



MUNSTER BOVINE

Collectively Improving Farm Life

Should you milk every cow?

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8th January 2020

Dairy Herdowner's Needs



Work life balance



Profit



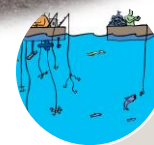
Health & Wellbeing



Protection

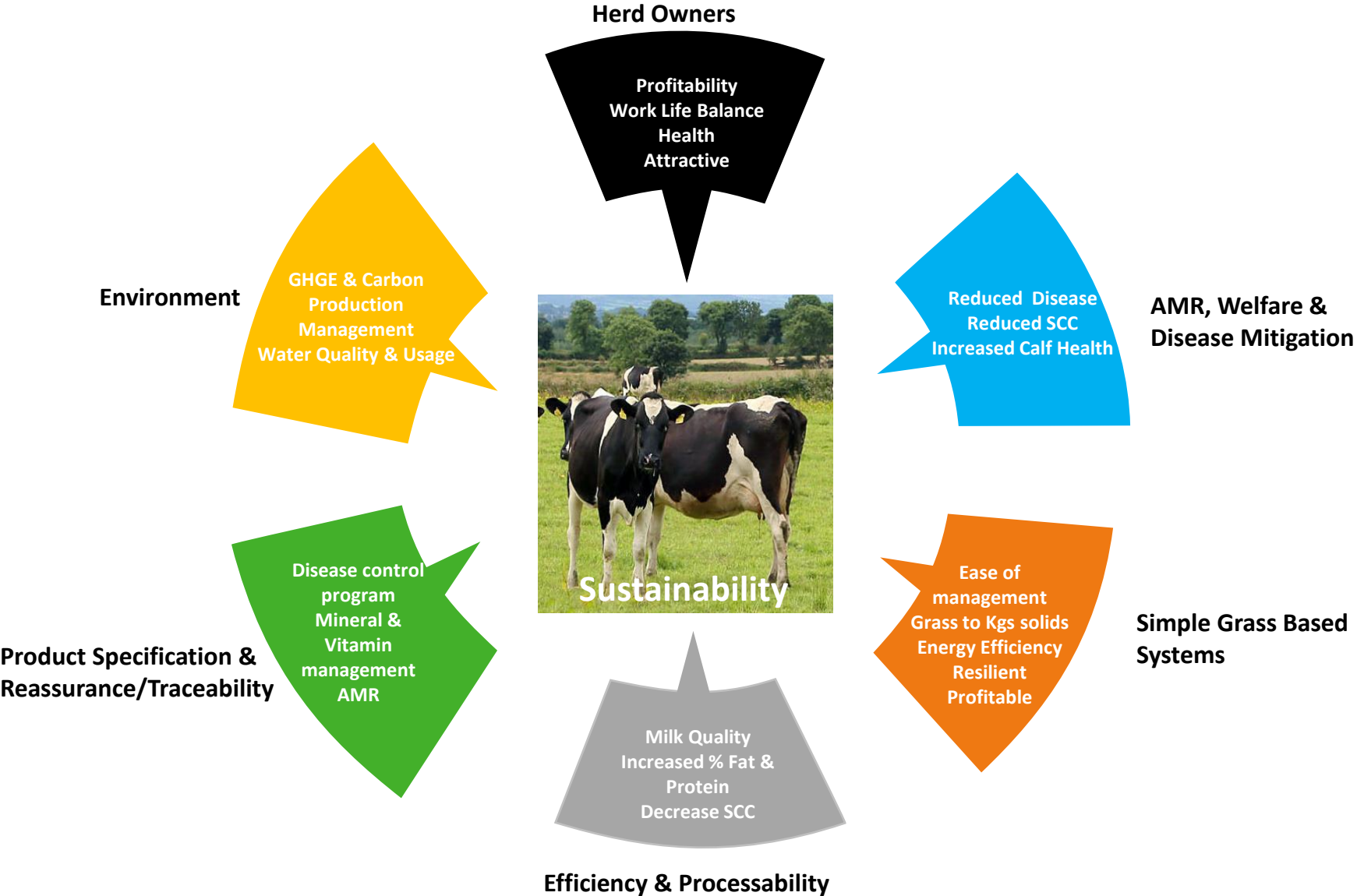


Reduced time per cow



Lean

Dairy Industry Needs



Consumer Needs

- Social licence
- Water Quality
- Nutrient Management
- Carbon Footprint
- Antimicrobial Resistance
- Animal Welfare
- Biodiversity

Ireland is ranked 3rd in the world on the UN human development Index



It takes 250 kg MS to pay for the cows upkeep in LOW COST herds

	Top 25%	Average
Gross Output/Cow	€2,342 489Kgs MS	€2,128 445Kgs MS
Total Variable Costs/Cow	€641	€674
Total Fixed Costs/Cow	€473	€514
Total Costs/Cow	€1,114 233Kgs MS	€1,188 248Kgs MS
Net Profit/Cow	€1,227 256Kgs MS	€941 197kgs MS

**If its costing €1,188 to keep the average cow in a LOW COST HERD
How much will 100 cows leave???**

	TOP 20%	TOP 40%	AVERAGE 20%	BOTTOM 40%	BOTTOM 20%
Fat & Protein (Kg/cow)	513	445	402	355	264
Milk value (€)	€2,452	€2,127	€1,921	€1,697	€1,262
Margin from milking 100 cows	€126,400	€93,900	€73,300	€50,900	€7,400

