



IRISH CATTLE BREEDING FEDERATION

Developments in the EBI

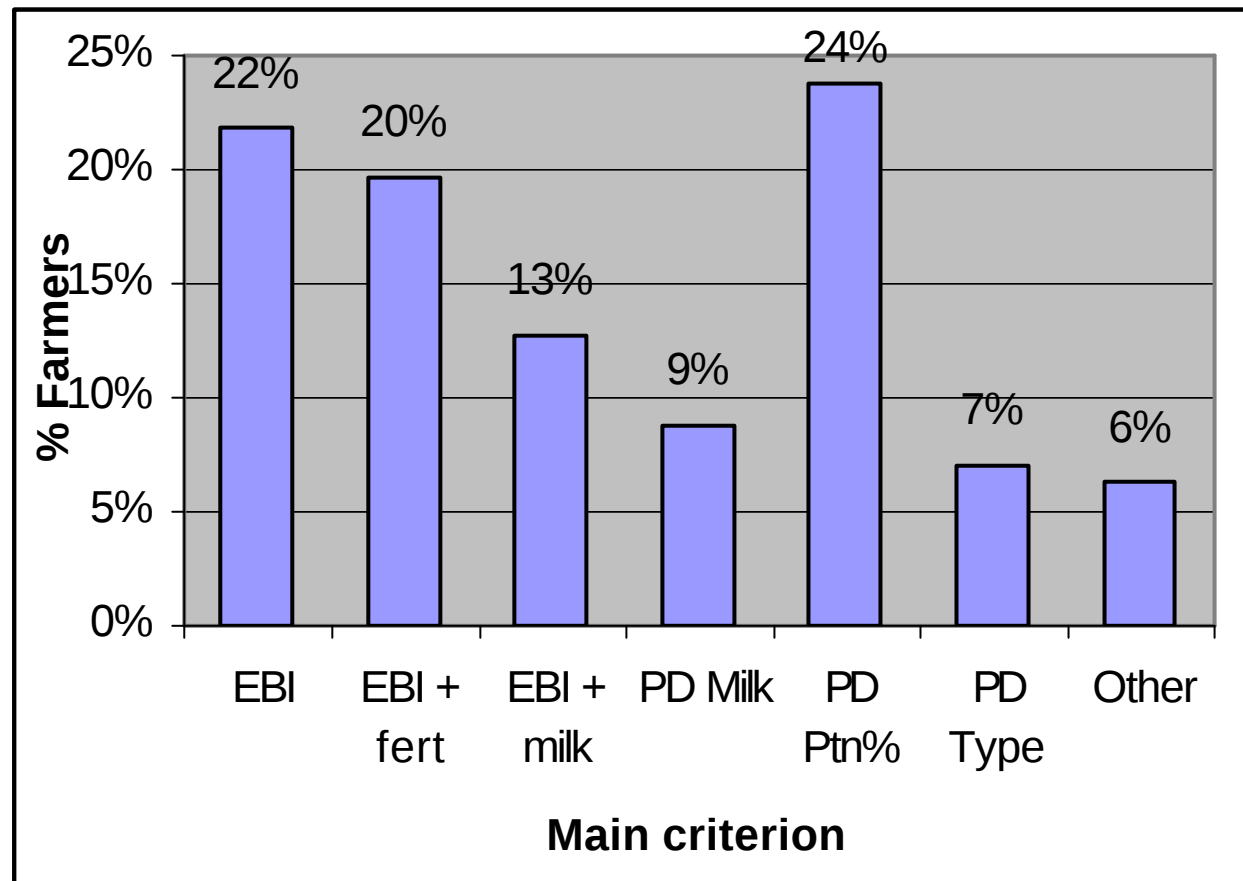
Open Dairy Farmer Meetings
January 2007.

Why EBI?

- Farmers need a tool which measures “profit” from breeding.
 - Milk output – costs of production.
- Economic Breeding Index developed in 2001 in conjunction with Teagasc.
- Based on national farm economic model.
- Identifies the main “drivers” of **future** dairy farm profit & weights accordingly.
- **Single profit figure; € profit/lactation**

Survey; EBI is No.1 Criterion

- EBI is no.1 criterion in bull selection (55% of farmers).
- 3 out of 4 farmers believe EBI is increasing their dairy farm profit.



Does EBI work?

Group	EBI	Lacts	F Kg	P Kg	F+P Kg	Diff
Top 20%	€60	4.1	1,052	922	1,973	
20-40%	€36	3.9	983	870	1,854	
40-60%	€21	3.9	975	866	1,841	
60-80%	€2	3.8	955	852	1,808	
Btm 20%	-€27	3.6	937	837	1,774	199 kg

- Analysis based on 15,503 cows that were culled to the factory in 2004.
- Top 20% of cows on EBI yielded 199 kg more milk solids (milk value = €727/cow) for 100 cows = +€7K
- **High EBI = high milk solids + long herd life.**

Updating the EBI (2007)

- Current EBI is based on (a+b)-c system of milk payment since 2001
- Until now model assumed quota was the main limiting factor to milk production
- Quota eliminated in next 5 years therefore need to change EBI now to reflect this
- Updated EBI assumes land will be the limiting factor to production post quota
- Update costs of production (e.g cost of infertility, vet, land rental etc) and milk price

Updating the EBI (2007)

- Important to update EBI regularly.
- Main changes in 2007.
- Increased value of protein
- Increased costs of infertility (when land is limiting).

