PERÚ • LIVESTOCK

Fleckvieh: Genetic Superiority Transforming Peruvian Farming

Farming System• Dual Purpose • Flesh • Genetics & Genomics •

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geneticAUSTRIA

Farming SYSTEM

Fleckvieh DUAL PURPOSE

Genetics & GENOMICS

Fleckvieh FLEISCH (Beef Line)

Farming SYSTEM

When and How FLECKVIEH ARRIVES

- 1970s: Initial introduction through cooperation agreements (Tinajones/Lambayeque).
- 1974: Distribution to Cajamarca (Cutervo, Chota, Santa Cruz, Jaén).
- 1999: Importation of Fleckvieh embryos from Germany in partnership with UNALM/SAIS Túpac Amaru.
- 2014: geneticAUSTRIA begins operations in Peru through the national distributor Genetic Austria Perú SRL.
- 2015–Present: A process of strengthening breeders and organizing serial events (congresses/festivals), judging, and dissemination of Fleckvieh genetics through semen, embryos, and live animals imported from Austria is underway.
- 2018: The Fleckvieh Perú Consortium imported 8 heifers from Austria.

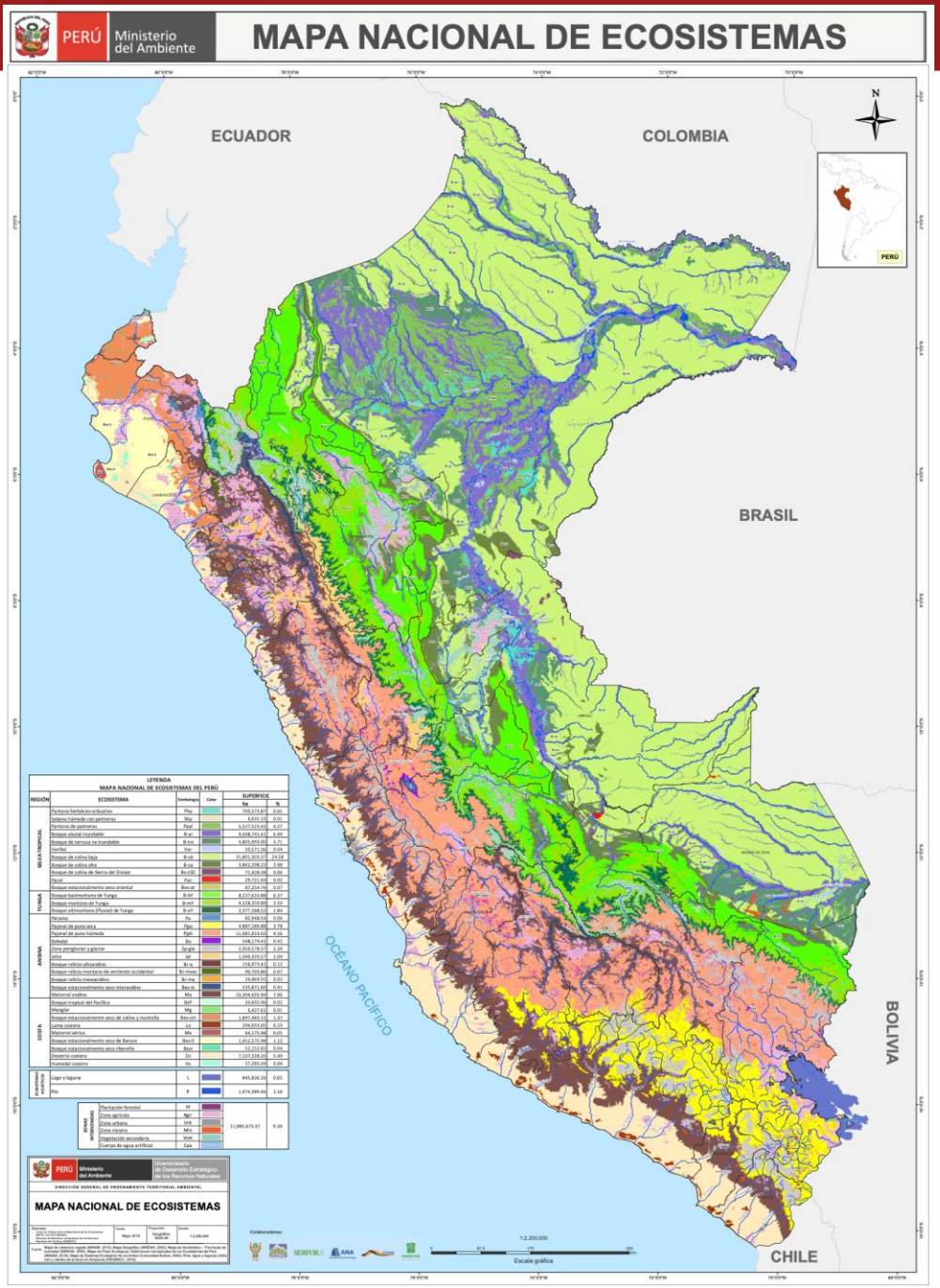
Peruvian

POPULATION

- Peru is a large and heterogeneous country, characterized by a wide diversity of altitudinal zones and ecosystems.
- This range of conditions favors the existence of different breeds adapted to each ecosystem; however, the Fleckvieh breed has demonstrated remarkable versatility, adaptability, and hardiness.
- These qualities make it one of the most sought-after and widely raised breeds throughout the country, with a strong interest in preserving its racial purity.