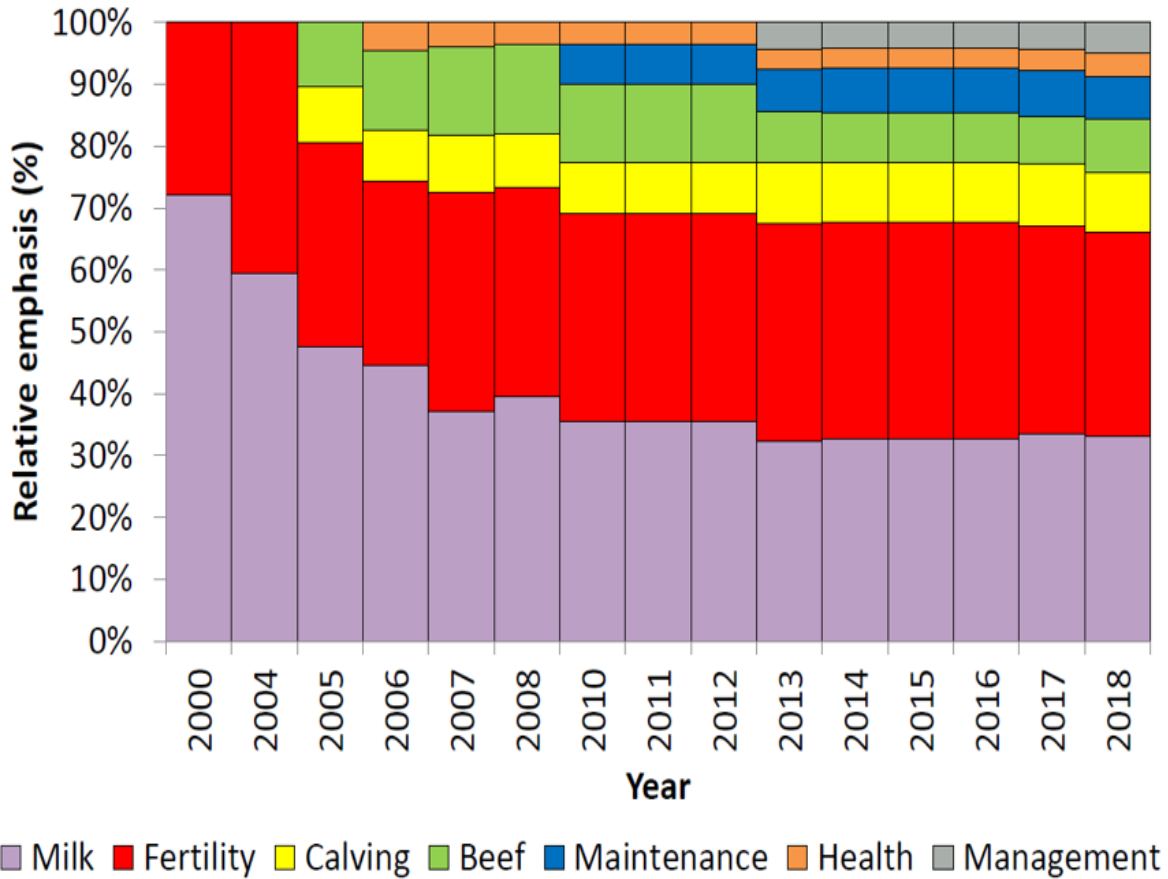
Through Culling

- Genetics/EBI
- SCC
- Poor Performers
- Johnes
- Neospora?

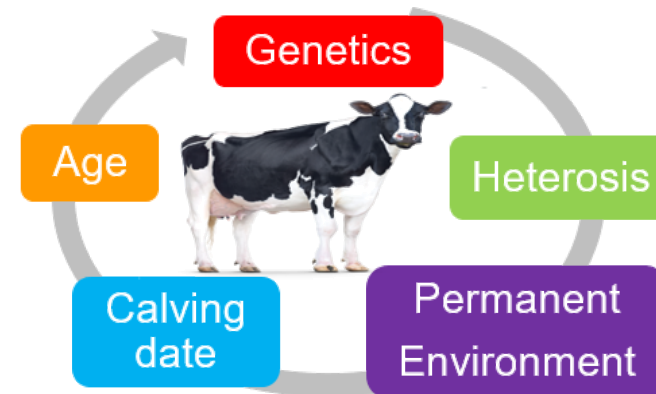
Through Managing

- Herd maturity
- Days in milk
- SCC
- Replacement heifers
- Disease
- Parasites

Culling Selection Tools - EBI & C.O.W.



