



Field applications of tools for the linear description in the Franches-Montagnes horse breed

Julie Perey

8th IWSLP | 14 - 15 April 2026



The Franches-Montagnes breed

- Last remaining native Swiss horse breed, praised as an allrounder with an excellent character
- Breeding goal has shifted from a draught horse used in agriculture to a lighter type for mostly leisure riding and driving
- Multiple crossbreeding events in the past have shaped the FM of today, breeding population closed since 1998
- Facing challenges such as inbreeding and loss of genetic diversity, declining birth rate (~1700 births in 2025)





Linear description in the FM horse

- Linear description (LD) done at the age of three during the «field test» or in case of breeding stallions during their licensing exam
- 25 characteristics evaluated in the LD regarding morphology and gaits, used to calculate breeding values



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DESCRIPTION LINEAIRE POUR CHEVAUX FM
LINEARE BESCHREIBUNG FÜR FM - PFERDE

Barcode Etiquette

N° start:



Lieu / Ort: _____ Signature du juge/Unterschrift der Richter: _____
 N°-ID / ID-Nr: _____ Père / Vater: _____ Date / Datum: _____
 Nom / Name: _____ m. f./w. FM MT

Impr. générale / ges. Erscheinung : _____ Conformation / Körperbau: _____ Allures / Gänge: _____ H. au garrot / Stockmass : _____

		extrem	1	2	3	4	5	6	7	8	9	extrem	Défauts / Mängel	
1. Tête / Kopf	lourde schwer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	légère leicht	<input type="checkbox"/>	
2. Ganache Ganaschen	pleine voll	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	libre frei		
3. Long. de l'encolure Halslänge	courte kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	longue lang	<input type="checkbox"/>	
4. Attache de l'encolure Halsaufsatz	basse tief	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	haute hoch	<input type="checkbox"/>	
5. Musculation de l'enc. Halsmuskulatur	peu wenig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	massive schwer		
6. Hauteur du garrot Widerristhöhe	plat flach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	haut hoch		
7. Longueur du garrot Widerristlänge	court kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	long lang	<input type="checkbox"/>	
8. Longueur de l'épaule Schulterlänge	courte kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	longue lang		
9. Incl. de l'épaule Schulterneigung	droite steil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inclinée schräg		
10. Longueur du dos Rückenlänge	court kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	long lang		
11. Ligne du dos Rückenlinie	mou weich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	horizontale gerade	<input type="checkbox"/>	
12. Attache des reins Lendenverbundenheit	faible schwach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	forte stark		
13. Long. de la croupe Kruppenlänge	courte kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	longue lang		
14. Incl. de la croupe Kruppenneigung	horizontale horizontal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	avalée abfallend		
14. Fesse Bahoegung	peu-eulottée wenig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	fortem-eulottée viel	<input type="checkbox"/> désaxé ant. droit desax. vor. rechts	<input type="checkbox"/> ant. gauche vor. links
15. Jambe antérieure Vorderbein	renvoyée rückbiegig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	brassicourt vorbiegig	<input type="checkbox"/> genoux en x knieeng	<input type="checkbox"/> gen. ouverts knieweit
16. Angle des jarrets Sprunggelenkwinkelung	droit steil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	coudé gewinkelt	<input type="checkbox"/> jarrets clos kuhessig	<input type="checkbox"/> cambrés fassbeinig
													<input type="checkbox"/> étranglé ant. eingeschnürt vo.	<input type="checkbox"/> postérieur hinten
17. Long. des paturons Fessellänge	court kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	long lang		
18. Angle des paturons Fesselwinkelung	droit steil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	mou weich	<input type="checkbox"/> sabot bot bockhuf	<input type="checkbox"/> talons fuyants unterg. Trachten
19. Fondement Fundament	spongieux schwammig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sec trocken	<input type="checkbox"/>	
20. Pas Schritt	court kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ample raumgreifend	<input type="checkbox"/> ample Pass	
21. Trot, amplitude Trab, Raumgriff	court kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ample raumgreifend	<input type="checkbox"/> boiterie ant. g lahm vo. li	<input type="checkbox"/> post. g. hi. li
22. Trot: engagement Trab: Schub	peu wenig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	beaucoup viel	<input type="checkbox"/> boiterie ant. dr. lahm vo. re	<input type="checkbox"/> post.dr. hi. re
23. Trot: élasticité Trab: Elastizität	raide steif	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	élastique elastisch	<input type="checkbox"/>	
24. Correct. des allures Korrektheit. d. Gänge	billarde fuchtelnd	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	coup de manche bügelnd	<input type="checkbox"/> panard zehenweit	<input type="checkbox"/> cagneux zeheneng
25. Format	lourd schwer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	léger leicht	<input type="checkbox"/> surlati überbaut	<input type="checkbox"/> étroit schmal



