

BETTERfarm Beef Programme

BUSINESS, ENVIRONMENT TECHNOLOGY through TRAINING EXTENSION RESEARCH

Manage late season grazing to prevent sward damage



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After heavy rainfall last week and in the first half of this week, grazing conditions are starting to become trickier on the heavier farms in the programme. If management practices are not flexible, there is a risk of damaging grazing swards. Heavy cattle and

bull weanlings will become unsettled during wet conditions and are likely to walk the perimeter of hedges and fencing wire. On the programme farms, heavy cattle are not being held in a paddock until it is fully grazed out during heavy rainfall. Instead, cattle are being moved onto the next paddock earlier. Concentrates are being offered also to try and prevent bulls from becoming more aggressive. Bulls have been offered up to 3kg/day of concentrates during wetter periods. Heavier bulls over 450kg liveweight have been housed on some farms to finish. On heavier

farms that finish bulls at 18 to 20 months, bull weanlings are also being housed now as they will perform better indoors on a controlled store diet, rather than trying to squeeze another two to three weeks of grazing wet grass. Moving cattle on to the next paddock early means these animals have less walking to do in order to graze sufficient grass to meet daily

demand. Sheep or lighter cattle are being used to clean out paddocks afterwards. On the farms without sheep, or farms with drier land, the target is to graze out the paddocks in the next rotation with light weanlings before closing off for the winter. Autumn calving has gone well across the farms with very few problems encountered. The favourable weather

has allowed the farms to get cows and calves back to grass straight after calving. As calves are not being exposed to disease, mortality has been low. Also, because of good grazing conditions, cows have calved down with excess body condition which has been utilised after calving. Few farms have had to offer concentrates to cows in order

to sustain milk yields. It is important that mid-August to October calving cows are in excellent body condition (BCS 3) when they are housed so that fertility is not affected. Some of the farms intend to house these cows first so that they are on a settled diet ahead of the start of the breeding season, rather than housing during the breeding season.

Table 1: Converting growth rate into kilos of liveweight per hectare/acre

	Daily growth rate kg/DM/HA						
	20	30	40	50	60	70	80
Kg/LW/Ha	700-1,000	1,000-1,500	1,400-2,000	1,750-2,500	2,100-3,000	2,450-3,500	2,800-4,000
Kg/LW/Ac	280-400	420-600	560-800	700-1,000	850-1,200	1,000-1,400	1,100-1,600

*during period of poor utilisation, use figures at the lower end of the range.



ON THE GROUND

PETER LAWRENCE

“Ensuring adequate fat cover at 16 months is the biggest challenge of this system”

In recent years, the majority of producers slaughtered bulls between 18 and 24 months of age, producing carcassweights generally in excess of 450kg. However, feedback from the marketplace suggests that bull carcassweights above 420kg are undesirable and producers may be discounted. An alternative is to produce bulls at 16 months of age or younger between 380kg and 420kg carcassweight, offering producers access to the higher-priced retail markets. In recent times, some meat factories have made this system more appealing by paying for these animals on the Quality Payment System (grid) and including the quality assurance bonus for quality assured farms. Similar to other livestock enterprises, grass is the cornerstone to Irish beef production systems and as a consequence most cattle are slaughtered off grass at the end of the grazing season.

Therefore, spring-born bulls finished at around 16 months of age are slaughtered when the national cattle supply is low and prices are generally highest (May/June). **HIGHER INPUTS** It is an intensive high input system as these animals spend approximately half their lifetime indoors. As a result, they incur a long, expensive indoor feeding period where they may consume in excess of 1.5 tonnes of concentrates per head. Ensuring adequate fat cover at 16 months is the biggest challenge and producers must be aware of the variables which may affect this, such as breed, diet, finishing period, growth rate and weight. Therefore, attention to detail and excellent management must be adhered to so that key performance targets are achieved. **STAGES** Table 1 outlines the different production stages (pre-

weaning to housing; housing – growing stage; finishing period) for producing bulls under 16 months in a spring calving herd. Within each stage of production, there are target weights that must be reached to ensure that the animal will meet the correct slaughter specification. Calf performance pre-weaning is crucial for this system to be economically viable. Bull calves must gain at least 1.2 to 1.3kg/day up to weaning. The milk yield of the cow coupled with superior genetics, good grassland management and animal health are key to achieving the target weaning weight of 350kg to 360kg. To some degree, weight gain targets post-weaning are easier to meet as the producer has more control over the animal's diet and intake.