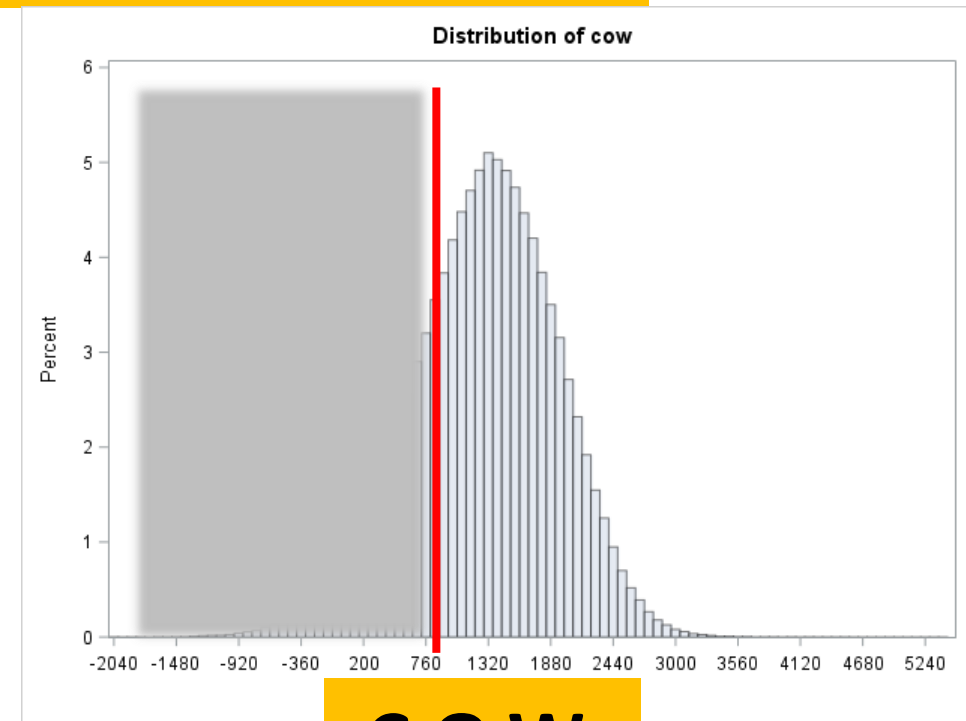
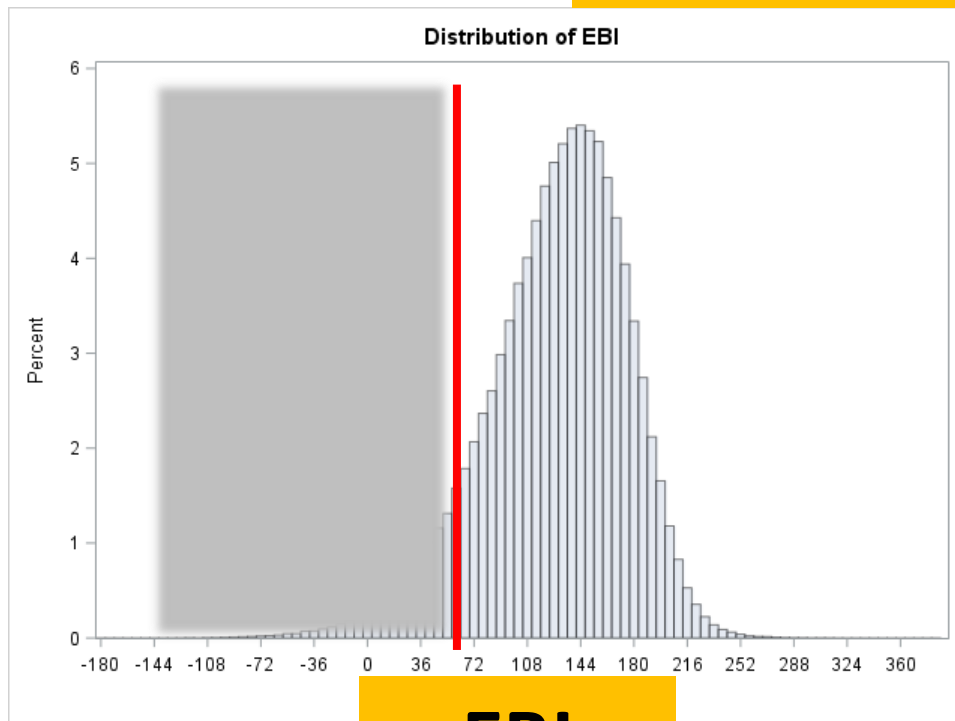
C.O.W. is a decision support tool that ranks dairy females on expected profit for the remainder of their lifetime



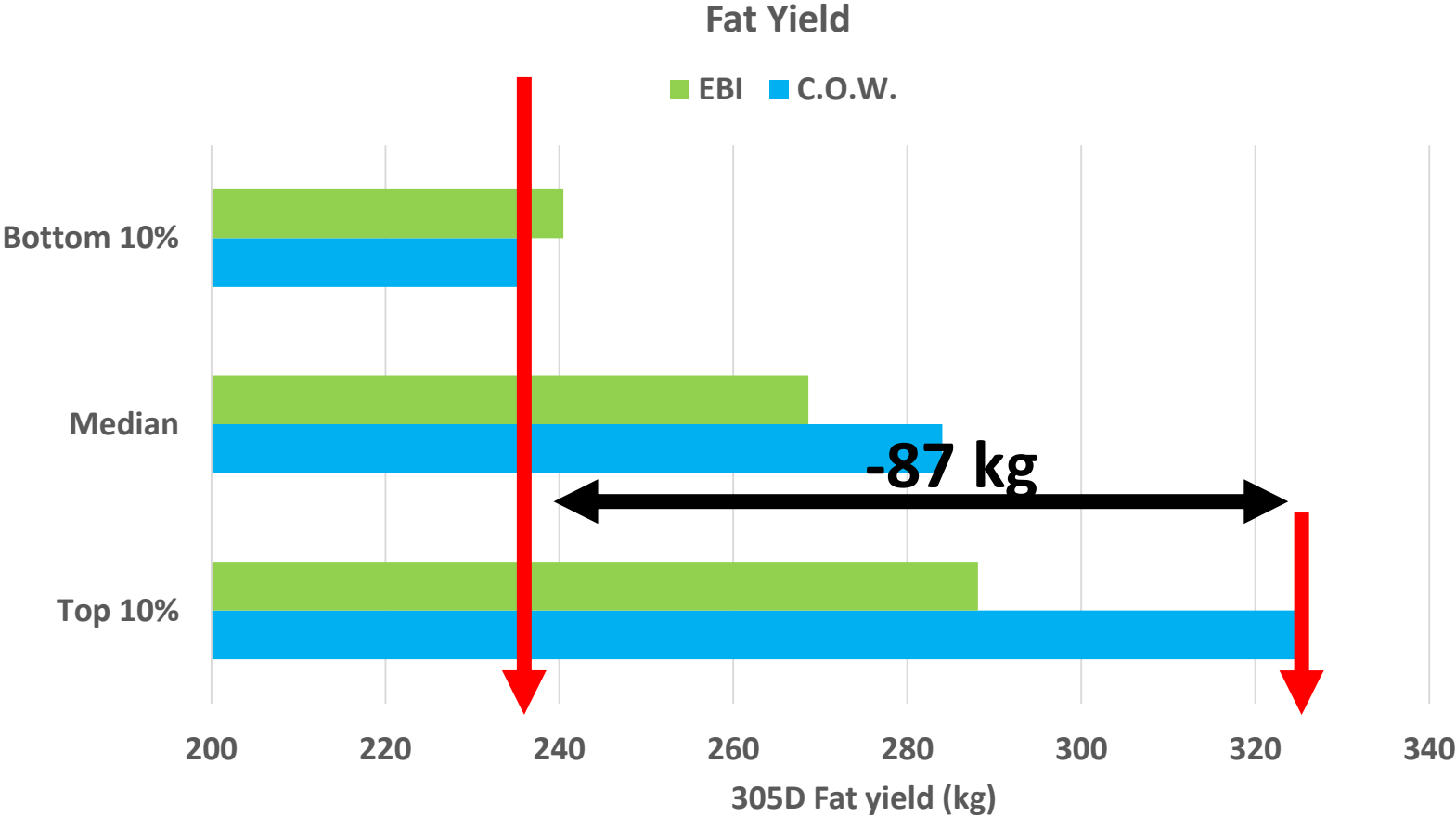
Should you milk every cow?

