



2016

GLOBAL DOHNE CONFERENCE

JULY 21 -22 | AUSTRALIA

Celebrating
50 years

"A must for all sheep producers"



"The DOHNE in South America"

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DELTA consultants



2016 Global Dohne Conference

Index

- Brief description of South-american sheep production systems
- The introduction and role of the Dohne in different South-american countries
- Uruguay, Chile, Argentina, Perú, Brazil
- The present situation
- Some suggestions for discussion

South America: Geography



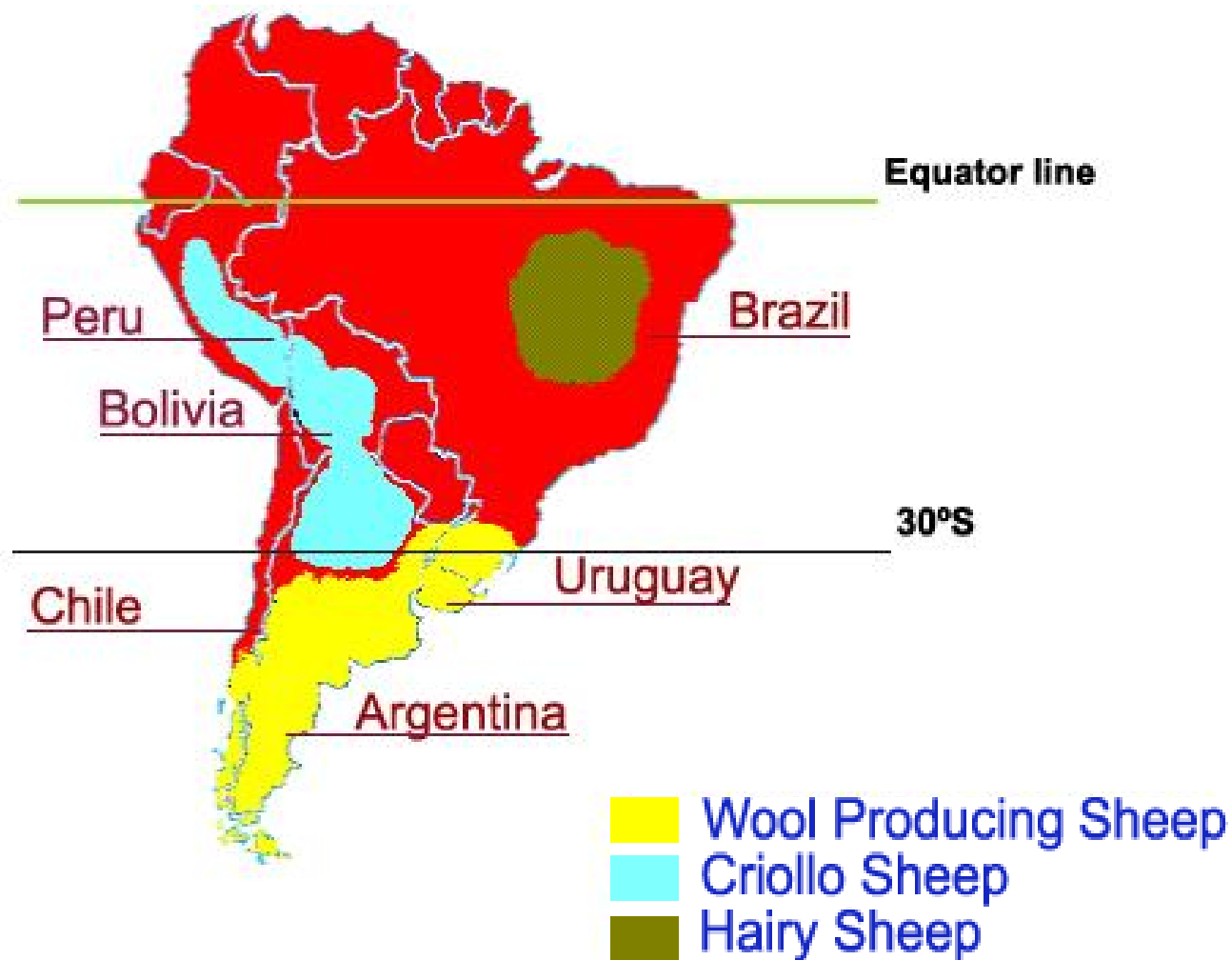
Production of wool and other animal fibers in South America

Species	Animal Population	Fiber	Fiber Production (kg, greasy)
Sheep	35.200.000	Wool	102.000.000
Alpaca (d)	3.503.774	Alpaca	4.055.950
Llama (d)	4.080,596	Llama	3.342.866
Angora goat	550.000	Mohair	825.000
Vicuña (w)	319.547	Vicuña	5.800
Guanaco (w)	577.697	Guanaco	1.500



Sheep production in South América

SOUTH AMERICA: Sheep Producing areas



Two major sheep production systems

1.- COMMERCIAL PRODUCTION SYSTEMS

Uruguay, Brazil, Patagonia (ARG-Ch)

