

Derrypatrick spring 2019

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The Derrypatrick Herd is a suckler calf-to-beef research demonstration herd situated in Teagasc Grange, Co Meath. The herd consists of Limousin × Friesian and three quarter beef-bred animals.

The land area dedicated for the Derrypatrick Herd in Grange is 65ha (162 acres) on variable soil types, ranging from dry to heavy areas on the farm.

In the past, progeny were finished as 16-month bulls, 20-month heifers and 24-month steers. Since 2018, to coincide with the new breeding strategy and production system all male progeny are slaughtered as steers which will result in a higher stocking rate (2.8 LU/ha).

Due to the difficult spring in 2018, management targets had to be readjusted accordingly. This year, the good conditions in autumn 2018 allowed us to extend the grazing season and set up paddocks for grazing in spring 2019 using the autumn rotation planner. Spring grass is the ideal feedstuff for cattle as it is highly digestible and high in protein. It reduces the need for expensive concentrates. We plan to begin turning stock out from the beginning of February, ground conditions permitting.

At the same time, we will be budgeting so that there is enough grass until the start of the second grazing rotation. This budgeting will be done using the spring rotation planner. Under ideal grass growing conditions and on heavier soils, the start of the second rotation will occur in mid-April; farms on drier soils will reach

Table 1: The sires selected for breeding 2018

Replacement sires				Terminal sires				
Breed	AI code	Name	Replacement index €*	Term. index €	AI code	Name	Replacement index €*	Terminal index €
CH	VMO	Voimo	132	132	FSZ	Fiston	110	156
CH	CH2218	Bivouac	175	182	SNZ	Sylvaner	82	150
LM	JSS	Usse	165	134	LM4050	Wilodge Goldcard	73	131
LM	CWI	Castleview Casino	129	121	LM4093	Mullary Intrepid	93	144
SI	QCD	Cloondroon Cailling	165	96	RWV	Raceview Van Halen	82	97
SI	SI2152	Curraheen Earp	140	103	CQA	Curraheen Vio	125	115
AA	ZLL	Lanigan Red Deep Canyon ET	155	92	ZEP	Hawkey Red Zeppelin	106	82
AA	RGZ	Tubridmore Gizmo ET	130	63	GJB	Goulding Jumbo King K436 ET	93	53

Derrypatrick planner

- The remaining 2017 bullocks and heifers will be slaughtered in the next coming weeks.
- We will be aiming to let out replacement heifers in the first week of February (weather depending).
- Cows were vaccinated with Rotavec Corona pre-calving to reduce scour.
- The calving facilities will be prepared over the next few weeks.

this in early April.

First rotation spring-grazing should start in February/March and continue until early April or mid-April, depending on soil type on the farm. If turnout is too late on the Derrypatrick farm, or any farm, and the first rotation is too long, pre-grazing yields will be too high, grass quality will deteriorate and achieving a post-grazing height of 4cm will be difficult and utilisation will be reduced. Animals were let out on 18 April in spring 2018.

- Advantages of finishing the first rotation on time include:
- The first paddock grazed in the second rotation will have an adequate cover, i.e. 8cm to 9cm (1,000kg to 1,200kg DM/ha), and we'll have the recommended 18 to 21 days of grass on the grazing area.
 - A wedge of grass will be created, the highest covers will be on paddocks grazed early in the spring with lower covers on paddocks grazed last in the rotation.
 - Early spring-grazing increases grass quality in the subsequent grazing rotations.



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How we'll ensure optimum spring grazing management

- Farm cover at turnout should be 600kg to 700kg DM/ha.
- Silage paddocks will be grazed by early April.
- Follow the spring rotation planner for heavy farms; graze 40% of farm by 31 March, 100% by 20 April.
- Target a post-grazing sward height of 3.5cm to 4cm during the first rotation to ensure good grass utilisation and good grass quality for subsequent rotations.

- Lighter stock, e.g. weanlings, do less damage in more challenging weather.
- Aim to finish the first rotation by 20 April (or "magic day" – when grass growth equals grass demand).
- Avoid poaching fields.

