

MOB



GRAZING

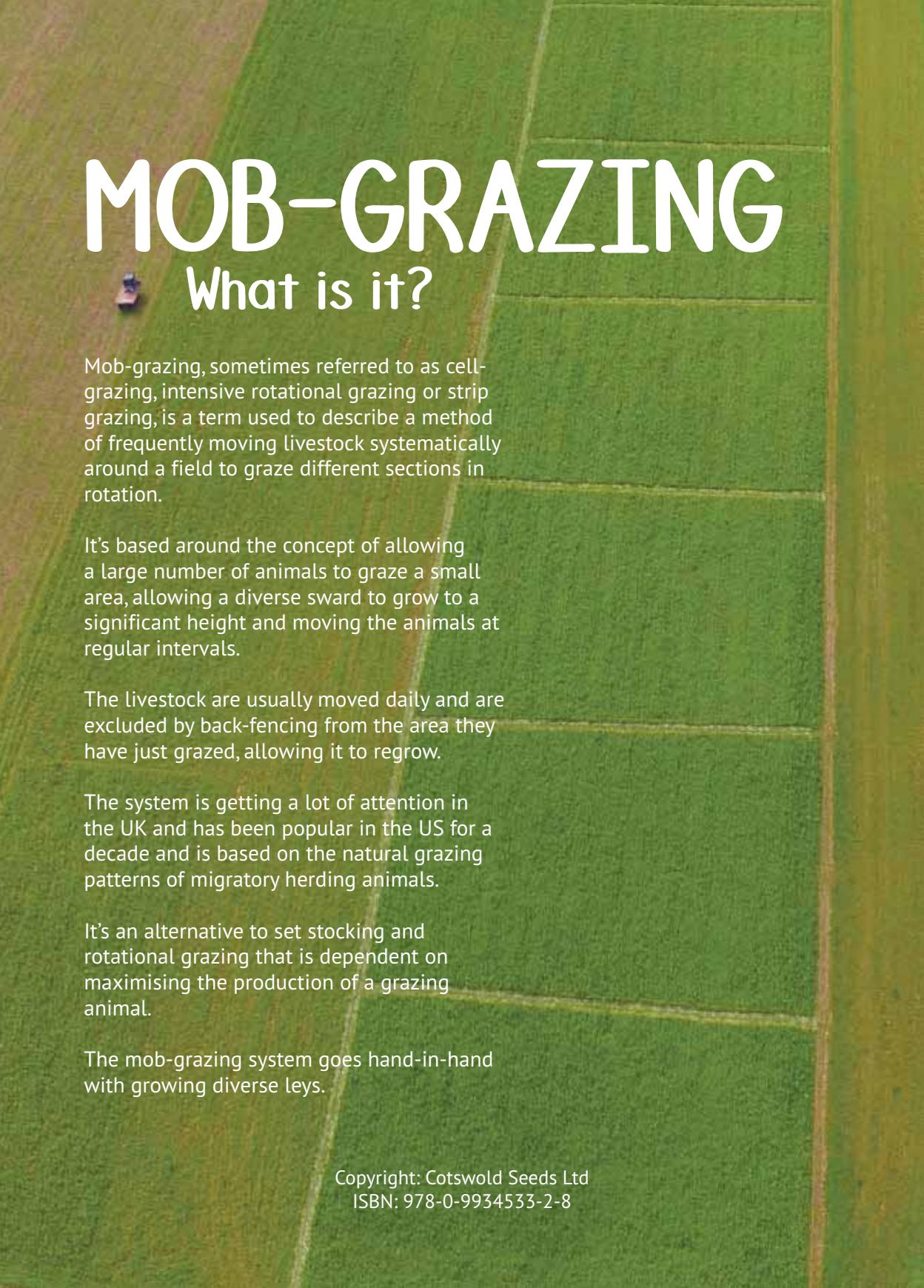
A Farmers Guide

By Ian Wilkinson, Sam Lane & Fiona Mountain

COTSWOLD
Grass Seeds
— DIRECT —

MOB-GRAZING

What is it?



