

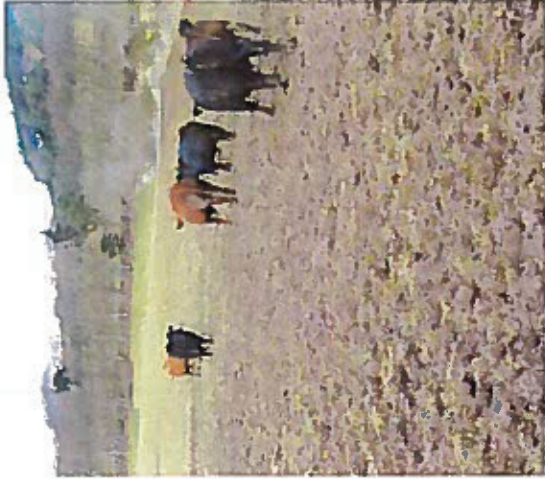
POACHING

Poaching is the name for damage done to grass and the underlying soil by livestock which has been allowed to stand and walk on it for prolonged periods in wet conditions.

Cattle can leave compacted depressions or pockets in the surface of the ground 10–12cm deep in which water can lie. Beneath may be a grey, smelly, unhealthy layer of soil. These are usually in areas of greatest activity—in gateways or around drinking troughs and feeders. The destruction reduces grass growth and allows weeds to infiltrate the bare areas.

Cattle poaching

Sheep damage grassland differently. They are less likely to break the soil surface, but at high stocking densities they pound the ground as a flock, producing a solid compaction layer over a wide area, at 2 to 6cm deep.



Cattle poaching



Sward lifter



Grassland subsoiler

HOW TO PREVENT POACHING

- ✓ Create multiple entry points to fields
- ✓ Outwinter only on light, free-draining, well structured soils
- ✓ Use dedicated tracks for moving beef cattle
- ✓ Minimise traffic into fields by storing bales close to where they will be fed
- ✓ Allow cattle access to a sacrifice area, accepting poor grass performance next season, but knowing that the most important/productive pastures have been protected
- ✓ Feed sheep using a mobile snacker system rather than fixed troughs
- ✗ Don't drive across fields in wet conditions

WHAT COMPACTION MEANS TO GRASS GROWTH AND LIVESTOCK PRODUCTIVITY

Yield

A young grazing ley is capable of producing 12t DM/ha/yr or under a cutting regime up to 14t DM/ha/yr can be produced. Permanent pasture can produce 9–10t DM/ha/yr. However these levels of production can only be sustained in soils that have adequate nutrient reserves and are appropriately managed.

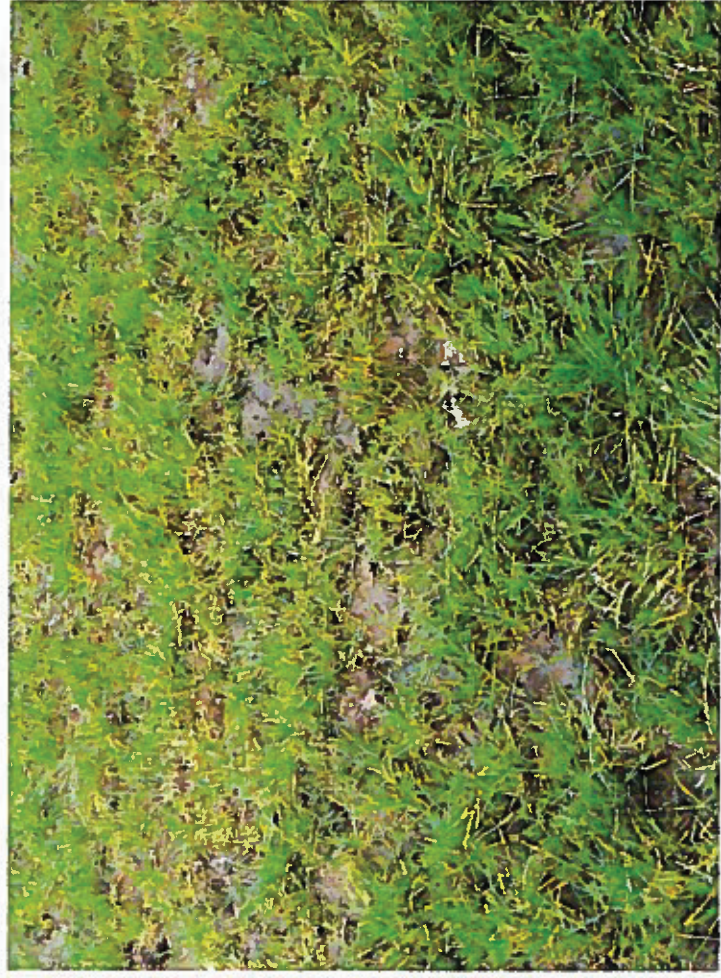
When soils of similar nutrient status are poorly managed, they may only yield 6–7t DM/ha/yr. This means the farmer may have to buy-in feed to last the winter at much greater cost than it would have been to produce it on-farm.

Every 1t DM/ha increase in utilised grass equates to a potential increase in stocking rate of 1.4 ewes per hectare (at 150%) or 100kg of beef live weight gain per ha/year. Another way of putting this is that each tonne of grass DM utilised would require almost a tonne of concentrates to be purchased as an alternative feed source.

Quality

Poor soil nutrient content and condition encourages competition from indigenous and less productive grasses. These are less digestible and contain lower levels of energy and protein. This reduces feed quality, animal intake and performance.