Variable	N	Mean	Std Dev	Minimum	Maximum
EBI	371,331	127	48	-183	386
C.O.W.	371,331	1,282	654	-2,076	5,417

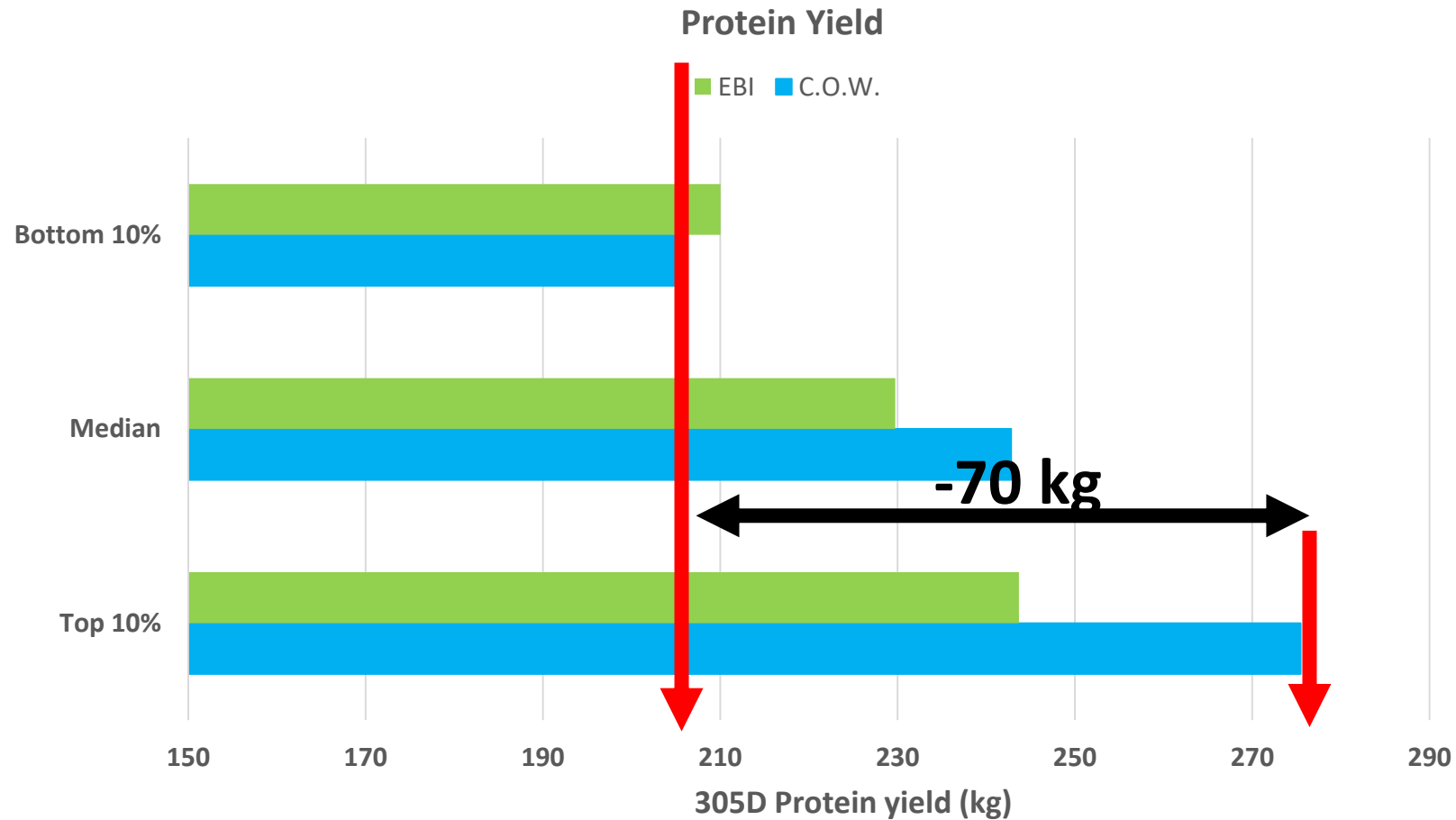
Where do you draw the line?



