



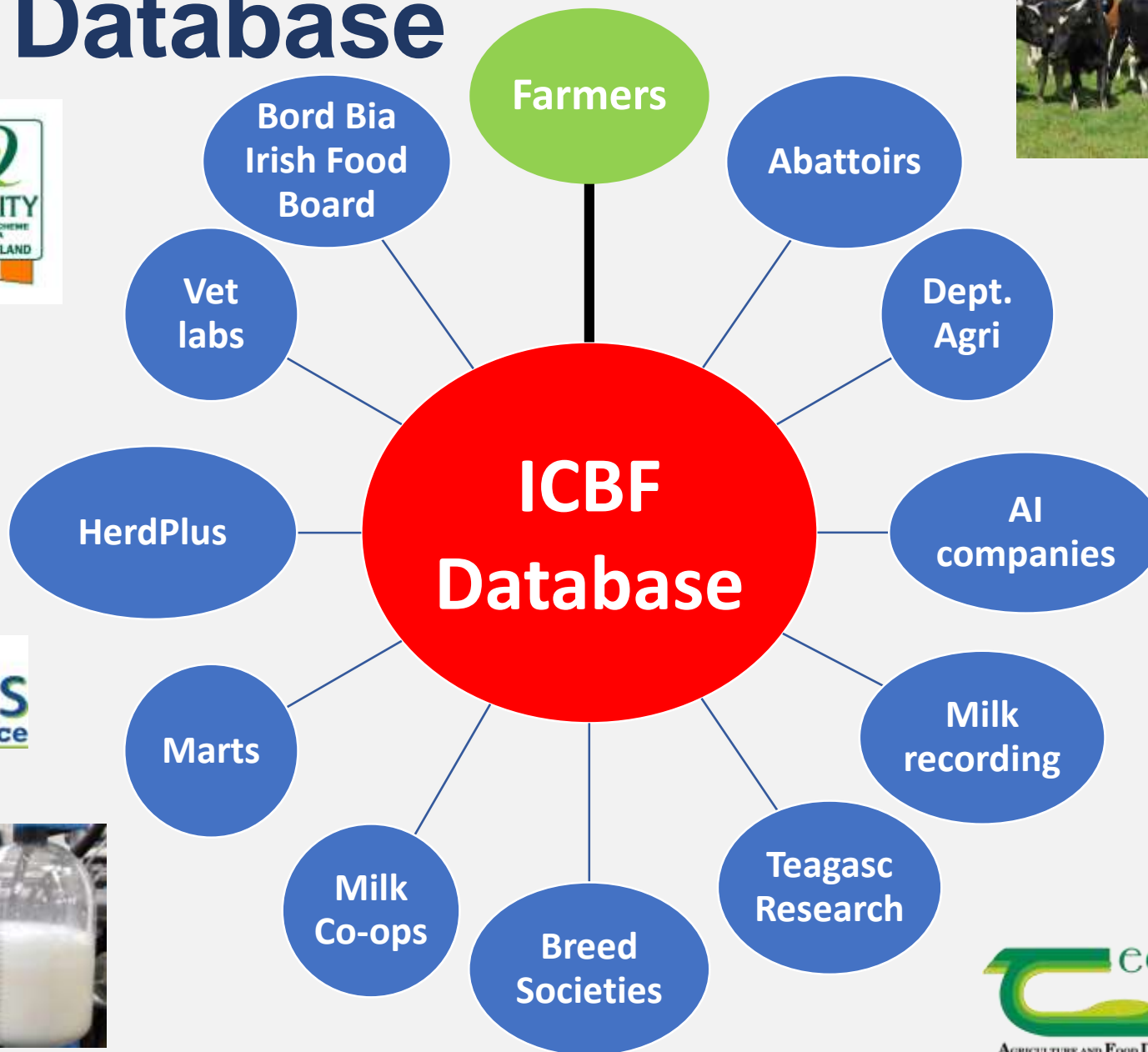
Cow Own Worth – synergising data to provide a new tool to aid in culling decisions in seasonal dairy herds

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Speaker: Margaret Kelleher



ICBF Database



Cow's Own Worth (COW)

Designed to represent more closely the future **phenotypic performance** of dairy females

A new system to rank females on predicted profit potential

- Spring-calving system
- EBI – Economic Breeding Index (national breeding index)
- Centralised database
- Reward data recording herds with an added value service



Question – who would you cull????

EBI €200



EBI €100

Question – who would you cull????

**EBI €200
Parity 5**



**EBI €100
Parity 2**



Question – who would you cull????