2.- SMALL HOLDER PRODUCTION SYSTEMS

Low Input

Low productivity

Subsistence economies

Small flocks: 20-50 sheep

Criollo breed and non-defined crosses

Sheep + Camelids + Goats

Peru, Bolivia, NW of Argentina

Andes (altiplano): 2.500 . 4.000 mts altitude

Native communities

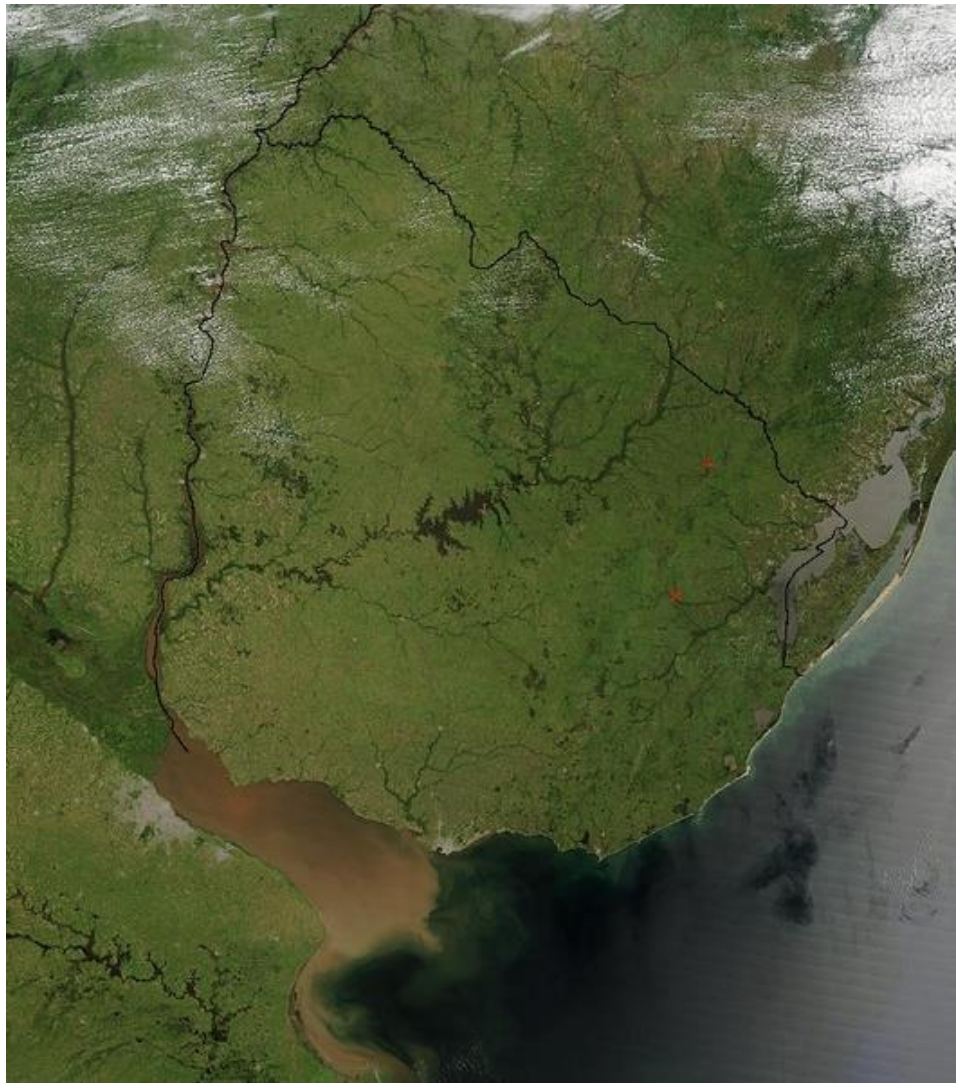
Sheep population and wool production in South American countries (2015)

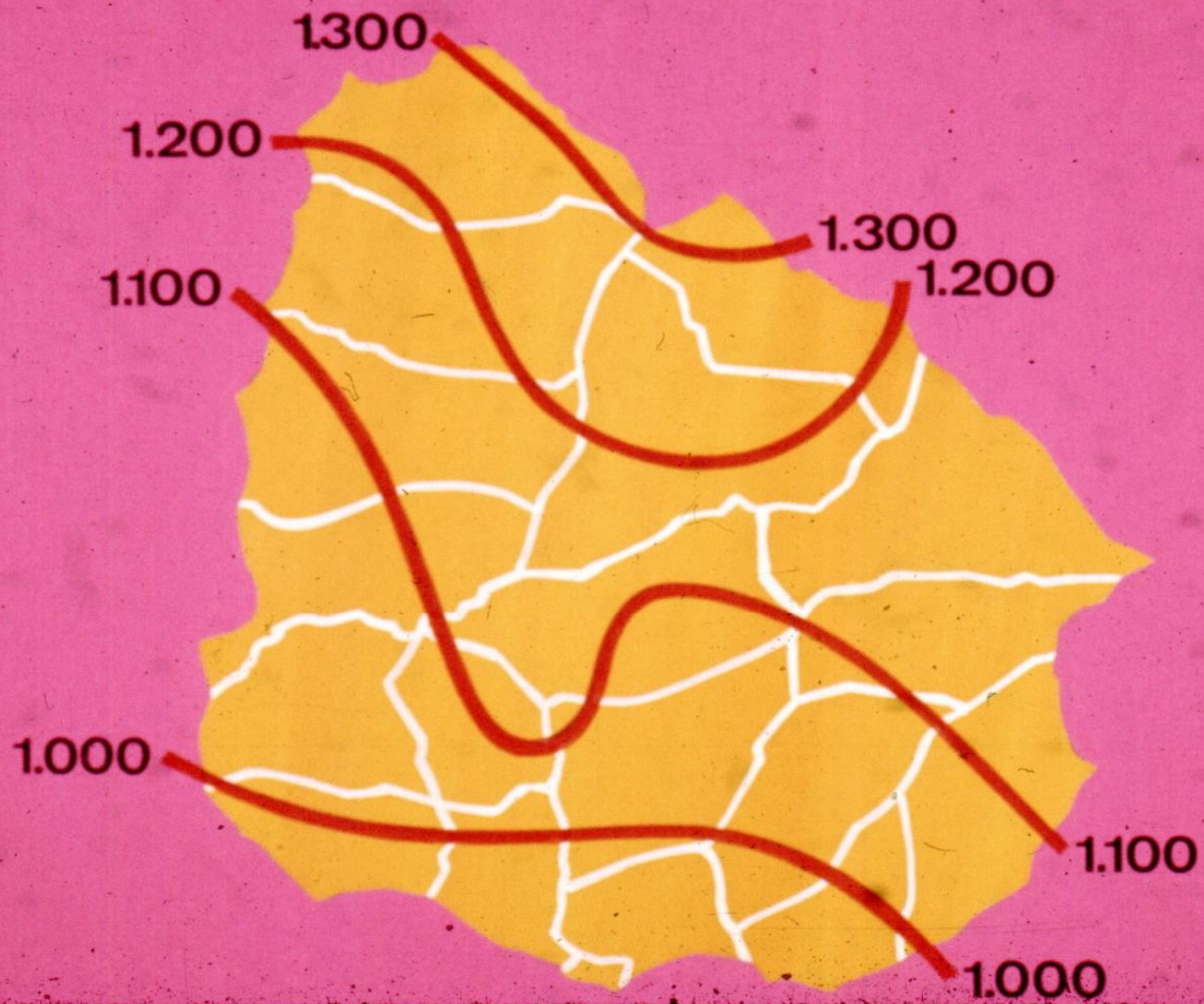
Country	N° sheep (mill)	Prod. System	Fine < 24.5 mic	Medium 24.6 – 32.5 mic	Coarse/Criollo > 32.5 mic	Wool Production (mkg, greasy)
Argentina	12.2	commercial/ smallholders	29.4	15.6	1.0	46.0
Uruguay	7.0	commercial	7.5	17.5	2.0	27.0
Peru	9.5	smallholders	0	4.0	6.4	10.4
Brazil (*)	3.5	commercial	1.0	8.6	1.0	10.6
Chile	3.0	commercial	0.2	7.6	0.2	8.0
TOTAL	35.2		38.1	53.3	10.6	102.0

