



## Using the Carbon Navigator

# Section outline

- ❑ Logging in
- ❑ Farmer Authorisation
- ❑ Farmer Data
- ❑ The Measures
- ❑ Advice Page

<https://qas.bordbia.ie>

# Logging In

## Web Access Confidentiality Agreement

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### "I hereby declare that:

- I have been authorised to be a password holder by my employer's management.
- I understand that use of the Quality Assurance Scheme web site represents my continuing agreement with the terms of this agreement.
- I understand the need to prevent the password being made available to others, either deliberately or accidentally.
- I understand that while I am using the QAS database, the information displayed on screen must be protected from unauthorised viewing / capture.
- I understand that the username and password provides access to records directly related to my employer only.
- I understand that Bord Bia maintains the right to disallow access to the QAS databases at their discretion.
- I understand that Bord Bia records and monitors all activity on the web site"

☒ I have read and agree with the confidentiality agreement above.

User Name:

Password:

Log In

[Forgot password?](#)

Don't Forget to tick the box

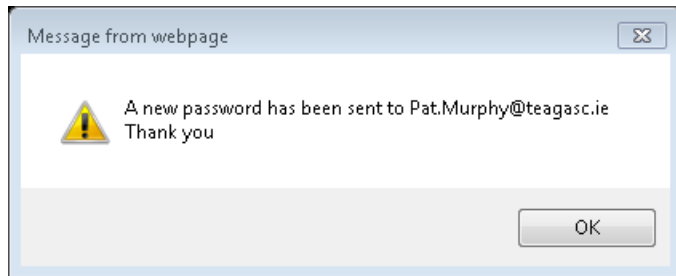
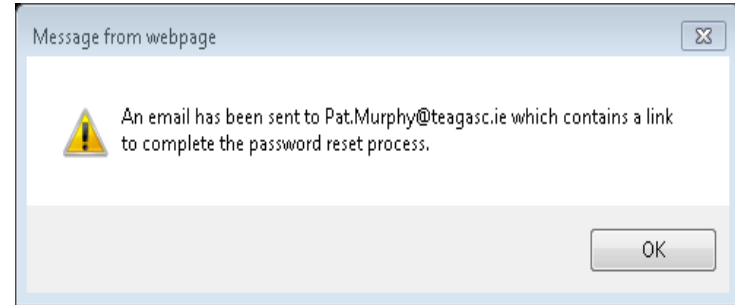
Username – Normally First Surname

Password – Supplied but can change

Forgot Password

# Forgotten Password

Click  
Forgot Password



## Email

A request has been submitted to reset the password for Joe Bloggs.  
If you did not submit this request, please ignore this email.  
If you would like to reset the password, please click on this link to confirm:  
<https://qas.bordbia.ie/fp.aspx?2b8364c4f9bb603232fc>

## Edit Profile

<b>Username</b>	Pat Murphy
<b>Email</b>	Pat.Murphy@teagasc.ie
<b>Agency Name</b>	
<b>Agency Code</b>	Pat Murphy
<b>Navigator Training Date</b>	dd/mm/yyyy
<b>Set New Password</b>	.....
<input type="button" value="Submit"/>	

### Profile

- ☐ Edit Details
- ☐ Set New Password

# Farmer Authorisation

## Why

- ❑ Contains client information
- ❑ Based on a variety of sources
  - ❑ Bord Bia – Audits
  - ❑ DAFM & ICBF – Animal Data
- ❑ Single Authorisation -



## Advisor Dashboard

### Menu Options

Authorisation	<a href="#">Complete Access Request</a>
Profile	<a href="#">Update Profile</a>
Add New Clients without Bord Bia Authorisation	<a href="#">Beef</a> <a href="#">Dairy</a>

### Carbon Navigator Access

4 herds, click links for beef or dairy navigator

Herd No		
B1080607	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
B1111199	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
O1360316	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
Y185056X	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

### Clients without Bord Bia authorisation

5 herds

Herd No		
B0000000	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999994	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999995	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999996	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999997	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

## Access Request Form

- ❑ To Get Permission from Farmer

[Bord Bia : Beef & Lamb](#) > [Carbon Navigator](#) > [Request Access](#)

## **Bord Bia Teagasc Carbon Navigator - Access Request Form**

☒ I confirm that I have permission from the producer to submit this access request on their behalf

Herd Number

Growing the success of Irish food & horticulture

© Bord Bia 2016   [Technical Support](#)   Version 3.2.1.31773

### **Access Request Form**

- ☐ Tick Box
- ☐ Enter Herd Number
- ☐ Click Check



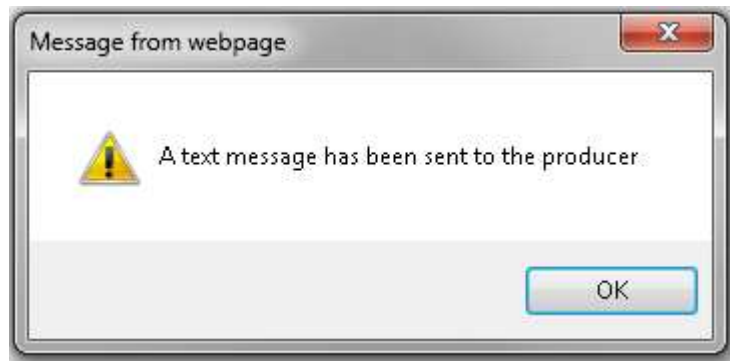
[Bord Bia : Beef & Lamb](#) > [Carbon Navigator](#) > [Request Access](#)

## Bord Bia Teagasc Carbon Navigator - Access Request Form

☒ I confirm that I have permission from the producer to submit this access request on their behalf

Herd Number

Click the button below to send a text message to the producer containing an authorisation code. The producer can forward this code to you to enable the use of the Carb Navigator for their herd number. Go to the 'Complete Access Request' screen when you have the code.



