HerdPlus®
Profit through Science

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Dairy HerdPlus
User Guide

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This Welcome Pack is aimed at helping you make full use of your HerdPlus membership. The HerdPlus service will provide you with essential breeding and management tools to maximise profitability within your farming enterprise.

> **To familarise yourself with the various indexes and genomics, read the first four sections of this brochure.**

Padraig O'Connell, Co. Kerry

" Using the services provided by HerdPlus, mainly EBI and genomic evaluations, have massively helped transform our herd over the past number of years. In 2017, our herd EBI was €64 which was well below the national average. The cows were producing 350 kgs of milk solids and the calving pattern was not where it needed to be. Genomics have helped to make more informed breeding decisions and notable improvements in overall herd EBI which is currently at €176. The herd is producing over 430 kgs of milk solids and achieving a six-week calving rate of 75%. This progress and genetic gain has been a result of the tools and information that HerdPlus provides to us as farmers. "

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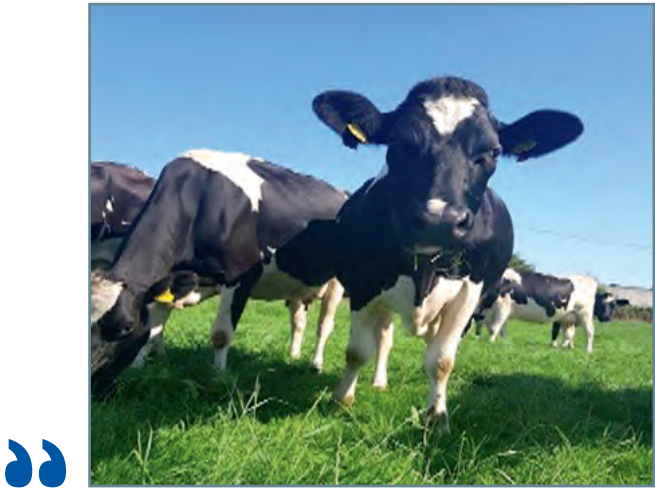
What is EBI?

EBI is a single figure profit index aimed at helping farmers identify the most profitable bulls and cows for breeding dairy herd replacements. It comprises of information on eight sub-indexes related to profitable milk production. Knowing the genetic merit of your herd is a key component to successfully improving traits of importance on your farm.

The observed performance of an individual cow depends on two things:

- The genetic merit of the cows.
- The environment in which the cow is performing.

The eight sub-indexes which all have a relative trait emphasis on the overall index are outlined in this chart.

*EBI figures are subject to change after each evaluation run. The **Publication Schedule** can be found online at www.icbf.com*

What is the base cow?

The base for production and fertility is 2005 born cows, calved and milk recorded for the first time in 2007, with at least 2 years out of 5 milk recorded. The base cow performance is as follows:

	Milk Kg	Fat Kg	Prot Kg	Fat %	Prot %	Calving Interval	Survival %
Base Cow Performance	6044	236.2	207.5	3.91	3.43	398.8	85.3

How do I interpret the Predicted figures for Milk Kg, Fat Kg, etc?

An animal's Predicted Transmitting Ability (PTA) indicates the amount of a particular trait an animal is expected to pass on to its progeny, relative to the base cow population. The PTA is equal to half of its own Breeding Value since a cow only passes on half her genes to her offspring. All values on the EBI report are expressed as PTA's. Information on bulls (in catalogues, bull search, etc.) is also presented in terms of PTA.

The daughters of a bull with a PTA of 150kg for milk yield would be expected to produce, on average, 100kg more milk per lactation than the daughters of a bull with a PTA of 50kg if their dams have equal genetic merit. The actual difference will not be exact when comparing individual daughters because no two daughters get exactly the same combination of genes and are not exposed to exactly the same environment. Thus, daughters of the same sire may have varying performance.

Reliability

This is used to measure the accuracy of an index or trait PTA based on the amount of data that is recorded on an animal. The number of progeny records required to meet certain reliability figures varies from trait to trait as some traits are more heritable than others.

Why does my animal not have an EBI?

The most common reason for an EBI not to be displayed on an animal is generally because the sire may not have been recorded. This information can be recorded by going to **Record Events > Missing Sire**.

What is the Dairy Beef Index?

The DBI is a tool to produce quality beef cattle from the dairy herd that hold both desirable calving attributes for the dairy herd (i.e. calving easy) and valuable carcass merit attributes for the finisher. It does this by ranking beef cattle for use in the dairy herd based on their genetic merit for several traits that are important to dairy-beef production systems.

What does the DBI select for?

- Easy calving, short gestation and less calf mortality.
- Heavier carcasses of greater conformation and lower fat score.
- Cattle that are polled, carbon efficient and have lower feed intake.

Advice for Dairy farmers

To maximise dairy-beef profitability, use beef bulls with the highest Dairy Beef Index.

- If using beef AI, identify the best bulls from the active bull list; ideally use a team of bulls.
- If purchasing a stock bull, ask the breeder for the bull's tag and obtain his DBI from the animal search, sales catalogue or stock bull finder.

