

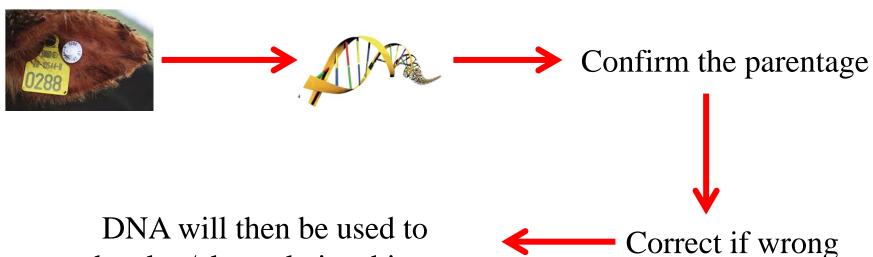
IRISH CATTLE BREEDING FEDERATION

Genomics: What is it?

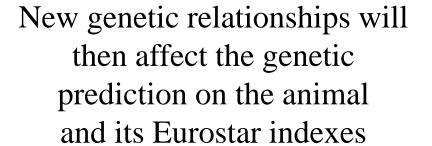




Looking at the DNA of an animal



DNA will then be used to develop/alter relationship to other animals in the pedigree or not recorded in pedigree.





Calving difficulty and potential genomic impact

Category of Al sire	Reliability Dec 14	no of Al sires	Min PTA calving difficulty	Max PTA calving difficulty	progeny in Dec 14 evaluation	avg change in PTA	maximum change in PTA
Proven AI bulls	90%+	610	1%	24%	2,137	-0.1%	1%
Almost Proven	80-90%	328	1%	27%	115	-0.1%	3%
Partially proven	60-80%	556	1%	25%	43	0.0%	5%
Test sires	40-60%	530	1%	23%	13	0.1%	6%
Foreign Test sires	< 40%	666	1%	18%	4	0.1%	8%

- DNA information will help to reduce the movement in proofs in less reliable animals such as above but also in stock bulls, cows and youngstock
- Cows without known sires should get a more accurate prediction from genomics