Sheep Production in Uruguay

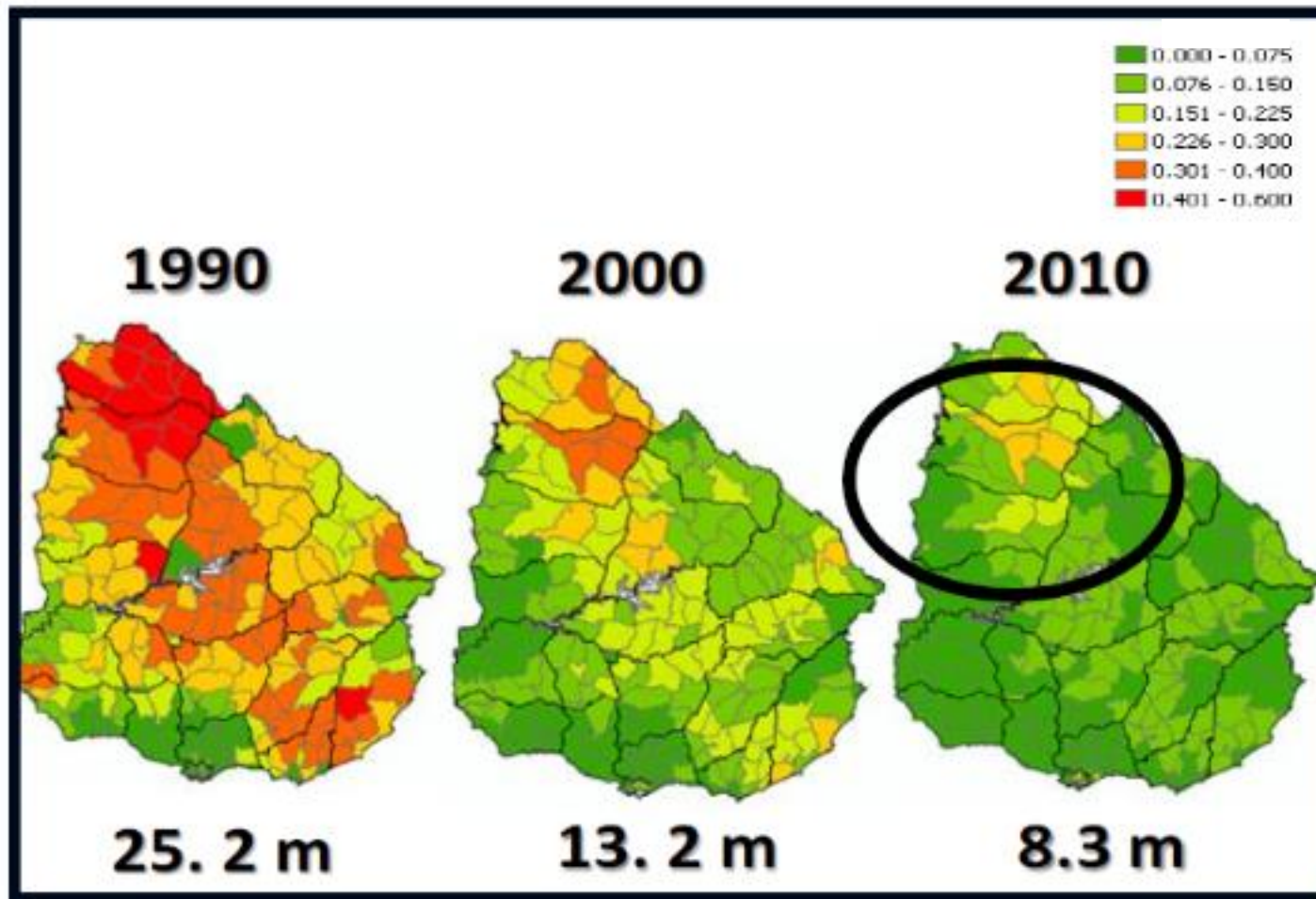


Geography of Uruguay – 180.000 km²



TOTAL ANNUAL RAINFALL (mm.)