**EBI €200
Parity 5
Calved April**

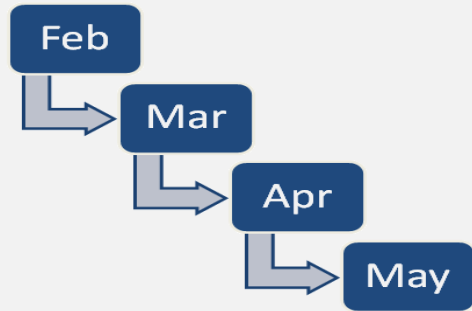
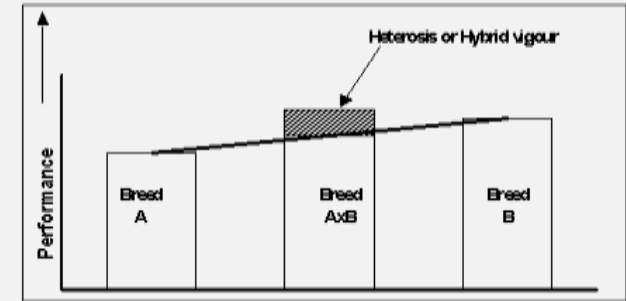
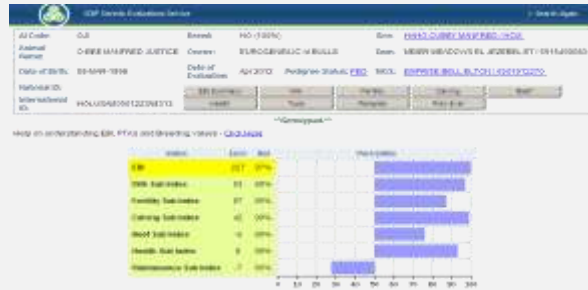


**EBI €100
Parity 2
Calved Feb**

Question – who would you cull????



Cow's Own Worth (COW)

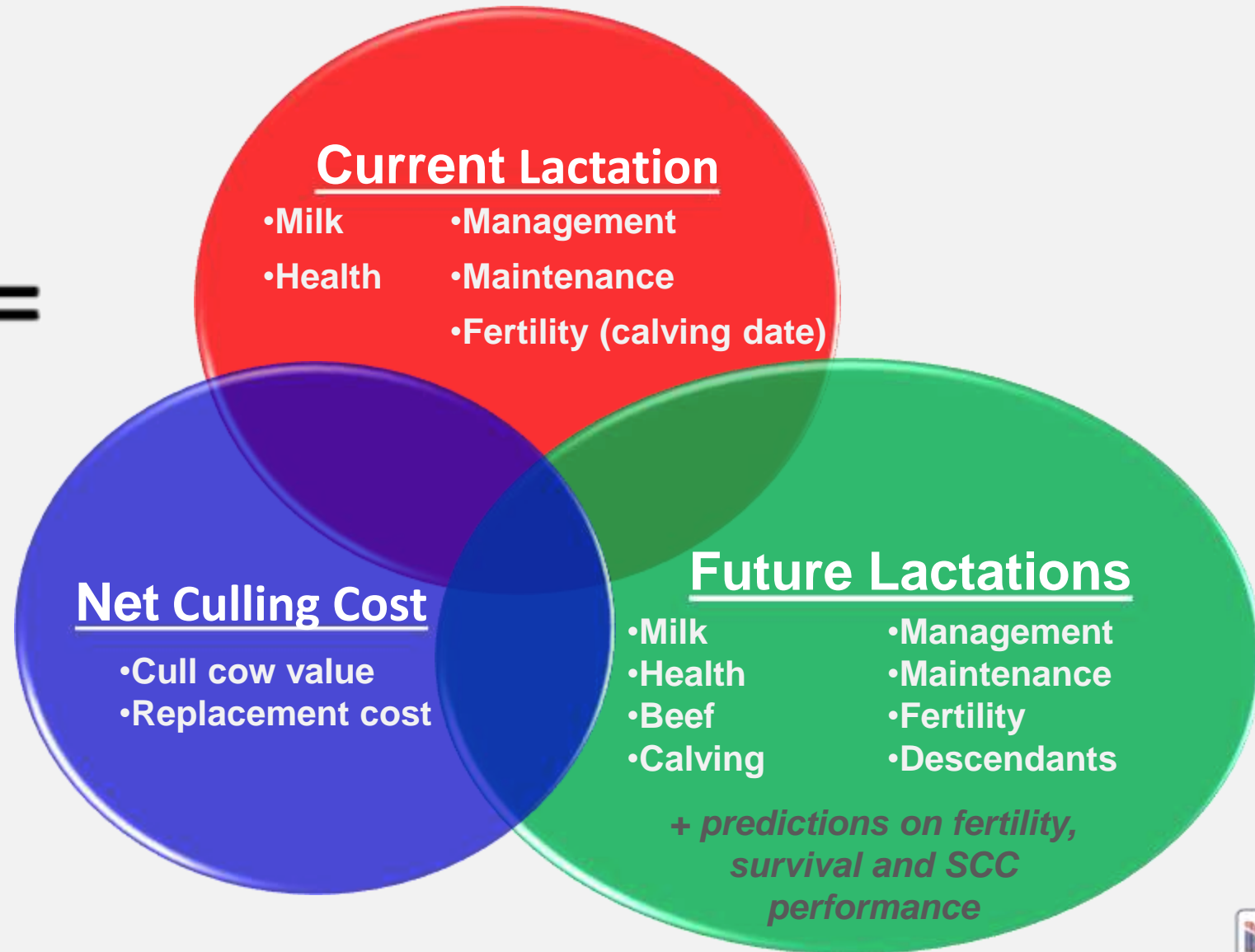


Expected profit from:



=

Cow's Own Worth



Current lactation profit

Actual calving date

Genetics effects

Feb

Age of cow

Mar

Apr

Calving date

May

Individual effects

Current Lactation

Crossbreeding effects

• Fertility (calving date)



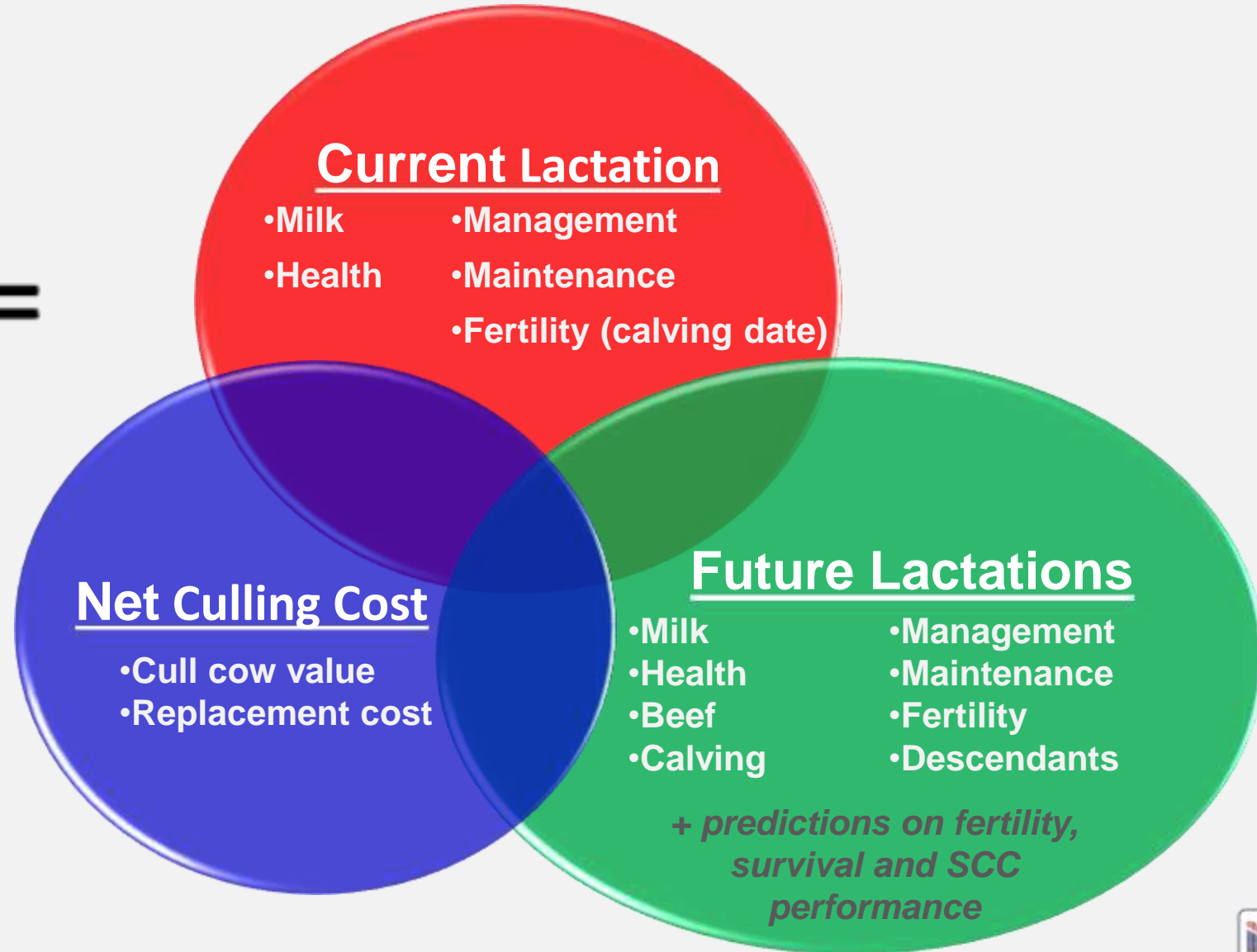
Current milk price
Costs per calving month MDSM

Expected profit from:



=

Cow's Own Worth



Future lactations profit

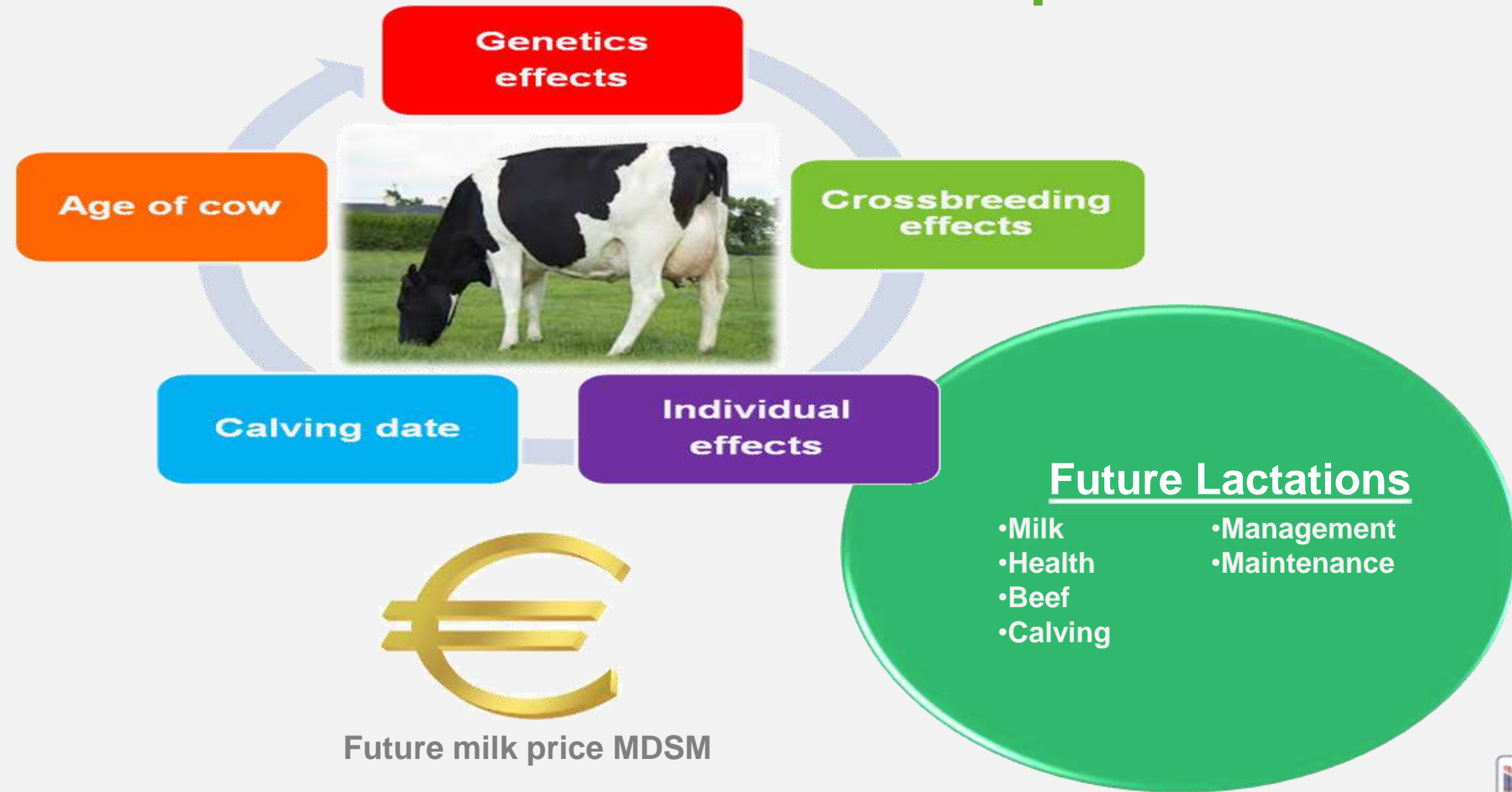
Future Lactations

- Milk
- Health
- Beef
- Calving
- Management
- Maintenance
- Fertility
- Descendants

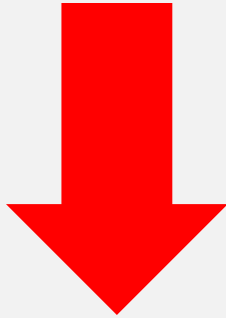
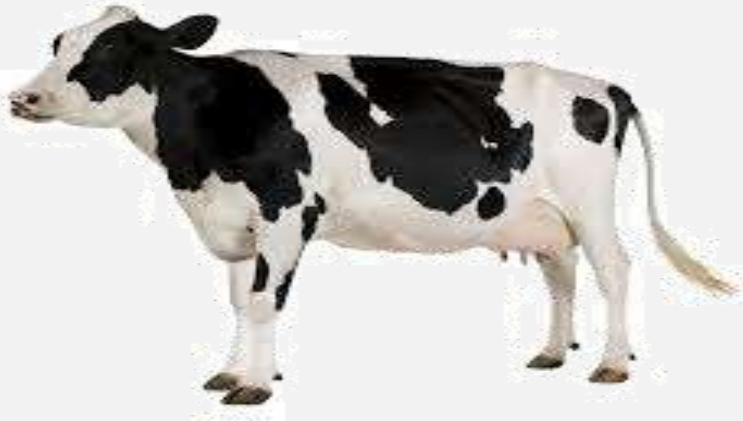
*+ predictions on fertility,
survival and SCC
performance*



Future lactations profit



Future lactations profit



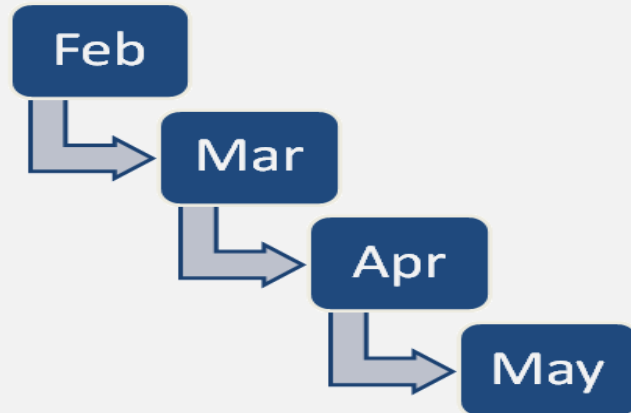
EBI times
Cumulative Discounted Expression