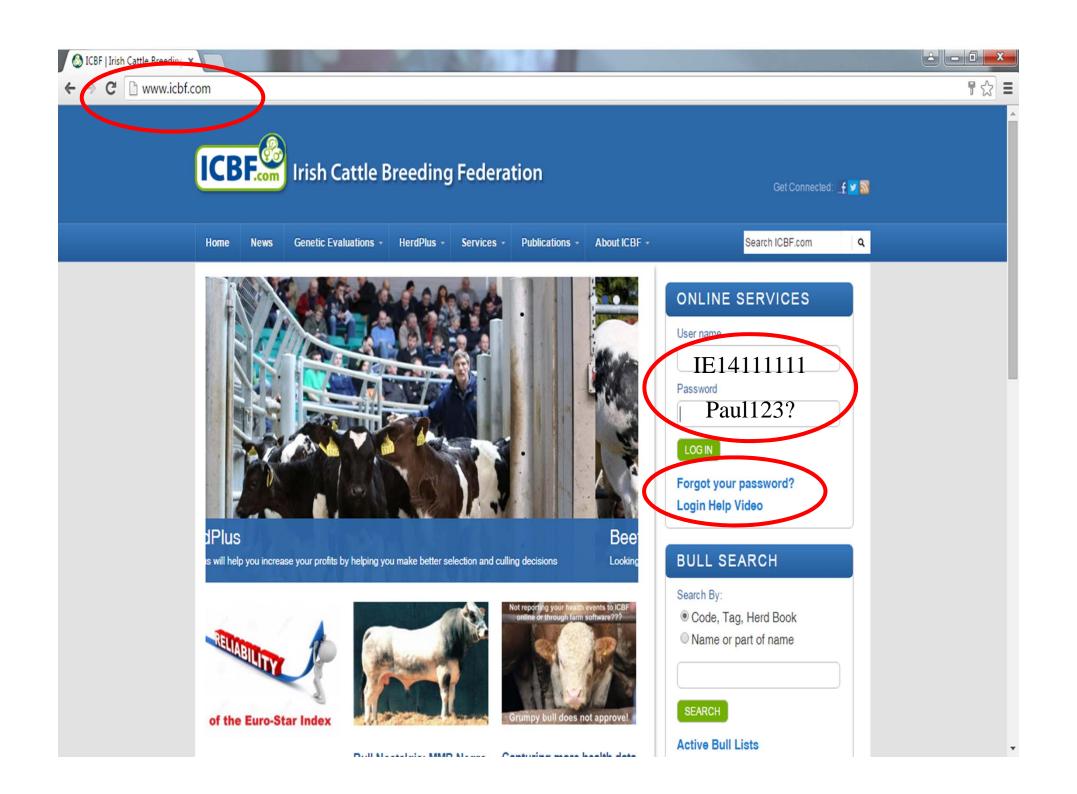


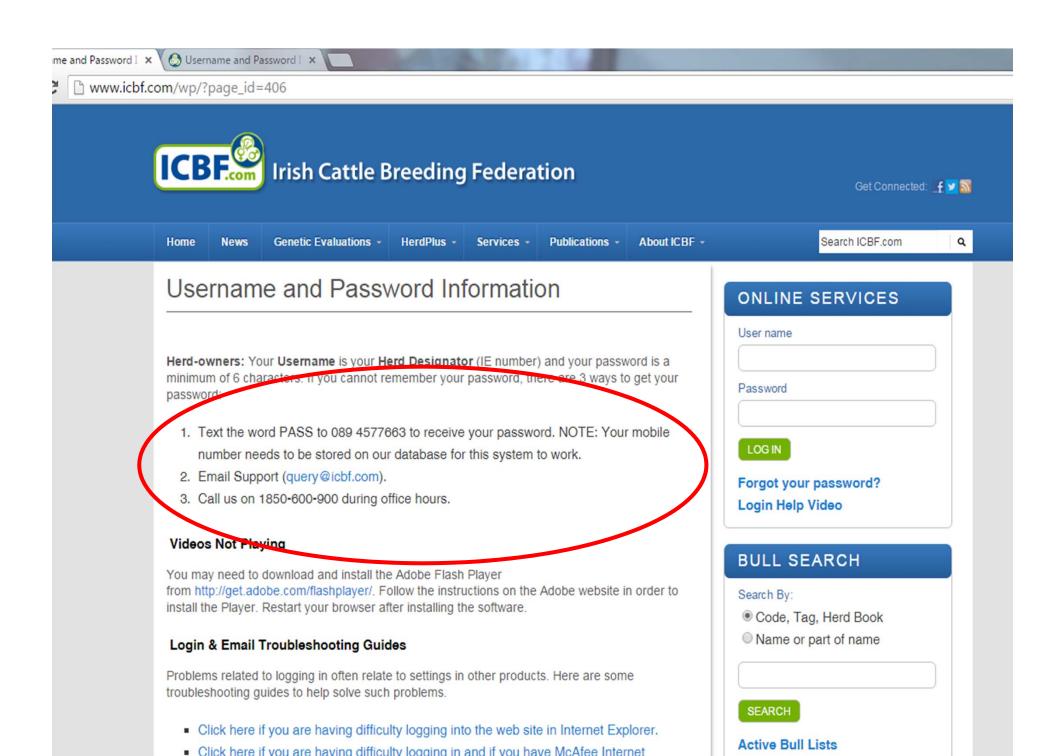
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