LEYENDA
MAPA NACIONAL DE ECOSISTEMAS DEL PERÚ

REGIÓN	ECOSISTEMA	Simbología	Color	SUPERFICIE ha	SUPERFICIE %
SELVA TROPICAL	Pantano herbáceo-arbustivo	Pha		795,573.87	0.61
	Sabana húmeda con palmeras	Shp		6,631.15	0.01
	Pantano de palmeras	Ppal		5,527,523.42	4.27
	Bosque aluvial inundable	B-ai		9,038,741.41	6.99
	Bosque de terraza no inundable	B-tni		4,805,993.00	3.71
	Varillal	Var		50,571.36	0.04
	Bosque de colina baja	B-cb		31,801,303.37	24.58
	Bosque de colina alta	B-ca		3,862,298.23	2.98
	Bosque de colina de Sierra del Divisor	Bs-cSD		71,428.28	0.06
	Pacal	Pac		29,721.44	0.02
	Bosque estacionalmente seco oriental	Bes-or		87,254.76	0.07
YUNGA	Bosque basimontano de Yunga	B-bY		8,237,633.88	6.37
	Bosque montano de Yunga	B-mY		4,528,359.89	3.50
	Bosque altimontano (Pluvial) de Yunga	B-aY		2,377,288.52	1.84
ANDINA	Páramo	Pa		82,948.54	0.06
	Pajonal de puna seca	Pjps		4,887,186.88	3.78
	Pajonal de puna húmeda	Pjph		11,981,914.03	9.26
	Bofedal	Bo		548,174.41	0.42
	Zona periglaciar y glaciar	Zp-gla		2,959,578.37	2.29
	Jalca	Jal		1,340,320.57	1.04
	Bosque relicto altoandino	Br-a		156,973.41	0.12
	Bosque relicto montano de vertiente occidental	Br-mvoc		90,703.86	0.07
	Bosque relicto mesoandino	Br-ma		24,964.55	0.02
	Bosque estacionalmente seco interandino	Bes-in		535,871.60	0.41
	Matorral andino	Ma		10,304,035.94	7.96
COSTA	Bosque tropical del Pacífico	BtP		20,692.06	0.02
	Manglar	Mg		6,427.61	0.01
	Bosque estacionalmente seco de colina y montaña	Bes-cm		1,897,483.31	1.47
	Loma costera	Lo		294,033.05	0.23
	Matorral xérico	Mx		64,175.98	0.05
	Bosque estacionalmente seco de llanura	Bes-ll		1,452,575.98	1.12
	Bosque estacionalmente seco ribereño	Besr		52,152.65	0.04
	Desierto costero	Dc		7,107,338.20	5.49
	Humedal costero	Hc		57,285.04	0.04
ECOSISTEMAS ACUÁTICOS	Lago y laguna	L		845,836.26	0.65
	Río	R		1,474,389.46	1.14
ZONAS INTERVENIDAS	Plantación forestal	Pf		11,985,673.37	9.26
	Zona agrícola	Agri			
	Zona urbana	Urb			
	Zona minera	Min			
	Vegetación secundaria	Vsec			
	Cuerpo de agua artificial	Caa			



- Although there is no precise data on the number of Fleckvieh (FV) cattle in Peru, it is known where the country's most important populations are concentrated.
- Cajamarca is undoubtedly the region with the largest number of Fleckvieh animals. Within this region, the provinces of Cutervo and Chota, among others, stand out, where adoption of the breed has been growing rapidly.
- Lambayeque is another highly important region, and it can be stated that it hosts the second-largest population of Fleckvieh cattle in the country.
- In Trujillo, in the La Libertad region, adoption of the breed has been significant; the farms dedicated to cattle breeding in this area have some of the best females in the country.
- Piura has begun raising Fleckvieh cattle with outstanding breeders who are promoting the spread of the breed to other areas.
- Puno and Cusco are two regions that have recently started raising Fleckvieh cattle and, within a few years, could reach population levels similar to those of Cajamarca.
- Likewise, regions such as Junín, Lima, Ica, Huánuco, Pasco, Ayacucho, and San Martín also show the presence of the breed, with sustained growth.

Farming System

Highlands (Andes)
Dual Purpose

- 100% Grazing (rye grass, clover, kikuyo)
- Milk with calf at the foot
- Sale of bulls for fattening
- Altitude and relief demand rusticity

CORE

High & Low Jungle
(Amazonia)

- Cultivated pastures (≈78% under study)
- Low concentrate supplementation
- Family approach; gaps in attendance
- Crossbreeding to tolerate hot temperature and parasites

GROWING

Cost
Dual Purpose & Feedlot

- The biggest and most efficient farms. Demand for fattening males
- Increased access to supplies and logistics
- Opportunity: "breeding-fattening" alliances
- Channel standards and traceability

MARKET

Actual Population: National Context

Cows & Heifers Population (Peru)

2’254,320

Projected at 2024

Crossbreed and criollo (population)

