



# Newford Farm National Open Day

Newford, Athenry, Co Galway

Wednesday 5 September 2018



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**Newford Project overview**  
**Maintaining focus in a difficult farming year**



**KEY TAKE AWAYS**

Category	2017	2018	2019
Revenue	€1.2M	€1.1M	€1.3M
Operating Costs	€0.8M	€0.9M	€0.7M
Profit	€0.4M	€0.2M	€0.6M

**KEY TAKE AWAYS**

1. **Revenue** - Revenue was down 8% in 2018 due to a combination of factors including lower milk prices and a smaller herd.

2. **Operating Costs** - Operating costs were up 12% in 2018 due to higher feed costs and increased vet bills.

3. **Profit** - Profit was down 50% in 2018 due to the combination of lower revenue and higher costs.

4. **Key Takeaways** - The farm is focusing on reducing costs and improving efficiency to maintain profitability in a difficult year.

5. **Future Outlook** - The farm is optimistic for 2019, with improved milk prices and a larger herd expected to drive revenue up.

6. **Conclusion** - The farm is committed to maintaining its focus on quality and efficiency, even in challenging times.

**Newford Artificial Insemination**  
**Operating AI in a 100-cow suckler herd**

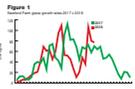


**THE COSTS**

Operating AI in a 100-cow suckler herd can be a significant cost, but it can also be a profitable investment. The costs of AI include the cost of the AI service, the cost of the semen, and the cost of the heat detection system. The benefits of AI include improved genetic selection, reduced calving intervals, and increased milk production.

- 1 Cow type** - The type of cow you have will affect the cost of AI. For example, a cow with a larger udder will have a higher cost of AI.
- 2 Use of a vasectomised bull** - Using a vasectomised bull can reduce the cost of AI by up to 50%.
- 3 Use of tail hairs** - Using tail hairs for heat detection can reduce the cost of AI by up to 20%.
- 4 Regular heat detection** - Regular heat detection can reduce the cost of AI by up to 10%.
- 5 Once-a-day AI** - Once-a-day AI can reduce the cost of AI by up to 10%.
- 6 Good farm infrastructure** - Good farm infrastructure can reduce the cost of AI by up to 10%.

**Newford Grass performance**  
**2018 grass growth dented by drought**



**FIGURE 1**

Grass growth in 2018 was significantly lower than in 2017 and 2019 due to drought conditions. The graph shows that grass growth was up to 50% lower in 2018 compared to the other two years.

**KEY TAKE AWAYS**

1. **Grass growth** - Grass growth was significantly lower in 2018 due to drought conditions.

2. **Impact of drought** - The drought had a significant impact on grass growth, reducing it by up to 50%.

3. **Future outlook** - The farm is optimistic for 2019, with improved weather conditions expected to drive grass growth up.

4. **Conclusion** - The farm is committed to maintaining its focus on quality and efficiency, even in challenging times.



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# Welcome to Newford Farm open day 2018

**O**n behalf of myself and all the stakeholders involved in Newford Farm, including Dawn Meats, Teagasc, *Irish Farmers Journal* and McDonalds, I would like to welcome you to today's farm walk.

Our first open day took place in May 2016 and from feedback received on the day and since then, we decided to hold this year's event



later in the year, so farmers could get to see the production system at a different stage.

## A TESTING YEAR

Like other farms right across the country, we have experienced a testing year, contending firstly with a difficult spring and delayed turnout of stock and, more recently, with drought conditions.

It is hard to believe that drought has been a feature of the year when one of the greatest challenges since the project began in 2015 has been dealing with high volumes of rainfall.

The last three and a half years has highlighted many positive features of the production system, with the 100-cow first-cross Angus and Hereford herd excelling in breeding and calving performance. Of particular note has been a switch to 100% AI.

## CHALLENGES

We have faced challenges, and continue to do so, in equal measure. The finishing blueprint targeting 70% to 80% of steers and heifers drafted off grass has not been helped by autumn rainfall levels, with higher-cost indoor finishing eroding potential margins.

Higher variable costs have also hampered the farm's financial performance and this is an area where we are working hard to improve on.

The project is only mid-way through its seven-year term and still has lots of lessons to deliver. Hopefully you can take something from today's visit and also partake in the discussion so we too can gain from your experience and feedback.