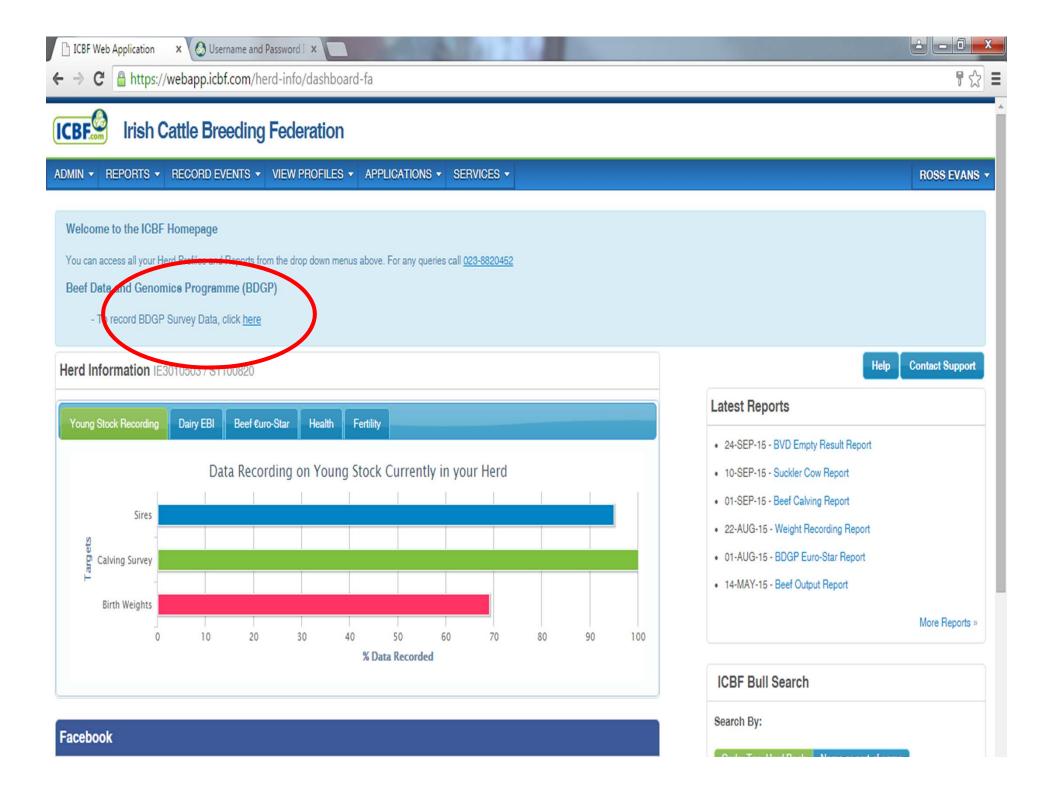
Recording your BDGP data online