The DBI information of a bull can be viewed on the ICBF Animal Search.
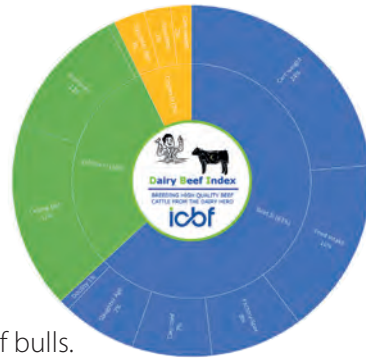
Commercial Beef Value (CBV)

What is CBV?

CBV is a tool for non-breeding beef farmers designed to give an insight into an animals genetic merit. Like the replacement and terminal indexes, the CBV is expressed as a € value. The higher the CBV the better the genetic merit of the animal for beef traits.

CBV is comprised of five traits from the terminal index that are important to non-breeding beef enterprises:

1. **Carcass weight**
2. **Carcass conformation**
3. **Carcass fat**
4. **Docility**
5. **Feed intake**

Calving traits are not included in the CBV as they are not applicable to farmers purchasing these animals.
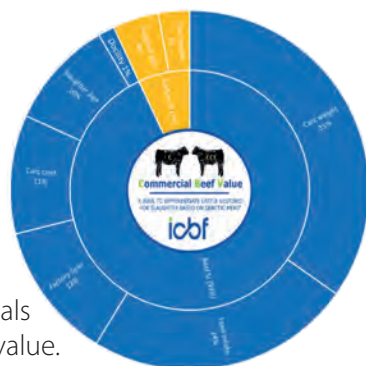
What animals will receive a CBV?

- Suckler (beef sire and beef dam)
- Dairy x Beef (one dairy parent and one beef parent)
- Dairy x Dairy (dairy sire and dairy dam)

Females that have had a calf, dairy females, pedigree beef males and females will not receive a CBV.

I'm a dairy farmer. How do I breed high CBV animals?

Animals with high carcass merit, docility and feed intake trait values will have the highest CBV's. Selecting bulls from the DBI active bull list with a high beef sub-index will help to breed high CBV progeny.

What is Genomics?

Genomics is breeding using DNA (Genotype) combined with performance data on an animal's relatives to help better predict how well an animal will perform in the future. DNA is passed from parents to offspring and is therefore central to breeding. It can be extracted from tissue, hair, blood or semen samples. DNA is the building block of life and therefore in combination with management such as feeding, can determine the performance of an animal such as how much milk it will yield, its susceptibility to disease and its fertility performance.

What are the Benefits of Genomics?

Genotyping an animal and having access to its genomic results has huge benefits for the herdowner.

- **Higher EBI reliability** – Greatly increases index reliability before the animal has any of its own progeny.
- **Parentage verification** – Genotyping can confirm the sire & dam of an animal.
- **Major Genes** – Animals can be identified as carriers of major genes (i.e. Myostatin, polledness, etc.) and diseases.

Genomics helps farmers to make more informed and confident decisions when selecting the next generation of dairy replacements. Genotypes can be ordered online by logging into HerdPlus through the Genomic Services portal or by calling 023 8820452. Hair cards will be sent to farm via post with instructions and a return envelope enclosed.

Genotypes can be tracked on the "Genotype Tracking" screen by entering the herd number or animal tag number. This will give an indication of what stage the process is currently at.

Enter herd number or animal tag number and click "Go" to track genotyping progress

This is the date that ICBF received the genotype from the lab. Animal will be ran through the genomic evaluation process shortly afterwards

This updates regularly so you can see what stage the sample is currently at

Logging in

Follow the steps below to access your HerdPlus account:

1. Go to **www.icbf.com**
2. Enter your herd number and password in the fields provided.
3. Click Log In
4. Click "Forgot your password?" to retrieve your password OR Text the word PASS to 0894577663 from the mobile registered to your herd to receive a temporary password.

EBI Profile

View the EBI figures for each of your animals on our live EBI profile.

Compare your herds average EBI figure against the National Average.

Filter your list to fit your search criteria.

Click on a column heading to sort your list

Click on the freeze brand or animal tag number to see more information including Milk recording, Fertility, Progeny, Geno Eval & much more.

day-month-year Estimated calving date due to milk recording

Expected Calving Profile

Check the expected calving dates for your herd based on insemination data recorded.

See the days to calving and the predicted overall EBI value of the calf including a breakdown of the figures across some of the key sub-indices.

Milk Recording Profiles

The following profiles are available for herds that practice milking recording.

Milk Recording Current	Milk Recording Lifetime	Milk Recording SCC	Milk Recording Tests

Our live current milk recording profile enables you to view your herds past, present and predicted future milk yields.

View the performance of individual cows in the herd for their current lactation

How will an individual cow perform over the full 305-day lactation.

Click a cow's jumbo to view her lifetime lactation summary

See which cows are having a negative impact on the herds SCC

Stock Reports

View various reports based on stock numbers at a given time.

Downlaod and print these reports in **Excel** or **PDF** Format.
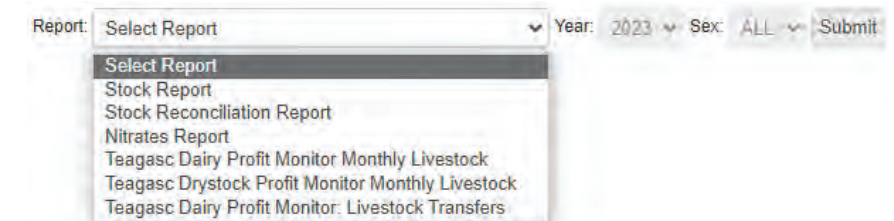
Stock Nitrates Report – calculates kgs of Nitrogen (N) and Phosphorus (P) produced, based on the number of animals in the herd.