How can a breeder access information about LD?

Coventry, M, FM, A, 2001, 08AA425, SB A

12.50% Ascendance/Abstammung: Charleston et/und Baïka p/v Luxeur

TAILLE MODELE ET ALLURES, DESCRIPTION LINEAIRE/STOCKMASS, LINEARE BESCHREIBUNG

Toise/Stockmass		93%			113	
Mod. et all. Type/Ext.Typ		88%			113	
Mod. et all. Conformation/Ext.Körperbau		89%			111	
Mod. et all. Allures/Ext.Gänge		90%	93			
Expression tête/Kopfausdruck	sans/ohne	89%			106	
Ganaches/Ganaschen	pleines/voll	87%	87			
Long. encolure/Halslänge	courte/kurz	87%	86			
Attache encolure/Halsansatz	basse/tief	84%	85			
Muscul. encolure/Halsmuskulatur	peu/wenig	87%			112	
Hauteur garrot/Widerristhöhe	plat/flach	87%			112	
Long. garrot/Widerristlänge	court/kurz	86%			119	
Long. épaule/Schulterlänge	courte/kurz	83%			111	
Inclin. l'épaule/Schulterneigung	droite/steil	82%	98			
Long. du dos/Rückenlänge	court/kurz	86%	98			
Ligne du dos/Rückenlinie	mou/weich	85%			118	
Long. croupe/Kruppenlänge	courte/kurz	83%			128	
Inclin. croupe/Kruppenneigung	horizontale/horizontal	86%	90			
Fesse/Behosung	peu/wenig	78%			104	
Jambe ant./Vorderbein	renvoyés/rückbiegig	84%			115	
Jarrets/Sprunggelenk	droits/steil	85%			109	
Paturons/Fesselgelenk	droits/steil	80%			131	
Fondement/Fundament	spongieux/schwammig	85%	93			
Pas ampleur/Schrittlänge	court/kurz	86%	90			
Trot ampleur/Trablänge	court/kurz	90%	93			
Trot engagement/Trab Schub	peu/wenig	89%	93			
Trot élasticité/Trab Elastizität	raide/steif	89%	93			
Correct. allures/Gangkorrektheit	billarde/unruhig	42%			111	
Type/Typ	peu typé/typlos	87%			101	

ÉTALONS ZUCHTHENGSTE



VALEURS D'ÉLEVAGE 2025

Marques blanches / Test en terrain
Modèle et allures / Taille / Description linéaire

ZUCHTWERTE 2025

Weisse Abzeichen / Feldtest
Exterieurbeurteilung / Stockmass / Lineare Beschreibung



How can a breeder access information from LD?

- Mares that are envisioned as breeding mares need to pass a field test and in consequence have their LD done at that occasion
 - The owner receives the filled out evaluation form at the end of the day
- Complete and updated list of the breeding values of a mare can be requested at the breeding association