**- Matthew Murphy**

# Overview of 2018 grazing strategy

## **NEWFORD BLOCK**

- 26.72ha or 66acres – main block with yard.
- Paddock system installed in 2015.
- Graze some yearlings at start of year.
- Gradual turnout of cows and calves to smaller sheltered paddocks close to the yard.
- Join cows and calves into two main groups – 45 to 50 cows.
- Grow grass for three weeks – graze in three days.
- Maintain pre-grazing covers at target of 1,500kg DM/ha.
- Take out surplus grass as baled silage – manage grass and replenish fodder supplies.

## **TUOHYS FARM**

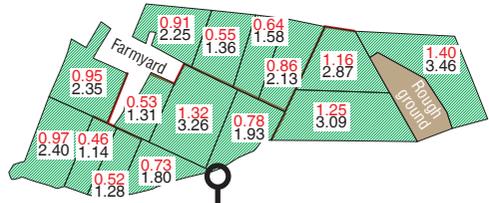
- 11km from Newford.
- Heavy in nature, with ground difficult to manage in heavy rainfall.
- Ex-dairy farm and well-managed prior to coming into the project.
- Susceptible to low pH; needs liming in 2018.
- 15 paddocks, with good opportunities to subdivide.
- Well laid-out, split down the centre by a farm roadway.
- Housing available for approximately 60 0-1 year olds.
- Used to graze 0-1 year olds.

## **GORT NA HABHAINN**

- 13.57ha or 33.53acres - two miles away in opposite direction.
- Land type heavier in nature.
- Grazing block for one- to two-year-old cattle.
- Two groups with eight divisions.
- Very high stocking rate (3,000kg DM/ha).
- Will be under most pressure to grow grass; need to utilise 13t grass DM/ha on this block.
- Upper drier half was reseeded in 2015, part of lower in 2016/17.
- New water system; also drainage job to alleviate flooding, but still challenging.
- New crush erected to handle stock efficiently and safely on this block.

# Legend

-  Newford farm
-  Hedges
-  Farm roadways
-  Temporary road
-  Walls
- 2.78 Hectares
-  Public road
- 2.78 Acres
-  Water
-  Railway



# Maintaining focus in a difficult farming year

**N**ewford Farm was established by Dawn Meats and Teagasc. The 100-cow suckler-to-beef demonstration herd commenced operations in Newford, Athenry, Co Galway, in 2015 on 55.8ha of land previously farmed by Teagasc.

The link-up between the two organisations sees Dawn Meats employ the farm manager and cover all costs of employment, while also funding capital costs to establish the farm (livestock and capital investment).

Teagasc provides the land, including funding land rental costs, and delivers technical advice for the project, which is set to run until 2022.

Farm manager Matthew Murphy is the

man charged with the day-to-day running of the herd and has been working with the herd from the outset in Athenry.

## OBJECTIVES

There are a number of objectives in the project that is driven by Dawn Meats, Teagasc and the *Irish Farmers Journal*, and also has backing from McDonalds.

The management team is made up of the farm manager and members from Teagasc, Dawn Meats and the *Irish Farmers Journal*, while the stakeholder team also has farmer representation.

The overriding aim is to generate a high profit from a grass-based suckler-to-steer and heifer-beef production system.

There is also a focus on quantifying the labour required to operate a 100-cow

**Table 1: Farm plan summary**

Measure	2015	2016	2017	2020*
Stocking rate (LU/ha)	2.39	2.89	2.67	2.71
Land base (adj. ha)	55.8	55.8	64	55.8
Cows calving	95	96	110	100
Calving spread - Spring	Jan to April		Feb to start April	
Purchases	Stock bull & replacements		Replacements	
<b>Trading system (weanling, store, finish, etc):</b>				
Male progeny	Finish as steers @ 20-22 mths			
Female progeny	Finish of grass @ 18 to 20 mths			
Liveweight output (kg/ha)	794	1,081	1,016	922
<b>FINANCIAL SYSTEM</b>				
Output value (€/ha)	1,869	1,972	2,005	2,156
Variable costs (% of output)	1374 (74%)	1539 (78%)	1332 (66%)	986 (45%)
Gross margin (€/ha)	495	432	674	1,170
Fixed costs (€/ha)	695	864	723	651
Net margin (€/ha)	-200	-431	-49	519
Net margin incl BDGP(€/ha)	-17	-200	77	671

\*Blueprint will be updated once land area is finalised for 2018 onwards



unit, while also developing benchmarks and production targets for a herd utilising a breeding policy and cow type that differs from the majority of Irish suckler enterprises.

## OVERVIEW

An overview of the farm plan is detailed in Table 1. The aim is to grow profitability each year, with a target gross margin of €1,170/ha and a net margin in the region of €520/ha achieved by 2019/2020.

