

Pasturing COWS takes skill

On modern farms, putting cows out to pasture is not as simple as it looks. At grazing study days, livestock farmers gain new knowledge. A story of lazy cows, grass height meters and pasture washers.

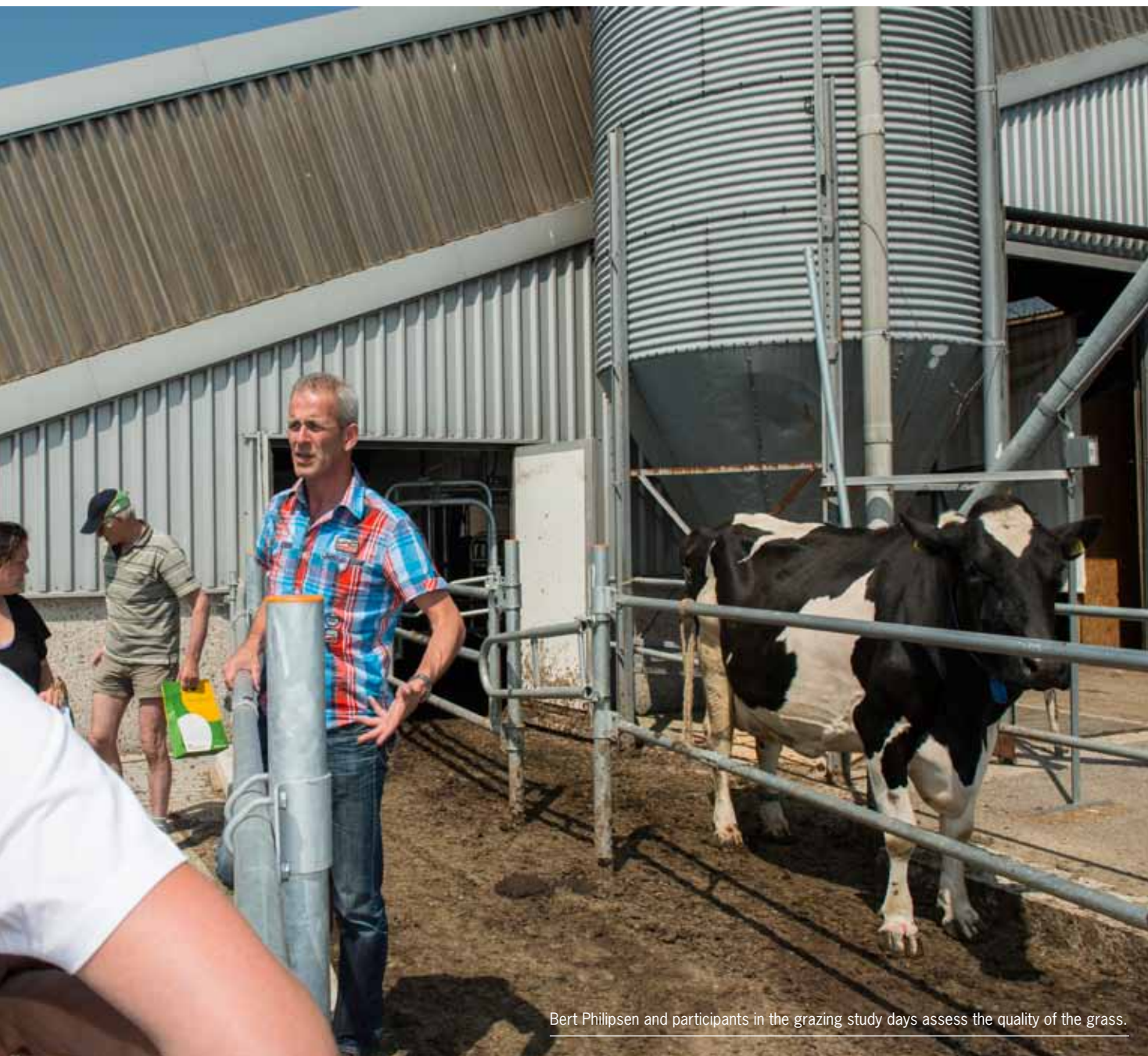
TEXT & PHOTOGRAPHY HANS WOLKERS

‘Which plot of grass would you graze your cows on?’ asks Bert Philipsen, researcher at Wageningen UR Livestock Research. He points to two rectangular areas of grass. A group of dairy farmers are listening attentively. They are at a grazing study day at the Dairy Campus in Leeuwarden, the dairy farming innovation centre in which Wageningen UR is one of the participants. The grass on one of the plots is 20 centime-

