Development of linear profiling in the Holsteiner horse - Practical experience -

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**3rd International workshop on linear profiling in the Warmblood Horse
on 24th February 2016 in Marbach / Germany**

Holstein linear system
DEVELOPMENT

- **Since 2010:** linear profiling of <u>foals</u> using an assessment sheet

- **2014: Pilot study:** linear profiling of <u>mares</u> at the studbook registration and mare performance test in Schleswig-Holstein using

- **2015: Pilot study:** linear profiling of <u>young stallions</u> at the preselection for licensing

- **2015:** Start of the project "Implementation of new sustainable strategies to promote equine health" within the EU-funding program "European innovation partnership" (EIP)
  → One part of the project is the extension of linear profiling

Holstein linear system
DEVELOPMENT

Linear profiling of FOALS

Since 2010:

- linear profiling using an assessment sheet
- every trait in the scheme will be judged ("trait by trait")
- only offspring of young or outcross stallions
- extending the trait scheme in consultation with the judges (adding of new traits etc.; from 10 to 22 traits)

Since 2016:

- linear profiling of all presented foals
- only striking traits will be recorded
- using a tablet PC for data collection
- personal documentation support (young breeders)

Holstein linear system
DEVELOPMENT

Linear profiling of MARES

Since 2014:

- linear profiling of mares at the studbook registration and mare performance test in Schleswig-Holstein
- using the mobile system of the Oldenburger Verband with an adapted trait scheme or using an assessment sheet
- number of traits: 25 conformation traits
  - 38 performance traits
  - 36 performance traits for movement under rider
- Since 2016: only striking traits will be recorded (time saving)

Holstein linear system
DEVELOPMENT

Linear profiling of YOUNG STALLIONS

Since 2015:

- linear profiling of young stallions at the preselection for licensing

- the same number of traits as the mares

- different approach of assessment: division of the trait complexes among the four judges (aim: to relieve the judges and to increase the precision of linear profiling)
    - → 1. judge: free jumping
    - → 2. judge: type, topline, trot
    - → 3. judge: forelimbs, walk
    - → 4. judge: hindlimbs, canter, correctness (movement), behaviour

Holstein linear system
PRACTICAL EXPERIENCES

Year	Foals	Mares		Stallions
	registration	studbook registration	performance test	preselection
2010	419			
2011	482			
2012	706			
2013	657			
2014	612	310	74	
2015	508	383	129	213
2016	1.768	325	180	184
	5.152	**1.018**	**383**	**397**

Holstein linear system
PRACTICAL EXPERIENCES

1. Regular judge training is necessary
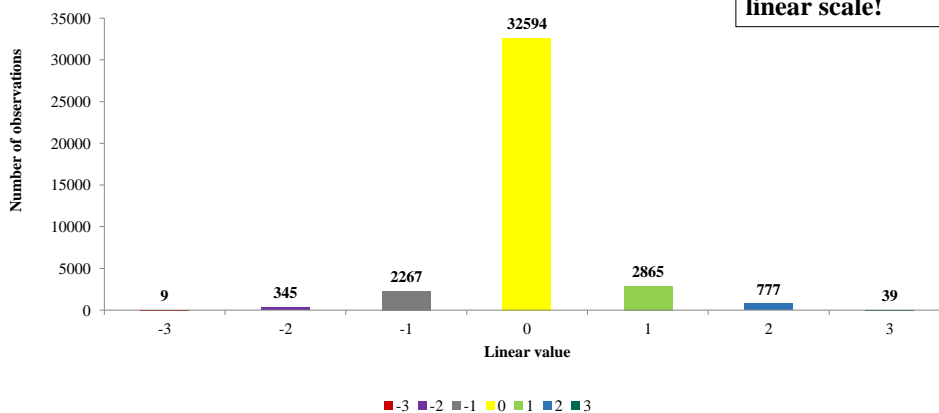
➡️   to improve the data quality!

- Knowledge of the trait scheme

- Comparability in linear profiling between the judges (avoidance of preferences)

- Using of the full linear scale (-3 to +3)