The farm's financial performance takes account of casual labour, but does not include the full-time labour unit or any land rental costs, with the aim of the project to deliver a net return in excess of €29,000 to support a full-time labour unit.

There are no direct payments (Basic Payment Scheme or Areas of Natural Constraint), with the exception of the Beef Data and Genomics Programme payment of €8,500.

## COSTS IN CHECK

The foundation of the farm plan is achieving high levels of output while keeping variable costs in check.

As Table 1 shows, the farm has failed to achieve financial performance targets to date, with the farm contending with higher variable costs than planned, some of which has stemmed from continual weather challenges.

The farm has achieved positive levels of output, but this has come at a higher than planned cost, with the finishing blueprint based on finishing 70% to 80% of cattle off grass. This is discussed in more detail on the following pages.

## SYSTEM ADJUSTMENTS

The farm has had to deal with disruption to the farm plan in terms of the land area available altering.

The farm lost 8ha (20 acres) of the Raheen Woods land block totalling 15.51ha (38 acres) at the start of 2017.

Teagasc sourced the Tuohy's land block of 12.95ha (32 acres) and this was included into the project in 2017.

The land type is heavier than the Raheen Woods land block, which was utilised for an early grazing in spring, two cuts of silage and a late grazing in autumn. The additional acres also facilitated the number of cows calving to be kept at 110 cows, ensuring a high stocking rate is maintained.

The project lost the remainder of the Raheen Woods land block in 2018, which put additional pressure on the system in spring and added to the delayed turnout. It was also the underlying reason why the sale of 2017-born heifers was considered in early 2018 and enacted upon when drought hit.

The farm purchased silage from a 16ha land block in 2018 and is currently working on securing land to bring the stocking rate and system back into balance for a herd grazing 100-plus cows and their progeny.

# Navigating the finishing blueprint

**T**he foundation of any successful farm plan is achieving the optimum level of output that is capable of covering variable and fixed costs and delivering a net margin when these have been accounted for.

It is not just a case of simply driving output, as if it costs more to generate a given level of output than it returns, then the farm plan will simply not work.

The foundation of the Newford Farm plan is operating at a high stocking rate, underpinned by a 100-cow suckler-to-beef herd and achieving high levels of output from a grass-based system.

The finishing blueprint developed for the project is based on finishing 70% to 80% of steers and heifers off grass.

There is also a secondary component in achieving this goal of also increasing the average carcass weight over the lifetime of the project, as detailed in Figure 1.

This has proven challenging to date, with the grazing season cut short in 2016 and 2017, while the finishing blueprint has been disrupted for 2018 with the sale of 2017-born heifers.

Table 1 details the slaughter performance of the herd for the last three years. As can be seen, the average carcass weight delivered for the 2016-born batch of cattle slaughtered in 2017 achieved the target carcass weights. However, the challenge is the manner in which it was achieved.

There were 76% of the heifers finished off grass and all options were exhausted

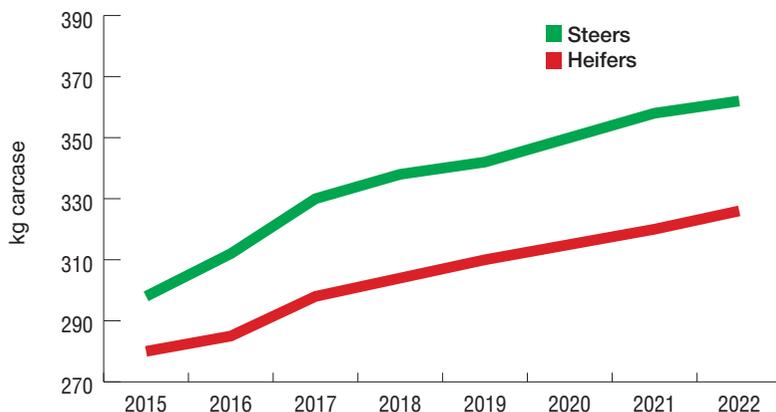


**Table 1: Slaughter performance 2015 to 2017**

	Autumn 2015 to Jan 2016		
	Steers	Heifers	Cull cows
Number	10	30	13
Avg slaughter date	09/12/15	08/12/15	14/10/15
Avg age (mths)	21.5	21.0	42.5
Carcass weight	320kg	280kg	291kg
Avg grade	R- 3=	R= 3+	O= 4-
Avg kill-out	53.60%	53.70%	48.40%
Avg price/kg	€4.05	€4.20	€3.32
Total value	€1,290	€1,172	€968

## Figure 1

System projections for carcase weight performance



to try to finish 40% of steers off grass. This included earlier housing of 27 lighter steers on 13 September to prioritise available grass for forward steers, along with supplementing with 6kg concentrates at grass.