Future Lactations

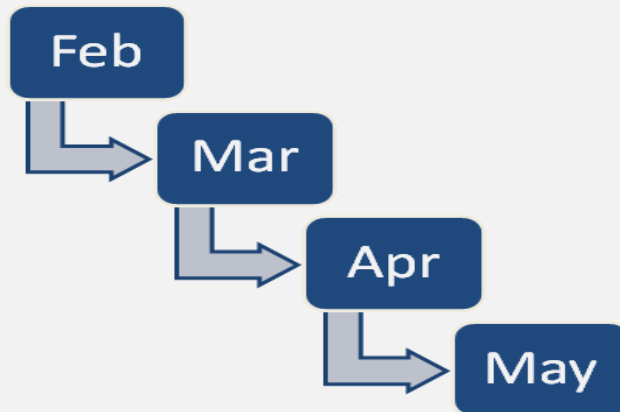
•Descendants

Future lactations profit

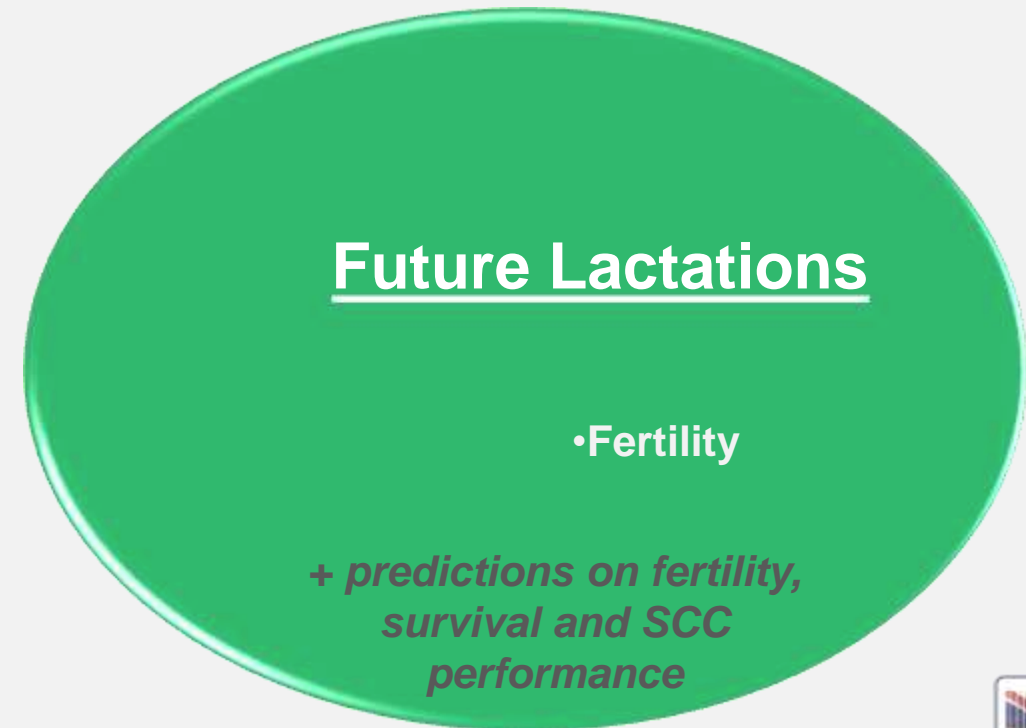
Actual calving date



Next calving date



Genetic effects



Future fertility performance

Transition matrices

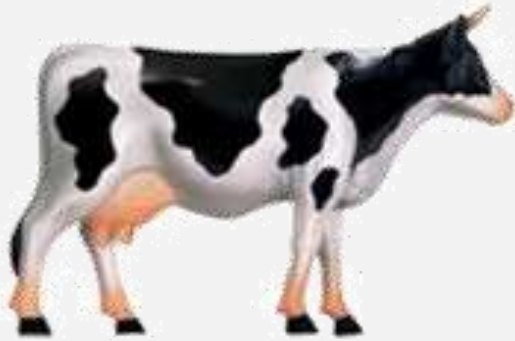
Best
Genetics



	Jan	Feb	Mar	Apr	May
Proportion	0.14	0.53	0.22	0.08	0.03
Cost (€)	0.00	0.00	-151.00	-210.00	-437.00
ΣCost (€)	-63.13				
	Jan	Feb	Mar	Apr	May
Proportion	0.13	0.39	0.25	0.15	0.07
Cost (€)	0.00	0.00	-151.00	-210.00	-437.00
ΣCost (€)	-99.84				