- Agreement between the linear profil and the value notes → value notes will be maintained (value notes: foals: type and gait; mares/stallions: type, topline, forelimb, hindlimb, walk, trot, canter)
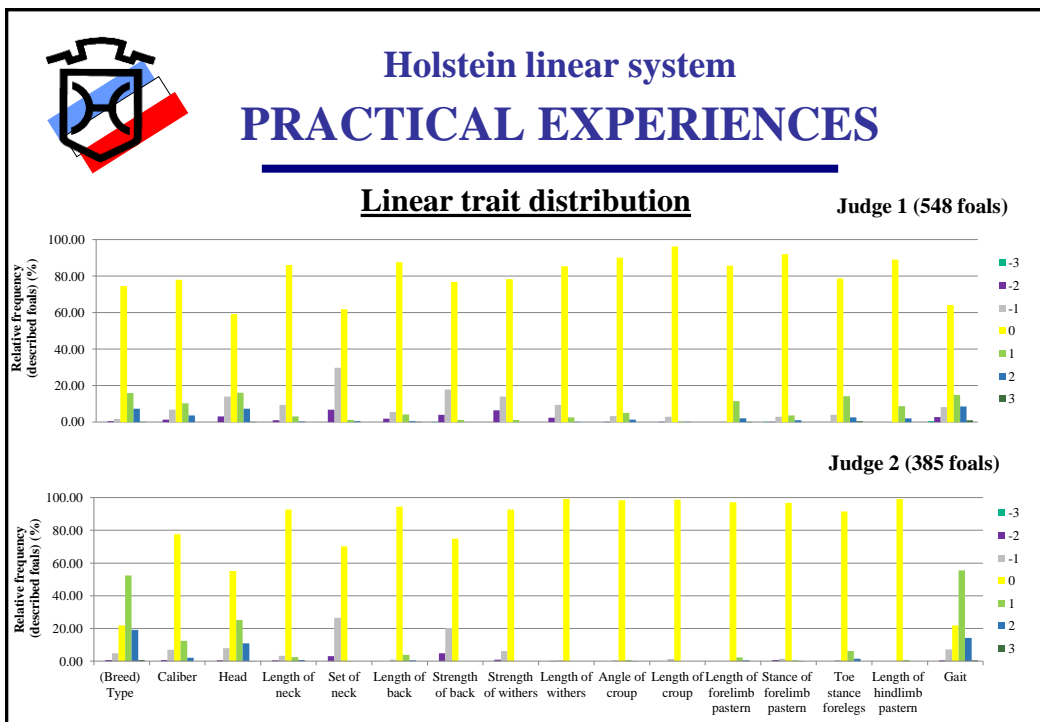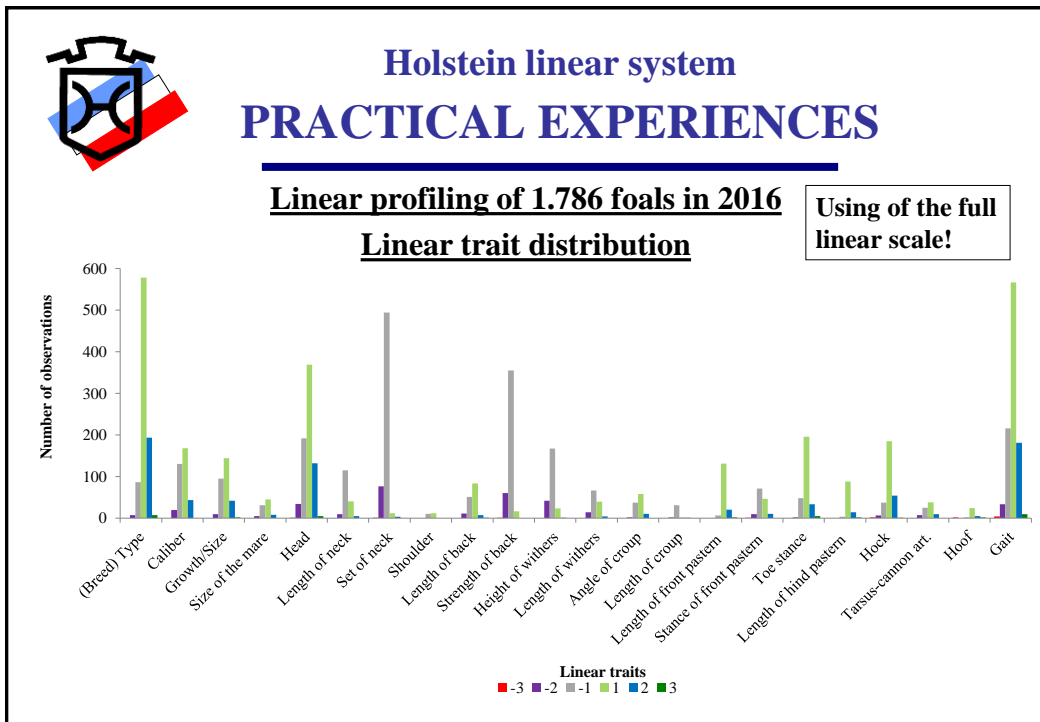

Holstein linear system
PRACTICAL EXPERIENCES

Linear profiling of 1.786 foals in 2016
Linear trait distribution

Using of the full linear scale!

Holstein linear system
PRACTICAL EXPERIENCES

Linear profiling of 1.786 foals in 2016
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Holstein linear system
PRACTICAL EXPERIENCES

Linear trait distribution

Judge 1 (548 foals)

Judge 2 (385 foals)

Holstein linear system
PRACTICAL EXPERIENCES

Linear profil of a foal

Agreement between the linear profil and the value notes?

Lebensnummer: DE 421000054715
Stutfohlen   07.05.2015   Typ: 7   Gang: 8

Vater: Clarcon   DE 421000116110
Mutter: Ascona II   DE 421000369508

Züchter:

		-3	-2	-1	1	2	3	
(Rasse-)Typ	wenig				■	■		typvoll
Halslänge	kurz				■			lang
Schulter	steil/kurz				■			schräg/lang
Gang	fest/gebunden				■	■		elastisch/taktmäßig

Holstein linear system
PRACTICAL EXPERIENCES

Linear profil of a foal

Agreement between the linear profil and the value notes?

Lebensnummer: DE 421000070115
Stutfohlen   26.05.2015   Typ: 7   Gang: 8

Vater: Adagio deTalm   25000110317581M
Mutter: Sefra   DE 421000114302

Züchter:

		-3	-2	-1	1	2	3	
(Rasse-)Typ	wenig			■				typvoll
Wuchs/Größe	klein				■			groß
Halsansatz	tief				■			hoch
Widerristlänge	kurz				■			lang
Kruppenneigung	flach/gerade			■				abfallend
Sprunggelenk	gerade/steil				■			starker Winkel
Gang	fest/gebunden				■	■		elastisch/taktmäßig

Holstein linear system

PRACTICAL EXPERIENCES

2. Personal assistance for the judges

- On-site support of the judges
- Operating of the Tablet-PC by the assistance (searching for the foal dataset and entry of linear data)

Advantages:
- The judge can focus exclusively on linear profiling
- Substantial time saving (can start directly with linear profiling)

Support by the young breeders:
- Training for the young breeders
- Time problem of students in July (overlapping with examinations)

Thank you!