Poor ground conditions ultimately forced housing of the 20 remaining steers on 13 October and subsequent finishing on an intensive concentrate diet.

The difficulty for the farm plan was a concentrate input in the region of 900kg for steers during the finishing phase and a spike in variable costs.

The current batch of 61 steers weighed

563kg on 23 August, gaining 1.05kg/day since turnout on 19 April and 0.95kg/day since birth.

The challenge for the future is to achieve the best balance between carcase weight and finishing date and costs.

The jury is still out on the performance of progeny from first-cross Angus and Hereford cows in year two of the production cycle and this will remain under the spotlight in the coming years.

If the farm is to undertake an expensive indoor finishing period, then a higher carcase weight will be required to cover indoor finishing costs.

Autumn 2016 to Jan 2017			Autumn 2017		
Steers	Heifers	Cull cows	Steers	Heifers	Cull cows
40	49	10	47	42	10
11/12/16	17/11/16	22/11/16	21/12/17	12/10/17	12/10/17
20.25	20.25	48.25	21.0	19.0	58.0
331.6kg	296kg	310.5kg	341	291	309
R= 3=	R+ 4-	O= 4-	R- 3+	R= 4-	O= 3+
52%	52%	47%	52%	52%	47%
€3.90	€3.98	€3.18	€4.10	€4.01	€3.47
€1,294	€1,177	€987	€1,400	€1,167	€1,062

**Table 1: Physical and financial performance 2017**

	Total	per ha
Gross output (kg)	65,024kg	1,016kg
Gross output (€)	€128,336	€2,005
<b>Variable costs</b>		
Concentrate	€22,518	€352
Forage	€4,466	€70
Fertiliser	€15,629	€244
Lime (used in sheds)	€217	€3
Veterinary	€10,314	€161
All/breeding	€3,539	€55
Contractor	€16,963	€265
Seed & spray	€53	€1
Silage polythene	€1,349	€21
Levies & transport	€2,773	€43
Straw	€3,584	€56
Sundry variable costs	€3,824	€60
Total variable costs	€85,229	€1,332
Gross margin	€43,107	€674
<b>Fixed costs</b>		
Hired labour	€8,652	€135
Machinery running	€6,701	€105
Loan interest	€12,701	€198
Car	€333	€5
ESB	€2,583	€40
Phone	€1,127	€18
Depreciation	€7,348	€115
Repairs and maintenance	€2,104	€33
Insurance	€2,150	€34
Professional fees	€1,500	€23
Sundry fixed costs	€1,053	€16
Total fixed costs	€46,252	€723
Net profit	-€3,145	-€49
BDGP payment	€8,099	€127
Net profit incl BDGP	€4,954	€77

# Exploring variable and fixed costs

The 2017 Teagasc eProfit monitor analysis shows the farm generated a gross margin of €674/ha, which, unfortunately, fell significantly below the target gross margin for 2017 of about €1,000/ha. As detailed in Table 1, the farm achieved a relatively positive level of output of 65,034kg or 1,016kg/ha.

This gives the farm a gross output value/ha of €2,005, which is relatively good for a suckler-to-beef system.

The level of output per livestock unit of 380kg is an area of focus for improvement in the years ahead and can be lifted by increasing the average carcass weight of progeny. The farm's output also benefitted from a carryover of sales into spring 2017 totalling €28,950.

The system comes under pressure when variable and fixed costs are deducted. The farm budgeted to reduce its variable costs from €1,539/ha in 2016 to €1,040/ha in 2017. Variable costs/ha reduced to €1,332, but this was more from a dilution of a higher area farmed, with total variable costs unchanged at €85,229.

## MAIN COSTS

Looking at where costs exceeded targets, there are a number of elements that stand out. The farm budgeted for a spend of €12,840 or €212/ha on concentrates and ended up with a spend of €352/ha. The higher concentrate bill can be directly attributed to weather greatly disrupting finishing of 2016-born progeny.

The earlier housing of finishing ani-



mals and housing of cows a month earlier than planned in mid-September ate into silage reserves to the tune of over 200t and resulted in the purchased forage cost increasing from the budgeted figure of €1,400 (forage purchased early 2017) to €4,466 or €70/ha.

Looking at the other costs, contractor charges also significantly exceeded its target of €10,555 and came in at €16,963. Part of these higher costs can be attributed to more surplus bales being made and higher slurry spreading charges from earlier housing.