Calf Information

- Record Sire
- Record Calving Ease
 For calves 5 months of age and older:
- Record Docility
- Record Quality

Dam Information

- Record Dam Docility
- Record Milk Ability

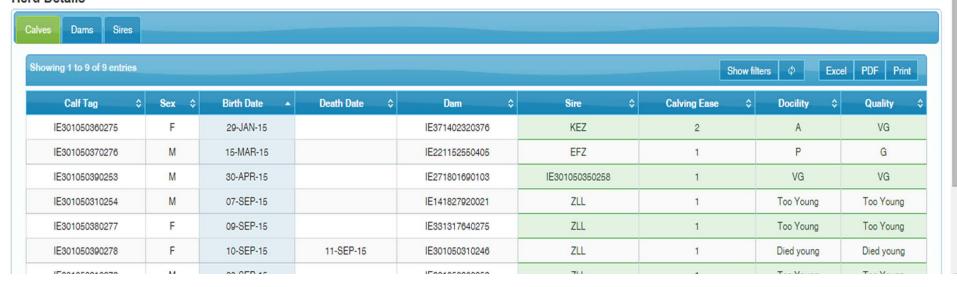
Stock Bull Information

- Record Bull Docility
- Record Functionality

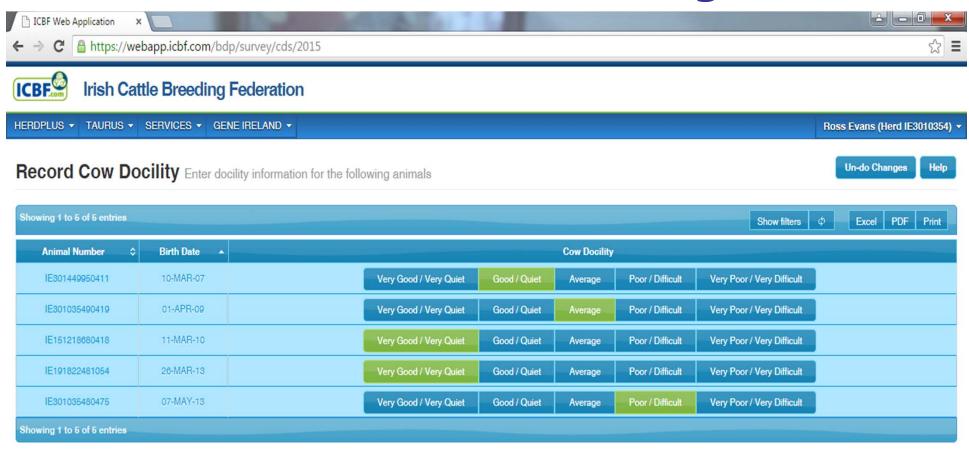


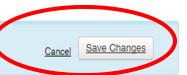
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Herd Details