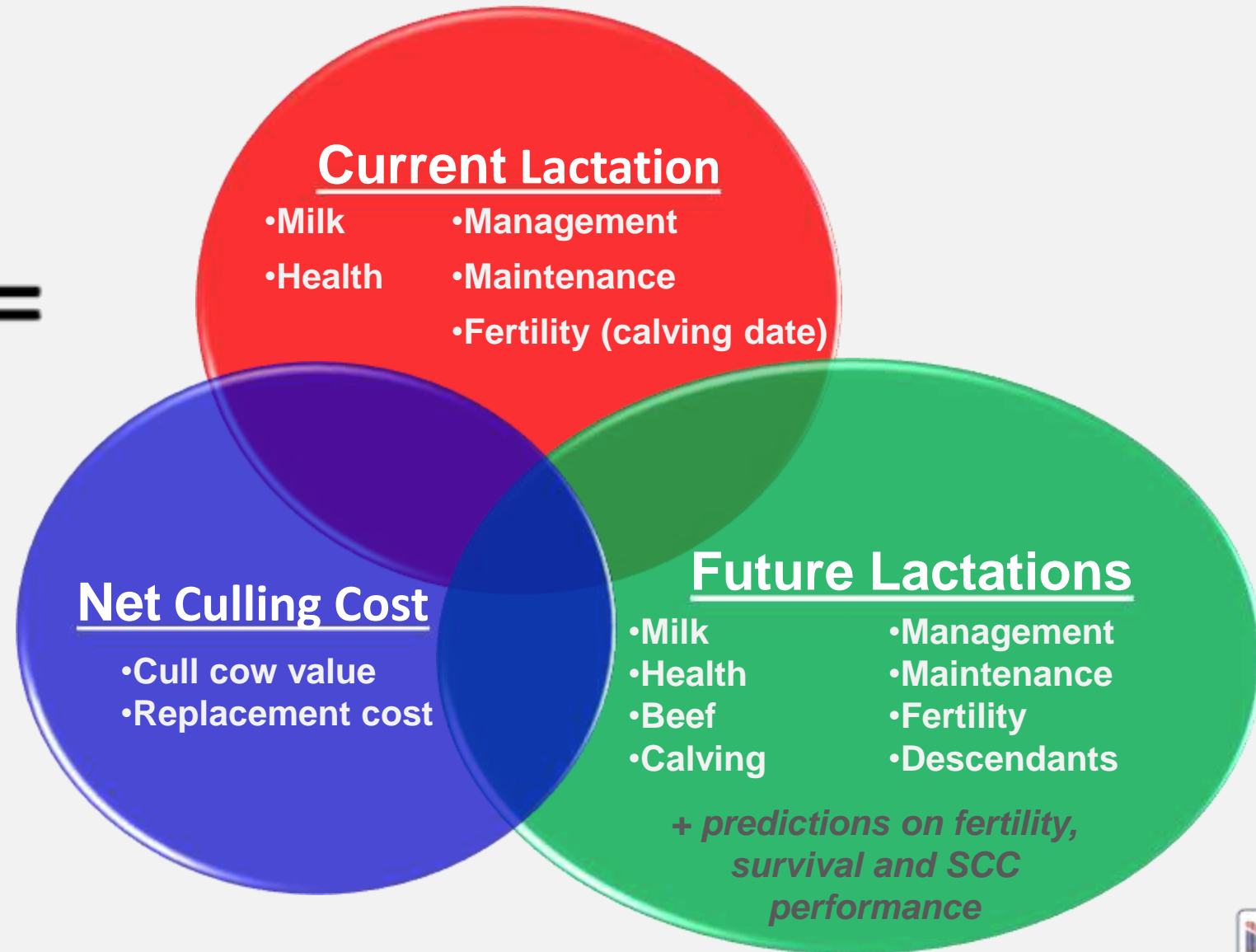
Difference of €36.71

Expected profit from:



=

Cow's Own Worth



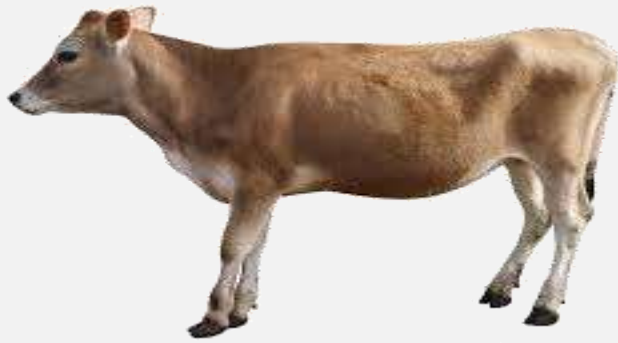
Net culling cost



Cull
value



Salvage value
+
Genetics_{CWT}



Long term
replacement
requirement

Net Culling Cost

Replacement
cost

- Cull cow value
- Replacement cost



Results: Milk production

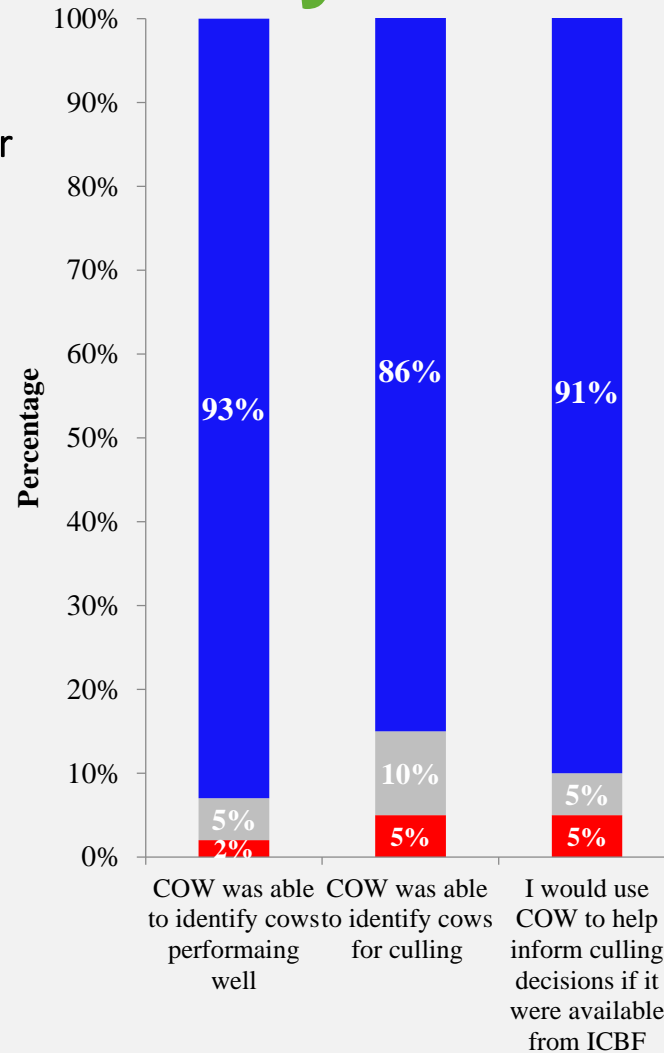
€360 more value per cow per lactation
for cows in top 25% versus bottom 25%

Group	Milk (kg)		Fat (g/100g)		Protein (g/100g)	
	COW	EBI	COW	EBI	COW	EBI
Best (Top 25%)	6965 (6.17)	6674 (6.32)	4.07 (0.003)	4.11 (0.003)	3.57 (0.001)	3.57 (0.003)
Good	6695 (6.45)	6530 (6.27)	4.01 (0.003)	4.00 (0.003)	3.49 (0.001)	3.52 (0.003)
Poor	6512 (6.18)	6467 (6.24)	3.97 (0.003)	3.93 (0.003)	3.44 (0.001)	3.44 (0.003)
Worst (Bottom 25%)	6164 (6.08)	6467 (6.24)	3.97 (0.003)	3.93 (0.003)	3.44 (0.001)	3.44 (0.003)

€9000

Survey results 2016 pilot

1. COW was able to identify cows performing well within my herd.
2. COW was able to identify cows for culling within my herd.
3. I would use the COW to help inform my culling decisions if it were to become a routine service from ICBF.
4. I found the report easy to read.
5. The summary tables were useful to highlight specific areas of production (EG: Top 10 and bottom 10 on COW, Top 10 and bottom 10 on milk solids, High SCC cows).
6. The colour coding of the top 10% and bottom 10% on important traits useful.
7. My milk recording information has more value now that I can receive a COW ireport.
8. I would like the COW to be generated for my herd from now on.
9. I would recommend the national extension of the COW to all dairy milk recording herds in 2017.



■ Agree
■ Neither
■ Disagree



Profile development 2017

- Development underway
- Pilot phase scheduled July
- Farmers testing screens and accuracy of COW rank
- Potential to encourage more data recording with data completeness dash bars

ICBF.com Irish Cattle Breeding Federation

W1790490 MENU HERDPLUS IC ADMIN TAURUS SERVICES GENE IRELAND

Cow's Own Worth (COW) Profile Click on an Animal Number/Jumbo to view more details.