Stock Report – calculates the number of animals in the herd on the last day of each month broken down by animal category.

Stock Reconciliation Report – calcualtes the number of animals **Born, Bought, Sold, Died and livestock totals for each month**.

Stock reports are benefical for accounting purposes.

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C.O.W.
COW'S OWN WORTH ICBF

Dairy Genomic Results Profile

This profile displays dairy animals in the herd with a genomic evaluation. Shows the difference from their non-genomic proof to the current official proof. Highlights the areas of change for each individual animal based on the genomic information. Information can be viewed for each EBI sub-index and conformation traits.
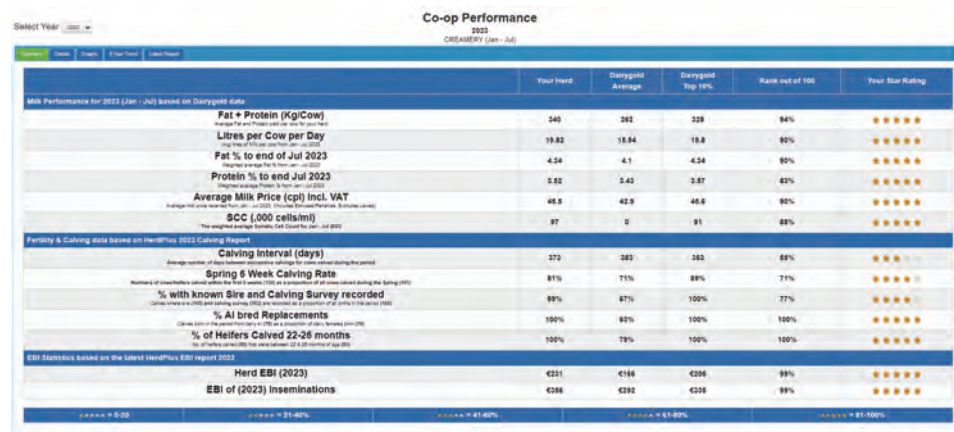

Co-op Profile

This profile gives an excellent overview of the herd's production and fertility performance.

Allows farmers compare their herd performance against other herds across numerous key performance indicators (KPI's).

The profile is broken down in 3 main areas of analysis of on-farm performance.

1. Milk Production
2. Herd Fertility
3. Herd Genetics

CBV profile

View the CBV €-value for each of your eligible animals.

Compare your animals on the star ranking across breed or within breed type.

A figure in black is more desirable. This may be a positive or negative figure depending on the specific trait.

C.O.W. is a decision **support** tool for dairy females to aid in **management** and **culling** decisions through measuring the performance of your cows within your herd.

C.O.W. is the expected profit of a cow for her **remaining lifetime**. Cows are listed in order of most profitable to least. Suitable culling candidates will be at the end of the profile.

Record essential data to improve the accuracy of your herds C.O.W. e.g. dry-offs, serves, health events.

Compare your top vs bottom cows on C.O.W.

Animals that are "Marked for Culling" or "Empty" are automatically ranked at the bottom.

What does C.O.W. include?

Young cows are not at their mature capability. Older cows will be more susceptible to health issues and are more likely to drop out of the herd compared to their younger herd mates.

The Predicted Transmitting Ability (PTA) is equal to half of the Estimated Breeding Value (EBV) as a cow only passes on half of her genes to her progeny. EBV's are used in the C.O.W.

A late calver will produce less milk, is less likely to stay in the herd and may have been difficult to get in-calf.

An individual effect is a permanent influence over an animal's performance due to an environmental consequence. E.g. a cow with one blind quarter will have a lower milk yield but will not pass this onto her daughters.

The hybrid vigour effect is the extra gain in performance for a trait above the parent average where an individual is crossbred.

*C.O.W. is only available for Spring Calving herds with a minimum of 3 milk recordings.

Top Tip! Record essential data to improve the accuracy of your herd's C.O.W.

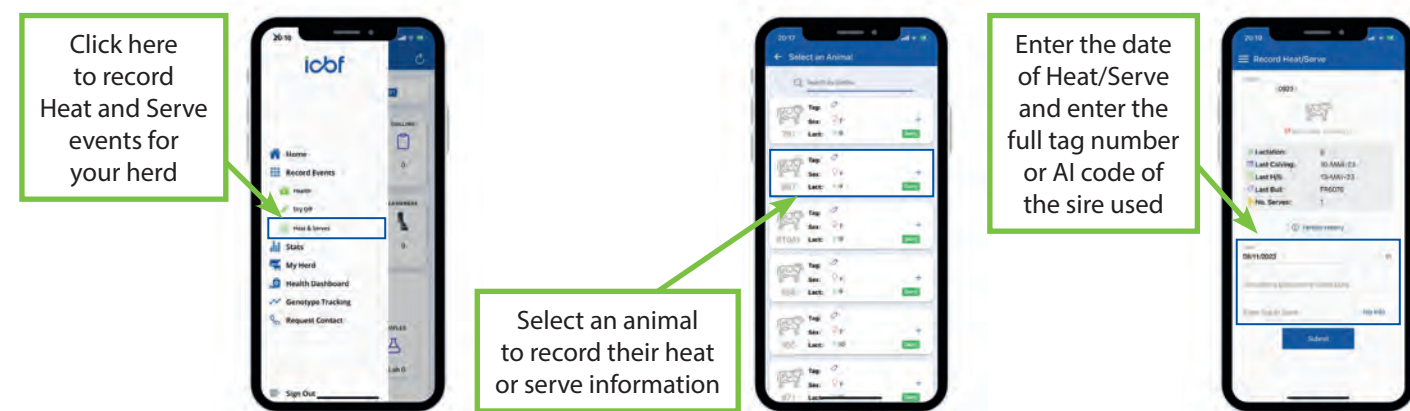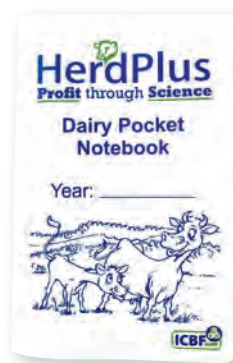## Data Recording