Analysis on herds using C.O.W. & EBI



Analysis on herds using C.O.W. & EBI



Analysis on herds using C.O.W. & EBI

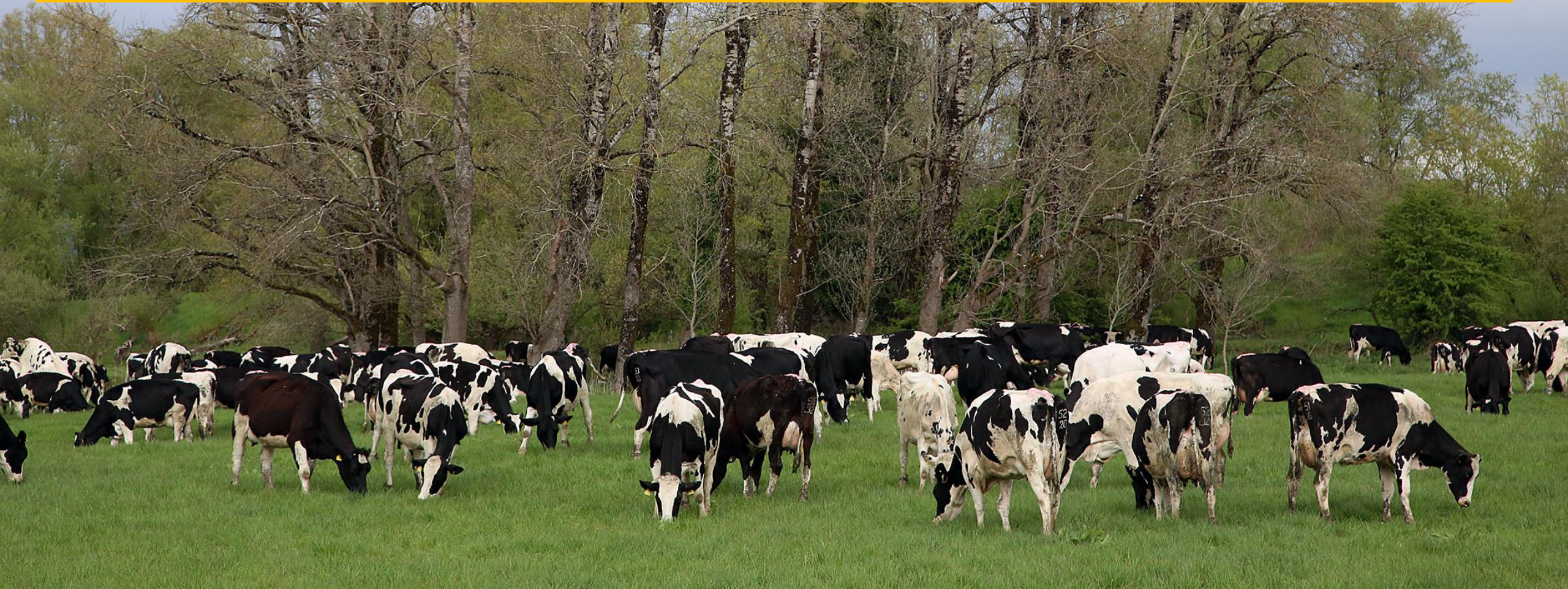
- Should I milk every cow?
- If all my cows were like the Top 10%?

Difference in milk sales €69,854

Ranked by C.O.W.	Milk (€)	Fat (€)	Protein (€)	Milk value (€)	Difference top and bottom 10%
Top 10%	-296	1,180	1,703	2,587	
Median	-268	1,033	1,501	2,266	€699
Bottom 10%	-236	858	1,267	1,889	

Chronically SCC & Johnes Infected cows – Need to be culled

Or clean cows will become infected



SCC Analysis of 1,235 milk recorded herds in dry period 2018/2019

Heifers New Infection Rate		Cows New Infection Rate		Cows Cure rate over the dry period	
Top 20%	0%	Top 20%	0% - 5%	Top 20%	100%
21-40%	0% - 8%	21-40%	5% - 9%	21-40%	95% - 81%
41-60%	8% - 14%	41-60%	9% - 13%	41-60%	80% - 71%
61-80%	15% - 25%	61-80%	13% - 18%	61-80%	71% - 57%
81-100%	25% - 100%	81-100%	19% - 100%	81-100%	57% to 14%
Median 12%		Median 10%		Median 75%	

High SCC Cows – Issues?