Mob-grazing, sometimes referred to as cell-grazing, intensive rotational grazing or strip grazing, is a term used to describe a method of frequently moving livestock systematically around a field to graze different sections in rotation.

It's based around the concept of allowing a large number of animals to graze a small area, allowing a diverse sward to grow to a significant height and moving the animals at regular intervals.

The livestock are usually moved daily and are excluded by back-fencing from the area they have just grazed, allowing it to regrow.

The system is getting a lot of attention in the UK and has been popular in the US for a decade and is based on the natural grazing patterns of migratory herding animals.

It's an alternative to set stocking and rotational grazing that is dependent on maximising the production of a grazing animal.

The mob-grazing system goes hand-in-hand with growing diverse leys.

WHY MOB-GRAZE?

The mob-grazing system goes hand-in-hand with growing diverse herbal leys.



It's cheap, as a managed diverse ley reduces the need for inputs, chemical fertilisers and feed supplements, since crops with overlapping growth patterns provide year-round forage.

Mob-grazing helps to graze down the sward equally, which prevents the livestock from selectively grazing which plants they eat.

Livestock eat the most nutritious top third of the forage plants and trample the stemmy and less nutritious stalks onto the ground to make new soil. This means that it's unlikely for any plant species to become dominant and the sward remains diverse. This trampled forage is continually returned to the surface, helping to feed the soil, along with the manure. A really high stocking density is key here.

No one plant species meets all requirements: A maintained diverse sward will bring many advantages, including plants that are rich in protein, have anthelmintic properties, deep roots for drought resistance and mining nutrients from deep in the earth, plus the ability to fix nitrogen. Maintaining a diverse sward increases self-sufficiency by building soil fertility and adding organic matter.

Farmers are increasingly talking about mob grazing, an extension of a livestock based farming system that has stood the test of time, due to current economic problems (low commodity prices and high input costs), poor soil quality and the need to find a cheaper farming system that will improve profits.

When this system was popular in the past it was made possible by hedges which were lost in the 1940s and 50s due to intensification. Recent agricultural advances - in electric fencing and modern water troughs and pipe connections for water supply - have now made this a viable option once again. The fencing and water needs to be moved daily but can take as little as fifteen minutes and allows you to closely observe animals which can be hugely satisfying.

Pasture-fed and grass-fed meat has an exciting future, with a growing swathe of popular opinion driving this expanding market. British farmers can be competitive in this market having the ideal climate to grow grass.



..... SHOULD I TRY IT?

If you have grass leys in rotation with arable crops, then mob-grazing is worth considering.

However you'll need to have an open minded approach about what to sow and how to manage fencing and water supply.

A ryegrass dominated ley does not have the right physical structure required for mob-grazing, so you'll need to be prepared to change to a diverse, species rich sward containing forage grasses, forage legumes and forage herbs. For most farmers, this is the starting point for mob-grazing.

Soil type needs to be considered too, as a mob-grazing system relies on having animals out for as much of the year as possible to reduce housing and winter feed costs and maximise the use of grazed grass profitability. To keep animals out for more of the year farms with lighter, free draining soils are ideal.

ROTATION

Where does mob-grazing fit in your rotation?

In order to maintain diversity, a herbal ley should last for approximately 4 years and is an ideal fertility building crop before cereals. When the ley is ploughed in, a fodder root seed crop can be grown before the cereals, and this can also be mob-grazed. At the end of the crop rotation, the ley can be re-established by undersowing into the final cereal crop.



FORAGE PLANTS FOR MOB-GRAZING

A mixture of...