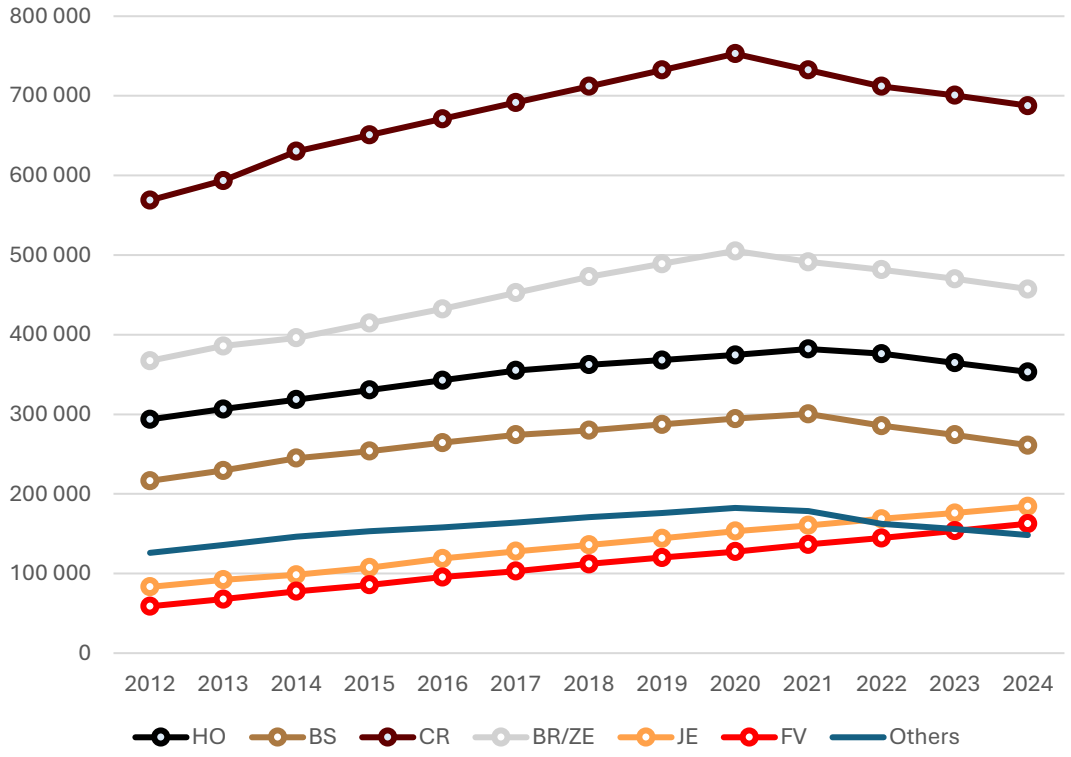
30.5%

Projected at 2024

Other Breeds

≈69.5%

ZE= 20.3%, HO=15%, BS= 11.6%, FV= 7.2%, JE= 8.2%



Summary Table of Combined Cows and Heifers by Breed and Year (2012-2024)

Year	HO	BS	CR	BR / ZE	JE	FV	Others	Total
2012	293,600	216,400	568,800	367,200	83,200	58,800	126,000	1,714,000
2013	306,560	229,360	593,600	385,760	92,160	67,760	135,840	1,811,040
2014	318,400	244,800	630,400	396,000	98,400	77,600	146,400	1,912,000
2015	330,560	253,760	650,800	414,560	107,360	85,760	152,960	1,995,760
2016	342,800	264,400	671,200	432,400	118,800	95,600	157,840	2,083,040
2017	354,960	274,160	691,600	452,560	127,840	102,960	164,000	2,168,080
2018	362,320	279,840	712,000	472,800	136,000	112,000	170,960	2,245,920
2019	368,000	287,200	732,400	488,960	144,160	120,160	175,840	2,316,720
2020	374,560	294,560	752,800	505,200	153,120	127,520	182,400	2,390,160
2021	382,000	300,400	732,400	491,360	160,480	136,480	178,320	2,381,440
2022	376,000	285,600	712,000	481,600	168,640	144,640	162,400	2,330,880
2023	364,640	274,240	700,640	470,240	176,000	153,600	155,840	2,295,200
2024	353,200	261,200	687,600	457,200	184,160	162,560	148,400	2,254,320

Source: National Institute of Statistics and Informatics (INEI). (2023). National Agricultural Census. Retrieved from https://www.inei.gob.pe/estadisticas/censos/censos-nacionales-agropecuarios/
Ministry of Agriculture and Irrigation (MINAGRI). (2023). Agricultural Production Report 2015-2023. Retrieved from https://www.gob.pe/minagri
National Agricultural Surveys. (2023). Cattle Production Statistics. Retrieved from https://www.inei.gob.pe/estadisticas/encuestas-nacionales-agropecuarias/
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Fleckvieh

DUAL PURPOSE

Rosemberg Dairy Farm

- milks 40 pedigree cows
- Trujillo – La Libertad at 30 masl.
- leading farm in type and genomic values.
- 8,235 kg per lactation,
- uses exclusively imported semen and embryo transfer (ET),
- 100% genotyped.
- national champion of the Fleckvieh breed.

Estancia Santa Fe Dairy Farm

- milks 2,200 cows. transitioning 100% from Holstein to Fleckvieh
- Pisco – Ica.
- The herd averages 8,500 kg per lactation
- sells approximately 1,100 F2 and F3 male calves for beef production at 12 month of age.

Establo Monteverde

- milks 1600 (HO, BS, FV) projected to 3000.
- valley of Jequetepeque at 45 masl.
- 8380 kg per lactation in 305 DIM,
- focused on funtional excellence.
- AI & embryo transfer (ET),
- genotypes its FV female calves.
- Aims to achieve the highest profitability.

Jualma Dairy Farm

- owned by Julio Rivera,
- milks 32 Fleckvieh PDP cows.
- Piura at 800 masl.
- 27 kg per day.
- morphological excellence.
- multiple regional and national championships.
- AI (sexed semen) and embryo transfer (ET),
- genotypes its female calves.
- aims to achieve the highest level of morphological and functional excellence.

El Ramadal Farm of the Huingo Briones Family

- milks 30 PDP (HO, BS, FV).
- 2850 meters above sea level, in a pastoral system.
- 7500 kg per lactation,
- use only imported semen and have started with ET.
- As a result of the birth of these embryos, they started a high-level competition livestock farm.

José Herrera's Farm

- milks 20 Pedigree cows
- 2450 meters above sea level,
- Best farm in Cutervo - Cajamarca.
- 7320 kg x lactation,
- imported semen and TE.
- He imported a heifer from Austria.
- Focused on type excelence
- he is in Austria willing to import elite cattle to establish an even higher and competitive type farm.

- **Rony Lapa**, established the first Fleckvieh cattle operation in Yanacancha.
- 3,900 and 4,000 meters above sea level.
- Located in high-altitude conditions, produces between 18 and 20 kg of milk per cow per day.
- grazing system, supplementing lactating cows with only 3 kg of concentrate.
- He is determined to demonstrate that the Fleckvieh breed has the ideal adaptability and hardiness for the Peruvian high Andean region, even in ecosystems where traditionally only Brown Swiss or Creole cattle were raised.
- Rony is currently planning to promote a Fleckvieh development project in an area with a population of approximately 50,000 head of cattle.
- He is willing to introduce Fleckvieh semen, embryos and live cattle.