Recording data on your animals is vitally important to ensure the most accurate EBI figures are available for your herd. Dissecting this information from reports and profiles helps to make more informed breeding decisions for your farming enterprise.
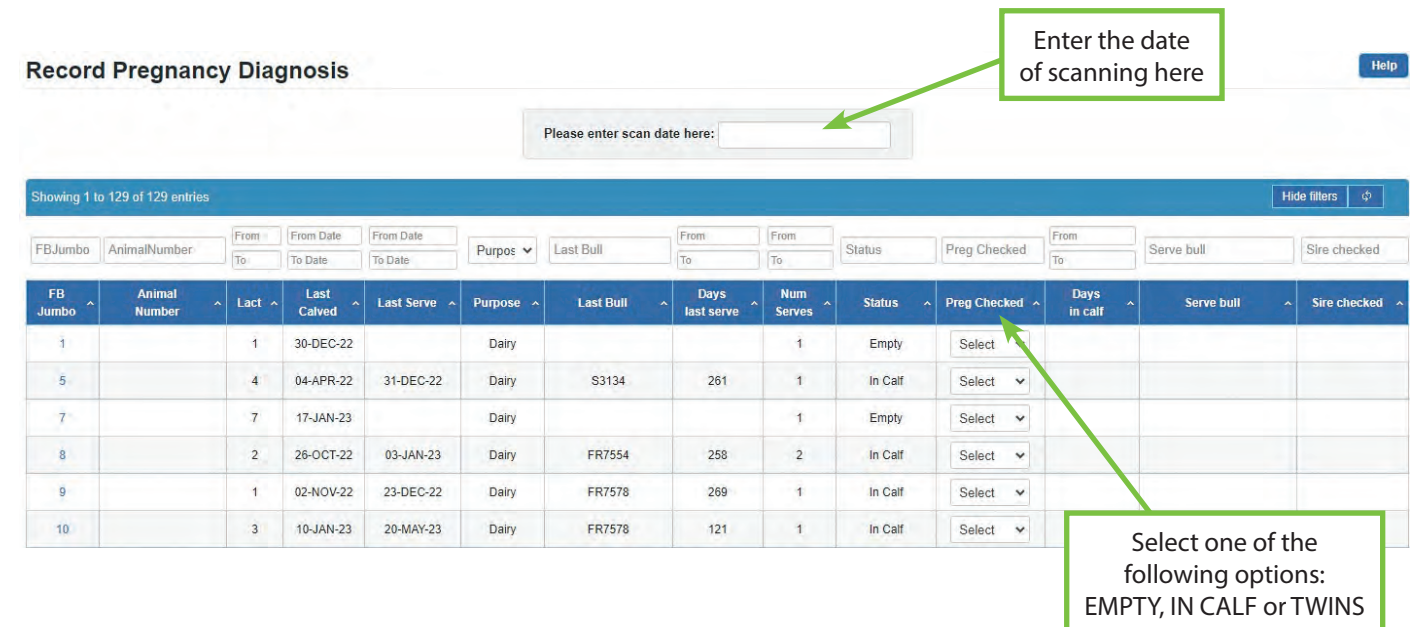
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Dairy Pocket Notebook
Year: _____

Record Heat & AI/Serve

You can record heat and serve events for the animals in your herd. This is a great way to keep track of fertility records for your herd and individual animals. These will impact important KPI's such as calving interval, etc. If using an AI technician, the AI data is received from your technician's handheld.

Click here to record Heat and Serve events for your herd

Select an animal to record their heat or serve information

Enter the date of Heat/Serve and enter the full tag number or AI code of the sire used

Record Pregnancy Diagnosis

By recording scanning results, expected calving dates will be generated for your herd. In the case that there are no serves recorded, farmers can record estimated number of days in calf as communicated by the scanning technician.