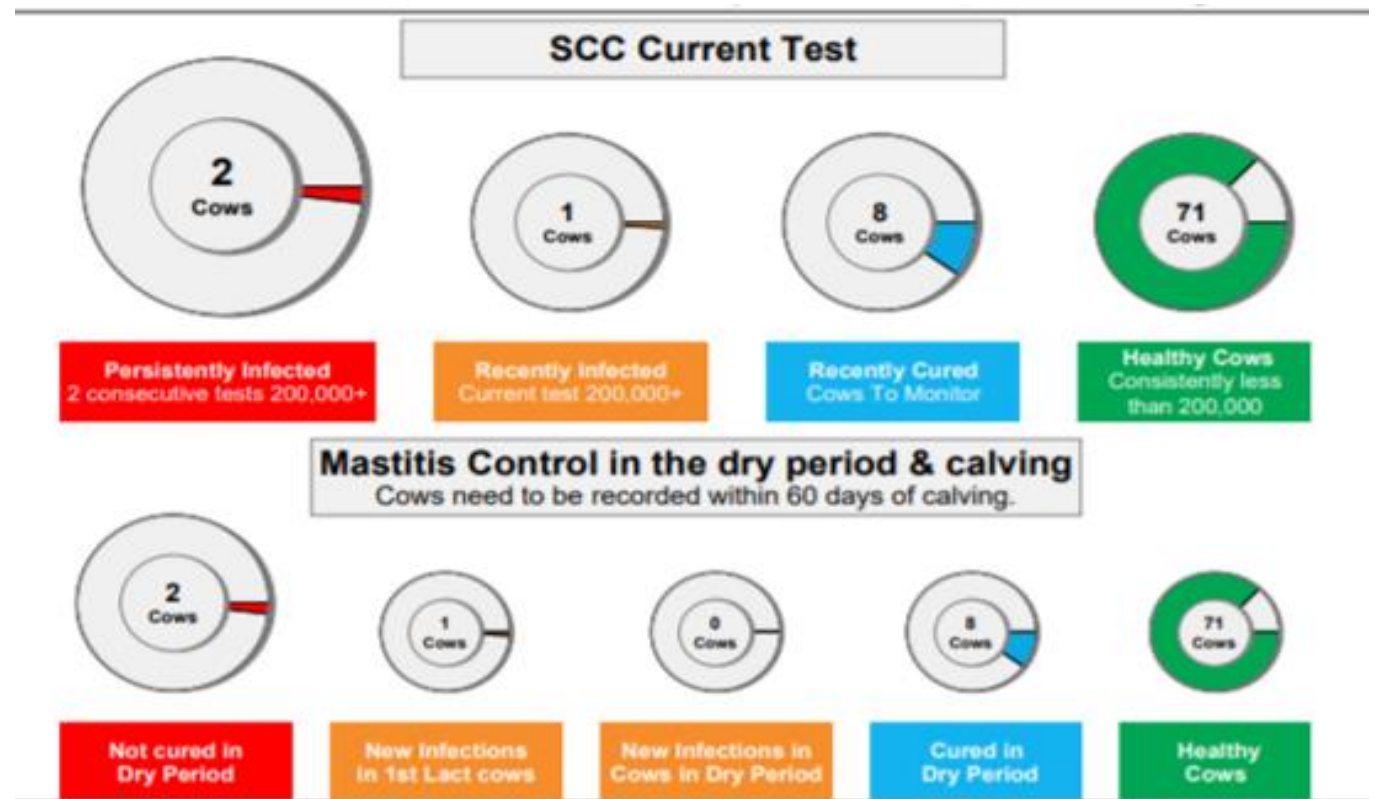
- **Infect** other clean cows - first calved heifers
- **AMR** – Increases antibiotic usage- calves ingesting waste milk
- **AMR** – Not worthy of treatment
- **Profitability** – Lower Production
- **Peace of Mind** – Antibiotics in bulk tank
- **Time** – Identification/ Treatment/Milk withdrawal
- **Interrupted** - milking routine
- **Labour**- Complications
- Work life **balance** – fear of contracting in a milker

SCC Cull or Not ?

Early Milk Recording Post Calving Crucial

- Cull if two tests >500,000 SCC and no cure in the dry period
- Treat recently infected promptly - Maximize Outcomes

Mastitis Incidence Problem - Cow Report											
MUNSTER A.I. - FARM SERVICES GROUP BALLYVORISHEEN MALLOW CO. CORK Tel: 02243228			Herd owner: _____ Herd No: _____ Scheme A6 Print date: _____ Test date: _____ Page: 1(2)								
Cow ID Cow name Sire ID	I&R-Tag	Calv. Date Age Group	Lact Days Test	Mastitis Incidence History (Current Lactation)						Prev. lact. Ave. SCC Tests > 200 Mast Treats	
				Tests > 200 Mast Treats	Latest SCC % Herd SCC Last treat	Previous SCC (*1000) herd tests Previous mastitis treatments					
				05-nov	07-oct	24-aug	14-jul	28-may	10-apr		
53	IE-1513133-7-1053	22/02/19	7	7	2251	2169	4749	2810	1290	326	298
Ballinagulla Fred Niamh		By 10m	256		18.4						3
LDU		Spring	7	1	02-mar						2
981	IE-1513133-9-0981	15/03/19	8	6	447	458	1052	464	418	341	451
Ballinagulla Spock Eileen		By 9m	235		4.4						7
AAP		Spring	6								0
257	IE-1513133-6-1257	31/01/19	5	4	407	329	393	151	248	148	314
Ballinagulla Fal Rgalt Eily		By 9m	278		3.7						6
NFT		Spring	7								1
63	IE-1513133-9-1063	09/02/19	7	5	239	1346	95	1052	277	519	112
Ballinagulla Olge Rose 1		By 9m	269		3.1						2
IE151054070990		Spring	7	1	12-feb						0
238	IE-1513133-1-1238	28/01/19	5	1	290	118	92	50	102	27	51
Ballinagulla Stan Delores		By 9m	281		2.3						0
FLT		Spring	7								0
282	IE-1513133-6-1282	25/01/19	5	1	283	170	136	42	35	57	81
Ballinagulla Dane Eileen		By 9m	264		2.2						0
LZD		Spring	7								0
140	IE-1513133-3-1140	31/01/19	6	2	221	236	117	39	70	36	27
Ballinagulla Frank Eily		By 9m	278		2						0
MJI		Spring	7								1
370	IE-1513133-2-1370	07/02/19	4	2	163	210	155	81	274	34	105
Ballinagulla Parkwhit Aine		By 9m	271		1.9						1
IE151013771567		Spring	7								0
201	IE-1513133-6-1201	18/02/19	6	3	223	335	152	115	258	71	88
Ballinagulla Martini Mandy		By 9m	260		1.7						1
IE151054081214		Spring	7	1	05-jun						0
345	IE-1513133-1-1345	13/02/19	4	3	188	609	147	580	879		54
Ballinagulla Aristotie Tina		By 9m	265		1.7						1
BOB		Spring	7	2	20-apr	05-mar					0
81	IE-1513133-2-1081	27/01/19	7	1	254	139	168	34	22	29	41
Ballinagulla Martell Eileen		By 9m	282		1.5						1
VRL		Spring	7								0
577	IE-1513133-2-1577	13/02/19	2	1	182	126	83	261	89	78	112
Ballinagulla Primo Eily		By 9m	265		1.4						0
PBM		Spring	7								0
929	IE-1513133-6-0929	04/02/19	9	1	119	164	229	52	182	28	262
Ballinagulla Hylke Moll		By 9m	274		1.3						4
TIH		Spring	7	1	18-may						1