A request has been submitted by Joe Bloggs to use the Bord Bia Teagasc Carbon Navigator Tool for your herd number X1234567. To accept this request please forward this authorisation code to your advisor: xc2341v5

- ❑ If producer in QAS
  - ❑ Proceed by clicking Submit Request Access
  - ❑ “A text message has been sent”
  - ❑ Get Code from farmer

## Advisor Dashboard

### Menu Options

Authorisation	<a href="#">Access Request Form</a>	
Profile	<a href="#">Update Profile</a>	
Add New Clients without Bord Bia Authorisation	<a href="#">Beef</a>	<a href="#">Dairy</a>

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Y185056X	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

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5 herds

Herd No		
B0000000	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999994	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999995	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999996	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999997	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

Click – Complete Access Request

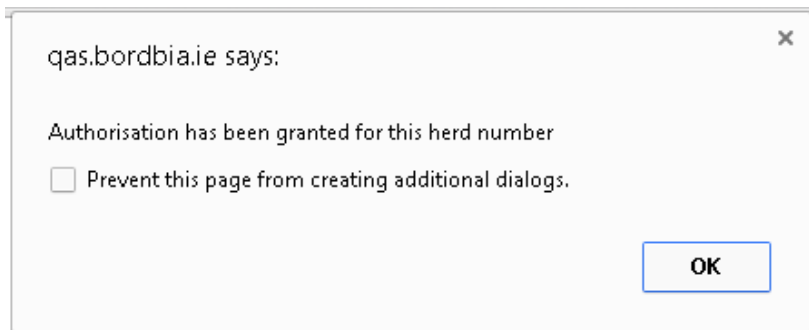
## Bord Bia Teagasc Carbon Navigator - Complete Access Request

**Herd Number**  \*

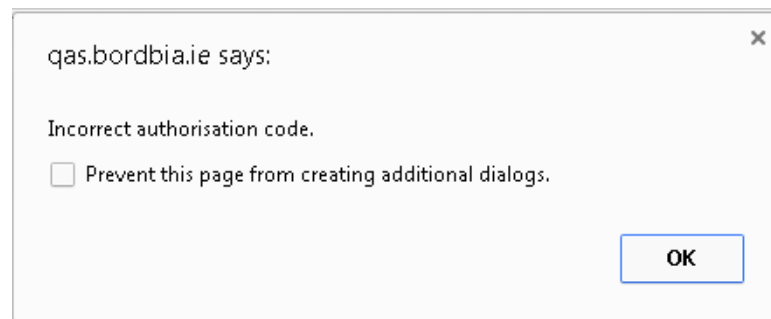
**Authorisation Code**  \*

☐ I confirm that I have permission from the producer to use the Bord Bia Teagasc Carbon Navigator with their herd number

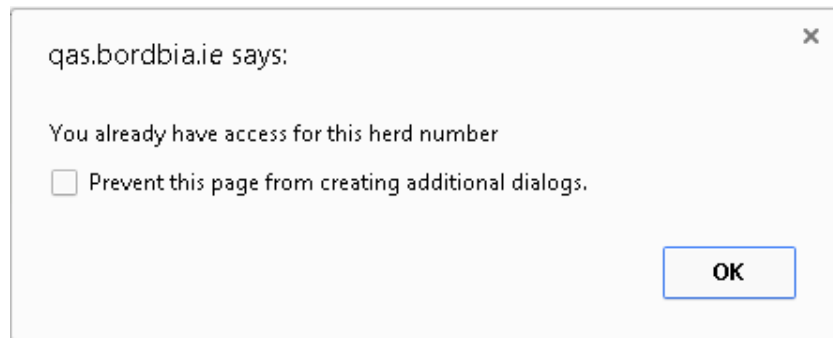
- ❑ Enter Herd Number
- ❑ Enter Authorisation Code
- ❑ Tick box
- ❑ Click Complete Access Request