Online-Recording





Online-Recording



Dam Docility Dam Milk Ability

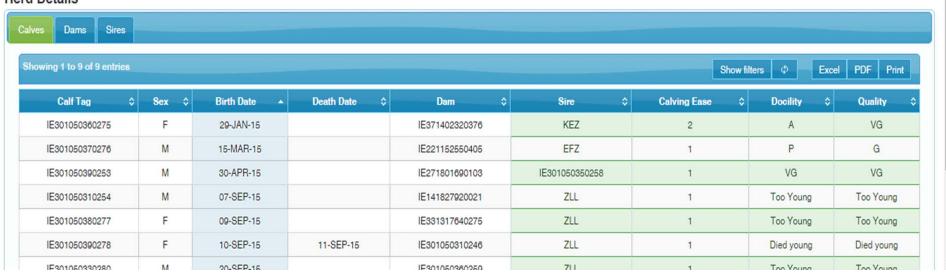
Bull Functionality

Record Docility

· Record Quality

- Record Bull Docility
- Record Functionality

Herd Details

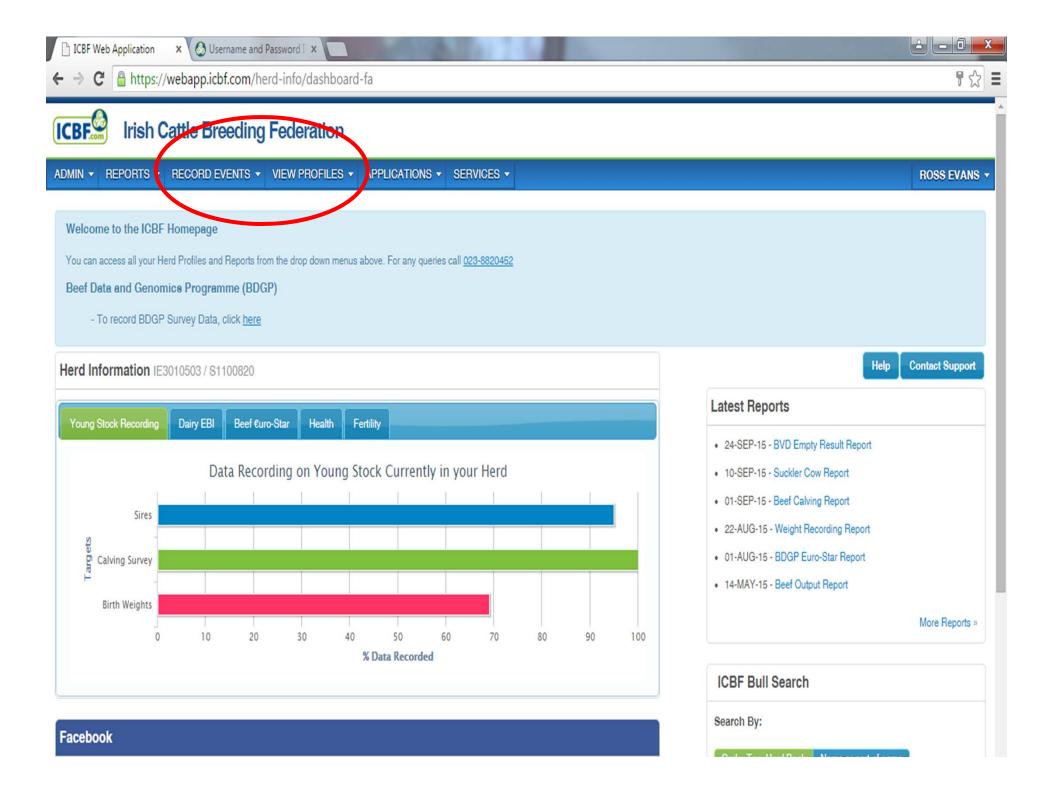


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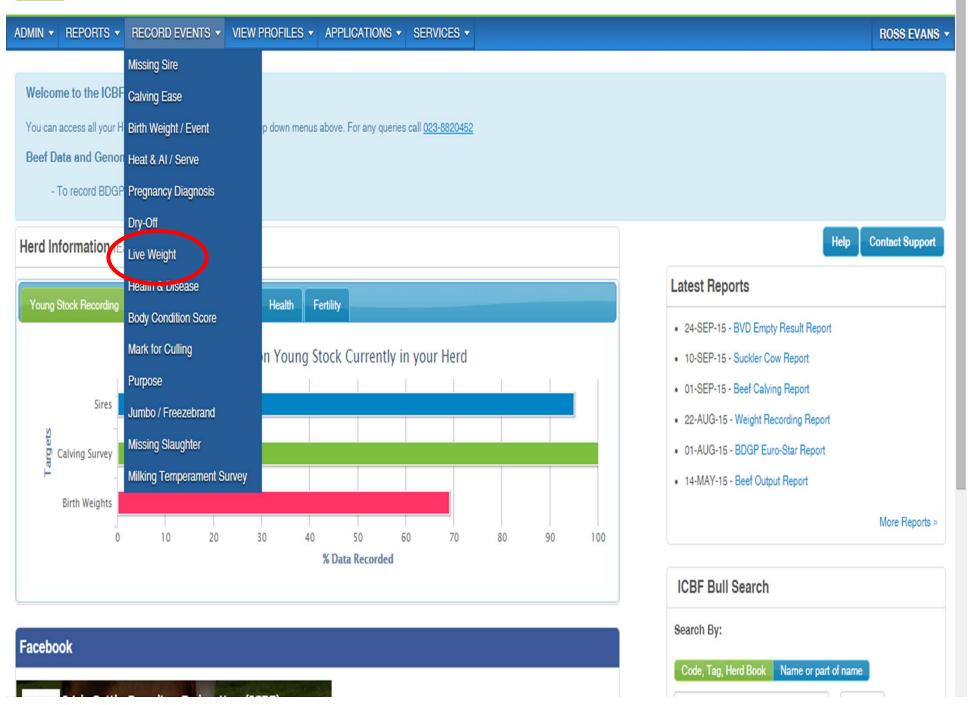
% Available Requirements Completed