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		extrem	1	2	3	4	5	6	7	8	9	extrem	Défauts / Mängel
1. Tête / Kopf	lourde / schwer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	légère / leicht	<input type="checkbox"/>
2. Ganache / Ganaschen	pleine / voll	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	libre / frei	
3. Long. de l'encolure / Halslänge	courte / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	longue / lang	<input type="checkbox"/>
4. Attache de l'encolure / Halsaufsatz	basse / tief	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	haute / hoch	<input type="checkbox"/>
5. Musculature de l'enc. / Halsmuskulatur	peu / wenig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	massive / schwer	
6. Hauteur du garrot / Widerristhöhe	plat / flach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	haut / hoch	
7. Longueur du garrot / Widerristlänge	court / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	long / lang	<input type="checkbox"/>
8. Longueur de l'épaule / Schulterlänge	courte / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	longue / lang	
9. Incl. de l'épaule / Schülterneigung	droite / steil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	incl. / schräg	
10. Longueur du dos / Rückenlänge	court / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	long / lang	
11. Ligne du dos / Rückenlinie	mou / weich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	horizontale / gerade	<input type="checkbox"/>
12. Attache des reins / Lendenverbundenheit	faible / schwach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	forte / stark	
13. Long. de la croupe / Kruppenlänge	courte / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	longue / lang	
14. Incl. de la croupe / Kruppenneigung	horizontale / horizontal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	avalée / abfallend	
15. Fesse / Baboosung	peu-ouïlée / wenig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	fortem-ouïlée / viel	<input type="checkbox"/> désaxé ant. / <input type="checkbox"/> desax. vor. rechts <input type="checkbox"/> ant. gauche / <input type="checkbox"/> vor. links
16. Jambe antérieure / Vorderbein	renvoyée / rückbiegig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	brassicourt / vorbiegig	<input type="checkbox"/> genoux en x / <input type="checkbox"/> knieeing <input type="checkbox"/> gen. ouverts / <input type="checkbox"/> knieweit
17. Angle des jarrets / Sprunggelenkwinkelung	droit / steil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	coudé / kuhfessig	<input type="checkbox"/> jarrets clos / <input type="checkbox"/> kuhfessig <input type="checkbox"/> cambrés / <input type="checkbox"/> fassbenig <input type="checkbox"/> étranglé ant. / <input type="checkbox"/> eingeschnürt vo. <input type="checkbox"/> postérieur / <input type="checkbox"/> hinten
18. Long. des pâturons / Fessellänge	court / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	long / lang	<input type="checkbox"/> sabot bot / <input type="checkbox"/> bockhuf <input type="checkbox"/> talons luyants / <input type="checkbox"/> unterg. Trachten
19. Angle des pâturons / Fesselwinkelung	droit / steil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	mou / weich	
20. Fondement / Fundament	spongieux / schwammig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sec / trocken	<input type="checkbox"/>
21. Pas / Schritt	court / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ample / raumgreifend	<input type="checkbox"/> ample / <input type="checkbox"/> Pass
22. Trot, amplitude / Trab, Raumgriff	court / kurz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ample / raumgreifend	<input type="checkbox"/> boterie ant. g. / <input type="checkbox"/> lah. vo. li. <input type="checkbox"/> post. g. / <input type="checkbox"/> hi. li.
23. Trot, engagement / Trab, Schub	peu / wenig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	beaucoup / viel	<input type="checkbox"/> boterie ant. dr. / <input type="checkbox"/> lah. vo. re. <input type="checkbox"/> post. dr. / <input type="checkbox"/> hi. re.
24. Trot, élasticité / Trab, Elastizität	raide / steif	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	élastique / elastisch	<input type="checkbox"/>
25. Correct. des allures / Korrektheit d. Gänge	billarde / fuchtelnd	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	coup de manche / <input type="checkbox"/> panard bügelnd / <input type="checkbox"/> zehneel	<input type="checkbox"/> cagneau / <input type="checkbox"/> zeheneng <input type="checkbox"/> surbati / <input type="checkbox"/> überbaut <input type="checkbox"/> étroit / <input type="checkbox"/> schmal
26. Format	lourd / schwer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	léger / leicht	



How can a breeder access information about LD?