OR



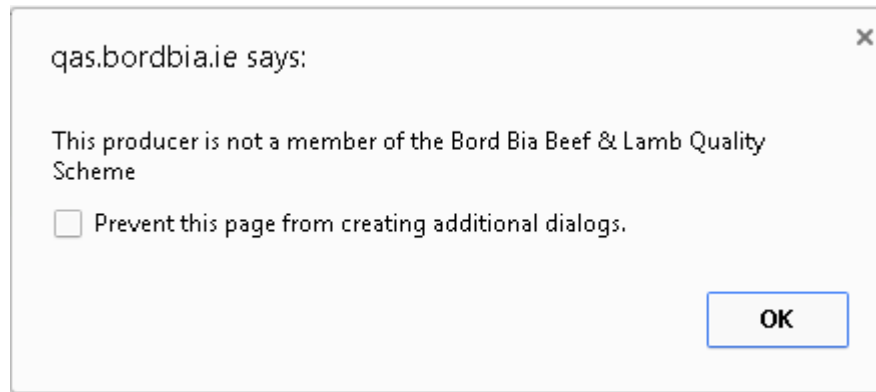
OR



Granted – Go to your list in dashboard

Incorrect – Check numbers and try again

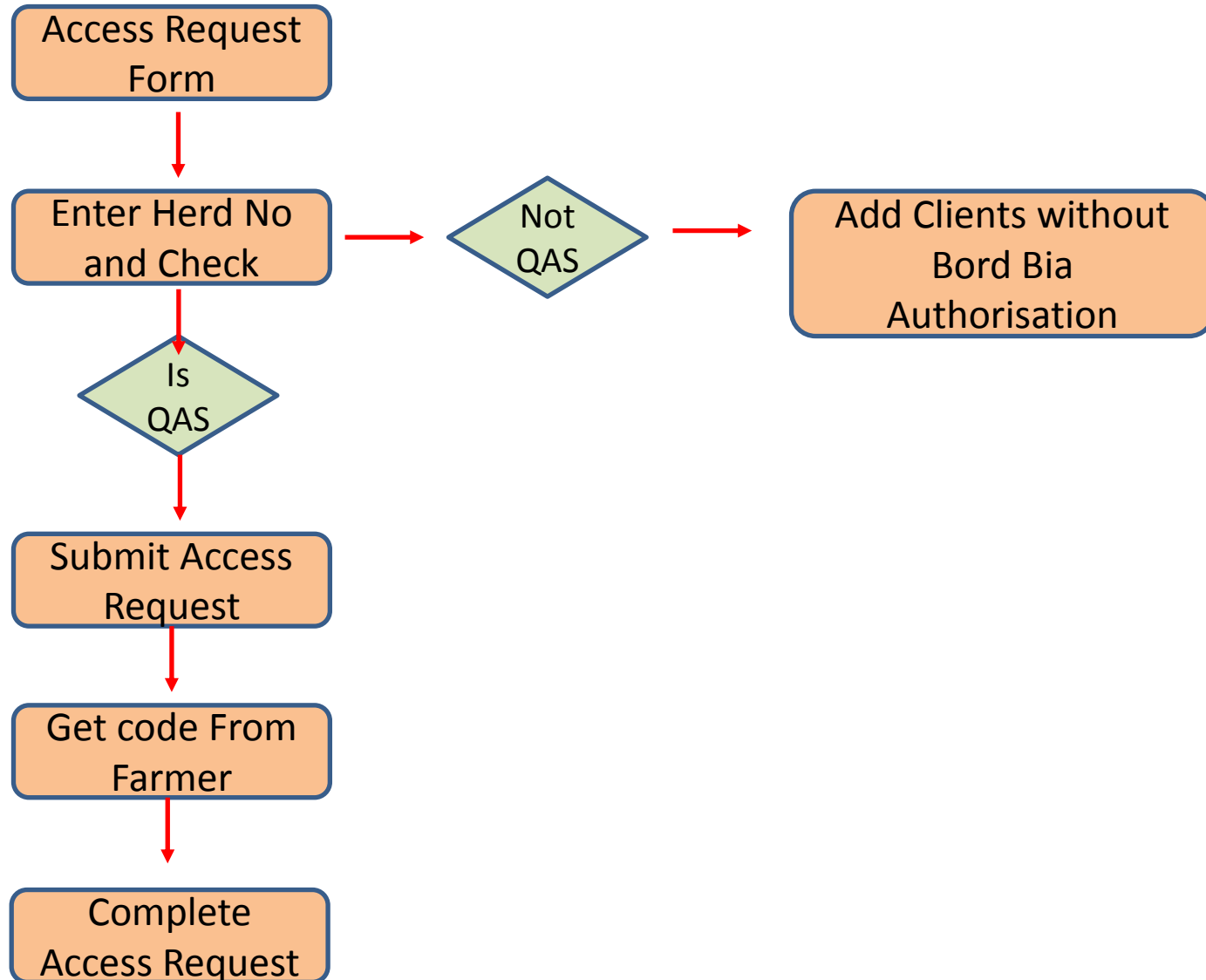
Already have Access – Check list in dashboard



If producer not a member of QAS

- ❑ Enter client anonymously
- ❑ Separate list of clients
- ❑ Data will be saved

# Access Request - Summary



## Advisor Dashboard

### Menu Options

Authorisation	<a href="#">Access Request Form</a>	<a href="#">Complete Access Request</a>
Profile	<a href="#">Update Profile</a>	
Add New Clients without Bord Bia Authorisation	<a href="#">Beef</a>	<a href="#">Dairy</a>

### Carbon Navigator Access

4 herds, click links for beef or dairy navigator

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Y185056X	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

### Clients without Bord Bia authorisation

5 herds

Herd No		
B0000000	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999994	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999995	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999996	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999997	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

## Inputting Data

- ❑ Locate Herd Number – Click on Beef or Dairy Carbon Navigator



# Advisor Dashboard

## Menu Options

Authorisation	<a href="#">Access Request Form</a>	<a href="#">Complete Access Request</a>
Profile	<a href="#">Update Profile</a>	
Add New Clients without Bord Bia Authorisation	<a href="#">Beef</a>	<a href="#">Dairy</a>

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## Clients without Bord Bia authorisation

5 herds

Herd No		
B0000000	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999994	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999995	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999996	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>
D9999997	<a href="#">Beef Navigator</a>	<a href="#">Dairy Navigator</a>

## Clients without Authorisation

- ❑ Not Members
- ❑ Not Attempting to get access ?