Record Pregnancy Diagnosis   Help

Enter the date of scanning here

Please enter scan date here:

Showing 1 to 129 of 129 entries   Hide filters

FBJumbo	AnimalNumber	From To	From Date To Date	From Date To Date	Purpos	Last Bull	From To	From To	Status	Preg Checked	From To	Serve bull	Sire checked

FB Jumbo	Animal Number	Lact	Last Calved	Last Serve	Purpose	Last Bull	Days last serve	Num Serves	Status	Preg Checked	Days in calf	Serve bull	Sire checked
1	1		30-DEC-22		Dairy			1	Empty	Select			
5	4		04-APR-22	31-DEC-22	Dairy	S3134	261	1	In Calf	Select			
7	7		17-JAN-23		Dairy			1	Empty	Select			
8	2		26-OCT-22	03-JAN-23	Dairy	FR7554	258	2	In Calf	Select			
9	1		02-NOV-22	23-DEC-22	Dairy	FR7578	269	1	In Calf	Select			
10	3		10-JAN-23	20-MAY-23	Dairy	FR7578	121	1	In Calf	Select			

Select one of the following options: EMPTY, IN CALF or TWINS

Record Dry-Off

Accurate recording of dry off dates are important for a cow to have a valid lactation in your herd. This information is then displayed on milk recording reports, sales catalogues and genetic evaluations.

Enter the dry off date here

Select one of the following treatment options: Dry Tube, Dry Tube & Sealer, Sealer Only, etc.

Record Dry Off Events Record the dry off date for animals in your herd

If you wish to update the dry off date for the previous lactation please click on the freeze brand, previous dry date or previous treatment of the animal.

Date of Dry Off:

Showing 1 to 309 of 309 entries   Hide filters   Excel | PDF | Print

FB	Lact	Calving Date	Days in Milk	Days to Calving	Previous Dry Off Date	Previous Treatment	Dry Off Date	Treatment	Dry Off Treatment
17	11	26-FEB-23	204		19-DEC-22	Dry Cow Tube			Dry Tube / Dry Tube & Sealer / Sealer Only / No Treatment / Dry Off / Clear
500	7	01-MAY-23	140		16-JAN-23	Dry Cow Tube			Dry Tube / Dry Tube & Sealer / Sealer Only / No Treatment / Dry Off / Clear
654	6	13-APR-23	158		16-JAN-23	Dry Cow Tube			Dry Tube / Dry Tube & Sealer / Sealer Only / No Treatment / Dry Off / Clear
676	7	21-JAN-23	240	130	23-DEC-22	Dry Cow Tube			Dry Tube / Dry Tube & Sealer / Sealer Only / No Treatment / Dry Off / Clear
890	6	05-MAR-23	197	154	09-JAN-23	Dry Cow Tube			Dry Tube / Dry Tube & Sealer / Sealer Only / No Treatment / Dry Off / Clear
699	7	02-FEB-23	228		25-NOV-22	Dry Cow Tube			Dry Tube / Dry Tube & Sealer / Sealer Only / No Treatment / Dry Off / Clear

Record Health & Disease

Recording instances of health and disease for animals in your herd will help to improve the accuracy of the Health sub-index. Events such as lameness, mastitis, retained placenta and much more can be recorded here.

Click here to record Health and Disease events for your herd.