Number of sheep in Uruguay



Wools are produced in a open air environment



Mixed grazing with beef cattle



Sheep breeds in Uruguay

Predominance of “Dual Purpose” breeds



Corriedale 65%
26 . 32 μ



Merino 20%
18 . 23 μ



Polwarth 7%
22 . 25 μ



Others: 7%
22,5 . 30 μ



The beginnings of the Dohne in Uruguay

- 1984-1990 Visits to South Africa. Knowledge of the breed.
- 1991-94-98 Failed attempts to import from SouthAfrica
- 1994 Merino World Conference (Uruguay) Conference of C.McMaster
- 2002 First importation by 3 Arboles stud: rams (3) and 350 embryos from Australia. (Summerfield)
- 2003 Second importation of rams (4), ewe hoggets (6) and embryos (400)
- 2004 Evaluations of the Dohne and its XX by research organizations

Evolution of the Dohne in Uruguay

- 2005-2015 Number of stud breeders increases (15)
- More Importations of embryos from Australia
- 2013 Formation of the Uruguayan Association of Dohne Breeders (SCMD). Independently of the Merino Ass.
- 2014 Seminar and visit of Cameron McMaster

The Dohne in Uruguay

Appropriate Breed to transform:

- Wool production systems into more dual purpose without affecting the production of wool. (MERINO)
- Dual Purpose systems to produce finer wool not affecting or even improving the production of meat. (CORRIEDALE)



The Dohne in Uruguay

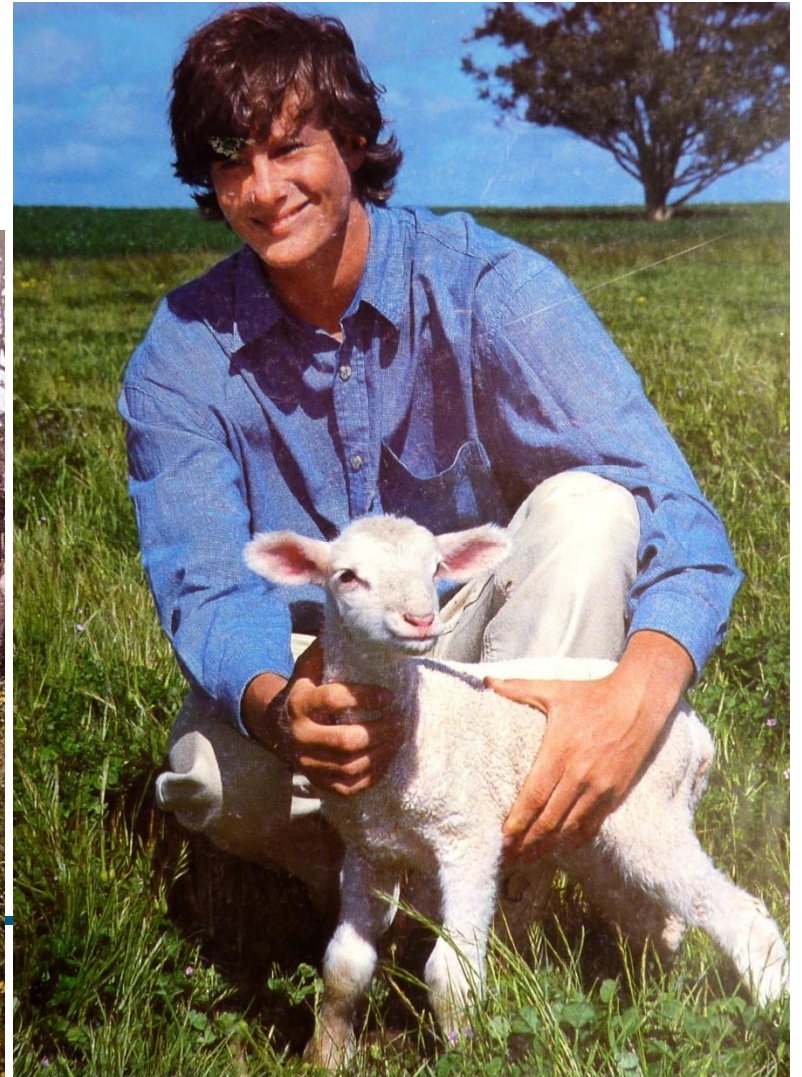
- I) Introduction (2002-03)
- II) Stage of Validation and Experimentation (2004)
- III) Stage of Development and Promotion



First importations from Australia

SUMMERFIELD (WA)

Geoff Beeck



First ram imported into South America: Summerfield 21



URUGUAY







F1 and F2 Merino x Dohne Hoggets



F2 and F3 Merino x Dohne ewes



Pure Dohne Flock



Dohne Merino ewes (3 Arboles, URUGUAY) selected for embryo transfer



Pure Dohne lambs (Tres Arboles)