**BEEF & LAMB**

[Bord Bia : Beef & Lamb](#) > [Carbon Navigator](#) > [Teagasc / Bord Bia Farm Carbon Navigator](#)

## **Teagasc / Bord Bia Farm Carbon Navigator - BEEF**

**Helping Irish Farmers Reduce Their Carbon Footprint**

This facility will apply Farm Enterprise Information collected at the last audit to the Carbon Navigator.

**Herd**

D9999996

Update

### Anonymous Entry

- ❑ Enter Number
- ❑ Click on Update
- ❑ File Created and Into Data Entry Mode



# Input Measures Dairy

**Pat Murphy, Paul Crosson, Donal O'Brien, Andy Boland**

# What are we trying to do

## **Change Practices**

- ❑ Identify what practices are in place at present.
- ❑ Develop understanding of potential for practice to improve profitability and lower GHG emissions
- ❑ Discuss options for improvement/adoption with farmer
- ❑ Allow farmer to compare performance
- ❑ Set a target
- ❑ Quantify the potential impact of the change
- ❑ Specify Changes that need to happen in managing the enterprise to achieve targets – Advice Sheet

## Teagasc / Bord Bia Farm Carbon Navigator - DAIRY

Helping Irish Farmers Reduce Their Carbon Footprint

Herd	<input type="text" value="Y185056X"/>	<input type="button" value="Update"/>	<a href="#">Download Excel File</a>	<a href="#">Return to dashboard</a>	<a href="#">Print</a>
Farmer Name	<input type="text" value="Dan Murphy"/>	Average number of dairy cows	<input type="text" value="130"/>		
County	<input type="text" value="Wexford North"/>	Average number of cows planned (3 years)	<input type="text" value="150"/>		
Soil Type	<input type="text" value="Well Drained"/>	Livestock Units Other Stock	<input type="text" value="38"/>		
Area farmed (ha)	<input type="text" value="102"/>	Livestock Units Other Stock (3 years)	<input type="text" value="45"/>		
Plan Year	<input type="text" value="2016"/>				

Potential impact of meeting all targets

-13.4% +€12848

Year 2016		Current	Target	Chart	GHG change	€ benefit
Grazing season length	Turnout Date - Part Time	<input type="text" value="10/Mar"/>	<input type="text" value="01/Mar"/>		-2.9%	+€5967
	Turnout Date - Full Time	<input type="text" value="17/Mar"/>	<input type="text" value="10/Mar"/>			
	Housing Date - Part Time	<input type="text" value="01/Nov"/>	<input type="text" value="10/Nov"/>			
	Housing Date - Full Time	<input type="text" value="01/Nov"/>	<input type="text" value="10/Nov"/>			
EBI	EBI	<input type="text" value="120"/>	<input type="text" value="145"/>		-5.0%	+€3750
Nitrogen Efficiency	Stocking rate (Kg N / Ha grass)	<input type="text" value="140.00"/>	<input type="text" value="162.00"/>		-2.7%	+€2056
	Chemical N used (Kg N / per Ha) : Urea	<input type="text" value="0.00"/>	<input type="text" value="40.00"/>			
	Ammonium N	<input type="text" value="160.00"/>	<input type="text" value="140.00"/>			
	Import (+) or Export of Org Manure N/Ha	<input type="text" value=""/>	<input type="text" value=""/>			
	Meal feeding Kg / Cow	<input type="text" value="600.00"/>	<input type="text" value="500.00"/>			
	Milk output / cow (Kg milk solids)	<input type="text" value="418.00"/>	<input type="text" value="440.00"/>			
Slurry Spread Timing	% in Spring	<input type="text" value="40"/>	<input type="text" value="50"/>		-2.7%	+€898
	% Summer following 1st cut	<input type="text" value="40"/>	<input type="text" value="50"/>			
	% Later in Summer	<input type="text" value="20"/>	<input type="text" value="0"/>			
	Application Method	<input type="text" value="Splash Plate"/>	<input type="text" value="Trailing shoe"/>			
Energy Efficiency	Plate Cooler Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>		-0.1%	+€178
	Average Temperature of Milk after Plate Cooler	<input type="text" value="18.0"/>	<input type="text" value="14.0"/>			
	Variable Speed Vacuum Pump	<input type="checkbox"/>	<input type="checkbox"/>			
	Method of Water Heating	<input type="text" value="Electricity"/>	<input type="text" value="Electricity"/>			

Update

[Bord Bia : Dairy](#) > [Carbon Navigator](#) > [Teagasc / Bord Bia Farm Carbon Navigator](#)

## Teagasc / Bord Bia Farm Carbon Navigator - DAIRY

Helping Irish Farmers Reduce Their Carbon Footprint

Herd	<input type="text" value="Y185056X"/>	<input type="button" value="Update"/>	<a href="#">Download Excel File</a>	<a href="#">Input another herd number /</a>
Farmer Name	<input type="text" value="Dan Murphy"/>	Average number of dairy cows <input type="text" value="0"/>		
County	<input type="text" value="Wexford North"/>	Average number of cows planned (3 years) <input type="text" value="0"/>		
Soil Type	<input type="text" value="Well Drained"/>	Livestock Units Other Stock <input type="text" value="0"/>		
Area farmed (ha)	<input type="text" value="121"/>	Livestock Units Other Stock (3 years) <input type="text" value="0"/>		
Plan Year	<input type="text" value="2016"/>			