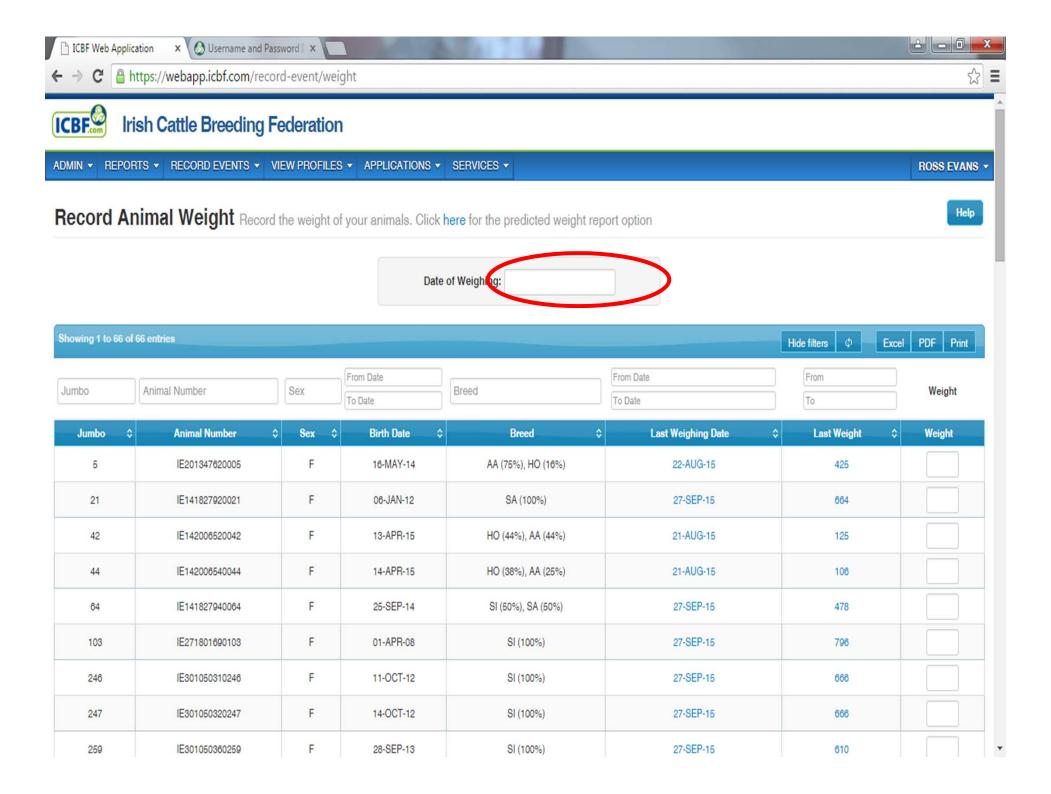
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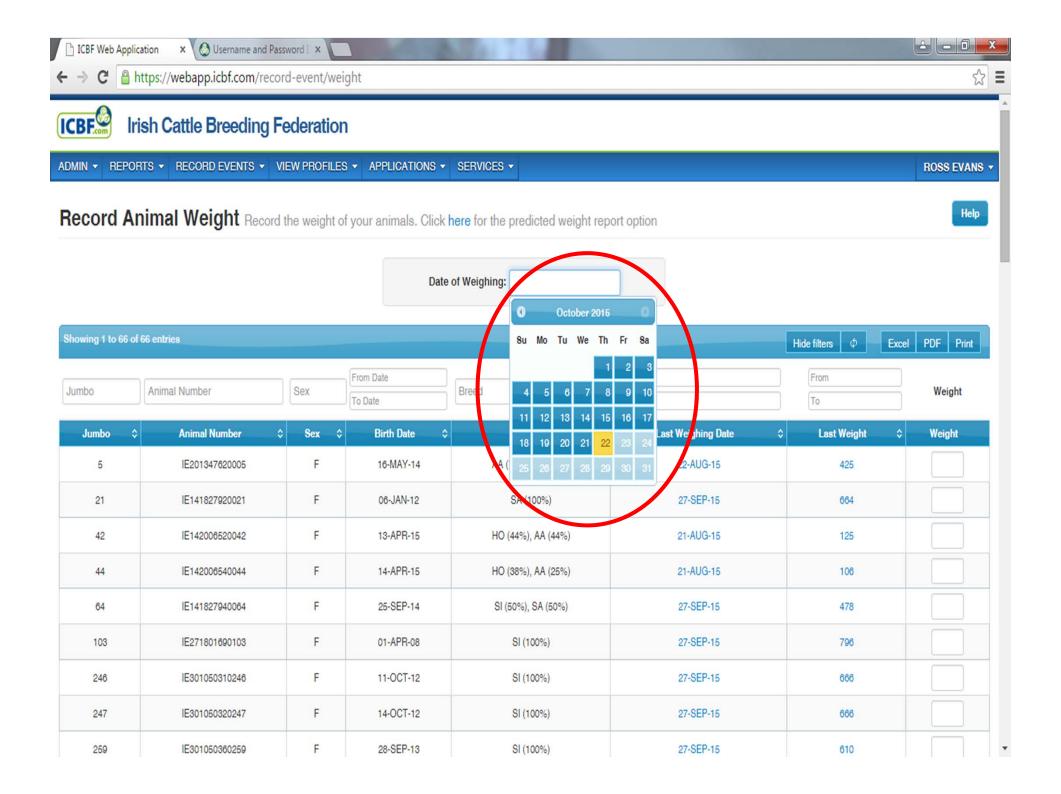
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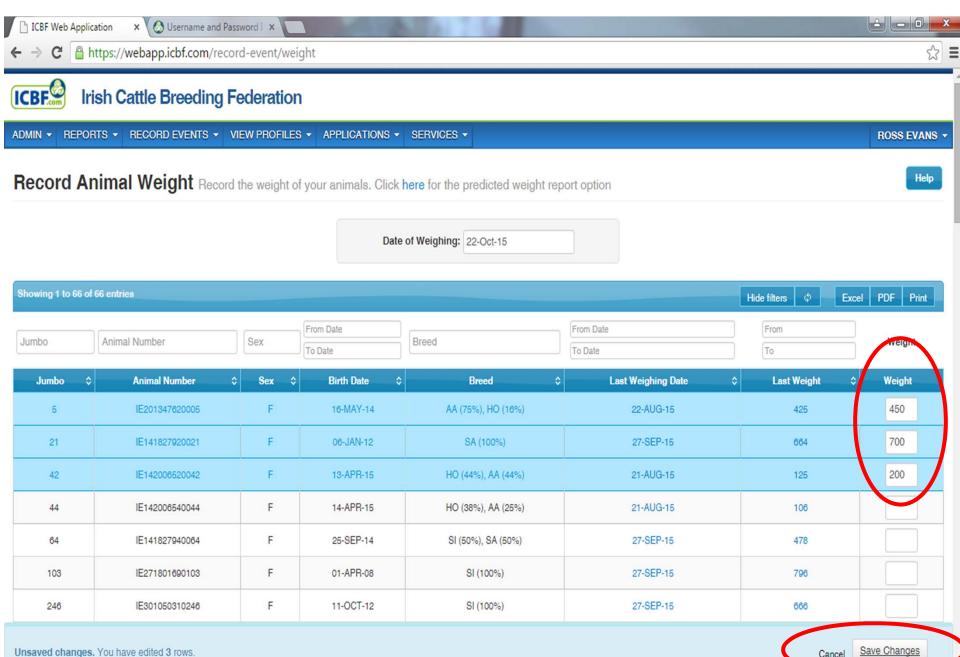