Highest Priority Critically Controlled Antimicrobials- Intramammary Dry and Lactating Cow Tubes

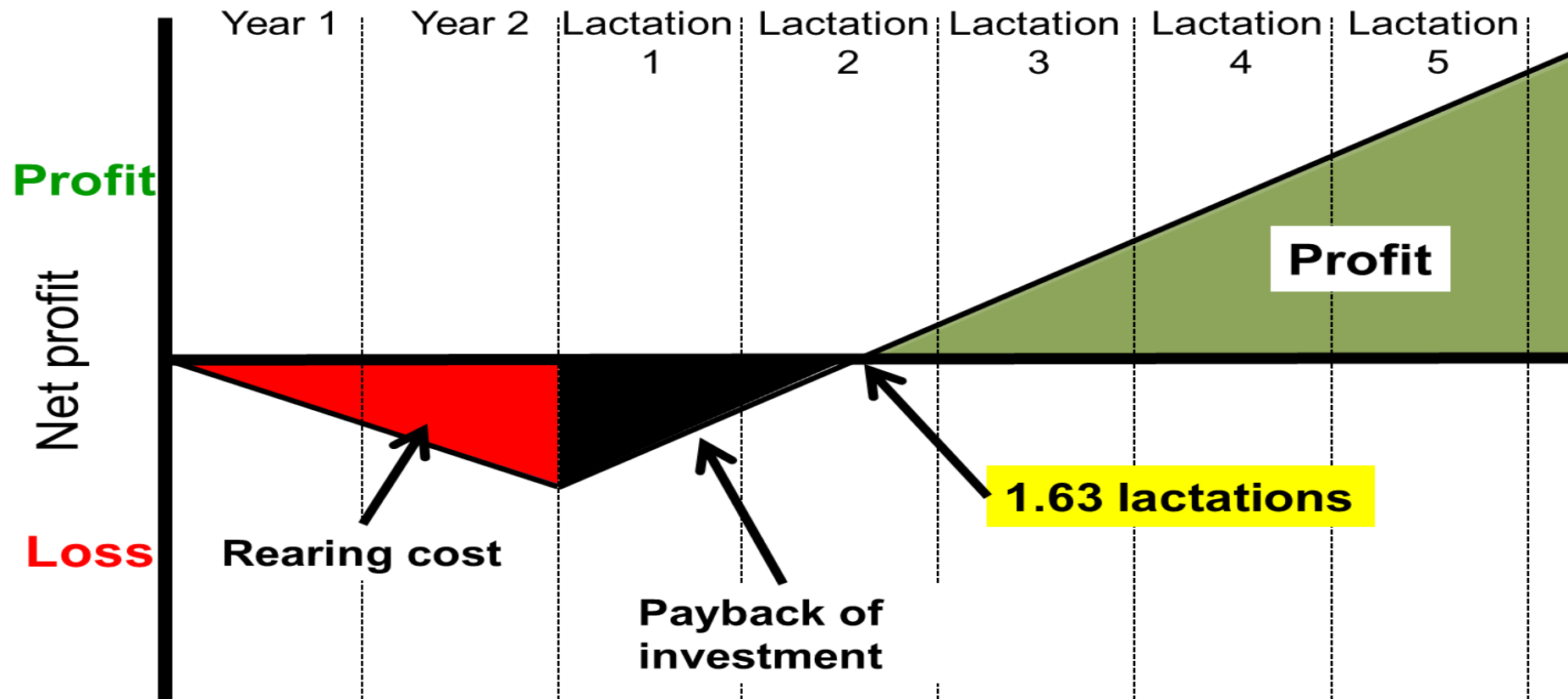
Johne's Programme

- Provide additional reassurance to the marketplace
- Reduce the level of infection in their herds, where present
- Ensure that negative herds remain clear
- Improve calf health and farm biosecurity in participating farms



Herd Maturity

- Target: 5 to 5.5 lactations/cow; 18% replacement rate
- 1st calvers have 22% less milk than 3rd lact +



Should you breed your own replacements?

Just because you reared her doesn't mean you should milk her!

- Spring Calving need high €BI maiden heifers, high health status calving at target weight in February.
- **Herd €BI**
- **Spread in €BI**
- **Spread in Calving**
- **Health Status – Johnes & Neospora**
- **Calf Rearing – Pneumonia & Scour**