IN PRACTICE BETTER beef farm programme participant Patrick Grennan operates an efficient under 16 month bull beef system from his spring calving herd, alongside his on-farm tourism business in Co Wexford. Working closely with his Teagasc adviser, Michael Fitzgerald, Patrick's main aim is to increase his cow herd from 35 to 45 cows. Cows are predominately three-quarter bred Limousin and are served with a Limousin stock bull. Replacement heifers are bred to Aberdeen Angus through AI for easy calving. As Patrick has off-farm

interests, labour efficiency and time management are very important. A target is to have all cows calved in a 10-week period, starting in late January and finishing in late March. This means he can slaughter his bulls during May/June when beef price

is usually high. The compact calving period eases routine management tasks and animals are uniform in size and weight which is important during the finishing stage. As the farm is fragmented, grazing bulls for a second season (100 days) for the 18 to

Table 2: Live weights & growth rates of 2012 spring born bulls slaughtered at 15-16 months

Date	Stage of Production	Weight (kg)	ADG since Birth	ADG since last weighing
17/2/12	Birth	45	-	-
14/7/12	Pre-weaning	227	1.22	-
15/10/12	Weaned	361	1.31	1.43
19/2/13	Housing- Growing	526	1.30	1.23
2/5/13	Finishing	652	1.37	1.75
20/5/13	Finishing	684	1.39	1.76

Table 3: Summary of 2012 spring born suckler bulls slaughter data (categorised by breed)

Breed	Number of animals	Days on Farm	Average age at slaughter (months)	Carcass weight (kg)	Carcass Grading	Factory Price	Price per kg	ADG since birth
Limousin	14	480	16	420	U+3-	€1,938	€4.62	~1.4
Angus	2	433	14	333	R+3=	€1,535	€4.62	~1.3



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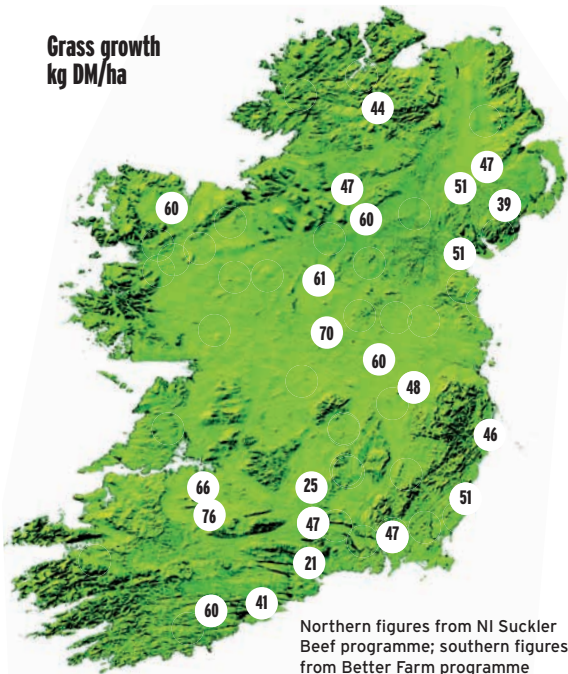
WEEK IN REVIEW

- Grazing conditions have become harder to manage on the heavier farms.
- Heavy cattle and bulls are being moved after one to two days in a paddock rather than forcing them to graze a paddock out.
- Lighter cattle or sheep are being used to clean paddocks out after these cattle.
- More cattle are being housed. Stronger bulls are being housed as they will perform better indoors than at grass.
- Cow body condition is important ahead of the grazing season.

