Dairy cattle: to pasture or not to pasture?

The issue of whether cows should be provided with access to pasture has become a growing debate in many sectors, especially with the launch of 'free range' milk. However, what does 'free range' really mean when it comes to dairy products and, more specifically, is providing cows with access to pasture good for their welfare? Like most issues of this type, it is more complex than we might at first think.

Today's dairy cow

Over many years, the dairy cow, such as the Holstein/Friesian – the most common breed of cow making up around 90% of the UK national herd – has been bred to produce significant amounts of milk in her lifetime, sometimes in excess of 40-50 litres a day (the current annual average yield is around 8,000 litres per year). To continue to produce milk, she must ideally deliver a calf every year and, as in humans, the period of pregnancy for dairy cows lasts nine months.

A dairy cow will often be pregnant whilst still producing large volumes of milk following her previous pregnancy, and therefore highly specialised management is vital to ensure her welfare during this physiologically demanding time. Particularly in the four weeks prior to the expected calving date through to eight weeks after the actual calving date, commonly known as the 'transition/fresh' period, she is very vulnerable – having a suppressed appetite, a weakened immune system, and having to cope with the physical demands of giving birth. Failure to attend to her needs during this period can result in a number of problems developing later in the lactation. Therefore, as providing access to pasture can present its challenges (explained further below), the transition cow may not be a suitable candidate for going out to pasture until she has passed this critical period.

What is typical industry practice in the UK with regard to providing cows access to pasture?

Most dairy systems in the UK involve putting cows out to pasture during the 'grazing period', which is usually from spring to early autumn, i.e. during the grass growing season. However, some producers only provide their 'low yielders' (animals that have been producing milk for a few months or more after calving, are back in calf, and have passed the point of peak milk production) with access to pasture, and keep their 'high yielders' indoors. This is estimated to be the case for around 8% of UK dairy herds[1]. These high yielding cows are housed so they have ad-libitum, easy access to a diet that can meet their nutritional needs and where they can be monitored more closely.

The actual period for which cows are provided with access to pasture can vary between producers, and be dependent on the geographical location of the herd. At present, there is no centrally held data available to show the period and level of access the UK herd has to pasture.

Approximately 8% of all UK dairy herds are housed all year round regardless of milk yield, time of calving and so on[1]. These farms are usually purpose built. However, cows may also be kept in older housing systems that, in many cases, can be considered as being no longer fit for purpose[2]. This will clearly have a negative impact on their welfare.

What is 'free range' dairy?

There is no officially agreed definition of 'free range' when it comes to dairy production. However, there are a number of anecdotal definitions being used by some in the dairy industry and others, which are based on the number of days that the animals must spend outside. Typically these periods range from 100 to 180 days. Others specify that cows should go out for as many days during the year as possible. Others require the

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cows to go out to pasture during the day and night, except at the time of being milked or when needing to be temporarily housed for health reasons.

This lack of a clear, universally agreed definition of 'free range', makes it difficult to differentiate clearly between 'free range' and normal industry practice, where in the majority of cases cows are provided with access to pasture during the traditional grazing season of the spring, summer and early autumn months.

Furthermore, almost all of the cows that have access to pasture, even those whose products are labelled as 'free range', are housed for a significant number of months during the year, which is a period that can have a significant impact on their welfare if such facilities are inadequate. This must also be taken into consideration when discussing the issue of 'free range' and what it really means for animal welfare.

What are the benefits of providing dairy cows with access to pasture?

Scientific evidence and practical experience have shown that access to pasture can be beneficial for cow welfare[3]. Some studies have shown that cows have a preference for pasture at certain times, such as at night, in order to rest[4, 5, 6, 7]. Ideally, a situation whereby cattle could freely choose whether to go out to pasture or not would be best.

New studies are currently looking at what specific aspects of pasture seem to particularly appeal to the animals[8].

It is always beneficial to put dairy cows out to pasture?

A number of important factors have to be considered in order to answer this question, notably the health, stage of lactation, the suitability (breed) of the cows being used, the quality of environment provided, and the management practices that are in place. These can all affect the welfare of the cows when they are put out to pasture.

In terms of the grazing environment, there are a few essential requirements to ensure the welfare of the animals when they go outside, for example, that the tracks leading to the pasture and the pasture itself are well managed, as well as there being an adequate supply of fresh, clean drinking water and adequate shad and shelter. Using poorly maintained tracks can increase the risk of an animal bruising the sole of the foot, which can develop into an ulcer about 6 weeks later. Putting cows out to pasture in poor weather conditions, onto bare pasture without supplementary food, or onto poorly managed land, e.g. water-logged (boggy) fields, is not good for their welfare.

In terms of suitability, not all dairy cow breeds are the same. For example, the most popular breed – the higher yielding Holstein-Friesian – may currently benefit from an extended period inside after she has calved (as long as housing conditions and management are appropriate), and a shorter period with access to grazing. Whereas, in contrast, other lower yielding breeds or crossbred dairy cattle might benefit from a shorter period inside and an extended period going out to graze.

RSPCA position

We believe cows can benefit from going out to pasture and, ideally, this would be a free choice for the cow, available day and night, with supplementary feed provided to ensure her nutritional requirements can be met. However, the number of days in a year that cows can have access to pasture will depend on some important factors, including environmental conditions and the stage in the cow's lactation cycle.

Anyone who has seen cows put out to graze after being housed over winter cannot doubt that they appear to enjoy going out after being kept inside for a significant period, but it is still unclear what makes them frolic around at this time. It could be due to being exposed to a novel environment after spending the winter period indoors, often in relative discomfort. However, this initial burst of activity is short lived, and the animals soon settle down.

The whole debate surrounding the issue of providing cows with access to pasture is clearly a little more complicated that just polarising the discussion into two categories, where sending animals outside is always deemed to be good and keeping animals inside is always deemed to be bad. Such a divisive and oversimplified debate does little to serve the health and welfare interests of today's dairy cow.

If you are interested in learning more about the dairy cow and the welfare issues she faces please read our Dairy Cow Information Sheet.

List of references

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