Extreme differences in herds

Two herds

1. Low C.O.W. herd
2. High C.O.W. herd

Selected on comparable criteria

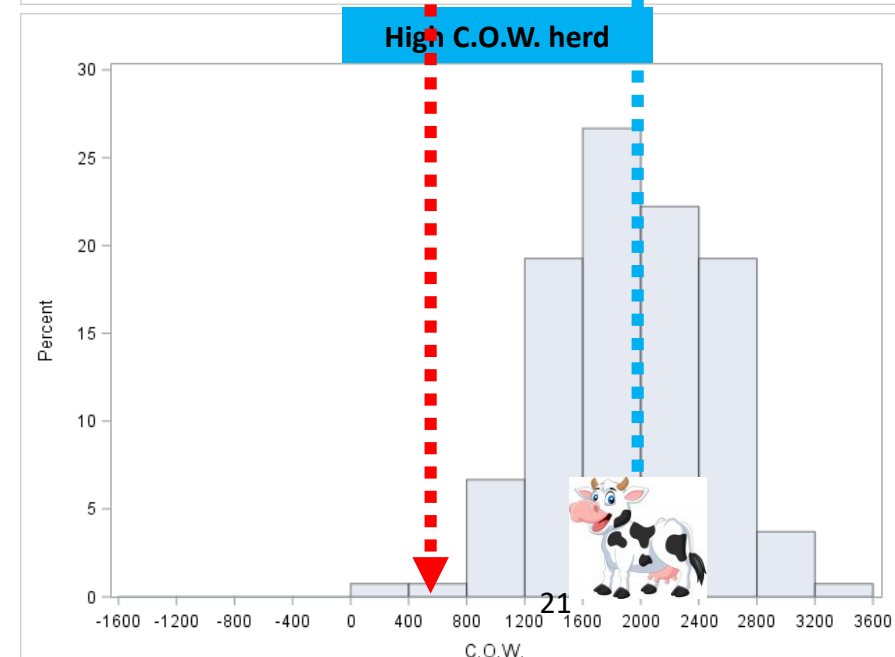
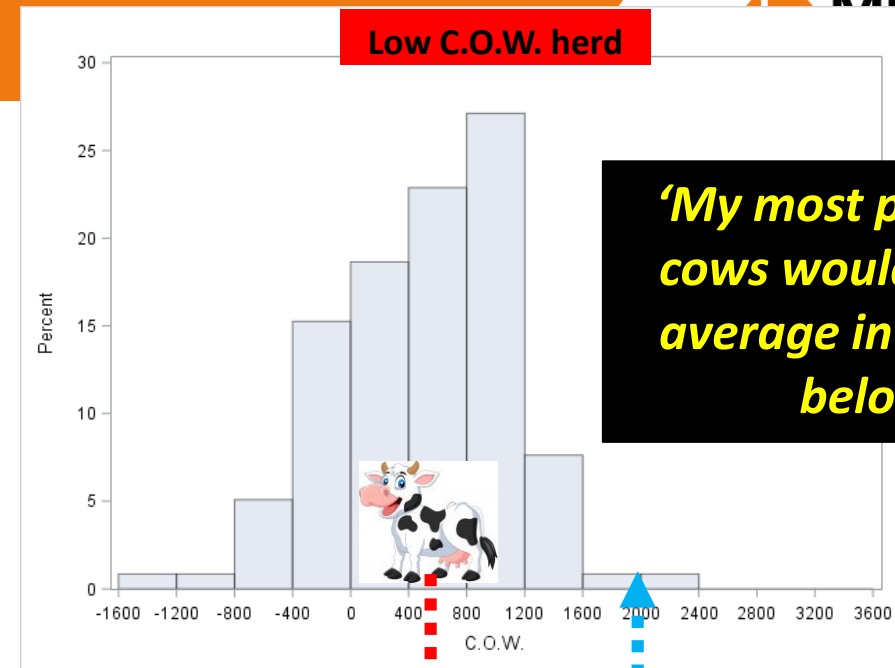
- Approximately same number of cows
 - Low C.O.W. herd = 118 cows
 - High C.O.W. herd = 135 cows
- Median spring calving date similar
- Geographically close

C.O.W. distribution of both herds

- Graphs on same scale
- Big spread/shift



= Average cow in herd



What does a herdowner need to do to decide which cows to cull? Milk recording, Ancestry, Genetics & Heifer Rearing



What does a herdowner need to do to decide which cows to cull?

1. **Milk record** – 4+ times – 1st by St. Patrick's day
2. **Johnes testing** - once annually
3. **Ancestry** – records or genomic test

Decision time for Culling - Spring & Autumn

Spring – Chronically SCC infected cows that did not cure
in the dry period

Autumn – Poor performers and Johnes positives.

Source – High €BI February-calving heifers

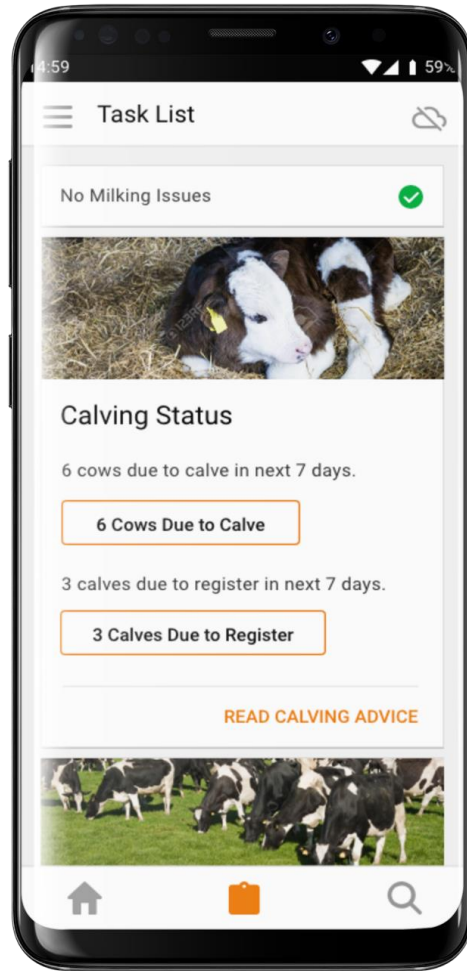


CULLING

- Profitability increased
- Profitable no longer subsidising the unprofitable cows
- Align stocking rate to grass growth
- Labour reduction
- Housing- 1 cubicle per cow
 - Intakes
 - SCC
 - Immunity
 - Production
 - Lameness



Dairy Herdowner's Needs



Work life balance



Profit



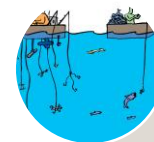
Health & Wellbeing



Protection



Reduced time per cow



Lean

Ireland is the best place in the world to be a Dairy Cow

&

Ireland is the best place in the world to be a Dairy Farmer