- County Area – Extended Grazing
- Area Farmed – Dairy Enterprise Only
- Animal Numbers – Now and Proposed in 3 Years

Year 2016		Current	Target
Grazing season length	<p>Enter the average part-time turnout date for dairy cows for the last 3-4 years (Not current year only)</p> <p>• <b>Typical values</b> - Jan / Feb / Mar / Apr</p> <p>improvements in animal productivity as well as reductions in the proportion of dietary energy lost as methane.</p> <p>• The shorter housing season leads to reduced slurry methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions from storage and energy use from spreading</p> <p>The financial benefit comes from the improved output due to better quality feed and the requirement to make less silage.</p>		<input type="text" value="12/Feb"/>
			<input type="text" value="20/Feb"/>
			<input type="text" value="10/Nov"/>
			<input type="text" value="10/Nov"/>

## Grazing Season Length

- ❑ Housing and Turnout Dates – DD/MMM
- ❑ Part Time and Full time (Grazing season calculated as average of two)



<i>EBI</i>	<i>EBI</i>	120	145
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EBI

- ❑ Current EBI
- ❑ Target EBI for 3 Years ahead

<b>Nitrogen Efficiency</b>	Stocking rate (Kg N / Ha grass)	140.00	162.00
	Chemical N used (Kg N / per Ha) : Urea	0.00	40.00
	Ammonium N	160.00	140.00
	Import (+) or Export of Org Manure N/Ha		
	Meal feeding Kg / Cow	600.00	500.00
	Milk output / cow (Kg milk solids)	418.00	440.00

## Nitrogen Efficiency Factors

- ❑ Stocking Rate
- ❑ Amount of N and Type of N
- ❑ Imports / Exports – Manure and Feed
- ❑ Level of Output

<b>Slurry Spread Timing</b>	% in Spring	40 ▼	50 ▼
	% Summer following 1st cut	40 ▼	50 ▼
	% Later in Summer	20 ▼	0 ▼
	Application Method	Splash Plate ▼	Trailing shoe ▼

## Slurry Spread

- ❑ Spring – Up to End April
- ❑ May / June / July
- ❑ Aug - Oct

<b>Energy Efficiency</b>	Plate Cooler Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Average Temperature of Milk after Plate Cooler	18.0	14.0
	Variable Speed Vacuum Pump	<input type="checkbox"/>	<input type="checkbox"/>
	Method of Water Heating	Electricity ▼	Electricity ▼

## Energy Efficiency

- ❑ Plate Cooler – If present and how well working
- ❑ Variable Speed Vacuum Pump
- ❑ Water Heating – Gas or Oil more carbon efficient than electricity (?)
  - ❑ Lower Cost (Yes) – Introduction of renewable energy

Bord Bia : Dairy > Carbon Navigator > Teagasc / Bord Bia Farm Carbon Navigator

## Teagasc / Bord Bia Farm Carbon Navigator - DAIRY

Helping Irish Farmers Reduce Their Carbon Footprint

Herd   [Download Excel File](#) [Input another herd number](#) [Print](#)

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Soil Type	<input type="text" value="Well Drained"/>	Livestock Units Other Stock	<input type="text" value="38"/>
Area farmed (ha)	<input type="text" value="102"/>	Livestock Units Other Stock (3 years)	<input type="text" value="45"/>
Plan Year	<input type="text" value="2016"/>		

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-13.4% +€12848

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	Housing Date - Part Time	<input type="text" value="01/Nov"/>	<input type="text" value="10/Nov"/>			
	Housing Date - Full Time	<input type="text" value="01/Nov"/>	<input type="text" value="10/Nov"/>			
<u>EBI</u>	EBI	<input type="text" value="120"/>	<input type="text" value="145"/>		-5.0%	+€3750
<u>Nitrogen Efficiency</u>	Stocking rate (Kg N / Ha grass)	<input type="text" value="140.00"/>	<input type="text" value="162.00"/>		-2.7%	+€2056
	Chemical N used (Kg N / per Ha) : Urea	<input type="text" value="0.00"/>	<input type="text" value="40.00"/>			
	Ammonium N	<input type="text" value="160.00"/>	<input type="text" value="140.00"/>			
	Import (+) or Export of Org Manure N/Ha	<input type="text"/>	<input type="text"/>			
	Meal feeding Kg / Cow	<input type="text" value="600.00"/>	<input type="text" value="500.00"/>			
	Milk output / cow (Kg milk solids)	<input type="text" value="418.00"/>	<input type="text" value="440.00"/>			
<u>Slurry Spread Timing</u>	% in Spring	<input type="text" value="40"/>	<input type="text" value="50"/>		-2.7%	+€898
	% Summer following 1st cut	<input type="text" value="40"/>	<input type="text" value="50"/>			
	% Later in Summer	<input type="text" value="20"/>	<input type="text" value="0"/>			
	Application Method	<input type="text" value="Splash Plate"/>	<input type="text" value="Trailing shoe"/>			
<u>Energy Efficiency</u>	Plate Cooler Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>		-0.1%	+€178
	Average Temperature of Milk after Plate Cooler	<input type="text" value="18.0"/>	<input type="text" value="14.0"/>			
	Variable Speed Vacuum Pump	<input type="checkbox"/>	<input type="checkbox"/>			
	Method of Water Heating	<input type="text" value="Electricity"/>	<input type="text" value="Electricity"/>			