Ewe hoggets: Corriedale x Dohne



Hogget wool: F1 Corriedale x Dohne



4.5 microns finer in 1 generation



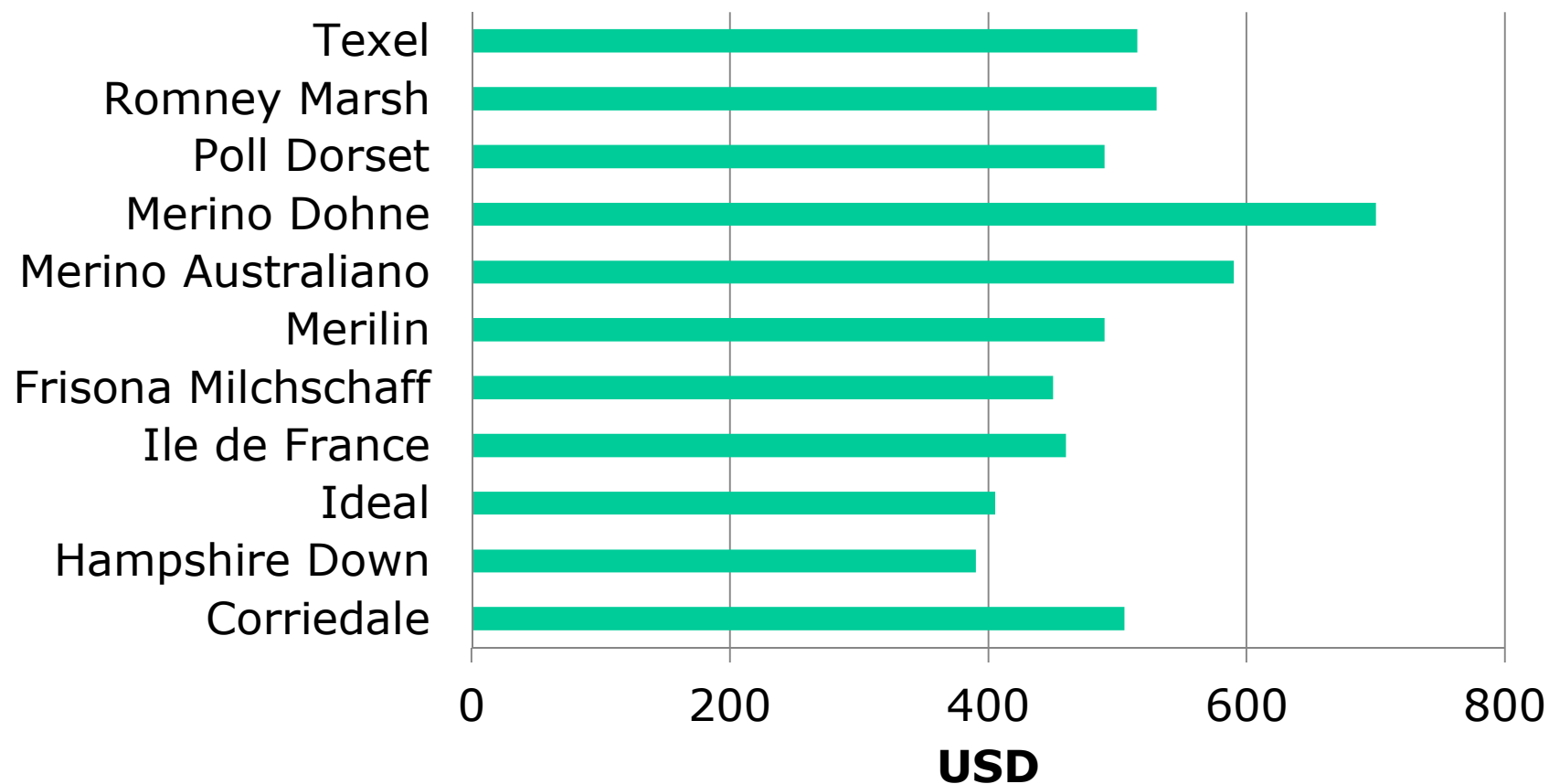
Professor Cameron in Uruguay 2014



Señor productor lanero.
En su raza produzca
ma fino y más blanco.
www.lanastrinidad.com

MEGAAGRO
3
MORADOS PRO-DONNE
www.megaagro.com.uy

Average prices by breeds in Uruguay



Experimental Results of the Dohne performance

- " INIA (URU)
- " SUL (URU)
- " Faculty of Agronomy (URU)
- " INTA (ARG)
- " INIA (PERU)



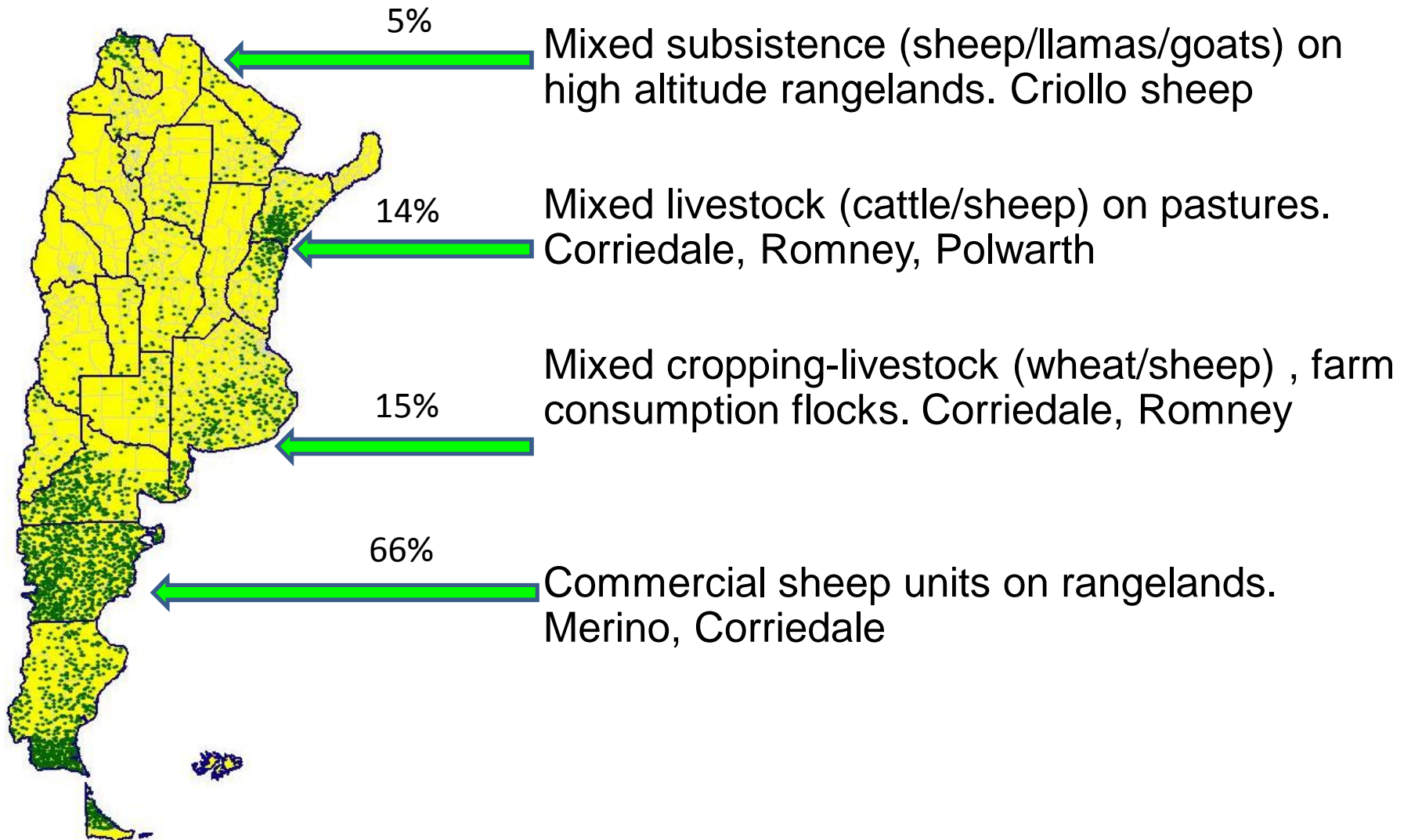
Comparison Dohne - Corriedale (Uruguay)