Fleckvieh

FLEISCH

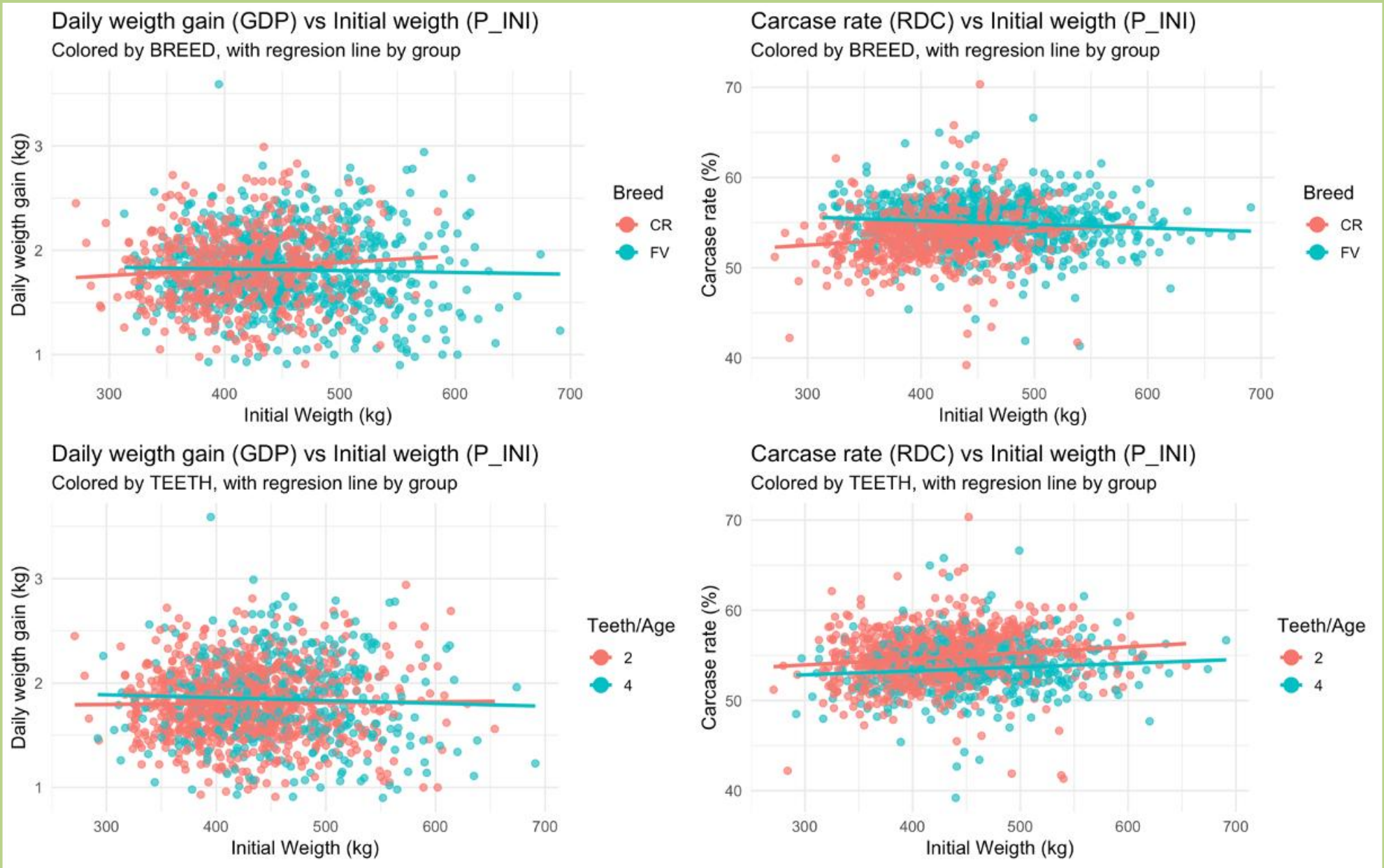
(Beef Line)

Fleckvieh FLEISCH

- Feedlots in Peru purchase bulls between 1 and 3 years of age for intensive feeding, marketing the animals after 60 and 90 days of fattening .
- Feedlots are mainly carried out in the coast, because feed inputs are more affordable and proximity to the slaughterhouses.
- Currently, the Fleckvieh breed is predominant in both feedlots and the Peruvian highlands, from where the animals are sourced.
- In an evaluated feedlot of 1312 animals fattening in 2 years the daily weight gains was 1.82, SE =0.0137, 95% confidence interval of 1.79 to 1.84 per day. Producing large carcasses with dressing percentages 54.74% SE = 0.102, 95% confidence interval of 54.54% to 54.94%.
- These characteristics have driven the popularity of Fleckvieh in feedlot operations. This has created a favorable market for highland farmers, who can raise Fleckviieh that provides greater value through males and, additionally, milk production from females.

Fleckvieh

FLEISCH



Genetics & GENOMICS

GENETICS

GENOMICS

GENETICS

- Artificial insemination is the most widely used reproductive tool; the use of sexed semen continues to increase, and embryo transfer has more recently begun to gain popularity as a strategy that allows better utilization of the most current elite genetics imported from Austria.

- In Peru, genetic management has traditionally been oriented toward show-ring performance; however, in recent years there has been growing awareness of the importance of producing animals with high genetic merit, based on **gGZW** (gTMI) and economically important traits.