Veterinary came in on target, as did straw, which halved in cost from 2016. This was a good feat, given that the cost of bales almost doubled from €16 in 2016 to €30 in 2017, while fertiliser costs increased slightly with higher volumes applied in the second half on 2017 to try to keep grass growth on track.

The net result is variable costs coming in €300/ha or €22,115 higher than budgeted. Variable costs will remain a chal-

lenge in 2018, given the delayed turnout of stock this spring and higher drought-related costs.

They will continue to be closely scrutinised as one of two factors will need to materialise to achieve financial targets set – an increase in the level of output or the value of each kilo produced while keeping costs in check or maintain the same level of output but with variable costs reducing to 45% to 50% of output.

Fixed costs are not expected to differ greatly, which can be expected with much of the costs already committed to the system.

Typical fixed costs on a suckler-to-beef with average levels of capital investment range from €450/ha to €600/ha.

The main difference in Newford Farm is the casual labour costs and a higher loan interest payment stemming from the farm implementing an interest-only payment on the stocking loan, working capital loan, overdraft facility and capital infrastructure loan.



## Grade A in breeding

**A** constant positive for the Newford herd in the last three years has been its breeding performance. Farm manager Matthew Murphy has brought the best out of the cows with breeding performance among the top herds in the country.

Table 1 details the improvement in calving interval since the programme commenced. The strong performance has also allowed the farm to switch from a combination of AI and stock bulls to 100% AI for the 2019 breeding season.

The positive trend in recent years has been repeated in 2018, with 91 of the 100 cows put forward for breeding scanned in calf. This is a similar performance to 2017 despite the difficult spring, the breeding season being a week shorter at 10 weeks and 100% AI being used.

Analysis of the scanning results shows 60 cows holding to first service, which represents a conception rate of over 60%, with 90% of the herd submitted for AI in the first three weeks of the breeding season. There were 20 cows which held to second service, while 11 cows held to third service. There were also four sets of twins identified.

Positive performance was also noted

in the replacement heifers which are being contract reared by Billy Gilmore, with 20 of the 25 heifers scanned in calf after a seven-week breeding season. This, in turn, has set the farm up for another compact calving season, with over 80 cows due to calve in the first three to four weeks of calving in 2019.

### SOLID FOUNDATION

There are a number of factors contributing to the positive performance. Strong focus is placed on nutrition at key stages.

Preparation starts well in advance of calving, with cows penned on body condition score and fed accordingly. Cows in excessive condition are put on restricted intake in mid-gestation, while cows falling below a body condition score of 2.5-plus are supplemented, with 12 cows fed soya hulls at a rate of 1kg to 2kg last winter.

Cows were also prioritised in terms of management this spring, with turnout of yearling steers and heifers delayed to prioritise grass supplies for cows. Cows were grazed in 24-hour paddocks and only housed for a short duration, despite challenging ground conditions.

Body condition score is also currently under the spotlight, with Table 2 detail-

**Table 1: Herd reproductive performance 2015 to 2018**

	2015	2016	2017	2018
Cows calving	74	81	85	88
Heifers calving	24	15	22	22
Calving interval (days)	N/A	371	349	362
Breeding season (weeks)	12	10	10	10
Calf mortality @28 days	4.5%	5.2%	0.9%	4.5%
Empty rate	6%	6%	6%	9%
Weaning weight	262kg	303kg	301kg	N/A

**Table 2: Weight breakdown, body condition score and calf performance by parity**

Analysis - 27 June 2018	First calvers	Second calvers	Third calvers	Fourth calvers	Fifth calvers
Average weight	482	574	646	638	656
Body condition score	2	2.3	2.4	2.7	2.9
Calf ADG from birth	1.09	1.21	1.15	1.28	1.23
Analysis - 11 July 2017					
Average kg	518	608	640	669	N/A
Body score	2.01	2.38	2.99	3.07	N/A

**Table 3: Sire selection for 2018 breeding season (figures at time of selection)**

Main herd						
Code	Sire name	Breed	Terminal index	Calving difficulty	Reliability	Carcase weight
FSZ	Fiston	CH	€157	6.6%	99%	39kg
ZGM	Gamin	LM	€142	4.9%	98%	26kg
LM4093	Mullary Intrepid	LM	€174	5.3%	88%	40kg
Replacement heifers						
THZ	Towthorpe Dubai	LM	€132	5%	99%	26kg

ing a breakdown by parity of cow live weight, body condition score and calf performance to weaning. Cow liveweight and condition is running behind the same period in 2017, with drought limiting performance.