Grasses

Festulolium
Cocksfoot
Ryegrasses
Timothy
Meadow Fescue
Tall Fescue

Legumes

Red Clover
White Clover
Alsike Clover
Birdsfoot Trefoil
Yellow Trefoil
Sainfoin
Lucerne
Sweet Clover

Herbs

Chicory
Ribgrass
Burnet
Yarrow
Sheeps Parsley



MAKING IT WORK

Firstly, you need to identify which area of grassland to use, either by selecting an existing acreage or establishing a new area of diverse ley, typically a deep-rooting legume and herb rich four year ley.

The plants then need to be allowed to reach a height of 1-2 feet - going against advice always given for ryegrass dominated swards which are generally grazed at 6 inches.

Then turn animals out onto a small plot and move them daily.

Size of Plot:

You need enough forage for the animals to graze down a half to two thirds of the ley and tread in the remaining half to one third.

As a rule of thumb, 100 dairy cows of a traditional breed will need approximately one acre per day, but this

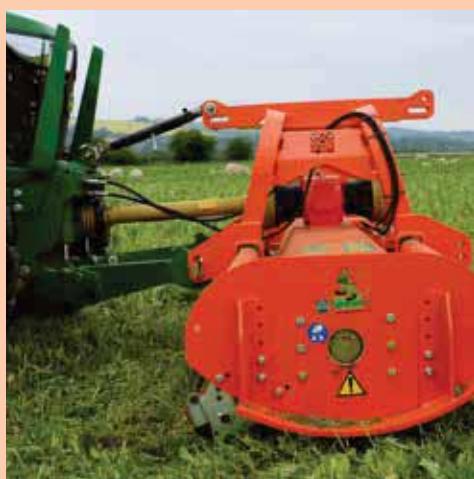
does vary depending on the amount of forage and the amount each animal consumes. One daily acre should be enough to sustain approx. 400 sheep.

The grazing interval (the time left before returning the mob to graze a plot again) is between 4-7 weeks.

400 sheep or 100 cows are likely to need around 60 acres to mob graze from April to November. Roughly, a further 20 acres will be required if the mob is to be catered for over the winter.

As this process goes on, a farmer will adjust the area in light of the demands of the animals and availability of crop.

It's important not to overgraze and to give plants time to recover. Grazing down to the ground destroys the diversity that's needed for improved yield and healthy diet for the grazing animal.



"Some mob-graziers will top or take a cut of silage occasionally to keep the chicory under control or if the sward gets away from them. However, to keep it as low cost as possible, it shouldn't be necessary. Cattle should go into mature pastures and graze what they need, trampling the rest onto the surface of the soil. Topping will cost money, create a thatch and will stop the grasses and other plants from completing their lifecycle, to the detriment of themselves and the soil. The same principles apply with sheep - make the animals do the work."

Tom Chapman



FENCING

Setting up an effective fencing system is essential

Most mob-grazers use electric fencing. Careful thought needs to be given to its layout. Each farm and field is unique and fencing is available from suppliers to suit all needs.

But bear in mind...

Beef and sheep will need to be moved, with the aid of a fence, once a day, while for milking cows this can be twice daily. So investing time in planning can save time later.

The easiest system is to have semi-permanent fencing along longer boundaries with moveable fencing across the shorter sections.

Electric fencing must not be allowed to earth out.

- Sheep require three strands of electric wire whereas cattle can be trained with one.
- It's important to have good quality corner posts to give rigidity to the system.
- Ensure you have a good quality energiser to provide charge, a good battery and consider using solar power as getting mains to outlying areas can be difficult.
- There are no hard and fast rules for fencing for mob-grazing and it will take trial and error to get it right, but a system can be developed quickly.
- Don't forget to turn the fence off when you're moving it!