Fleckvieh in the Andes 100% Grazing	Yield	Price	Sub Total S/	Sub Total USD
Lactation	5500.0	S/ 1.50	S/ 8,250.00	$ 2,455.36
Lactation	5500.0	S/ 1.50	S/ 8,250.00	$ 2,455.36
Male calf	477.0	S/ 14.0	S/ 6,678.00	$ 1,987.50
Total Income			S/ 23,178.00	$ 6,898.22
Income/Lact			S/ 11,589.00	$ 3,449.10

Fleckvieh in the Cost forage + concentrate	Yield	Price	Sub Total S/	Sub Total USD
Lactation	7500.0	S/ 1.50	S/ 11,250.00	$ 3,348.21
Lactation	7500.0	S/ 1.50	S/ 11,250.00	$ 3,348.21
Male calf	520.0	S/ 14.0	S/ 7,280.00	$ 2,166.67
Total Income			S/ 29,780.00	$ 8,863.10
Income/Lact			S/ 14,890.00	$ 4,431.55

- The process of genetic improvement in Peruvian livestock has the possibility of increasing the benefits that the breed offers even more, both in the Andean zone and on the Coast, because the identification of traits of economic importance and improvement processes aimed at the efficiency of these traits hasjust begin.
- The value achieved by the sale of beef from the male and the value of the female at the end of their productive life, generates an income practically non-existent in the dairy breeds.
- The value of the male or female Fleckvieh in Peru is the highest of all breeds.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GENOMICS

GENOMIC Potential

- Genomics in Peru has transformed the way productive paradigms are understood and addressed, enabling the quantitative identification of economically important traits and genetic indices.
- This has opened new and highly impactful objectives, aimed at generating well-rounded, profitable, and long-lived animals with remarkably outstanding exterior appearance.