➤ If possible, do not house all cattle on one day. Aim to fill 25% of the shed, then another 25% around one week later. If there is an outbreak of pneumonia, there will be a limited number of cattle affected compared with filling the entire house on the same day.

TOP TIP

Grass growth kg DM/ha



Northern figures from NI Suckler Beef programme; southern figures from Better Farm programme

Table 1: Spring-born under 16 months suckler bull beef system

Stage of Production	Diet	Time	Live weight	ADG (Kg/day)
Birth	Milk	15 Feb	45kg	
	↑ Milk & Grass			1.3
Weaning	↓ Grass & 2-3 kg concentrates	1 Oct	355kg	
Housing	1. Growing Diet (High quality silage + 3-5 kg concentrates)	1 Nov	400kg	1.2
	↓ 2. Finishing Diet (Ad-libitum concentrates + roughage)	1 Mar	500kg	
				1.8
Slaughter	↓	15 Jun	700kg	

20-month system is not practical. This is the main reason why bulls are finished under 16 months. As a consequence of not letting these bulls back to grass, Patrick can increase his stocking rate by keeping more suckler cows. However, as he cannot incorporate grazed grass into the growing phase to reduce production costs, he substitutes concentrate inputs with high quality grass silage. By feeding high quality baled silage, concentrates are cut to 1.3 to 1.5 tonnes per bull from birth to slaughter, rather than two tonnes as with many typical under 16 month bull beef systems. The weights of his 2012-born bulls during the different stages of Patrick's system are outlined in Table 2.

PRE-WEANING

Pre-weaning growth rates of 1.3 kg/day are achieved

through a combination of milk, good herd health management and grass. By walking and measuring grass

Table 4: Economics from weaning to finishing of 2012 spring born bulls slaughtered 15-16 months

Variable	Value
Sell as 360 kg weanling (€2.60 per kg Live weight)	€936
Finishing costs	
Concentrates (1.3t @ €330/t)	429
Silage (~3t @ €30/t)	90
Other variable costs (vet, bedding, marketing etc.)	60
Total	579
Slaughter price	€1,888
Weanling price	€936
Finishing costs	€579
Margin /head	€373

growth in paddocks using a plate meter on a weekly basis, Patrick can budget how much grass he needs and how many days of grazing he has.

If a surplus of grass is present, paddocks will be removed as baled silage, regardless of yield, in order to maintain sward quality throughout the grazing season. Hence, these bales are of excellent nutritional quality with DMD values of 74% or greater. They are used with his first crop silage (cut mid-May) for feeding his young bulls when housed. Bulls are gradually weaned from late September and fed 2kg of concentrates with quality grass up to housing (early November), when they will weigh between 380kg and 400kg.

HOUSING - GROWING PHASE

Once housed, bulls are fed a growing diet to help develop frame before the finishing period. They are offered grass silage ad-lib and 3kg of concentrates (crude protein 16%). Silage ranges between 14% and 16% crude protein annually. As the bulls grow, their feed requirements will also increase for maintenance and growth. Therefore, the concentrate proportion of the diet increases gradually to 6kg by early January. Patrick splits the concentrate feeding to two 3kg meals per day and they will remain on this diet until late February.

HOUSING - FINISHING

In early March the bulls are built up to 8kg/day of a higher energy and lower protein finishing ration with high quality baled silage ad-lib. They are fed the 8kg over three meals per day to avoid any rumen upsets. At this

KEY DRIVERS

- Weaning weight of 350 to 360 kg at 240 days of age is essential.
- High milk yielding cows to achieve weaning weight target.
- Use genetically superior sires to produce progeny with good growth potential, conformation and easily fleshed.
- Animal must grow at 1.3kg liveweight/day from birth to slaughter.
- Manage and grow high quality leafy grass throughout the grazing season.
- Good herd health.
- Compact calving.

stage, the target is to have the bulls weighing 520kg to 550kg. The finishing diet is fed for approximately 100 days before slaughter, when daily liveweight is close to 1.8 kg/day.