Irish Cattle Breeding Federation



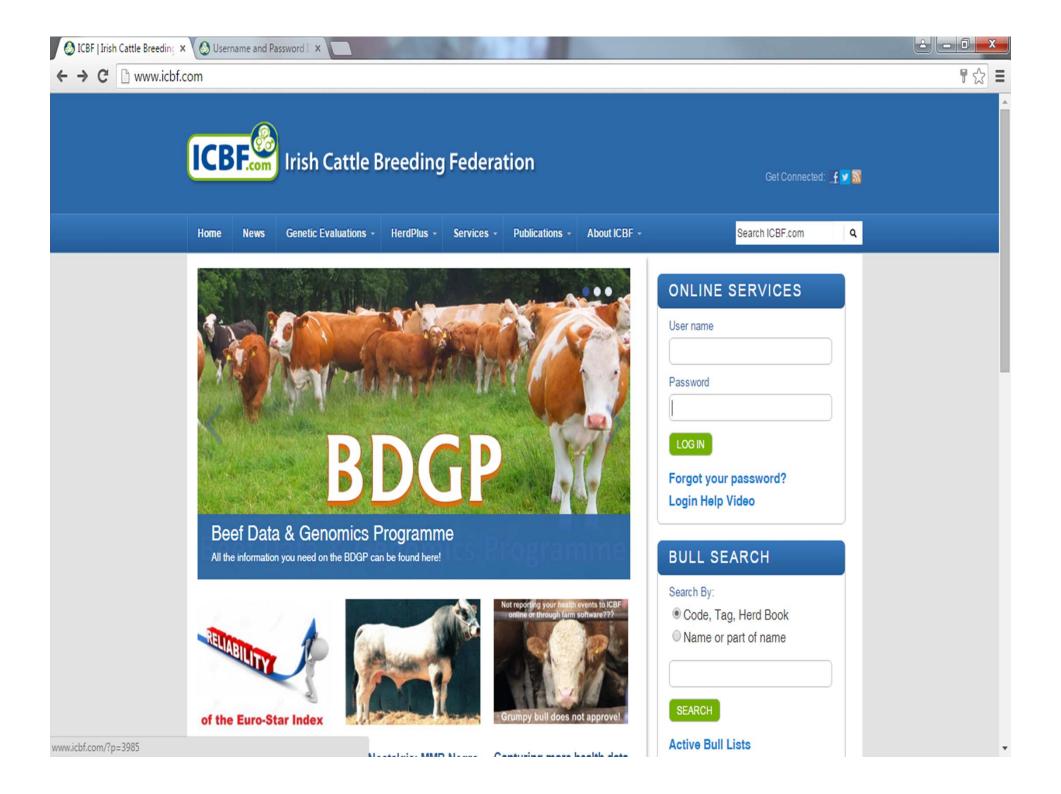


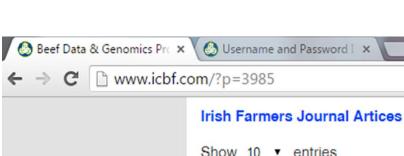


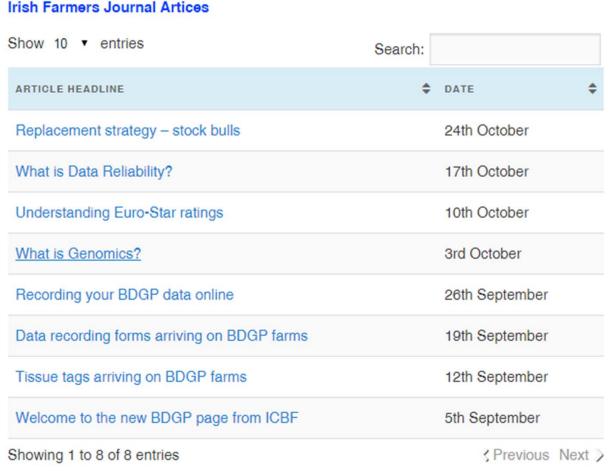


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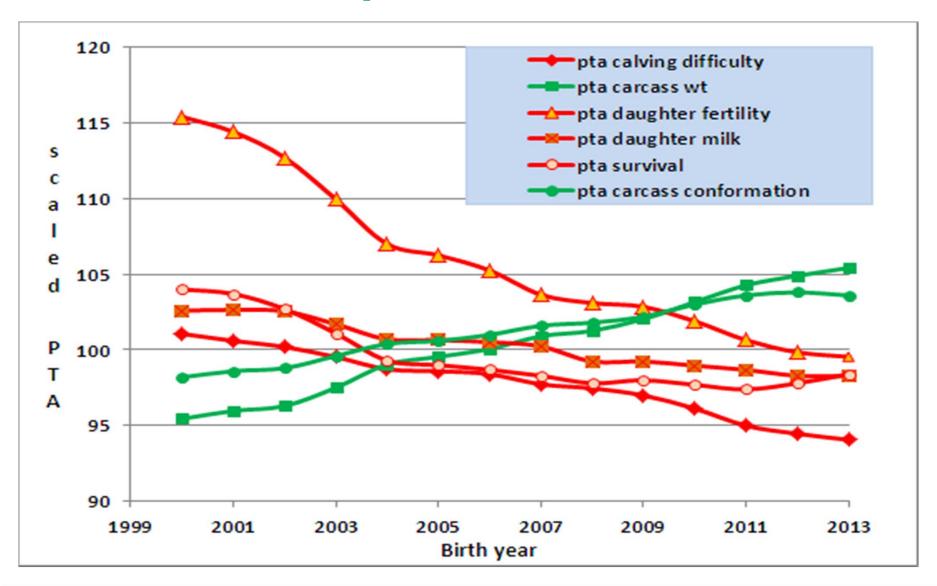