tres high whereas the grass on the other plot is only half that high. ‘I think that tall grass is fine,’ says one farmer. ‘But it has become overgrown,’ says another, ‘and that means its feed value is less.’ A third farmer adds, ‘I would give my cows a bit of maize as an extra if I was grazing them here.’ A lively discussion develops, with Philipsen asking the occasional challenging question to set the group thinking. It is not easy for farmers to put cows out to

pasture, mainly because farms have more livestock and less space for grazing close to the barn. The use of automatic milking systems also necessitates a different approach to grazing. This is why a growing number of farmers are keeping their cows indoors all year round: the proportion has grown from 10 to 30 per cent in the space of 10 years. But consumers prefer their milk to come from cows that graze in fields rather than cows kept in barns. Dairy companies





Bert Philipsen and participants in the grazing study days assess the quality of the grass.

are responding with ads showing cows grazing in typical Dutch countryside and by encouraging farmers to put their cows out to pasture. Dairy farmers themselves also think grazing in fields is 'healthy for the cow' and 'more natural'. And if done properly, it is also cheaper than keeping cows in barns. From the environmental perspective there are both positive and negative effects from grazing, explains Philipsen. 'On the one hand, having cows graze outside re-

duces ammonia emissions as the urine doesn't come into contact with the cow pats. But on the other hand, the nutrients are more likely to wash away into the groundwater. There was quite a debate about this for a number of years. The decision whether to keep your cows in a field or a barn is primarily the personal choice of the dairy farmer, based on commercial and physical labour considerations as well as social and personal values. Our current ed-

ucational programmes are mainly aimed at supporting farmers who decide to put their cows out to pasture.'

LAZY COWS

Researchers at Wageningen UR do a lot of research on the relationship between grassland, farming practices and milk quality. They then pass their knowledge on to dairy farmers, for example during the grazing study days. During the excursions, farmers >



Bert Philipsen and participants in the grazing study days study the quality of the grass.

get practical lessons in how to deal with lazy cows, how best to manage the grassland and how to deal with the weather. 'We want to help farmers improve their grazing know-how and skills so they can get more out of their grassland,' explains grazing expert Philipsen. Farmers often stick to fixed patterns of behaviour without realizing it and have insufficient expertise. Philipsen is convinced they are not getting the most out of their grassland as a result. He thinks there would be big potential gains if farmers knew more about grass and about cows. 'There has been too little research and not enough effort put into spreading knowledge, resulting in a lack of innovation in grazing practices.'

Wageningen UR heads the Dynamic Grazing network; along with a large number of partners, it has started up educational activities that now take place six times a year. They include the grazing study days and practical training in grazing, mainly at the Dairy Campus or the Zegveld and De Marke experimental farms. A significant disadvantage to grazing for livestock farmers is that they have less control over feed intake. When

cows are kept in barns, farmers know exactly what they are eating: grass silage, maize and concentrates of known quality. That gives a sense of security. When cows graze outdoors, unpredictable factors such as the weather affect the quality and quantity of the grass. If the grass is poor, cows eat less of it and milk production falls. Even tasty grass can become less appealing after a period of bad weather. 'If farmers then start giving the animals extra food, you get lazy cows,' says Philipsen. 'Cows that stand next to the fence, can't be bothered to graze and complain until they get a convenient feed snack.'

STANDING WATER

The farmers are also taught that good grassland management starts early in the year when they need to assess the winter damage caused by moles or standing water in the field, for instance. That damage has a big influence on the quality and quantity of grass later in the year. Early spring is the time for plans and decisions. When can the cows go outside? Which fields should I mow and which should I leave as pasture? How much fertilizer should I apply and where?

In the summer they need to know about grass varieties and growth stages to decide whether the grass is 'good'. For example, grass that is flowering tastes poorer and is more difficult to digest. Too wet, too dry, too hot, too cold: a skilled farmer needs to take all these factors into account. Autumn is a tricky period for livestock farmers; the cows don't find the grass so tasty and its nutritional value decreases. In addition, there is also often a lot of manure on the land after a season of grazing, which also stops the cows eating as much. The farmer has to provide extra food now, but not too much. He has to find the right balance, without spoiling the cows.