- * Increases 9% weaning wt
- * Increases the area of muscle *Longissimus dorsi*
- * *Reduces the degree of carcass fat*
- * Increases carcass wt in 10%
- * Reduces clean fleece wt on average 10-15%
- * Reduces fiber diameter between 15 and 20%
- * Reduces staple length 13-15%.
- * Reduces the degree of wool yellowing : y - z (23 to 26%)

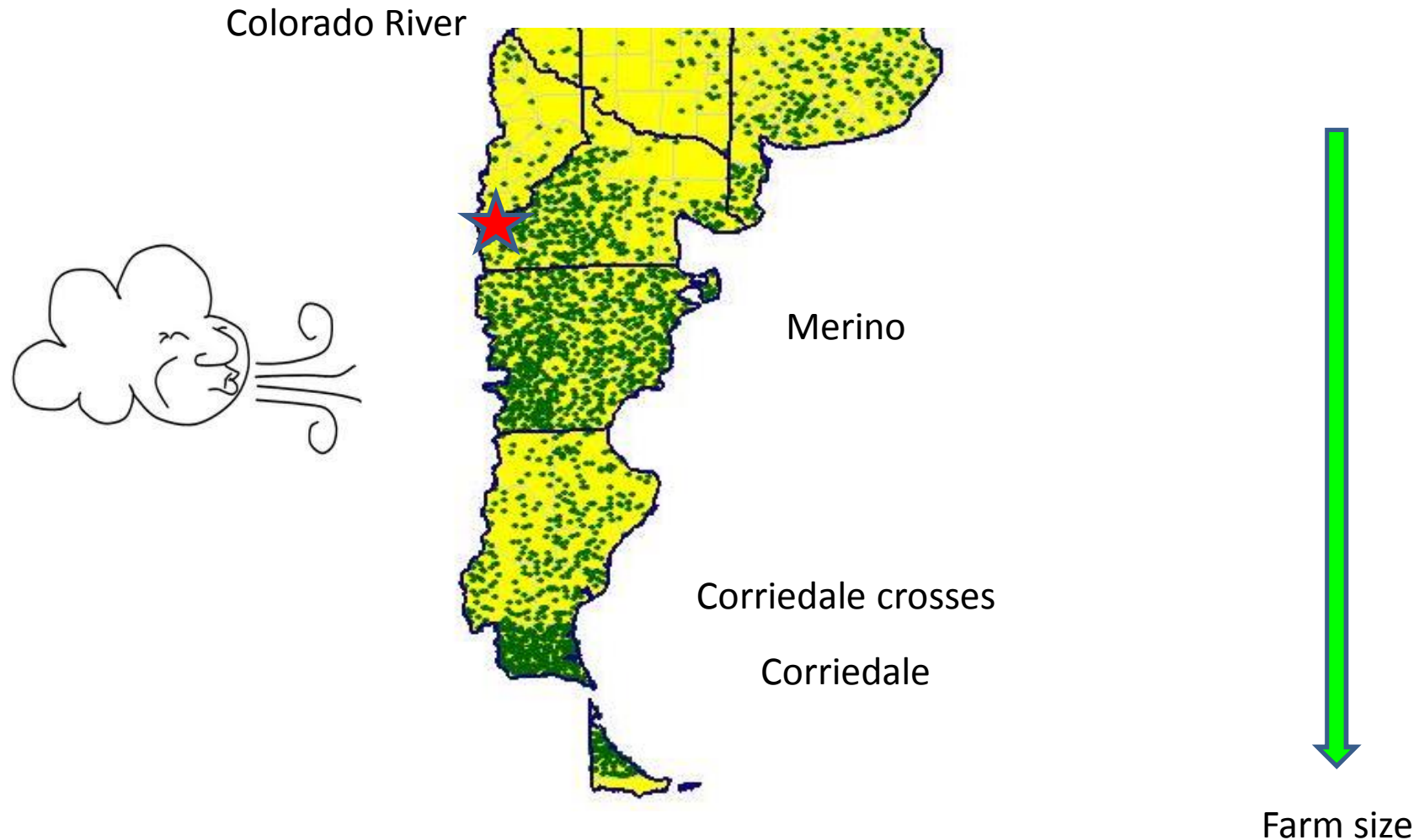
The results of crossing Dohne x Merino

- Animals with much better conformation
- Lambs show better growth rate and carcass yields of >48%
- Animals show more hardiness and easy care
- Animals with less wrinkles and polled
- Better reproductive behaviour
- In crosses over Medium Merino, reductions in diameter
- Small reduction in fleece weight