Peru # 1 felmales in *GENOMICS*

#1 gGZW +127
SUPERBOY Daughter
PE 4775 “**MIRANDA**”
Rosemberg Farm

#1 Milk +907
MANOLO Daughter
PE 2437 “**MIRAMAR**”
Rosemberg Farm

#1 Udder +129
GS DER BESTE Daughter
PE 4850 “**GRACIA**”
Rosemberg Farm

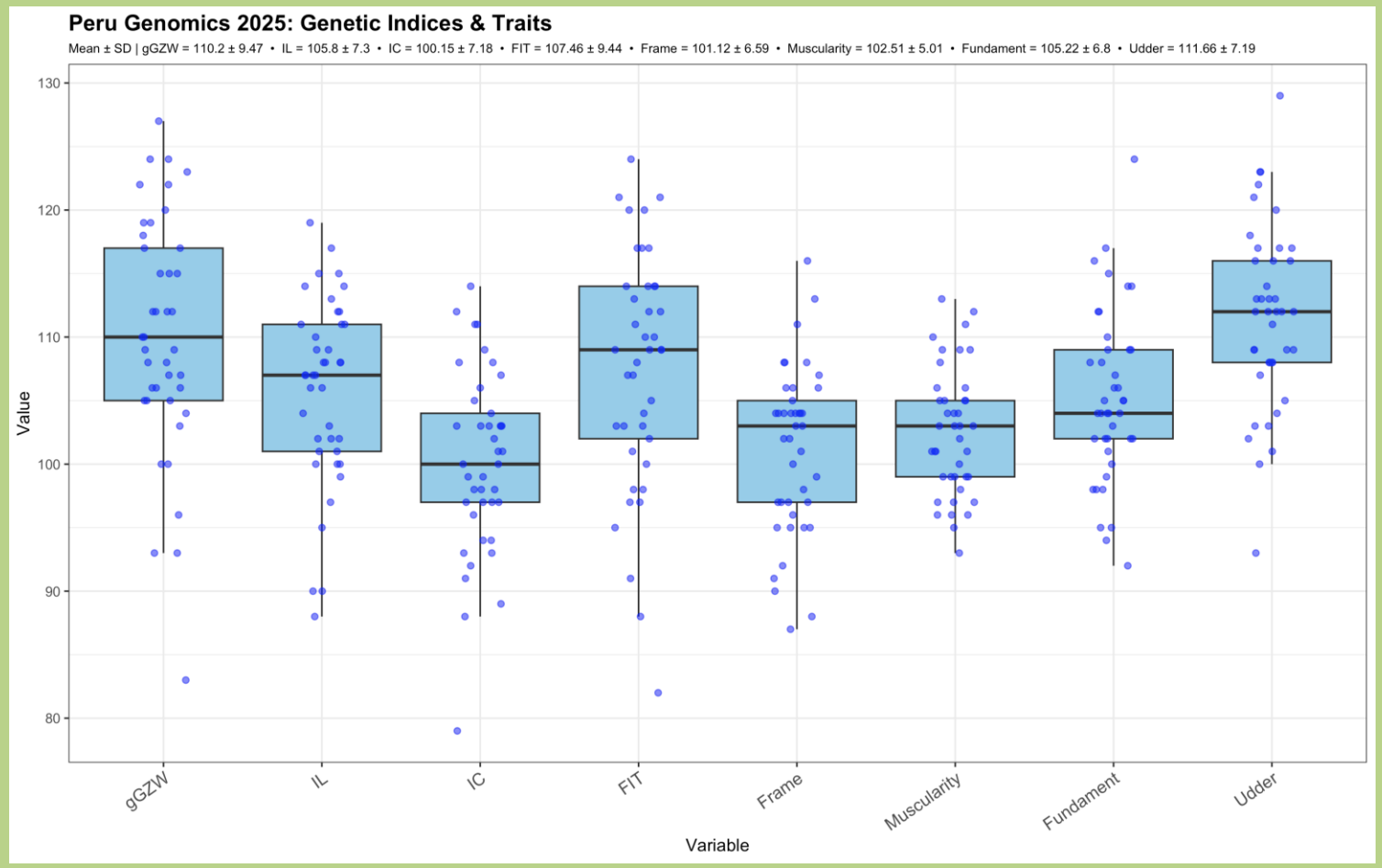