Summary

- Genomic/DNA data will soon feed into indexes
- Online recording is an alternative to paper based
- Instant indicator as to the level of data recorded
- Other data recording is available too
 - Missing sires
 - Weights
 - Health events
 - Articles related to breeding/BDGP scheme
- Alternative online recording option will be available soon through agfood.ie (DAFM website)

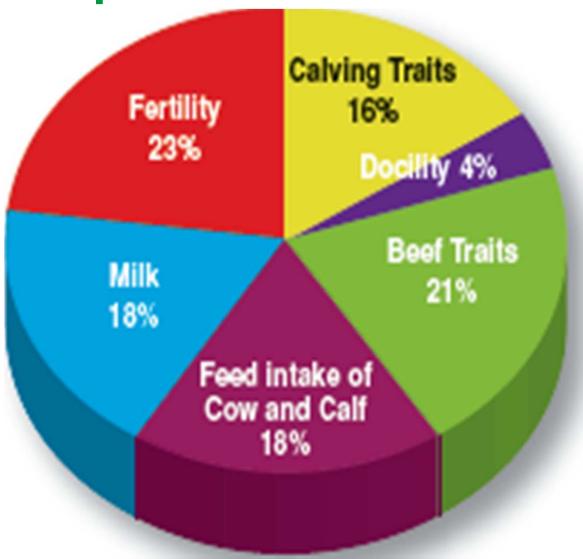


Genetic Impact on Suckler Herd



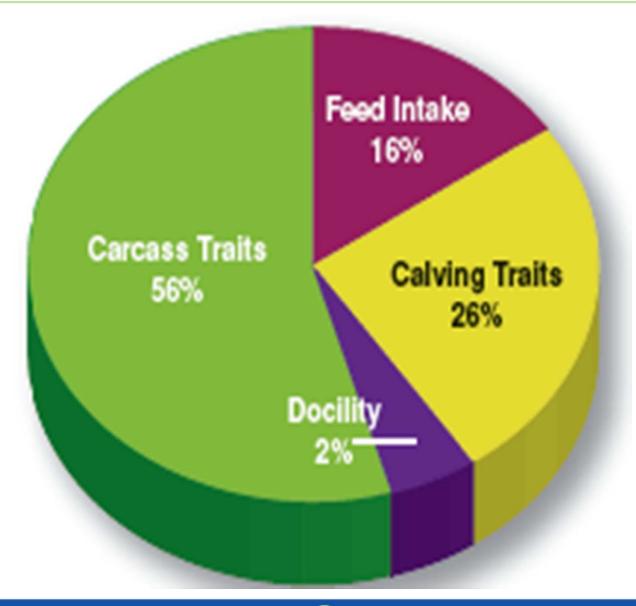


Replacement Index





Terminal Index





5 Star v 1 Star Cows



BDGP Cows			Fertility				Milk		Carcass	
ICBF €uro - Stars	Replacement Index	Number of cows	of	Age at 1st Calving	Calving Interval	% Alive after 7 years	Growth of Calves	Farmer Milk Score	Carcass Weight of progeny	Age at slaughter of progeny
****	€124	25,311	4.33	971 days	399 days	72 %	1.17	4.11	363 kgs	752 days
***	€85	19,776	4.03	988 days	405 days	66%	1.12	3.86	359 kgs	772 days
***	€64	16,020	3.82	1000 days	409 days	62%	1.09	3.75	358 kgs	784 days
**	€44	16,823	3.71	1007 days	413 days	59%	1.09	3.69	358 kgs	783 days
*	€8	19,793	3.46	1022 days	420 days	52 %	1.06	3.48	359 kgs	791 days
Difference +0			+0.87	-51 days	-21 days	+20%	+10%	+15%	+4kgs	-39 days

Above analysis was performed on the 97,723 suckler cows that were born in 2008, in herds that joined the BDGP in 2015.

5 Star Cows:



1. Produce more calves, go back in calf quicker and survive longer.



2. Have more milk & rear calves with better growth rates.





3. Produce cattle which finish earlier with heavier carcasses.