Click here to select an animal

Click here to enter the date

Click here to record the sickness for the selected animal

Top Tip! Download our ICBF Free HerdPlus App to view your live profiles on the go.
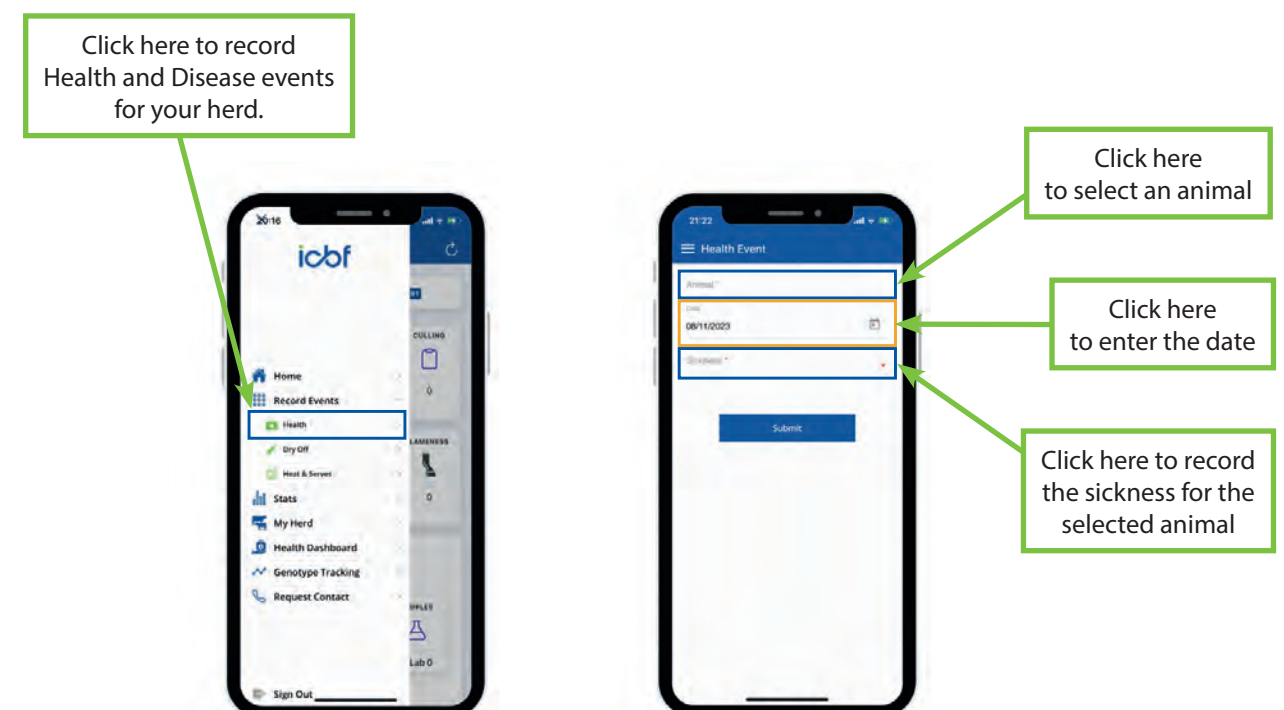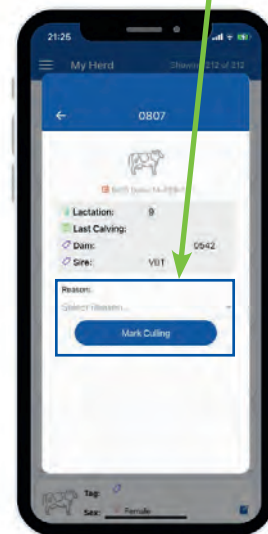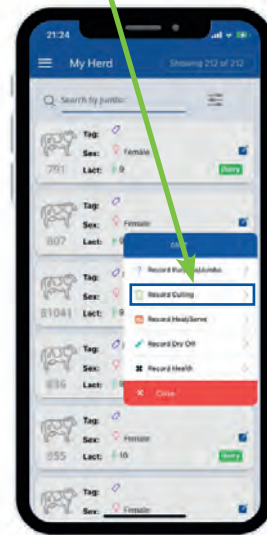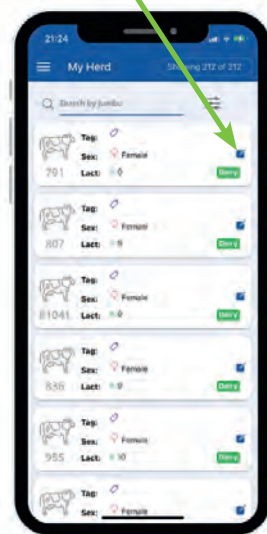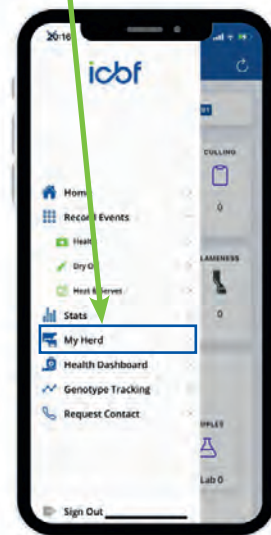
Mark for Culling

Marking cows for culling wil improve the accuracy of the information in the various profiles and reports accessible to the farmer.

Click here to mark cows for culling

Click on the blue icon to select the animal

Click here to mark this cow for culling

Select the reason for culling and then click "Mark Culling"

Record Missing Sire

Recording the sire of a calf is optional at birth. However, without a sire on the database, ICBF cannot generate an EBI for that animal. All animals in the herd with no sire recorded will appear on this screen.

Record Missing Sire Record the sire of the animals below, or mark the sire as unknown.

Select to view animals currently in the herd or historically and click Go

Animals currently in your herd are listed. Select Animal Type: current Go

Showing 1 to 84 of 84 entries | Hide filters | Excel | PDF | Print

Animal Number	Sex	Date of Birth	Purpose	Breed	Dam	Previous Error	Sire
	F	20-MAY-23	Dairy	HO (88%)			372222061963002 / Unknown Sire
	F	02-MAY-23	Dairy	HO (88%)			Unknown Sire
	F	01-MAY-23	Dairy	HO (88%)			FR4187 / Unknown Sire
	F	28-APR-23	Dairy	HO (88%)			Unknown Sire

Enter the full tag number or AI code of the sire

Click here if the sire of the animal is not known

Dairy Cow Report

Individual cow performance can be analysed in great detail to make the best breeding and culling decisions by using the Dairy Cow Report.

Click "Download Report" to receive the most up to date report on your dairy cows

The following information is available on this report:

1. Ancestry
2. Calving & Fertility
3. EBI sub-indexes
4. Milk production

EBI Report

The EBI Report outlines herd performance in terms of overall EBI and each of the sub-indexes to help breed the most profitable and efficient animals for your herd.

Get an overview of the breeding values for each animal in your herd and benchmark your herd against the National Average and Top 10% for herd EBI and the eight sub-indexes.

Compare your herd's EBI to the National Average by lactation.
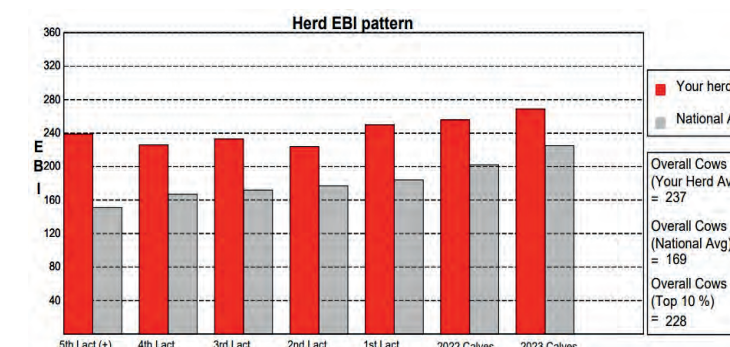
Compare your top and bottom 10 cows on EBI, Milk and Fertility sub-indexes.