Sheep production systems in Argentina



Merinos in poorer rangelands, Corriedale in better – colder areas







Patagonia is sheep



Patagonia is oil



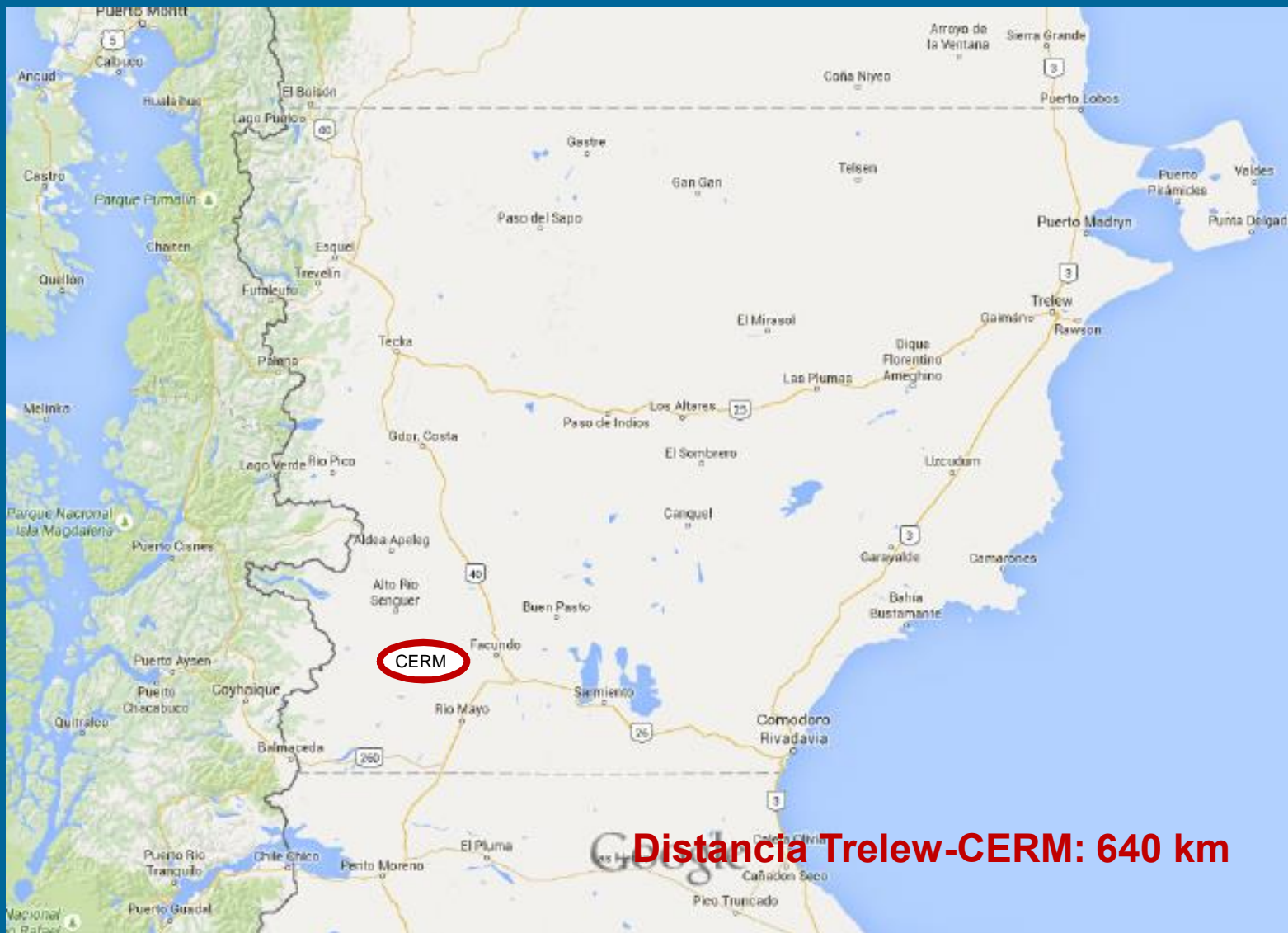
It is in this area that almost everything started. On October 29, 1918, the first perforation was made out in search for oil.

**Winter is cold (min -25°C)
Summer is dry and windy**



The Dohne Nucleus at the Experimental Station Río Mayo (ARG)

- * First genetic nucleus in the country. (2005)
- * 160 Pure Pedigree ewes being mated in 2014.
- * 100% of the flock is being inspected. (AACM)
- * 350 Merino ewes being graded up (200 F1 and 150 F2), all inspected.
- * Open nucleus: best F3 animals with high EBVs and visually checked, enter the Pure Flock.







Humid valleys (“mallines” and “vegas”)



Small family farms (400-1000 sheep)





Large company farms (South)