First-calvers and thin cows have been segregated from the herd and are now receiving preferential treatment. The lift in grass growth and the fact that cows were housed on 1 September 2017 should hopefully allow cows make up any shortfall.

Calving difficulty has a direct correlation with breeding performance. There were 84 normal calvings in 2018; 12 with some assistance, nine with considerable difficulty and none requiring veterinary assistance, while there has only been one

caesarean section from over 400 calvings.

The following criteria used for sire selection is viewed as delivering the optimum balance between calving ease and maximising the beef credentials of sires selected, while Table 3 details a breakdown of the sires selected.

☛ Five stars on terminal index.

☛ Less than 7% calving difficulty for mature cows.

☛ Less than 6% calving difficulty for first- and second-calvers.

☛ Reliability of greater than 80% on calving difficulty.

☛ Greater than 30kg predicted carcass weight for mature cows, greater than 25kg for first and second calvers.

☛ Cost of less than €15 per straw.

# Operating AI in a 100-cow suckler herd

**A**rtificial insemination opens up the opportunity of accessing a wider pool of genetics that can be used with a higher reliability. It also removes an element of risk with regards to stock bull subfertility or infertility.

It is not for every farm, with factors such as land fragmentation and facilities present and labour availability the main reasons for farmers selecting to use stock bulls over AI.

However, Newford has had a very positive experience with AI, so much so that it sold its two stock bulls in 2017

and moved to 100% AI. It was difficult to justify the cost of keeping two stock bulls when they mated only about a dozen cows in the period following six weeks AI to the conclusion of breeding at 10 to 11 weeks.

It is a topic that is raised by many visitors to the farm, with questions pertaining to how farm manager Matthew Murphy is successfully implementing the practice and achieving the favourable results outlined on pages 12 and 13.

Matthew lists six key criteria as contributing to the success on Newford Farm to date.

**1** **Cow type**  
The first-cross Angus and Hereford cows bred from the dairy herd suit AI in a one-man unit. Cows are quiet and easily handled, with Matthew able to separate over 95% of the cows from the herd and bring them to the yard on their own.  
There is only a small number of cows that are harder to handle and these can generally be worked with by bringing a few cows rather than the entire herd.

**3** **Use of tail paint**  
Matthew recommends using tail paint, even where a vasectomised bull with a chin ball is running with the herd.  
His reasoning has stemmed from experience from the last three years. At the start of the breeding season when high numbers of cows are in heat, a vasectomised bull may concentrate on select cows, while having tail paint applied will still allow heats to be picked up. Changing colour as cows are inseminated will also allow performance to be quickly monitored.

**2** **Use of a vasectomised bull**  
A vasectomised bull, according to Matthew, is a must in helping to identify cows in heat. The optimum is a bull fitted with a chin ball that will readily identify cows with paint when dismounting. Bulls are purchased well in advance of the breeding season and undergo a full health check and quarantine programme.



## The costs associated

Breeding using AI has worked out at about €30 to €35/cow. The setup costs for storing and handling the AI straws were about €600 in 2016 and this is depreciated over five years. There is a €40 cost every four months to top up liquid nitrogen in the flask, while straws used are averaging out about €10/straw. The chin ball cost €160, with a bottle of paint costing €90 and generally lasting for a full season. Tail paint costs €22/bottle, with an average of 10 used in a season. The cost of the vasectomised bull has broken even in the last two seasons, with this year's bulls weighing 500kg and sold for €850 post-breeding.

# 4

## Regular heat detection

Following on from point three, Matthew says regular heat detection is still required, particularly at the start of the season for the reasons outlined in that point. Cows are generally checked first thing in the morning, mid-morning, again when bringing in cows for AI, at 3pm to 4pm and late in the evening. The times of highest activity are early morning and last thing at night.

# 5

## Once-a-day AI

The farm has been practicing once-a-day AI for the last three seasons, so has built up a strong assessment of its success. Any cow in heat in the evening or morning is inseminated at midday. Cows still in heat when checking that evening or the next morning are re-inseminated at midday the following day. Matthew says that he used about 20 additional straws for this reason during the breeding season, but says that it more than covers the cost of the additional labour required if he were to inseminate morning and evening.

# 6

## Good farm infrastructure

The farm has a good network of paddocks, with good-voltage electric wire. Matthew can link on with a geared wire reel and, in a few minutes, set up a coral with a few pigtail posts to get cows separated for AI.



# 2018 grass growth dented by drought

**T**he standout feature of the grass growth curve for 2018 is the summer heatwave and drought conditions experienced in June and early July.