- Guide for breeders to get an estimate about what the scores represent
- Practice-oriented publications about the selection processes and how breeding values are used, explaining heritability and the definition of a breeding goal



Lineare Beschreibung Description linéaire



SFV 2019

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Departement für
Wirtschaft, Bildung und Forschung WBF
Agroscope

8. / 9. Schulterlänge / -neigung / Longueur de l'épaule / Incl. de l'épaule



Agroscope Transfer | Nr. 603 / 2025



Selektionsprozesse und Zuchtwertschätzung in der Freibergerzucht

Autorinnen und Autoren
Julie Perey, Markus Neuditschko, Corinne Boss und Inès Lamou

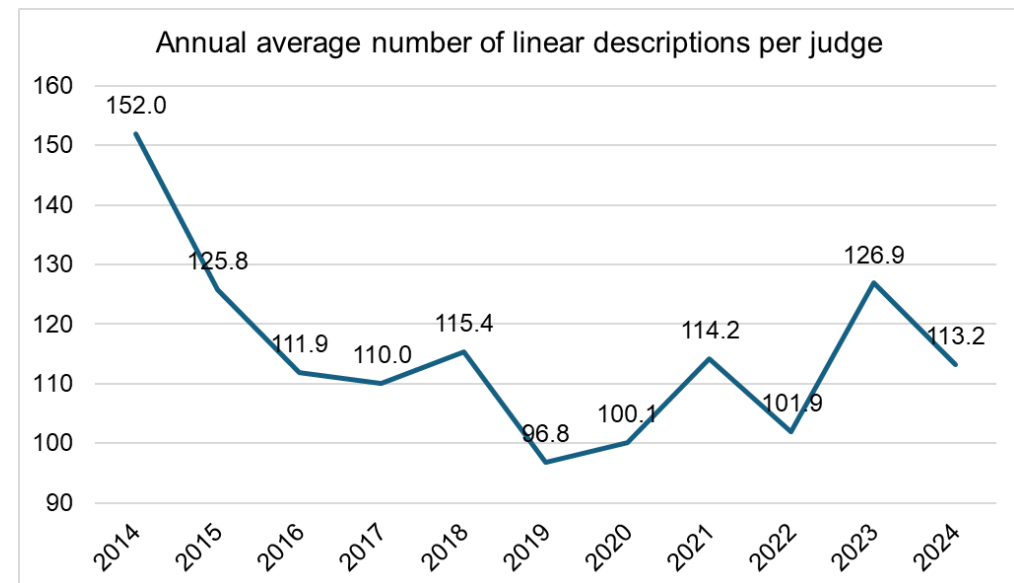
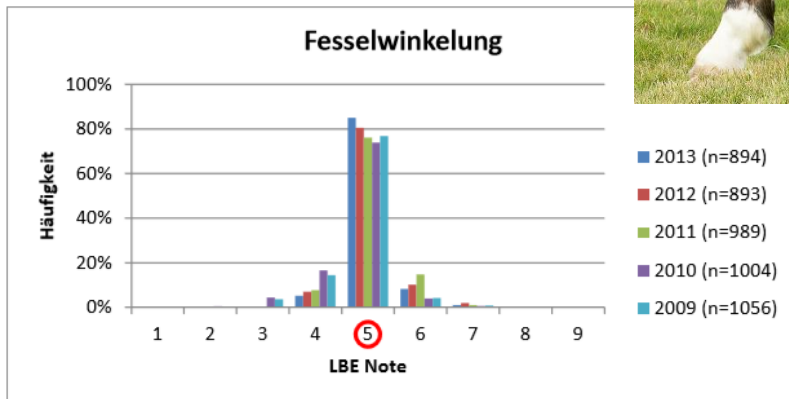
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Departement für
Wirtschaft, Bildung und Forschung WBF
Agroscope



Challenges regarding LD in Franches-Montagnes

- Data converging around mean value with small standard deviations
- Subjectivity of the judges & variation in the attributed scores for the same trait
- Low number of animals judged
- Heritabilities of the trait differ greatly, majority of traits show low heritability





Tools developed for objective measurements



Horse
Shape
Space
Model

Developed by Druml *et al.*, 2015
Adapted for FM by Gmel *et al.*, 2018



Gmel *et al.*, 2022 & 2023





Trials in the field – morphology characteristics

- Practical experience:



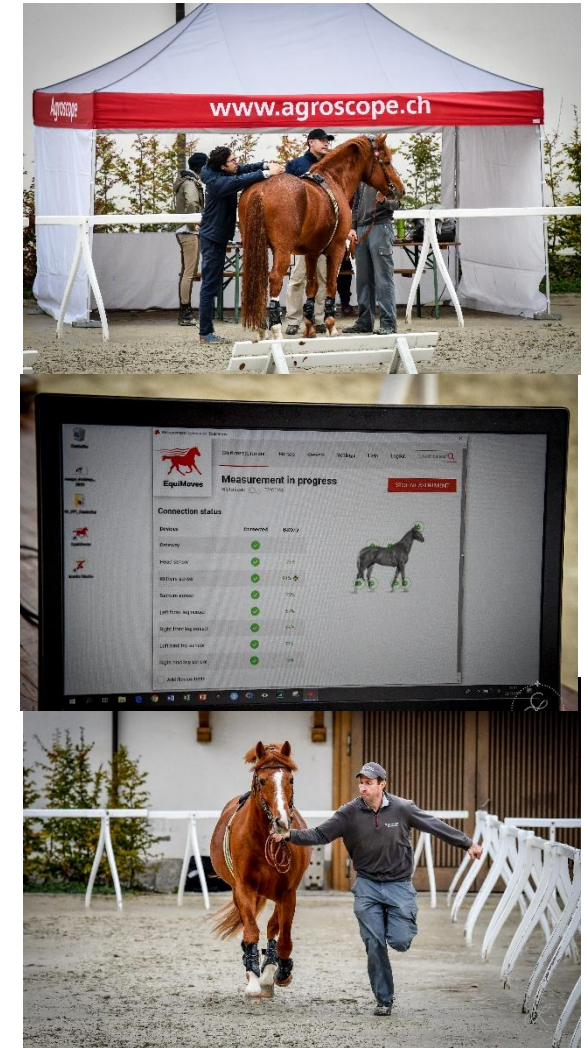
- Goal: Establishing a quantifiable database for different morphological traits
 - Use as training aid for judges
 - Exact definition of the complete grading scale

Repeatability, reproducibility and consistency of horse shape data and its association with linearly described conformation traits in Franches-Montagnes stallions, Gmel *et al.*, 2018



Trials in the field – gait measurements

- Setting up the sensors as well as the tracking software requires being well-versed with the setup
- Measurement requires at least four people (software, placement of the sensors, trotting, whip)
- Once set up, the measurement itself amounts to around 20 min per horse
- With these time frames, the cost of setup and staff starts paying out starting with 10 horses measured at that time and place
 - This would allow to integrate this procedure into a field test or the stallion licensing exam



Final report about the project «Optimization of gait measurement in FM horses», 2024



Applications in the field

Unfortunately, both tools have not been routinely incorporated into the breeding shows of the Franches-Montagnes horses.

Implementation of the tool would be beneficial in:

- at the stallion licensing exam
- as training programs for judges during annual refreshment courses & for the training of new judges
- Improve the data quality and quantity for genetic analyses

Further applications

- EquiMoves: Lameness assessment
- Horse Shape Space Model: Further development into automation of the morphometry via deep learning





Applications in the field

- Tool «Poulain Virtuel» uses ancestry information to calculate genetic relatedness of the parents and the inbreeding coefficient of the simulated offspring. It also estimates ancestry-derived breeding values.
- Goal: to optimize selection decisions.
- The database contains all mares and stallions registered as breeding animals
- Available online since 2020, mare and stallions database updated yearly
→ www.poulainvirtuel.ch
- Major step for spreading awareness about genetic diversity and inbreeding





Take Home Messages

- Tools which help make linear description and other evaluations of morphology and gaits more objective have been developed and are ready to be used in the field during breeding shows, but require specific staff and setup.
- With the data collected with these tools, precise datasets can be established and then used for training of new and existing judges. The tools are meant to complement the judge's activity, not replace them.
- Objective, quantifiable values are important to be able to measure if there is progress towards the breeding goal. The heritability of the traits under selection should be taken into account.



Thank you for your attention!



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