



Interbeef an update

Gert Pedersen Aamand, NAV

NAV

 Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

1



Beef cattle genomic prediction worldwide (might not be complete)

Limousine – France
Charolais – France
Blonde AQ – France
Simmental – Germany
Blue Cattle – Belgium
Angus/Hereford – USA/CAN/AUS
Across beef breeds – Ireland



NAV

 Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

2



Beef genomic prediction

Today

- GEBVs for DFS animals are bought by Nordic beef breeders in e.g., FRA for LIM and CHA
- GEBVs expressed on France scale and only France data included

Interbeef

- Include pedigree, phenotypes and genotypes from all Interbeef countries
- GEBVs for all DFS animals with or without a genotype expressed on a DFS scale
- Largest value (increase in reliability) is for young animals having no phenotypes, but a genotype

NAV

 Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

3



Interbeef - today

Countries:

Australia, Czech Republic, DFS (Denmark, Finland and Sweden), Estonia, France, Germany, Great Britain, Ireland, Italy, Latvia, Slovenia, South Africa, and Switzerland.

Breeds:

Aberdeen Angus, Charolais, Hereford, Limousin and Simmental.

Traits:

Adjusted Weaning Weight (AWW), Birth Weight (BWT) and Calving Ease (CAE) direct and maternal effects, carcass

Models:

Traditional models using pedigree and phenotypes

NAV

 Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

4

Interbeef - future



Countries:

Australia, Czech Republic, DFS (Denmark, Finland and Sweden), Estonia, France, Germany, Great Britain, Ireland, Italy, Latvia, Slovenia, South Africa, Switzerland, **more countries.**

Breeds:

Aberdeen Angus, Charolais, Hereford, Limousin, Simmental, **more breeds.**

Traits:

Adjusted Weaning Weight (AWW), Birth Weight (BWT) and Calving Ease (CAE) direct and maternal effects, carcass, **more traits (fertility)**

Models:

Single step models using pedigree, **genotypes** and phenotypes



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

5

The genomic prediction "pot" ingredients – genotypes, phenotypes, and pedigree



DFS
single
breeds



Interbeef
incl FRA,
IRL, DFS



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

6

Interbeef

- Potential
 - Could substitute national/Nordic genetic evaluation – more data more reliable EBVs
- Weak points
 - All relevant traits are not evaluated
 - Interbeef model are not multitrait models
 - Current model is a traditional model and no political agreement to move to genomic prediction

NAV

Interbeef is at a Cross Road



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation



7

Interbeef – genomic prediction?

- Business model
 - Not an easy task
 - Many different country views
 - A fair balance should be found but it seems very difficult....
 - Interbeef is at a crucial Cross Road



NAV



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation



8