Indication of optimum for type traits at the search page

NAV workshop

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Today

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Principle

- **Dots reflects optimal EBV which moves the** *average* **offspring from breed average to breed optimum.**

  …meaning than dots depend on <u>breed optimum AND breed average</u>.

- **Breed associations are responsible for breed optimum and weights.**

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Principle - continued

- **Breed average are kept constant.**

  …meaning that in practice that optimum is e.g., always a HOL cow that should be 1.8 cm higher.

Stature	RDC		HOL		JER	
	Actual avg.	Original avg.	Actual avg.	Original avg.	Actual avg.	Original avg.
Average	142.0	139.2	149.0	146.2	129.5	125.9
optimum	142.0		148.0		129.0	

We pretend to:
Bull with optimum EBV = 146.2+(148-146.2)*2 = 149.8
We actually do:
Bull with optimum EBV = 149.0+(148.0-146.2)*2 = 152.6
We would like to do:
Bull with optimum EBV = 149.0+(148.0-149.0)*2 = 147.0

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Why are breed averages constant?

- **Breed averages are kept constant to avoid that changes in use of classifier scale affects distance to optimum.**
  - **E.g. some years ago scale of rear udder height was changed towards lower values.**
- **…downside is that we do not account for genetic trend**

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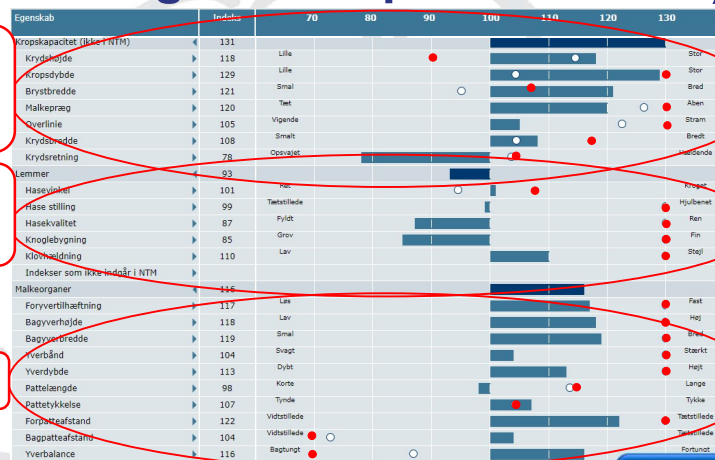Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

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When breed average is updated… (assuming breed optimum is OK)

HOL & RDC have technical optimum – no/limited effect

JER significant effect

HOL change for rlr

JER & RDC limited effect

HOL, RDC & JER limited effect

Egenskab	Indeks	70	80	90	100	110	120	130
Kropskapacitet (ikke i NTM)	131							Stor
Krydshøjde	118	Lille						Stor
Kropsdybde	129	Lille						Stor
Brystbredde	121	Smal						Bred
Malkepræg	120	Tæt						Åben
Overlinie	105	Vigende						Stram
Krydsbredde	108	Smalt						Bredt
Krydsretning	78	Opsvajet						Nedadendе
Lemmer	93							
Hasevinkel	101	Ret						Krøget
Hase stilling	99	Tætstillede						Hjulbenet
Hasekvalitet	87	Fyldt						Ren
Knoglebygning	85	Grov						Fin
Klovhældning	110	Lav						Stejl
Indekser som ikke indgår i NTM								
Malkeorganer	116							
Forvertilhæftning	117	Løs						Fast
Bagyverhøjde	118	Lav						Høj
Bagyverbredde	119	Smal						Bred
Yverbånd	104	Svagt						Stærkt
Yverdybde	113	Dybt						Højt
Pattelængde	98	Korte						Lange
Pattetykkelse	107	Tynde						Tykke
Forpatteafstand	122	Vidtstillede						Tætstillede
Bagpatteafstand	104	Vidtstillede						Tætstillede
Yverbalance	116	Bagtungt						Fortungt

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Sorry it is in Danish…

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Next step

- **Breed organizations need to re-visit optimum (and weights) under current usage of classifier scale.**
  - **If these are OK breed average can be changed**
  - **Otherwise breed average can be changed when optimum and weights are updated**

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