Presentation of EBVs

Freddy Fikse

Elisenda Rius-Vilarrasa, Lisa Hein, Kevin Byskov, Jukka Pösö, Kaisa Sirkko, Gert Pedersen Aamand



NAV webinar 19 January 2018



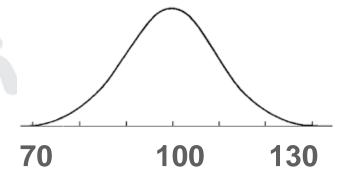
Presentation of Breeding Values

Principle

Mean: 100

 Standard deviation: 10

For individual traits







Genetic base: which animals

- Animals in the base population:
 - Males and females
 - Birth year: 5 9 years at publication
 - At least one observation in the trait group or at least 5 offspring with at least one observation in the trait group



Genetic base: updating frequency

- **Modified?**
 - **Updated every evaluation** Mean:
 - Standard deviation: Fixed





Genetic base: Mean NAV proposal + current practice in DFS

	NAV	DNK	FIN	SWE
Sex	Males & females	Males & females	Males & females	Males & females
Age (at publication)	5 – 9	5 – 7	2-7	5 – 9
Information	At least one observation for the trait group or At least 5 offspring with at least one observation	No restriction	At least one observation for the trait group	Observation for birth weight or At least 5 offspring with observation for birth weight



Genetic base: Standard deviation NAV proposal + current practice in DFS

	NAV	DNK	FIN	SWE
Sex	Males & females	Males & females	Males & females	Males & females
Age (at publication)	5 – 9	5 – 7	2 – 7	5 – 9 (at establishment)
Information	At least one observation for the trait group or At least 5 offspring with at least one observation	Reliability at least 20%	At least one observation for the trait group	Observation for birth weight or At least 5 offspring with observation for birth weight
Updated	no	Once a year	Every evaluation	no



Recalibrate viewing EBVs

An EBV of 110 in the NAV evaluation is not the same as 110 in the current national evaluation

- Difference in mean (which animals have 100)
- Difference in SD (being 10 units better than average





Composition of Genetic base Hereford

Country	Birth Weight	Weaning Weight Gain	Yearling Weight	Post Weaning Gain	Carcass traits
DNK	12,097	3,469	2,765	0	26,414
FIN	14,453	10,302	0	6,926	24,331
SWE	12,868	10,097	0	7,663	2,242





Composition of Genetic base Charolais

Country	Birth Weight	Weaning Weight Gain		Post Weaning Gain	Carcass traits
DNK	7,253	1,510	1,618	0	12,862
FIN	14,067	8,968	0	5,089	18,761
SWE	21,164	14,253	0	11,563	7,472





Means by country Hereford

Trait	DNK	FIN	SWE
Birth weight, maternal	94.8	104.7	108.9
Birth weight, direct	103.1	96.6	101.6
Weaning weight gain, maternal	98.6	99.3	109.9
Weaning weight gain, direct	99.8	99.7	104.7
Slaughter daily gain	99.1	99.5	107.7
Carcass conformation	105.7	94.7	97.9
Carcass fat	97.4	104.1	101.6





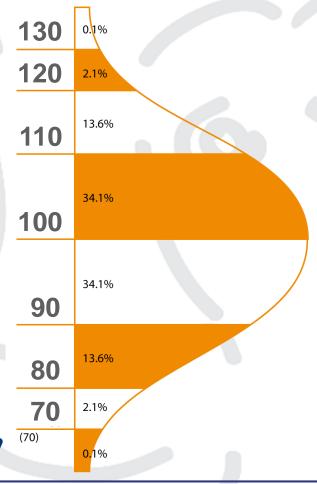
Means by country Charolais

Trait	DNK	FIN	SWE
Birth weight, maternal	93.7	100.2	106.8
Birth weight, direct	105.4	96.4	101.1
Weaning weight gain, maternal	93.5	100.5	106.7
Weaning weight gain, direct	95.7	97.6	108.2
Slaughter daily gain	96.5	97.2	108.0
Carcass conformation	107.7	98.5	96.6
Carcass fat	95.1	104.1	100.8





Distribution of breeding values





NAV

Consequence of new genetic base

Pct Swedish Charolais animals with EBV > 120

Weaning weight gain, maternal

 NAV: 7.5%

SWE national: 2.8%

Slaughter daily gain

NAV: 6.6%

SWE national: 5.2%





THANK YOU – QUESTIONS?