Animal welfare is of course paramount. A varied forage based diet employing mob-grazing techniques can be good for animal health resulting in happier animals, a more productive system and reduced vet med bills. Moving livestock each day ensures they are grazing fresh grass and reduces the worm burden. Grazing species rich swards also allows animals to self-medicate and seek a range of vitamins and minerals. Jonty Brunyee, Pasture for Life farmer and one of the directors of the Pasture-Fed Livestock Association, advocates the principles behind mob-grazing but recommends that care should be taken to arrange the grazing cells to provide adequate shade and shelter using hedgerows, trees, walls and buildings. He also stresses that choosing a suitable breed of livestock, say a traditional hardy type, that's suited to outdoor production and local climatic conditions is absolutely key.

WATER

It's important to make sure your livestock stay hydrated

.....

A cow drinks a lot of water. At peak lactation high yielders can drink up to 90 litres a day. In comparison sheep seem to drink very little and often they appear to not drink at all. In reality they consume around 5 litres a day when they are grazing on high dry matter forage. Either way you'll need a reliable, movable source of water.

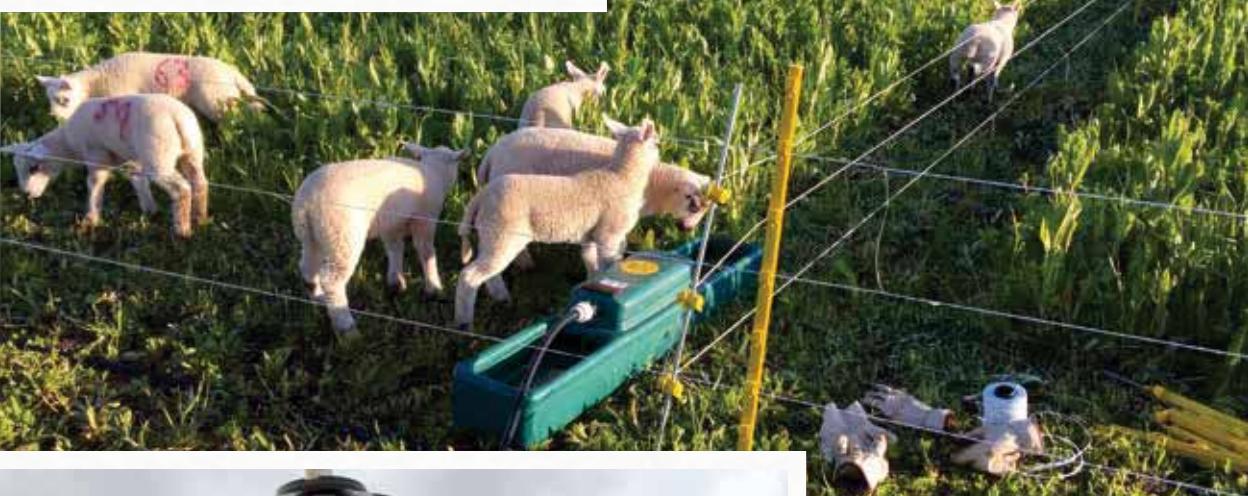
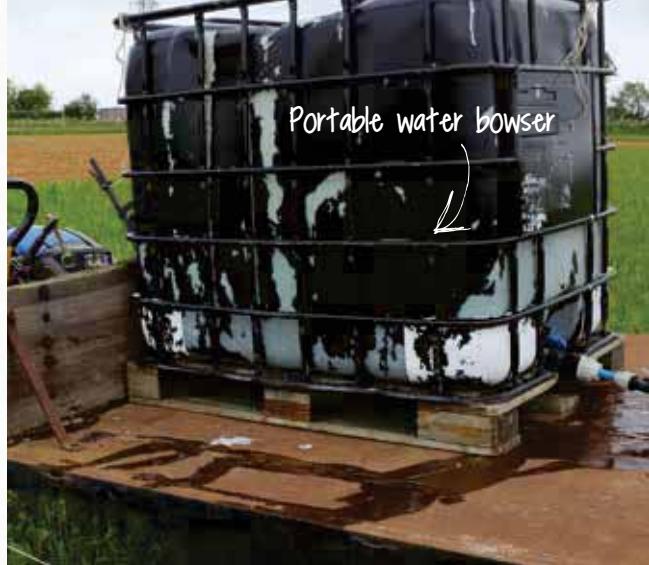
Many mob-grazers use an overground water supply. An underground water supply has the advantage that it won't freeze in winter but it's inflexible, expensive and time-consuming to put in.

