

Virtual Beef Week 2020

Thursday 9 July

How grass builds resilience

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Feed is the single largest direct expense in beef production, accounting for approximately three-quarters of total costs. Due to the considerably lower comparative cost of grazed grass as a feedstuff, beef production systems should aim to increase animal output from grazed pasture.

However, an indoor 'winter' period of varying duration is unavoidable on all Irish farms. The main feed costs on grass-based beef systems during this period relate to feeding grass silage and concentrates.

Regardless, whether it is a suckling-to-finishing or a dairy calf-to-beef production system, the key principles for 'first' winter and 'second' grazing season management are similar. These are two phases where significant practical improvements can be made within the farm gate.

First winter management

To minimise feed costs and make the most of subsequent compensatory ("catch-up") growth at pasture during the following grazing season, live-weight gains of 0.5-0.6kg/day through the first winter are acceptable for steers, heifers and suckler bulls destined to return to pasture in spring.

Research at Teagasc Grange has shown that there is little point in over-feeding weanlings in winter, as during the subsequent grazing season, cattle that gained less over the winter had the highest liveweight

gain at pasture. Most of the winter weight advantage gained by 'over-fed' animals over winter had 'disappeared' by the end of the grazing season.

However, cattle who grow too slowly during winter (gaining less than 0.5kg/day) will not be able to compensate sufficiently at pasture, and consequently, will not reach target weights later in life.

Target animal growth rates during the first winter can be achieved on grass silage, supplemented with concentrates as outlined in Table 1. Dry matter digestibility (DMD) is the primary factor influencing the nutritive value of grass silage and conse-

quently, the performance of cattle.

Low DMD silage means you have to feed higher levels of concentrate supplementation to achieve the same growth rates, highlighting the importance of silage quality for growing cattle.

The second grazing season

According to Grassland Farmer of the Year 2018 John Watchorn: "The more grass I can grow, the more cattle I can graze, the more weight I can put on them.

The more cattle, the more weight, the more money".

This statement summarises key objectives in relation to grassland



Table 1: Concentrate supplementation necessary for weanlings to grow at ~0.5kg liveweight/day when offered grass silage of varying dry matter digestibility (DMD) to appetite.

Grass Silage DMD (%)	~60	~65	~70	~75
Concentrate supplementation (kg/day)	2.0-3.0	1.5-2.0	1.0-1.5	0-1.0

into your beef system



On July 9, tune in online to see how store-to-finish beef farmer John Watchorn, Co Wexford, and suckler farmer Sean Roddy, Co Kildare, manage their grassland in practice.

In the morning 'Beef Talk', John will provide an overview of his grass-based beef system and will discuss key ways to build resilience on your farm, including winter-feeding and grazing management.

During the day, technical updates on various aspects of cattle management, and videos with a selection of farmers around the country discussing how they manage grass on their farms, will be provided.

In an evening live panel discussion entitled: 'How can my farm grow more grass?' Sean will be available for questions, facilitated by Aidan Murray. He will be joined on the panel by his Teagasc advisor Christy Watson and Edward O'Riordan, Teagasc Grange.

yield and utilisation attained. This, in turn, delivers more animal liveweight from grass.

Suckler farm manager in Lyons Demense farm, Co Kildare, Sean Roddy manages a suckling herd with all stock brought to finish at 18-20 months. The herd was established in 2018.

Last spring, he calved 90 Stabiliser cows. Sean says: "The farm is a mix of light and heavy land. By measuring grass on a weekly basis, it allows me to utilise grass better. My main aim is to finish all progeny off grass with little or no concentrates. In order to minimise costs and reduce concentrates usage, I out-wintered the weanlings on redstart." Weanlings were supplemented with red clover silage.

Sward quality is very important to Sean: "Over the past two years, I have reseeded 70 % of the farm. I had really poor performing paddocks and now the swards are performing, are better quality and easier managed.

"This is especially true now during the drought conditions. Reseeded paddocks are coming back and holding better and I see the difference in quality. By incorporating clover in the reseed, I am also reducing my nitrogen usage."

Sean's excellent grazing management on the farm is evident in the high animal weight gain he can achieve from grass.

management during the second grazing season in one sentence. By focusing on the four main areas – grazing infrastructure, soil fertility, grassland management and reseeding – John has made big improvements on his farm.

The key to mid-season or summer grazing is to ensure there is a constant supply of high-quality grass ahead of the animals. A target live-weight gain of 1kg/day throughout the second grazing season should be attainable without meal supplementation – however, this is often not the outcome.

Improved grassland management is an area where weight gain can be achieved at low cost. High weight gains can be achieved from a grass-only diet, once the correct pre-grazing yield is offered and high levels of utilisation are continuously reached. Targeting grazing covers of 8-10cm (1,400kg/DM/ha) and allowing 18 to

21 days recovery and re-growth is essential.

Allowing pre-grazing yield to exceed recommended levels leads to a decline in grass quality and poor bodyweight gain. Finishing the first rotation on time is critical for mid-season grass supply and quality. It will ensure that grass will be more easily managed in subsequent grazing rotations.

John farms in Newbawn, Co Wexford with his wife Shirley. They run a store-to-beef system purchasing cattle in spring and bringing them through to slaughter the following year. This is a high output grass-based farm. They developed an excellent paddock grazing infrastructure; paddocks are grazed for 36 hours before moving to the next one in the rotation.

There is a strong relationship between the number of paddocks on the farm and number of grazings achieved. The more grazings achieved per paddock, the higher the grass