Show 100 rows of 753 total. Showing 1 to 100

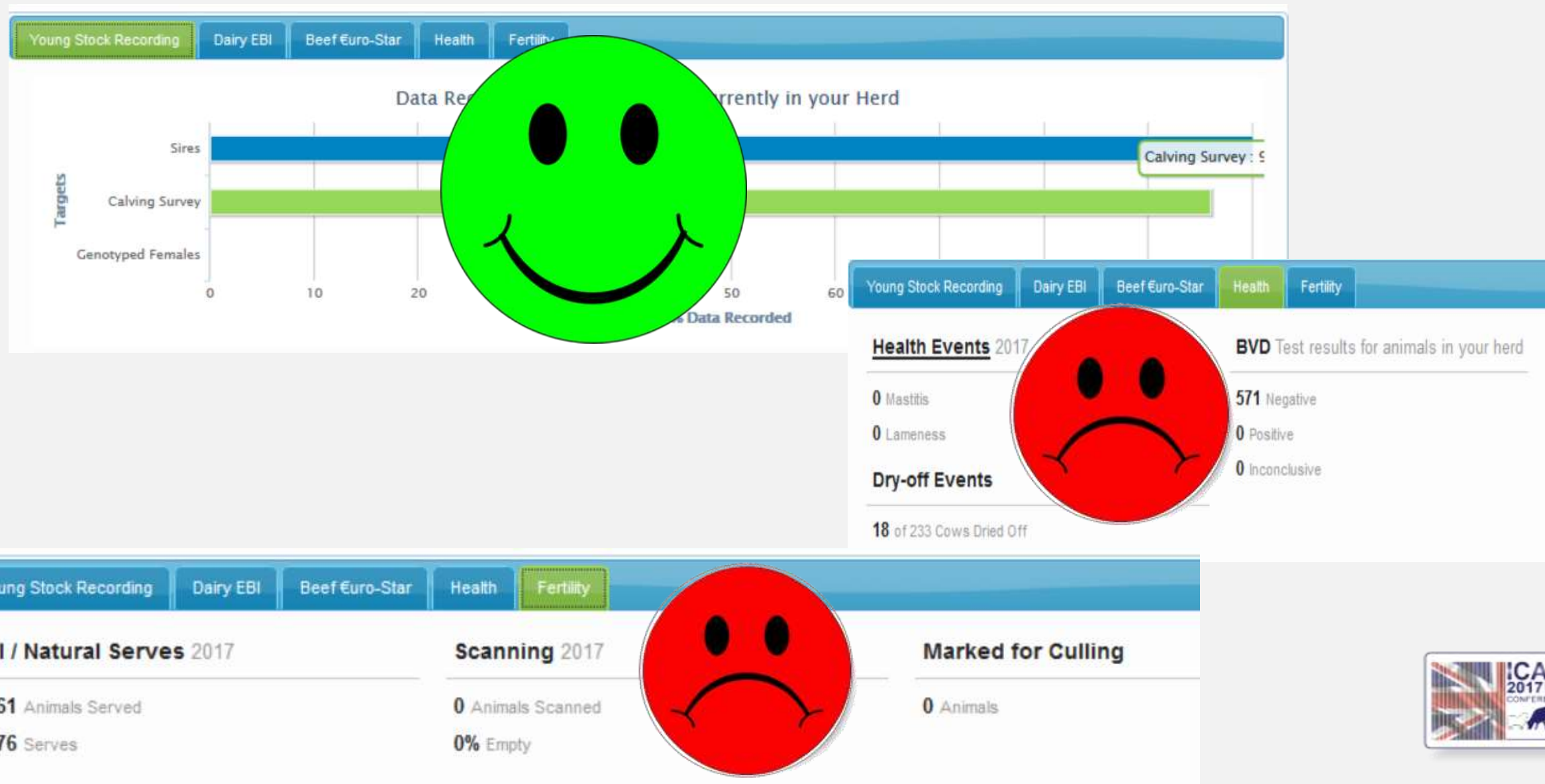
First Previous 1 2 3 4 Next Last Hide filters Excel PDF Print

Jumbo Animal Number Breed From From Date To To Date

Animal Details						Production Values				COW Components			COW Index	
Jumbo	Animal Number	Breed	Lact	Calving Date	EBI	Milk PV (kg)	Fat PV (kg)	Prot. PV (kg)	SCC (,000 c/ml)	Current Lactation (€)	Future Lactations (€)	Net Cull Value (€)	COW Index (€)	COW Rank
8278	IE351272178278	JE (44%), HO (38%)	1	13-FEB-16	145	218	23	18	41	178	765	960	1903	1
8104	IE351272168104	JE (50%), HO (28%)	1	26-JAN-16	115	135	30	19	104	191	719	961	1871	2
8179	IE351272178179	JE (34%), NR (25%)	1	27-JAN-16	156	-43	21	10	26	149	736	959	1844	3
8180	IE351272198180	JE (41%), HO (25%)	1	22-JAN-16	138	-35	21	14	146	169	700	961	1830	4
8298	IE351272128298	JE (53%), HO (31%)	1	08-FEB-16	115	74	37	15	50	206	650	964	1820	5
8130	IE351272188130	JE (34%), HO (25%)	1	21-JAN-16	147	50	28	13	56	171	680	960	1811	6
8355	IE351272118355	HO (56%), JE (25%)	1	03-FEB-16	180	158	20	15	285	156	672	960	1788	7

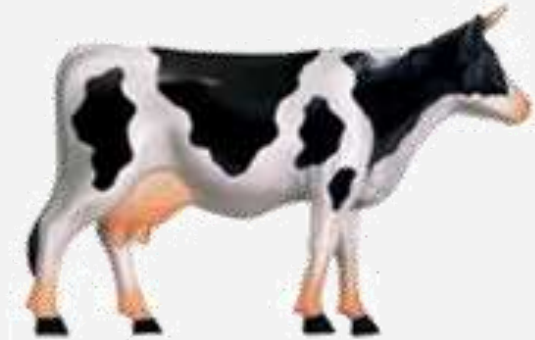


Current data recording



Conclusions

- Complimentary to the EBI (national breeding index)
- Added value service
- Prospects to improve herd profitability
- Multiple sources of data available
- Live system
- Maximise COW accuracy by;
 - Recording **MORE** data
 - Recording **ACCURATE** data
- Pilot phase of on-line service July 2017
- Commercial roll-out September pending results of pilot phase

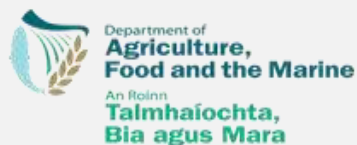


Cow's Own Worth





Our Farmer & Government Representation



Our AI & Milk Recording Organisations



Our Herdbooks



Acknowledging Our Members

Questions?