Grazing requires knowledge not just of grassland but also of bovine behaviour. 'Cows have autistic tendencies,' says Philipsen. 'They prefer regular patterns and routine, so livestock farmers need to take advantage of that.' If farmers combine grazing with an automatic milking system, they need to direct the cows in such a way that they go out to graze of their own accord and still return to milking. For instance, a farmer can have a strip of fresh grass available every

‘We want to help farmers get more out of their grassland’

morning to tempt the animals outside. When this has been eaten, the cows can be taught that they can only find a new strip by going via the milking robot. It is important for the cows to graze as much as possible because every mouthful of the relatively cheap fresh grass means more revenue, by reducing the need for extra, relatively expensive feed.

GRASS HEIGHT METER

As farms have become more intensive and larger in scale, more cows have to graze on the same area of pasture and so innovation has become essential for good grassland management. This requires a solid scientific basis. That is why Wageningen UR wants to focus more over the next few years on fundamental questions relating to grazing. How does grass grow? How do cows graze and what is the interaction between grass and cow? These results will form the basis for new grazing practices.

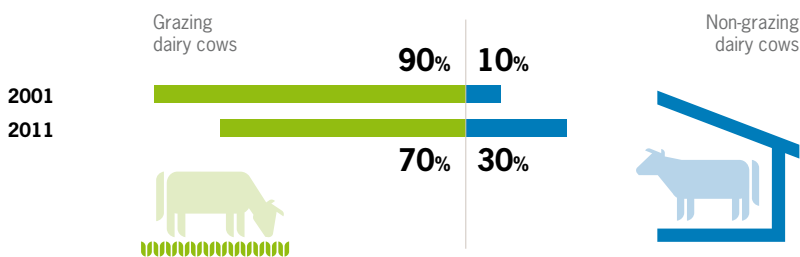
At the same time, in the Amazing Grace project, Wageningen UR is focusing on developing and applying new techniques. For instance, a grass height meter tells you how much grass there is in a field, helping the farmer decide whether it would be better to mow the field or use it as pasture. Regular measurements also give information on how much grass the cows are consuming. Livestock farmers can use that information to determine how much extra feed to give. Another novelty is the ‘pasture washer’. This piece of equipment is under development and should in future be able to spread or wash away the cow pats in a field. This will increase grass yields and make the field more attractive again for grazing cows.

After a programme full of theoretical and practical lessons, the grazing study day finishes with a Farm Walk. ‘Farmers should do a tour of their farm once a week to assess the state of their fields,’ explains Philipsen. ‘What do I see, what are the measurements and what should I do?’ The group walks through a field where the grass has been cut. ‘What do you see?’ asks Philipsen. He points to the clipped grass. ‘A tough bit of turf,’ says one farmer. With some difficulty, Philipsen digs up a robust clump of grass. ‘This is English ryegrass. For good grassland, you need more than three quarters of the grass to be of this variety,’ he says. ‘It has tough roots and a purplish lower stalk.’

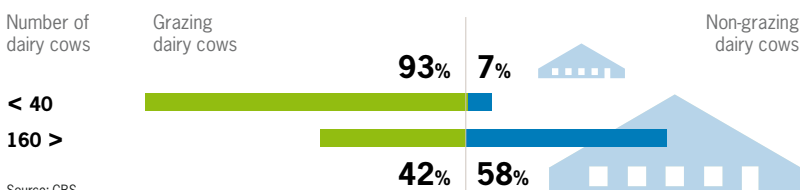
Philipsen is convinced that farmers who do the Farm Walk will become more aware and better at managing their grassland, with more efficient grazing as a result. Costs will fall and consumers will be pleased as they will be getting milk from cows put out to pasture. Course participant Van Essen from Marssum says he has learnt some ‘very useful’ things. He has changed the way he grazes his cows. ‘I always pick up things about grass and how it grows during the grazing study days,’ he says. ‘Now I don’t let my cows graze as long in one field; I move them around more so that the grass remains tasty and nutritional for longer.’ ■

Info: www.amazinggrazing.eu/en

NUMBER OF COWS IN THE MEADOWS GOES DOWN



According to farm size (2011)



Source: CBS