Overground alkathene piping is easily moved to each grazing paddock. Alternatively you can use a water trough mounted or connected to a portable water bowser, which can be pulled up

and down the field and filled when necessary. Depending on the fields, and the existing supply of water, you can use a combination of all three methods.

Low water pressure is a problem in bowsers but this can be overcome with a low pressure valve.

Water supply and fencing represent the only capital investment for a true mob-grazer. No buildings or machinery required!



FOR & AGAINST

.....

Main advantages

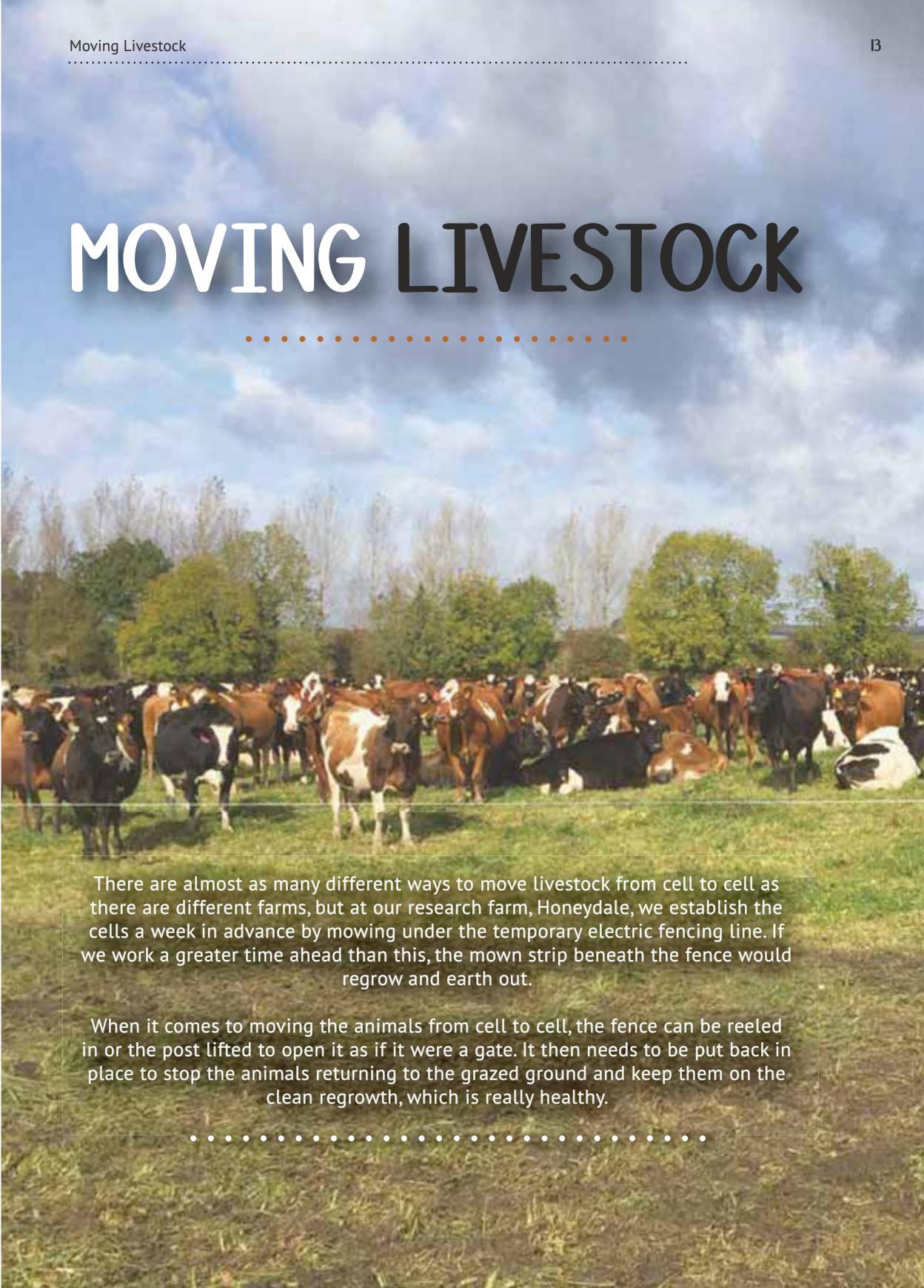
- Low cost
- Evenly grazed pastures
- Well distributed manure for soil improvement
- All consuming effect controls weeds
- Deep roots provide drought tolerance and better soil structure
- Diverse swards have anthelmintic properties
- Easy entry for new livestock enterprises
- Little need for buildings and machinery especially on light land
- Stock get checked daily
- Satisfying way of farming