The west of the country did not suffer as bad as the east, parts of which are still suffering badly, and even within Newford Farm there was significant variance in grass productivity.

The Newford grazing block was the worst affected, with growth stalling in mid-June. Growth also slowed significantly on the Gort na Habhainn and Tuohy's land blocks, but lower-lying areas of the farm provided a reprieve for longer. As detailed in Figure 1, growth reached its lowest level of an average of just 10kg DM/ha across all three blocks in mid-June.

Steps were taken to ration remaining grass supplies, with silage introduced to cows and calves and fed for a period of 27 days, with steers and heifers receiving silage for about a week before alternative measures were taken.

This included following through on a proposal to sell the batch of 45 2017-born heifers, which moved to a Dawn Meats feedlot on 18 July. This was considered from early in the year, with the loss of the Raheen Woods land block limiting the feasibility of maintaining the same stocking rate throughout the year.

The heifers weighed an average of 460kg and based on market values, in line with those recorded through the *Irish Farmers Journal* MartWatch price analysis, realised a sale value of €1,035 each (€2.25/kg).

The sale of heifers allowed steers to be split into two groups and facilitated a switch from silage supplementation to meal supplementation. The total volume of silage fed was approximately 102t (86t cows; 16t cattle), while there was close to 7t of meal fed to finishing cattle.

At a cost of €35/t for silage and €240/t for concentrates, the drought increased direct costs by €5,250 or close to €100/ha.

This leaves aside costs related to lower animal performance.



## RECOVERY

The farm reaped the rewards of a plan put in place to maximise recovery once growth resumed. A bag of CAN was blanket-spread over the farm in late July to coincide with forecast rainfall. The farm received 49mm of rainfall in late

July and this triggered the surge in grass growth, detailed in Figure 1.

Completing a regular grass budget and taking quick action to remove surplus grass developing allowed the farm to harvest 128 bales in early August, similar to the volume fed during the drought, with a similar volume expected to be harvested in the last week of August.

## FODDER BUDGET

This has brought the fodder budget largely back on track, with a second cut of silage to be harvested in early September on the land rented for a two-cut system estimated to deliver 300t. This will join 500t saved in the first cut and a predicted 200t in bales giving a total of 1,000t. The silage requirement for suckler cows detailed in the fodder budget in

## Figure 1

Newford Farm grass growth rates 2017 v 2018

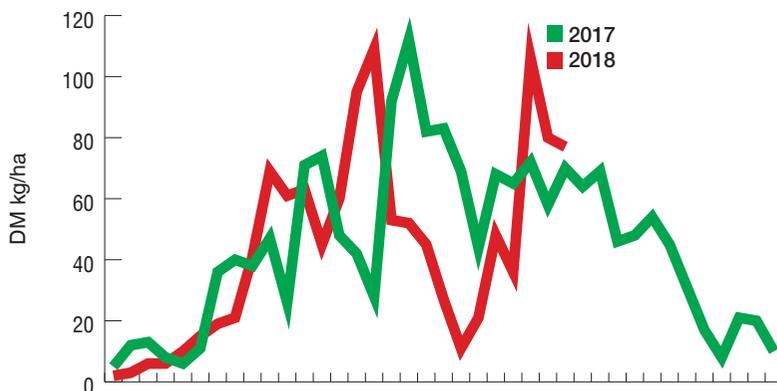


Table 1 is reduced from 1.4t to 1.2t due to a combination of cows falling behind target receiving concentrate supplementation, while intake of cows in strong body condition can be restricted.

Part of this is expected to happen naturally, with the first-cut silage harvested from old pasture on rented land testing poorly at 61DMD, which is likely to hit intake. Steers will be supplemented with at least 6kg concentrates, depending on the housing date, while weanlings will be offered good-quality silage and supplemented with 2kg concentrates, which will also help to conserve supplies.

### MAXIMISING GRASS GROWTH

The farm has recorded a continual increase in grass productivity in recent

years and grew 14t DM/ha in 2017. The farm needs to continue to lift performance, with a target of utilising 13t DM/ha. Walking the farm on a weekly basis and grass budgeting are the foundation of the positive performance, while other notable elements include intensive grazing management, regular soil fertility analysis and a good paddock infrastructure for rotational grazing.

Attention is now turning to the autumn rotation planner, with the rotation length increasing to 25 days on 1 September and 35 days from 14 September. The first paddocks have been identified for closing on 10 October, while the target is to have 60% of the farm closed by 7 November, with a mid-November closing cover of an average of 500kg DM/ha.

