BREEDING CALVES

The road from calf to an older cow has not yet been traced in detail, but Goselink does have some ideas how it will look. According to her, what is needed is to make the cow’s life healthier right down the line. ‘The road to the long-lived cow starts before birth,’ she explains. ‘Extra attention should be paid to hereditary traits; healthy offspring are the basis of a long and healthy life for cows.’ More attention should also be paid to how calves are raised so that the young animals get a good start in life, reducing their chances of developing problems later in life. ‘By preventing health problems in cows at an early stage, they stand a better chance of a healthy old age. A broad plan of campaign is needed for this,’ thinks Goselink. She wants to study what a cow really needs in order to live a long, healthy life. Could a softer barn floor on which the animals do not slip perhaps help prevent lameness and hoof problems? Sufficient physical exercise is important for keeping muscles and bones healthy and strong. Could pasture grazing play a role here?

EXTRA VULNERABLE

Doing something about extra vulnerable periods of a cow’s life could also contribute to a longer life. From

two years of age, a cow calves roughly once a year in order to keep up milk production. But in the period around and just after calving, the cow is vulnerable and needs extra care and attention. This is because her metabolism changes a lot when milk production gets going after calving. With the onset of lactation, the cow’s requirements of energy, protein and minerals suddenly shoot up.

If their feed is not right, cows can suffer from lack of energy and calcium, with serious consequences for their health. Good nutrition can keep cows healthy and prevent problems. But Goselink sees other possibilities as well, such as postponing the vulnerable period as long as possible. ‘Instead of getting the cow to calve once a year, you can try to prolong milk production,’ she explains. ‘That might be possible by using different feed or by selective breeding for longer lactation periods between calves.’

A lot of interdisciplinary knowledge and additional research will be required for the process of extending the lifespan of the dairy cow. One research project, called ‘Resilient Livestock’, is studying the natural resistance to disease of cows on a dairy farm. Scientists and farmers collaborate in this project, and there is also collaboration with LTO in a project called ‘Lifespan Dairy Cows Phase II’. New insights will be shared on the annual course for livestock farmers, which Zijlstra set up: Extending the lifespan of Dairy Cattle (24-25 March 2015), Wageningen Academy. ■

www.wageningenur.nl/longevity-dairy-cows