Dairy Calving Report

Use the Dairy Calving Report to get an in depth assessment of the calving performance in your herd.

View the summary of calving records by month and calving survey data.
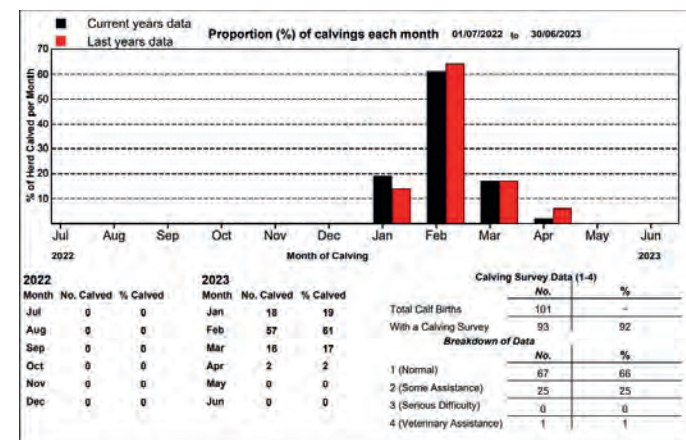
Benchmark your herd against the National Average and Top 10% for Key Performance Indicators (KPI's) such as Calving Interval, Six-Week Calving Rate and many more.
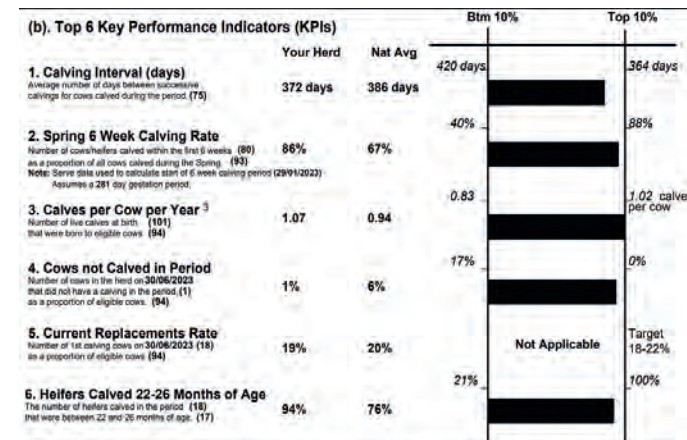
Fertility Reports

The Weekly and End of Season Fertility Reports looks at both calving data and submission rates to summarise the fertility performance of your herd at key times in the breeding season.

Weekly Fertility Report

View the numbers of spring dairy calving events in your herd along with a summary of important calving dates and trends.

Keep a close eye on the Action List for your herd to identify cows not yet served or confirmed pregnant.

End of Season Fertility Report

Analyse the current and predicted calving pattern for your herd to implement appropriate management decisions.

Benchmark your herd against the National Average and Top 5% for Fertility KPI's such as submission and conception rates.
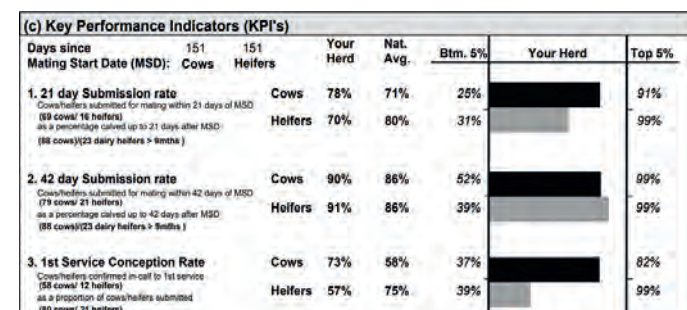
The progress bar above shows which page the user is on while running Sire Advice. This can also be used to jump back pages by selecting the button below each page title. There are 2 options for running Sire Advice.

Manually enter bulls is the following page which can be skipped to using the second option for running sire advice.

Sire Advice Plus first allows for selections to be made for the females.

Female Selector

- Females can be selected for culling, sexed mating, beef mating, crossbred mating and selective mating using the tick boxes.
- Females selected for culling are then excluded from the allocation.
- The females marked for crossbreeding are then allocated to bulls to maximise heterosis.
- The females marked for Sexed will receive one dairy bull mating.
- A count updates with the number of selections in each category.

Bull Selector

1. Select bulls from the Current Active Bull list, all AI bulls or the beef bull list.
2. As you use the filters to refine your selection, the bulls on the screen will change.
3. Click on 'Select Bull' to add the Bull to the Bull Team
4. Note the figures listed in brackets are your herd's average EBI's as per your recent EBI report.

Top Tip! It is recommended to have a bull team reliability of at least 90%. The bull team reliability updates as you add bulls into your team.

Manually Enter bulls

If "Manually Enter Bulls" is selected on the home screen it takes you to this point. This is where users will directly enter bulls.

Select if this bull will be used on cows or heifers.

The **Straw Allocation** screen allows the user to change the percentage usage or the number of straws for each bull depending on the selections made in the Female Selector. The bulls identified for each female category will show on the respective Straw Allocation pages.