Peru # 1 felmales in *GENOMICS*

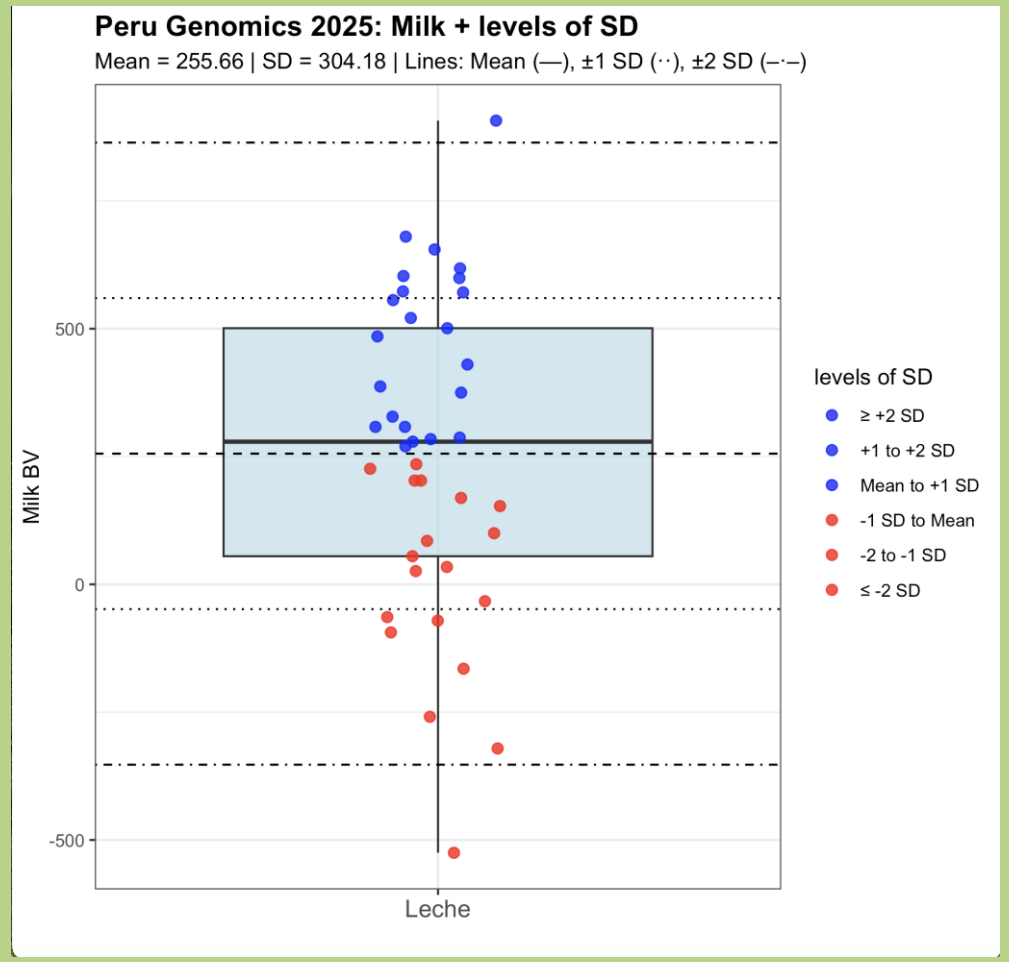
#1 gECO +129
SUPERBOY Daughter
PE 4775 “**MIRANDA**”
Rosemberg Farm

#1 MI +119
SENATOR Daughter
PE6048046
Monteverde Farm

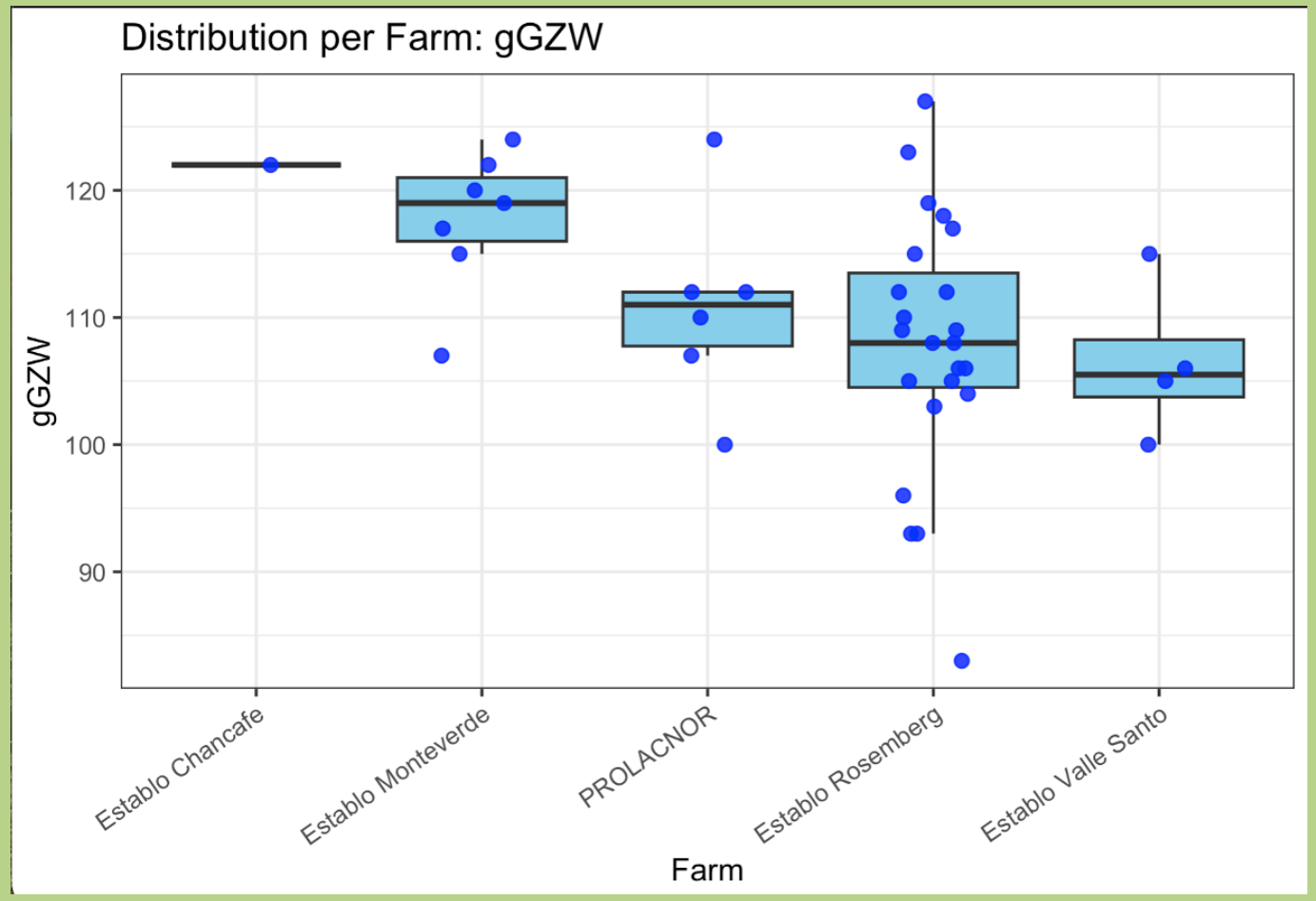
#1 Fundament +124
MR MAX Daughter
PE 4772 “**MARCELA**”
Rosemberg Farm