**Table 1: Winter fodder budget 2017 / 2018**

Animal type	Stock for winter	Months	Pit silage required/ animal/month	Net of concentrates	Total required
Suckler cows	100	5	1.4	1.2	600t
0-1 year old	106	5	0.7	0.6	320t
1-2 years old	61	1.5	1.3	0.75	70t
<b>Total required</b>					<b>990t</b>

# Constant surveillance of herd health issues

**H**erd health is another area where significant improvement has been made in terms of both incidence of disease and reducing costs.

The farm's veterinary bill was recorded at €10,314 in 2017, achieving a reduction of over €3,000 on the previous year. The veterinary bill is also in a good position for the year to date in 2018, with a number of steps taken in recent years delivering major benefits.

An outbreak of cryptosporidium scour in 2016 increased veterinary costs, but has since been brought under control with targeted disinfection of calving and post-calving facilities joining a robust hygiene programme.

While a significant advantage of the herd's first-cross cows is a high milk yield, there is a higher risk of mastitis, with a number of cases of E coli mastitis in recent years.

The farm has previously housed cows in straw bedding pre- and post-calving, but with straw also doubling in price and

hard to source in similar quantities, this has brought added complications.

Scraping slats on a daily basis and applying a dusting of lime on top of slats has worked well in reducing the risk in the runup to calving.

Adopting a similar approach also worked well when cows and calves had to be rehoused post-turnout, with the addition of a creep gate to a slatted shed allowing one of the shed's passageways to be successfully turned into a calf creep.

## ROUTINE TREATMENTS

The farm has also taken tough decisions in recent years with regards to vaccine use, with those not seen as essential and posing the lowest risk removed from the health programme.

The current health programme in place for cows and calves is listed in Table 1, while optimum use is also made of health monitoring aids such as faecal egg counts for worms and investigating the health of livers for fluke parasites in slaughtered animals.

**Table 1: Health protocol 2018**

Calves	Product	Treatment	Second treatment
Coccidiosis	Vecoxan	At turn-out	N/A
Clostridial disease (Black Leg)	Tribovax 10	April	May
IBR	Bovillis IBR	April	October
Lung / stomach worms	Ivermectin	June	August
Liver fluke	EndoFluke	October	N/A
Lice	Butox	December	N/A
Cows	Product	Treatment	
IBR	Bovillis IBR	January	
Scour	Rotavec Corona	January	
Leptospirosis	Leptavoid-H	April	
Mineral deficiency	Allsure	April	
Liver Fluke	Endofluke	Mid December	
Lice	Butox	December	



# Health and safety practices in Newford

**T**here is strong focus on health and safety in Newford Farm, with the health and safety statement updated on a regular basis. Farm manager Matthew Murphy has also completed a manual handling course, along with other training, while attending Kildalton Agricultural College.

There are a number of areas where greater attention will be placed on reducing the risk of accidents occurring in the coming months:

☞ **Supplementing cattle at grass:** with cattle weighing in excess of 600kg, there is a risk of animals knocking and trampling farmers around feed troughs, particularly with poor ground conditions. Animals are fed on a concrete apron, farm roadways or segregated from the feeding area until troughs are filled.

☞ **Weaning management:** the quieter nature of cows in Newford Farm reduces risks associated with handling stock. Nevertheless, Matthew never lets his guard down, with cows and calves more excitable around weaning.

☞ **Tractor safety:** getting caught in crush zones is, unfortunately, the cause of a high number of farm accidents. The tractor is always secure when at a standstill and not parked in areas where there is a danger of rolling.

☞ **Clipping cattle:** the farm has achieved good results in the cleanliness of stock

## Safety message

The organisers of today's event hope you have a worthwhile visit and can benefit from the topics of discussion. We would also like to remind you that while every effort has been taken to prevent any safety risks, this will only be possible if visitors adhere to the safety precautions. Please refrain from entering into paddocks or shed penning with animals and follow the recommended route around the farm.

when backs and tails have been clipped. Good handling facilities are vital for all winter housing tasks. Cattle will be handled with care and restrained in the crush during clipping.

☞ **Loading bullocks:** cattle drafted for transport to the factory are handled to reduce stress on the animal with the loading area set up to limit animal movement and associated loading risks.

☞ **Calving season:** a calving camera has proven to be a super addition in reducing travel times and frequency to the farm during nighttime hours. Good calving facilities are in place, with four calving gates servicing eight pens. Cows are always separated from calves or restrained when tagging, weighing and dehorning calves.