Under excellent grazing and soil management, a beef steer can gain 1.2kg liveweight a day on a high quality perennial ryegrass/clover sward. However, industry data suggest that many producers achieve only 0.6kg live-weight a day on pasture so there is significant room for improvement.



Compacted and poached area showing bare patches

Comparing grazing systems

GRAZING SYSTEM	FEATURES	PROS & CONS
Set stocking	One area grazed by a group of livestock all season	<p>Pros</p> <ul style="list-style-type: none"> - Low management input - Low capital costs - Can work well in some years if sward height targets met <p>Cons</p> <ul style="list-style-type: none"> - Lower forage yield and poor utilisation due to trampling - Difficult to maintain grass quality and correct sward height - Uneven manure distribution - Weeds can build up
Rotational	Stock are moved around a small number of fields (large fields can be split using electric fencing) based on sward height or grass cover targets - generally every 4-7 days	<p>Pros</p> <ul style="list-style-type: none"> - Higher productivity than set stocking - Allows pasture to rest and re-grow - Can extend the grazing season - More even manure distribution - Some flexibility to take surplus grass for silage <p>Cons</p> <ul style="list-style-type: none"> - More fencing and water troughs required - Forage production and utilisation is not optimal if grass grazed beyond 3 days as stock will start eating regrowth
Paddock	Livestock are moved frequently (every 1-2 days) based on sward heights or grass budgeting	<p>Pros</p> <ul style="list-style-type: none"> - Highest forage production and utilisation/ha - Very high quality grazing - 11-12ME - Higher stocking rates possible - Even manure distribution - Weeds controlled by grazing - Reduced silage requirements as grazing season extended - Very high flexibility to take surplus grass for silage <p>Cons</p> <ul style="list-style-type: none"> - More management input required - grass monitoring and feed budgeting - High initial costs of infrastructure - fencing and water troughs

Other grazing management options for Scottish beef and sheep farms

Buffer grazing

Buffer grazing is a simple and cheap way to improve grass utilisation over a set stocked system. Part of a field is fenced off with an electric fence and not grazed with the rest of the field. If grass growth is slow this buffer area can be grazed whereas if grass growth is adequate the fenced off area is conserved as silage and grazed thereafter. Sward height targets should be used to determine the need to graze or cut the buffer area. It is a low risk method of increasing flexibility of grassland management on a beef and sheep farm. It is important that grazed areas have water supply and that if silage is taken from part of the field that any nutrients removed by cropping are replaced.

Deferred grazing

Deferred grazing is where stock is removed from a field so a wedge of grass is built up which can then be fed in autumn and early winter by strip or block grazing to ensure good utilisation. A back fence can be used to keep the stock off the previously grazed areas to allow recovery. This system avoids the cost of having to make that area of grass into silage or hay and the cost of feeding it.

SRUC trials for QMS on deferred grazing showed that feed value of deferred grass was capable of keeping dry suckler cows until the New Year after which point the reducing quality of the grass was insufficient to meet the increasing demands of the calf. Additional feed would then be required if cows are to remain longer on deferred grass. One option in this respect is to make second cut silage from half the field, with wrapped bales left in situ and fed alongside the deferred grass. On the right, choice of field this system offers a lower cost wintering option for suckler cows.

Mixed grazing of cattle and sheep

This is the practice of grazing cattle and sheep on the same field. It is common on more extensively managed farms and is best suited to continuous grazing systems.

Advantages

- Improves sward quality and utilisation
- Sheep will graze closer to dung pats
- Cattle will graze rough grasses that sheep reject
- May improve parasite control by dilution of host specific parasites
- May help to increase white clover content

Disadvantages

- May be difficult to gather stock separately
- Different fencing requirements of sheep and cattle
- Difficult to supplementary feed one class separately
- Risk of cross species infection with Johne's disease

Worm control and grazing management

Grazing management can be used to reduce the dependence on wormers, but requires significant planning. Reduced parasite burdens can result from grazing with other classes of stock (eg grazing with sheep one year and cattle the next), using the fields for conservation for some or all of the year, or grazing new reseeds after a forage or arable crop.

High risk fields are any that had any sheep (including ewes and lambs, store lambs or replacements) or goats grazing the previous year or earlier in the season. The risk reduces to medium if only adult non-lactating sheep were grazing the year before, or if a cut of hay or silage was taken from that field the previous year. Grazing with cattle the previous year or earlier in the season also reduces the risk to medium.

For cattle systems, apply the same principle – land that has seen cattle the year before is generally high risk, while sheep being in the system reduces the risk. The objective is to dilute the number of worms that affect cattle with sheep worms, and vice versa.



Buffer grazing system using electric fence

Clean grazing

It is sometimes possible to operate a clean grazing system. This can work well where there is a reasonably even balance of cattle to sheep and if there are many fields that can be cut for silage. The rotation should be Cattle – Sheep – Hay (or silage) – CASH. It is possible in a true clean grazing system to not have to worm young stock which will save both time and money. We know that lambs and calves that are unchallenged by worms will grow faster than those that are challenged and dosed regularly.

However while on most beef and sheep farms it is not possible to operate a strict clean grazing system it is still possible to make use of the basic principles which will benefit young lambs in particular. These are that if fields are kept free of lambs for 10-12 months there will be little or no carryover of worm larvae to the following spring, so the field can be classed as clean grazing, which will be safe for lambs to graze.

It should be pointed out that these days there is more knowledge on worm control and the SCOPs principles should be practiced wherever possible. Discuss these with your vet.