GENOMIC results in Peru



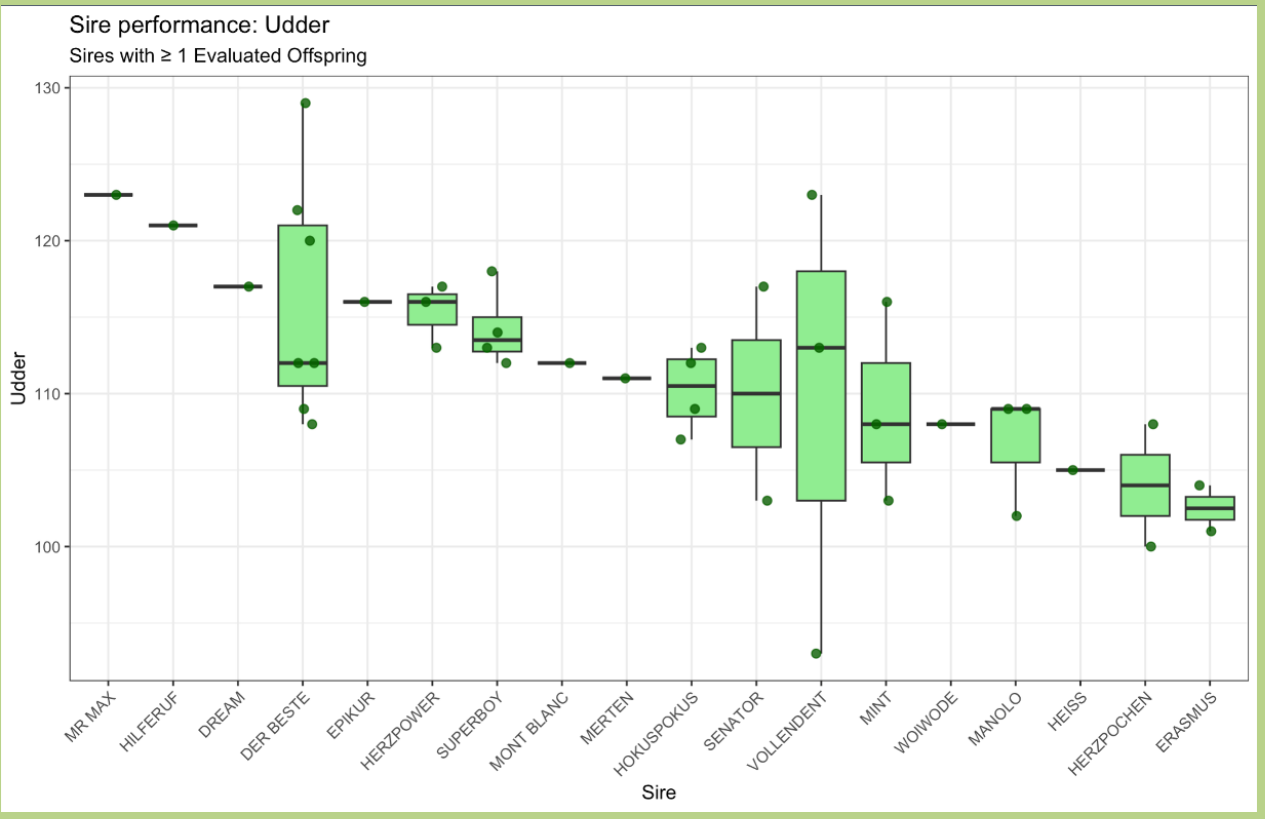


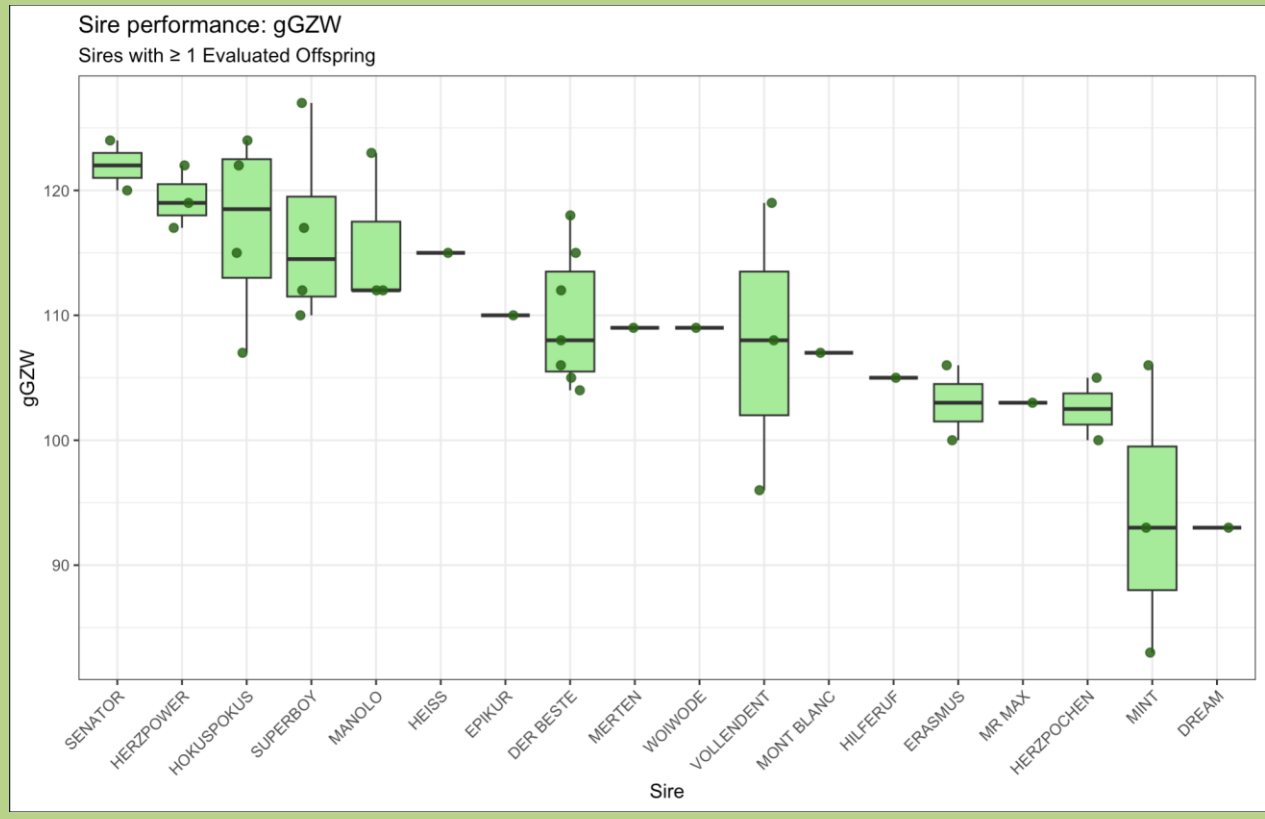
GENOMIC results in Peru



	Trait	Rank	Percentil	ID_Animal	Establo	Value
	<chr>	<int>	<dbl>	<chr>	<chr>	<dbl>
1	gGZW	1	100	PE4775	Establo Rosemberg	127
2	gGZW	2	97.6	PE6048036	PROLACNOR	124
3	gGZW	3	95.1	PE6048045	Establo Monteverde	124
4	gGZW	4	92.7	PE2437	Establo Rosemberg	123
5	gGZW	5	90.2	PE6048043	Establo Monteverde	122
6	gGZW	6	87.8	PE6048026	Establo Chancafe	122
7	gGZW	7	85.4	PE6048044	Establo Monteverde	120
8	gGZW	8	82.9	PE6048040	Establo Monteverde	119
9	gGZW	9	80.5	PE3768	Establo Rosemberg	119
10	gGZW	10	78	PE4781	Establo Rosemberg	118
11	gGZW	11	75.6	PE6048041	Establo Monteverde	117
12	gGZW	12	73.2	PE4780	Establo Rosemberg	117
13	gGZW	13	70.7	PE3837	Establo Valle Santo	115
14	gGZW	14	68.3	PE6048039	Establo Monteverde	115
15	gGZW	15	65.9	PE4850	Establo Rosemberg	115
16	gGZW	16	63.4	PE6048033	PROLACNOR	112
17	gGZW	17	61	PE6048038	PROLACNOR	112
18	gGZW	18	58.5	PE4770	Establo Rosemberg	112
19	gGZW	19	56.1	PE4776	Establo Rosemberg	112
20	gGZW	20	53.7	PE6048037	PROLACNOR	110
21	gGZW	21	51.2	PE4225	Establo Rosemberg	110
22	gGZW	22	48.8	PE2040	Establo Rosemberg	109
23	gGZW	23	46.3	PE4851	Establo Rosemberg	109
24	gGZW	24	43.9	PE2446	Establo Rosemberg	108
25	gGZW	25	41.5	PE4224	Establo Rosemberg	108
26	gGZW	26	39	PE6048034	PROLACNOR	107
27	gGZW	27	36.6	PE6048042	Establo Monteverde	107
28	gGZW	28	34.1	PE2682	Establo Valle Santo	106
29	gGZW	29	31.7	PE3252	Establo Rosemberg	106
30	gGZW	30	29.3	PE4778	Establo Rosemberg	106
31	gGZW	31	26.8	PE3227	Establo Valle Santo	105
32	gGZW	32	24.4	PE4782	Establo Rosemberg	105
33	gGZW	33	22	PE4783	Establo Rosemberg	105
34	gGZW	34	19.5	PE3258	Establo Rosemberg	104
35	gGZW	35	17.1	PE4772	Establo Rosemberg	103
36	gGZW	36	14.6	PE2385	Establo Valle Santo	100
37	gGZW	37	12.2	PE6048035	PROLACNOR	100
38	gGZW	38	9.8	PE4852	Establo Rosemberg	96
39	gGZW	39	7.3	PE2447	Establo Rosemberg	93
40	gGZW	40	4.9	PE4226	Establo Rosemberg	93
41	gGZW	41	2.4	PE2036	Establo Rosemberg	83

GENOMIC results in Peru





DANKE!

Leidenschaft für Fleckvieh !
Passion for Fleckvieh !
Pasión por el Fleckvieh !

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