Fertiliser

In order to prepare for early spring grass, 30kg N/ha half a bag of urea per acre (46% N) will be applied to paddocks when soil temperatures rise to 5°C to 6°C and once ground conditions allow. Slurry will be targeted to paddocks that are low in P and K (as indicated by a soil test) and where grass covers are low.

Reseeding 2018

In autumn 2018, four low-performing paddocks in the Derrypatrick were identified for reseeded. The area for reseeded was sprayed on 22 August. The variety chosen for reseeded of these paddocks was Oakpark, a late-heading diploid variety; this was sown at 30kg/ha. Two of the

Pre-calving management

COWS

Nutrition

- Pre-calving nutrition: cows are currently on good-quality silage and were body condition score of 3.0 when last measured in early January. Cows are receiving a pre-calving mineral.
- Post-calving nutrition: cows in good condition at calving and going to grass after calving will suffice on moderate quality silage with no concentrates.
- Any cows that are in poor condition after calving will be supplemented with 2kg to 3kg concentrates until turnout. Going on current body condition scores, this should not be necessary with the Derrypatrick herd.

Health

Cows received their vaccination for scour (Rotavec Corona) four to 12 weeks prior to calving, and IBR vaccination in January. The herd were treated for lice in early January. This is in addition to their backs being shaved at housing.

Calving

Calving will start on 10 February with 106 animals to calve over a 12-week period. Projected mean calving date for spring is 16 March.

In preparation for calving, the basic calving equipment will include:

- Calving gate (make sure it is working).
- Calving jack.

- Two sets of clean soft nylon ropes.
- Disinfectant.
- Lubricant.
- Stomach tubes (one for sick calves and one for colostrum management).
- Powdered colostrum.
- Iodine.
- Electrolytes.
- Arm-length gloves.
- Rubber gloves.
- Access to warm water.
- Vet contact details.

Calving pens will be cleaned and disinfected prior to start of calving. Straw will be allocated to calving pens to keep young and newborn calves clean and warm. Cows will be moved to the calving shed prior to their due date. Each calving pen will be cleaned after each cow is removed to help prevent the buildup of bacteria and the spread of infection.

Careful monitoring of the calves to ensure they are sucking and getting adequate quantity of colostrum (13% to 15% of the calf birth weight) will be very important. Any calf that appears off-form will have their temperature checked and treated accordingly. Calves will be disbudded and vaccinated for respiratory diseases (pneumonia, IBR) at two weeks of age.

YEARLINGS

Nutrition

Yearlings are currently on very good quality silage (75% DMD) and 1.5kg of concentrates. Yearling steers are 388 kg and yearling heifers are 360 kg.

four paddocks also had 2.5kg/ha of medium-leaved white clover cultivars Chieftain and Aberherald included in the mix.

Breeding

The sires used on the Derrypatrick herd are a mixture Charolais, Limousin, Simmental (used on cows) and Aberdeen Angus (used on heifers). The first year of a new breeding strategy began in 2017; calves that were born in spring 2018 are the first progeny of this new breeding strategy. The calves from these sires will be managed to slaughter in a 20-month heifer or 24-month steer production system.

Within the replacement index, sires were selected on the following (maternal) traits: milk yield, calving interval, cow contribution to the replacement index, calving difficulty, while maintaining a balanced terminal index. Within the terminal index, sires were selected on carcass weight, overall terminal index and calving difficulty. Additionally, it was ensured

that breeding value reliability was high. Maximum sire calving difficulty used on the cow herd was 8%. All heifers were bred to Angus sires using high replacement and high terminal index for that breed.

The 2018 breeding season started on 2 May and finished on 25 July and consisted of 12 weeks of 100% AI. Breeding was implemented using the AM:PM rule, where cows observed in heat in the morning were inseminated in the afternoon, and cows observed in heat in the afternoon were inseminated the next morning.

- Aids for heat detection included:
- Teaser bulls with chin-ball.
 - Tail paint.

• Visual observation four times daily. A pregnancy scan took place on 20 September. Of the 122 animals in the breeding herd scanned, 110 were scanned as being in-calf. This gave us a 90% in-calf rate. Included in the 122 were 29 replacement heifers; 26 of these 29 were scanned in-calf (90% in-calf rate).