Table 3 summarises the slaughter data of the 2012 spring-born bulls. The Limousin bulls averaged 420kg carcass and assuming a kill-out of 58%, their final liveweight was 724kg. The Angus bulls were bred from the replacement heifers and given their early maturity were slaughtered earlier (14 vs 16 months) and were 333kg carcass weight.

Table 4 details the economics of keeping these bulls from weaning until slaughter. In total, the bulls averaged €1,888 per carcass and finishing costs amounted to €579. Assuming these bulls were worth an average of €936 as weanlings, they left a gross margin of €373 per head after finishing.

FARMER FOCUS

Ger Dineen Co Cork

I have an abundance of grass at the moment. Grass growth had slowed up during the drought in September, but the recent rainfall has caused a surge in growth again. Last week's growth rates came in at 60kgDM/ha/day, which is high for this time of year. I currently have 30 days grass ahead of stock. I spread a bag to the acre of either 18-6-12 or 27-2.5-5 in mid-September on the grazing land. I have found the change to using compound fertilizer on low P and K index soils since joining the programme has transformed my grass swards.

I have 20 bull calves still on the cows. They are gaining up to 1.8kg/head/day with no meal, but they are creep grazing ahead of the cows.

All heifer calves are weaned and on good quality grass. I am using my dry cows to clean off paddocks.

I aim to start closing up paddocks for spring

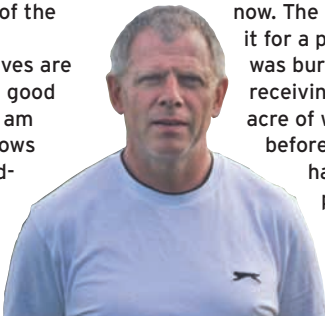
grazing around 10 October. I have a high demand for grass in early spring and grass on 1 February is worth a lot more to me than on 1 December.

I weighed all my calves on 19 September and my bulls averaged 1.45kg/day, while my heifers averaged 1.31kg/day since birth. I have found that the bulls TSO and S666 have performed very well this year.

I will weigh again at housing. I plan to finish all my bulls again this year as they have performed very well over the last few years under this system.

They will be grazing good quality grass, hopefully, until the end of October, before being housed and built up onto ad-lib concentrates early next spring. The intention is to finish by early May.

My reseeded ground is starting to green up well now. The drought stunted it for a period. This land was burned off before receiving 3,000 gallons/acre of watery slurry before being disc harrowed and power harrowed. It received three bags of 10-10-20/acre afterwards.



Joe Murray Co Roscommon

The good weather in September has been a blessing here as my farm is naturally wet. Grass growth has been excellent over the past few months and I have been building grass covers ahead of the cattle.

My out-farm has drier land so I have focused on saving the grass on this land block for grazing lighter stock, or freshly calved cows, from mid to late October.

To do this, I have moved all the stock to my wetter land to graze it out.

Thankfully, ground conditions were ok and I have managed to get all the wettest fields grazed off and I applied a light coat of slurry afterwards. I am spreading watery slurry to make sure the tanks are empty ahead of winter.

Once grazed, the paddock will be closed up until next spring.

I would have approximately four weeks of grazing ahead of stock at the moment which will

shorten the winter period. By grazing in a one or two day paddock system, I will be able to keep lighter stock out until all grass is grazed.

The cows have just started to calve and I have 70 animals to calve this winter. The cows are bred to a Shorthorn bull along with a Charolais.

These will be the first calves from the Shorthorn and I am hoping to get heifer calves to keep as replacements as I want to bring more milk into the cows.

The cows have been given a bolus to cover minerals ahead of calving. Body condition is being closely monitored and if cow condition starts to drop, they will be supplemented. I have a few cull cows that are being fed 3kg/day of ration at grass.

I will complete a budget at housing to see whether they are worth housing to finish or selling live. The weanlings are being prepared for sale with the bull calves eating 3kg/day of ration and top quality grass. The heifer calves are eating 2kg/day along with grass and will be sold in the coming weeks.