## Possible actions to reduce GHG emissions

### Grazing Season Length:

- ☐ Focus on effective autumn and spring grassland management. Give particular attention to minimising damage, backfencing if necessary to limit poaching
- ☐ Early nitrogen is essential for early grass. Spread 33 Kg/Ha from mid-February weather permitting
- ☐ Carefully manage early spring grazing, limiting grazing time in wet conditions
- ☐ Manage soil fertility - sample your soil and apply P, K and lime as required
- ☐ Monitor grass covers to ensure that good quality grass is available at all times
- ☐ Improve your grassland management throu Sharing experiences in a dairy discussion group is the most effective way to improve skills.

### EBI

- ☐ Identify the key traits you need to improve, focusing especially on milk production and fertility.
- ☐ Choose a panel of 5 high EBI bulls that compliment your herd. For most farmers fertility is the main weakness that needs to be improved.
- ☐ Select your team from the ICBF Active Bull List
- ☐ Order sufficient straws, e.g. 55 straws per 10 heifers required
- ☐ Focus on your heifers - breeding heifers to carefully selected high EBI bulls is the fastest way to improve herd EBI and profitability
- ☐ Join Herd Plus and use their reports to guide breeding policy and to monitor progress

### Nitrogen efficiency

- ☐ Increased use of clover in swards reduces the amount of N fertiliser used
- ☐ Match N application to grass growth and stocking rate
- ☐ Ensure that other elements of soil fertility are optimised. Utilisation of N will be reduced if P or K levels or pH are too low. Carry out soil sample - lime as recommended and apply slurry and chemical P&K on low index soils
- ☐ Managing grazing effectively, focusing on high levels of grass production and utilisation, leads to increase milk output per unit of N applied
- ☐ Use urea, especially early in the season. Try treated urea on a portion of the farmer for late spring, early summer applications.

### Slurry Spreading

- ☐ Increase the proportion of slurry spread in spring
- ☐ Ensure that slurry is spread in appropriate conditions - a cool, still day and if possible avoiding direct sunlight by applying in the evening minimises losses
- ☐ Factor in the N value of slurry and reduce chemical N accordingly
- ☐ Do not apply chemical Nitrogen for 2 weeks after slurry application
- ☐ If possible use band spreading or trailing shoe

### Energy Use

- ☐ Make sure your plate cooler is working effectively. Measure the temperature of your milk entering your bulk tank and make sure it is not being pumped through too quickly.
- ☐ Consider installing a variable speed vacuum pump. On some farms it can significantly reduce electricity consumption for milking with the savings offsetting the capital cost.
- ☐ Water heating with gas or oil reduces carbon emissions by 50% and the use of solar power can reduce it even further.
- ☐ Ensure that all lights are energy efficient.

### Other possible actions to reduce GHG emissions

### Grazing Season Length:

### EBI:

### Nitrogen efficiency:

### Slurry Spreading:

### Energy Use:

### Other Actions:

## Possible actions to reduce GHG emissions

### Grazing Season Length:

- ☐ Focus on effective autumn and spring grassland management. Give particular attention to minimising damage, backfencing if necessary to limit poaching
- ☒ Early nitrogen is essential for early grass growth from mid-February weather permitting
- ☐ Carefully manage early spring grazing, limiting grazing time in wet conditions
- ☒ Manage soil fertility - sample your soil and apply P, K and lime as required
- ☐ Monitor grass covers to ensure that good quality grass is available at all times
- ☒ Improve your grassland management through Sharing experiences in a dairy discussion group is the most effective way to improve skills.

### Grazing Season Length:

Early nitrogen is essential for early grass growth from mid-February weather permitting.

Manage soil fertility - sample your soil and apply P, K and lime as required

Improve your grassland management through Sharing experiences in a dairy discussion group is the most effective way to improve skills.



#### Grazing Season Length:

Early nitrogen is essential for early grass. Spread 1.5 bags of urea from mid-February weather permitting

Manage soil fertility - sample your soil and apply P, K and lime as required

#### EBI:

Choose a panel of 5 high EBI bulls that compliment your herd. For most farmers fertility is the main weakness that needs to be improved.

Focus on your heifers - breeding heifers to carefully selected high EBI bulls is the fastest way to improve herd EBI and profitability

Order sufficient straws, e.g. 55 straws per 10 heifers required

#### Nitrogen efficiency:

Use urea, especially early in the season.

Try treated urea on a portion of the farmer for late spring, early summer applications.

#### Slurry Spreading:

Join GLAS selecting Low Emissions Spreading Option

#### Energy Use:

Make sure your plate cooler is working effectively. Measure the temperature of your milk entering your bulk tank and make sure it is not being pumped through too quickly.