Sire Advice Results

Sire Advice results shows the allocation for each of the cows in your herd. Three dairy matings are proposed for each female and three beef matings if the Dairy Beef Mating function is enabled. If an animal was selected for sexed semen, she will receive one dairy sexed mating which is signified by an (S). The "Detailed with Sub Indexes" tab and the "Detailed with Traits" tab both show the expected progeny performance, as a result of the Bull 1 mating. This screen can be converted to Excel, using the Excel button in the top right corner.

Save and Send to AI technician

To have these selection on your Herd Plus Breeding Chart and AI technician's handheld, select "Send Now". Sire advice can be run as many times as you wish and the most recent selection will appear on handhelds and breeding charts.

Inbreeding Checker & CBV Predictions

The Inbreeding Checker allows a farmer to check for possible inbreeding if females are mated with specific AI sires or stockbulls prior to mating.

Run checker on All, Beef only or Dairy only females in the herd

You can select to receive Inbreeding results or CBV predictions

You can select Eligible or All Females

Enter AI code or tag number of stockbull

Animals that have no sire recorded cannot be run through the Inbreeding Checker. Inbreeding levels of 6.25% or less is deemed acceptable.

Click Submit to run

CBV Predictions allow farmers to view the predicted CBV values of progeny prior to when females are mated to specific sires.

View the CBV percentiles for each breed type

You can select to receive CBV predictions for each breed type or across breed types

View the star rating or the index figure with this toggle

Top Tip! Bulls with a higher Beef sub-index will produce higher CBV progeny.

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Nitrates Band

This application is available to all dairy farmers to submit their nitrates band to the Department of Agriculture. This will now be a mandatory requirement to be completed annually.

Select one nitrates band option for your herd

Click here to submit your nitrates band to the Department of Agriculture

Sales Catalogue

Create a sales catalogue for selected animals in your herd by logging into your HerdPlus account.

Click here to proceed

Select animals to include in your catalogue

Select catalogue type and then "Generate Catalogue". You can then download the PDF".

This is an example of a Dairy Commercial Catalogue.

Kevin Flynn, Co. Laois

"At home, I have a pedigree herd of Holstein Friesian cows and the HerdPlus service provides me with a large amount of information at my fingertips. Being able to access pedigree information and more under one umbrella is really beneficial. I can monitor my herd's performance regularly and identify the strengths and weaknesses by analysing important KPI's. The 5 year trend reports really help to visualise the breeding decisions being made and what influence they are having on farm. For me, the sales catalogue feature is crucial when offering surplus females and stock bulls for sale, since it provides potential buyers with the most recent details on my animals. The Milk Recording Lifetime Profile is important to identify the cows that are doing the business for me in terms of kgs of milk solids and SCC. Combing both the genetic information and conformation traits of my animals helps me to breed long-lasting, functional and profitable cows."

James Cotter, Co. Cork

"In reality the ICBF HerdPlus is a tool that helps the farm to be as profitable as possible. Sire Advice allows me to select the highest EBI sires and my highest performing cows to breed from in order to be sustainable and profitable in the future. I find the calving and fertility reports very useful as they assist me greatly during the busy spring period. I have been a participant in the DNA Calf Registration Pilot Programme in recent years. The genomic information I get on all of my animals through this has really increased the value of my herd as I now have a greater insight into the genetic potential of the animals on the farm. The use of ICBF helps me to breed a desirable cow that suits my farming system overall. HerdPlus is an invaluable tool to have available and I would recommend it to other farmers who want to maximise the potential of their farming enterprises through genetics."

Geoffrey McClay, Co. Donegal

"For many years, we have been running a pedigree Holstein Friesians herd and have been availing of the HerdPlus service for as long as I can remember. I signed up to HerdPlus to access the figures and percentages for my herd. There has been steady improvement in the EBI of the cows over the last number of years. I take it as a given that we all have access to the information and reports available from HerdPlus. It is built into the running of my farming enterprise and without it, you are farming in the dark. It is good value for money and the benefits to be got are vitally important to improve the genetics of the animals. I log in to check calving, fertility and milk reports regularly along with the genetic evaluations on my young stock. This allows me to make informed breeding decisions based on reliable data. There is a wealth of information available at the touch of a button and I would strongly recommend HerdPlus to anyone interested in improving the performance of their herd."

Top Tip! Create a sales catalogue to highlight key sale information on your animals.

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Profit through Science

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Record events and **view** the **latest statistics** for **your herd** all at your fingertips!

- **Instant access to herd statistics on calving & fertility, milk recording, etc.**
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Useful Contact Information

■ **DAFM**
   Main Switchboard: **057 8674400**
   Agfood: **049 4368288**

■ **National Calf Registration & Movements**
   CMMS (Movements): **023 8832890**
   Calf Reg: **023 8832890**
   Permits: **023 8832891** or **agripermits@capita.com**

■ **Milk Recording Organisations**
   Munster Bovine: **022 70805**
   Progressive Genetics: **046 9541230**
   Tipperary Co-op: **062 33111**
   Dairy Data: **087 6064344**

■ **Other**
   BVD Helpline: **091 507 648**
   Animal Health Ireland: **071 9671928**
   Weatherbys: **045 875521**
   Bord Bia: **01 6685155**