Sub-Index	Trait	Old EBI		New EBI	
		EV's	Emph	EV's	Emph
Milk	Protein kg	€5.27	25%	€5.36	24%
	Fat kg	€1.55	9%	€0.96	5%
	Milk kg	-€0.085	14%	-€0.085	13%
Fertility	Survival (%)	€10.80	14%	€10.51	13%
	CI Days	-€7.17	17%	-€10.87	24%
Calving	Maternal calving	-€1.73	1%	-€1.28	1%
	Direct calving	-€3.26	3%	-€3.26	3%
	Direct gestation	-€4.47	3%	-€6.86	3%
	Calf mortality	-€2.58	1%	-€2.85	1%
Beef	Cow carcass weight	€0.04	0.2%	€0.04	0.2%
	Carcass weight	€1.40	4%	€1.40	4%
	Carcass conformation	€5.99	2%	€10.32	2%
	Carcass fat score	-€4.49	2%	-€11.71	2%
Health	Locomotion	€1.13	0.4%	€1.13	0.4%
	SCC	-€55.48	5%	-€55.48	5%

Why is fertility so important?

- Most profitable cow;
 - Calve on time (e.g., 14th Feb)
 - Produce high quality milk for 300 days.
- Two factors affecting fertility;
 - Later calving; cheap grass being displaced by silage & concentrates (profit reduces).
 - Land limiting; longer calving interval = less cows resulting in less milk produced & less sales (profit reduces).

Proofs for other dairy breeds

- AI bulls
 - HO, FR & MO (Active bull list @ 52% rel).
 - JE, RBT, NR & others (Active Bull list @ 70%rel)
 - All AI bulls will appear on ICBF website.
- Cows
 - All breeds & cross-breeds.
 - Appear on EBI reports.

Top Active Bulls (Nov06)

SIRE DETAILS			EBI Details								
Code	Name	Brd	EBI	Rel	Dau	Hrd	Milk	Fert	Calv	Beef	Heal
RUU	RUUD	HO	€176	78	87	59	€43	€84	€34	€10	€3
TIH	TITTENSER HYLKE	FR	€135	84	151	85	€26	€101	€17	-€9	€1
OJI	O-BEE MANFRED JUSTICE	HO	€132	58	-	-	€64	€33	€39	-€11	€6
ILZ	ILIZAC	MO	€128	85	282	127	€17	€86	-€5	€27	€2
HKU	HAIKU	MO	€126	77	120	45	€1	€104	-€16	€31	€7
WAS	WILLAND ADS SAMUAL	JE	€124	82	467	51	€74	€86	€21	-€55	-€1
HFL	HEDRA FESTIVAL	HO	€123	92	481	186	€50	€45	€34	-€3	-€3
NDI	NOORDER DUSTIN	HO	€116	79	-	-	€45	€25	€33	€11	€2
HNN	HANSEN	HO	€110	81	195	101	€53	€53	€9	-€3	-€1
DCA	DOVEA CAESER ET	FR	€110	76	94	44	€8	€102	€11	-€6	-€6
BCG	BLACKISLE GLENALBYN	FR	€108	72	-	-	€21	€59	€21	€0	€7
DEU	DONEEN MARLEEN HUC	HO	€106	68	107	88	€58	€50	€10	-€11	-€1
RDU	RUUD 96	HO	€104	63	56	37	€59	€18	€33	-€4	-€2
UYC	COLLINS ROYAL HUGO	FR	€103	97	3500	423	€64	€44	€21	-€20	-€5
MHI	MOHAIR	MO	€102	52	-	-	€27	€72	-€27	€30	€0
KBA	KATSHAAR BRENDAN	HO	€101	83	1265	525	€34	€39	€18	€16	-€6

Other developments (2007)

Traits	Developments for 2007
Milk	International evaluations for other dairy breeds (e.g. Jersey, NR)
Fertility	International evaluations for fertility AI handheld data (male and female fertility)
Calving	International evaluations for calving difficulty
Beef	Grange trial on HO v FR performance
Health	On farm lameness data from animal events & FRS On farm mastitis data from animal events
Type	Definition of overall type & relationship to other traits Linear type for other breeds

Key Messages

- Key developments for 2007
 - Increased emphasis on fertility.
 - EBI's for all dairy breeds.
 - Further improvements in line for 2007.
- Use EBI and sub-indexes as number one criterion when selecting bulls.
- **EBI will increase dairy profit.**