#### Other Actions:

Plant Trees around the farmyard

Plant a double line of Alder west of the Cubicle House

Plant individual or small groups of native trees around the perimeter of the farmyard

Coppice Hedgerow at the top of the lane field



## Input Beef Measures



# What are we trying to do

## **Change Practices**

- ❑ Identify what practices are in place at present.
- ❑ Develop understanding of potential for practice to improve profitability and lower GHG emissions
- ❑ Discuss options for improvement/adoption with farmer
- ❑ Allow farmer to compare performance
- ❑ Set a target
- ❑ Quantify the potential impact of the change
- ❑ Specify Changes that need to happen in managing the enterprise to achieve targets – Advice Sheet

Teagasc / Bord Bia Farm Carbon Navigator - BEEF

Helping Irish Farmers Reduce Their Carbon Footprint

This facility will apply Farm Enterprise Information collected at the last audit to the Carbon Navigator.

Herd

899990000

Update

Download Excel File

Input another herd number

Farmer Name

Dan Murphy

County

Galway West

Soil Type

Moderately Drained

Area farmed (ha)

35

Average number of suckler cows

38

Average number of yearlings/followers

35

Potential impact of meeting all targets

-5.7% +€4248

Year 2016		Current	Target	Chart	GHG change	€ benefit
Grazing season - suckler cows	Turnout Date	<div>26/Mar</div>	<div>17/Mar</div>	<div>Grazing Season Suckler Cows</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-0.8%	+€527
	Housing Date	<div>01/Nov</div>	<div>01/Nov</div>			
Grazing season - yearlings/followers	Turnout Date	<div>26/Mar</div>	<div>17/Mar</div>	<div>Grazing Season Yearlings Followers</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-0.6%	+€299
	Housing Date	<div>01/Nov</div>	<div>01/Nov</div>			
Age at first calving	Age at first calving (months)	<div>31.00</div>	<div>28.00</div>	<div>Age At First Calving</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-0.9%	+€1144
Calving Rate	Calving rate (calves/cow)	<div>0.90</div>	<div>0.90</div>	<div>Calving Rate</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	0%	€0
Live weight performance	System	<div>Steers &amp; Heifers</div>	<div>Steers &amp; Heifers</div>	<div>Live Weight Performance</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-0.5%	+€2205
	Lifetime live weight per day of age (g)	<div>900</div>	<div>1000.00</div>			
Nitrogen Efficiency	Total CAN and equivalent N in Compounds (t)	<div>14.00</div>	<div>14.00</div>	<div>Nitrogen Efficiency</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-0.8%	€0
	Total urea used (t)	<div>0.00</div>	<div>0.00</div>			
	Total concentrate fed (t)	<div>20.00</div>	<div>15.00</div>			
	Output kg beef live / ha	<div>320.00</div>	<div>350.00</div>			
Slurry Spread Timing	% in Spring	<div>20</div>	<div>40</div>	<div>Manure Management</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-2.2%	+€72
	% Summer following 1st cut	<div>60</div>	<div>60</div>			
	% Later in Summer	<div>20</div>	<div>0</div>			
	Application Method	<div>Splash Plate</div>	<div>Splash Plate</div>			

Update

This facility will apply Farm Enterprise Information collected at the last audit to the Carbon Navigator.

Herd	<input type="text" value="A9999000"/>	<input type="button" value="Update"/>	<a href="#">Download Excel File</a>	<a href="#">Input another herd number</a>
Farmer Name	<input type="text" value="Dan Murphy"/>			
County	<input type="text" value="Galway West"/>			
Soil Type	<input type="text" value="Moderately Drained"/>			
Area farmed (ha)	<input type="text" value="35"/>			
Average number of suckler cows	<input type="text" value="38"/>			
Average number of yearlings/followers	<input type="text" value="35"/>			

## Inputting Data

- ❑ County – County and Region for comparison of Grazing season
- ❑ Area Farmed – On the beef enterprise

Year 2016		Current	Target
Grazing season - suckler cows	Turnout Date	26/Mar	17/Mar
	Housing Date	01/Nov	01/Nov
Grazing season - yearlings/followers	Turnout Date	26/Mar	17/Mar
	Housing Date	01/Nov	01/Nov

## Inputting Data

- ❑ Housing and Turnout Dates – DD/MMM
- ❑ Select from Calendar or type

Age at first calving	Age at first calving (months)	31.00	28.00
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Age at first Calving

- ❑ ICBF Reports?



Calving Rate	Calving rate (calves/cow)	0.91	0.91
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## Calving Rate

- ❑ ICBF Reports

Live weight performance	System	Steers & Heifers ▼	Steers & Heifers ▼
	Lifetime live weight per day of age (g)	900	1000.00

## Live Weight Performance – More Difficult

- ❑ If weighing – Use data
- ❑ If Not weighing – Sales statements etc

Nitrogen Efficiency	Total CAN and equivalent N in Compounds (t)	14.00	14.00
	Total urea used (t)	0.00	0.00
	Total concentrate fed (t)	20.00	15.00
	Output kg beef live / ha	320.00	350.00

## Nitrogen Efficiency

- ❑ Total CAN and equivalents (Sulphate of Ammonia) and Compounds . Eg 1 tonne 10-10-20 =  $1 \times (10/27)$  Can Equivalents
- ❑ On area used for Beef
- ❑ Output per Ha – Kg of beef. Total Weight of Sales – Total weight of Purchases

Slurry Spread Timing	% in Spring	20 ▼	40 ▼
	% Summer following 1st cut	60 ▼	60 ▼
	% Later in Summer	20 ▼	0 ▼
	Application Method	Splash Plate ▼	Splash Plate ▼