Main disadvantages

- Stock need daily movement
- Initial time required to set up fences and water supply
- Modern livestock breeds are not as suitable as traditional breeds, so a change in breeding objectives may be necessary



MOVING LIVESTOCK

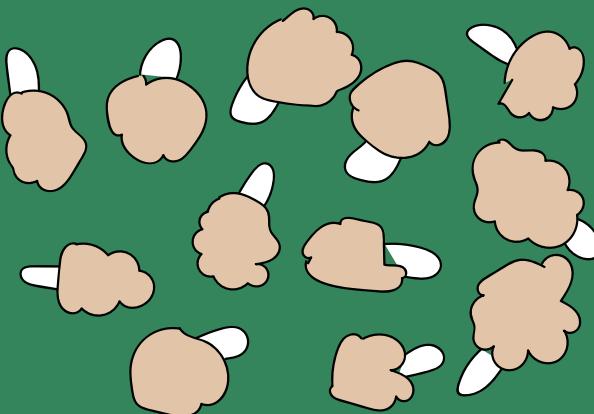


There are almost as many different ways to move livestock from cell to cell as there are different farms, but at our research farm, Honeydale, we establish the cells a week in advance by mowing under the temporary electric fencing line. If we work a greater time ahead than this, the mown strip beneath the fence would regrow and earth out.

When it comes to moving the animals from cell to cell, the fence can be reeled in or the post lifted to open it as if it were a gate. It then needs to be put back in place to stop the animals returning to the grazed ground and keep them on the clean regrowth, which is really healthy.



CURRENT RESEARCH



There's so much interest in mob-grazing at the moment that various related research projects are being undertaken.

LegumePlus & HealthyHay: Important work by a European consortium studying deep rooting, novel legumes such as Sainfoin which contain tannins and have medicinal benefits for livestock such as anti worming and anti bloating properties.

SARIC: Ongoing work to study the benefits of different levels of mix diversity and ideal management techniques. 5 year project starting in 2016 comprising 14 trial sites in the UK.

COST Action 852: A project comprising 1300 of replicates on 31 sites all over Europe to investigate the effect of combining multiple grass and legume species for improved yield.



FIRST HAND



'Having been an arable farm for decades, Honeydale has incorporated deep rooting herbal leys to improve the soil and provide healthy forage for sheep.' Sam Lane.

Nuffield scholar Rob Richmond began mob-grazing 10 years ago, moving from ryegrass-only leys to deep-rooting herbal leys, in order to improve soil and produce as much milk from his cattle as possible. He moves his cattle every day.



When looking for an extensive beef fattening system, Ralph Messenger decided to try the paddock system with herbal leys, which is proven to be 80% more efficient.



01608 652552
cotswoldseeds.com

COTSWOLD
Grass Seeds
— D I R E C T —