## Slurry Spread

- ❑ Spring – Up to End April
- ❑ May / June / July
- ❑ Aug - Oct

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19999000

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	Lifetime live weight per day of age (g)	900	1000.00			
Nitrogen Efficiency	Total CAN and equivalent N in Compounds (t)	14.00	14.00	<div>Nitrogen Efficiency</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-0.8%	€0
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Slurry Spread Timing	% in Spring	20	40	<div>Manure Management</div> <div><div>Current</div><div>Target</div><div>LowGoodExcellent</div></div>	-2.2%	+€72
	% Summer following 1st cut	80	80			
	% Later in Summer	20	0			
	Application Method	Splash Plate	Splash Plate			

Update

## Possible actions to reduce GHG emissions

### Grazing Season Length:

- ☐ Effective autumn grassland management with attention to minimising damage and achieving correct closing covers is essential for spring growth
- ☒ Early nitrogen is essential for early grass - Apply ... bags of ... per acre in ...
- ☐ Ensure soil fertility is good - sample your soil and apply fertiliser accordingly. Apply lime where ...
- ☒ Carefully manage early spring grazing, ending grazing time in wet conditions
- ☐ Monitor grass covers and adjust to ensure good quality grass available to animals at all times
- ☐ Excellent grassland management is the key to the profitability and sustainability of Irish beef farms. Sharing experiences in a KT discussion group is the most effective way to improve skills

### Age at first Calving:

- ☒ Weigh heifers being retained for replacements. Target a weight gain of 1.1-1.3kg/day up to weaning
- ☒ Target a gain of 0.6 - 0.7kg/day over the first winter and go to grass early in spring to have them at the correct bulking weight. Ideally heifers should be at 60% of their mature weight at bulking
- ☐ Select an easy calving bull. For 2 year old calving the objective is to avoid calving difficulty, deliver a live calf and to ensure heifers go back in calf
- ☐ Choose breeding heifers from the best cows in the herd, that were sired by bulls with strong maternal traits and were born early in the calving season

### Calving Rate:

- ☐ Achieving consistently high calving rate involves good performance across a wide variety of management practices. It begins with having a written plan in place, knowing your current performance and setting targets. The plan should define the calving period and set down clear objectives for calving interval and mortality and work towards achievable targets over a 3 year period. It should focus on ...
- ☒ Ensuring that cow condition score is appropriate at calving and breeding ...
- ☐ Reduce calving difficulty particularly through sire selection and feeding management
- ☒ Ensure that your bulls are fertile and in good condition to meet their demands
- ☐ Put in place an effective herd health plan including dosing and vaccination regimes and quarantining of purchased animals
- ☐ Use records and reports (ICBF) to identify cows with poor productive performance and cull if necessary

### Live Weight Performance:

- ☐ Set target growth rates for your animal groups and track performance by weighing
- ☐ The cheapest feed is grass. Good grassland management can deliver high levels of production of quality grass at all times
- ☒ Make high quality silage and supplement with meals to achieve target winter performance
- ☐ Keep animals healthy through a planned approach to dosing, vaccinations and biosecurity
- ☒ Use a high genetic merit terminal sire
- ☐ Where appropriate to your circumstances (but beef systems are significantly more carbon efficient than steer systems)

### Nitrogen efficiency:

- ☒ Ensure that other elements of soil fertility are optimised. Utilisation by plants of N will be reduced if P or K levels or pH are too low
- ☐ Manage grazing effectively. Focusing on high levels of grass production and utilisation lead to increase beef output per unit of N applied
- ☒ Applying urea early in the year when conditions are appropriate reduces the GHG emissions associated with fertiliser manufacture and cost

### Slurry Spreading

- ☐ Increase the proportion of slurry used in spring
- ☐ Ensure that slurry is spread in appropriate conditions - on a cool, still day and, if possible, avoiding direct sunlight by applying in the evening
- ☐ Factor in the N value of slurry and reduce chemical N accordingly
- ☐ Do not apply chemical N for 2 weeks after slurry
- ☐ Use band spreading or trailing shoe

### Other possible actions to reduce GHG emissions

- ☐ Age at first calving
- ☐ Use of Treated Urea
- ☐ Increased Clover in the Sward

### Grazing Season Length:

- Early nitrogen is essential for early grass - Apply ... bags of ... per acre in ...
- Carefully manage early spring grazing, limiting grazing time in wet conditions

### Age at first Calving:

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### Slurry Spreading

### Other Actions:

## Possible actions to reduce GHG emissions

### Grazing Season Length:

- ☐ Focus on effective autumn and spring grassland management. Give particular attention to minimising damage, backfencing if necessary to limit poaching
- ☒ Early nitrogen is essential for early grass growth from mid-February weather permitting
- ☐ Carefully manage early spring grazing, limiting grazing time in wet conditions
- ☒ Manage soil fertility - sample your soil and apply P, K and lime as required
- ☐ Monitor grass covers to ensure that good quality grass is available at all times
- ☒ Improve your grassland management throu Sharing experiences in a dairy discussion group is the most effective way to improve skills.

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## Bord Bia Website

- ❑ <https://qas.bordbia.ie>

## Teagasc Guest Password

- ❑ Username – Teagascguest
- ❑ Password - Kldhtwe8

## Vodafone Wifi Password

- ❑ Vodafone....C7D534
- ❑ Wifi Key - 9777434354