Sheep on the way to summer pastures

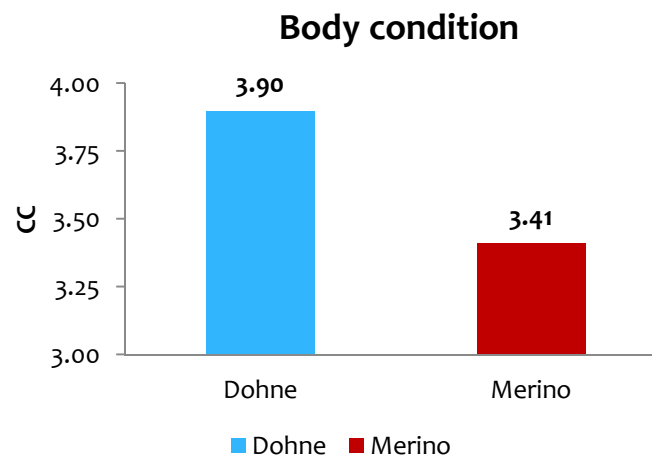
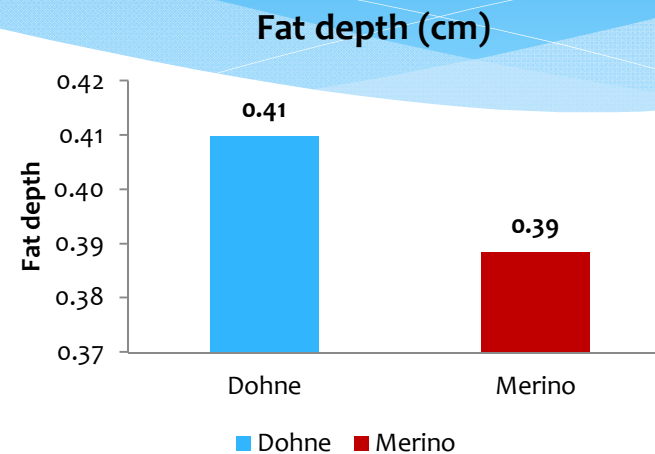
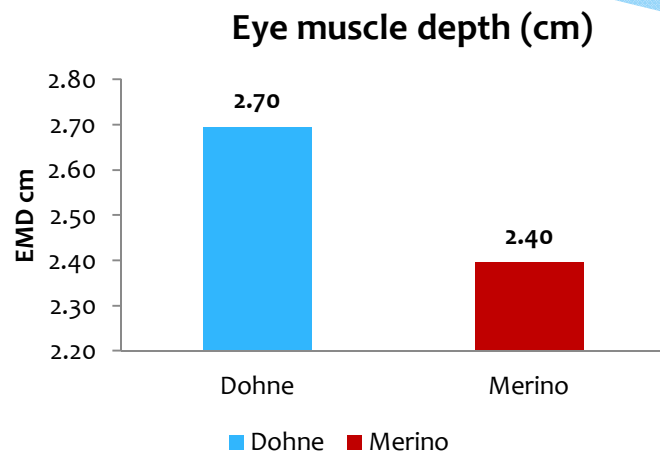


Comparison until weaning

- * At birth: Dohne lambs are **400** gr heavier than Merinos.
- * At marking (50 days): Dohnes **3,3** kg heavier than Merinos.
- * At weaning: Dohne lambs **4,8** kg heavier than Merinos.
- * Type of birth: **10%** more incidence of twinning in Dohne ewes.

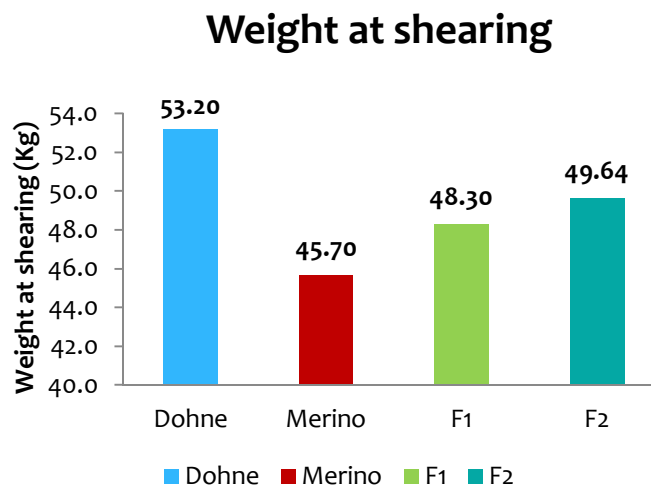
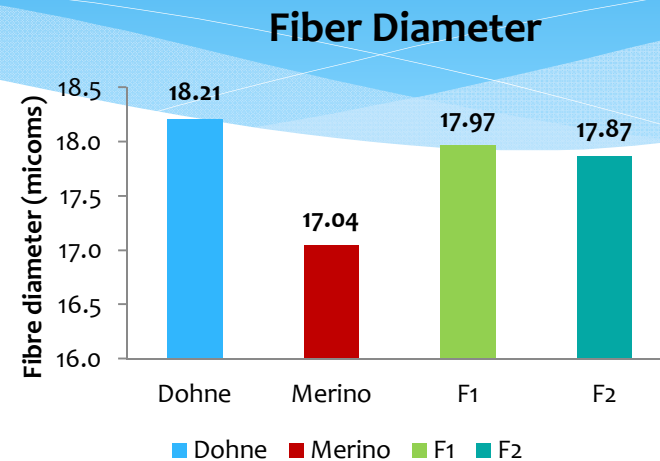
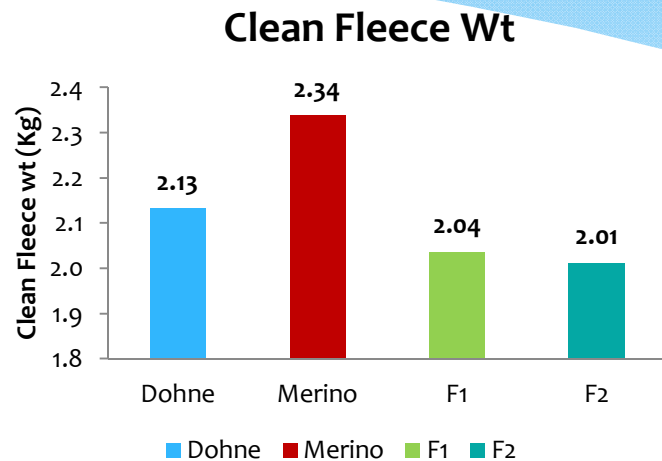
Meat traits

(2 tooth hoggets)



Wool Traits

(2t Hoggets - 12 months of wool)



Problem: Predators (foxes, pumas)



A photograph of a group of five guanacos standing in a dry, grassy field under a blue sky with scattered clouds. The animals are brown and white, facing left. The foreground is a mix of dry grass and dark, rocky soil.

Problem: Competitors (GUANACOS)

5/3/2014

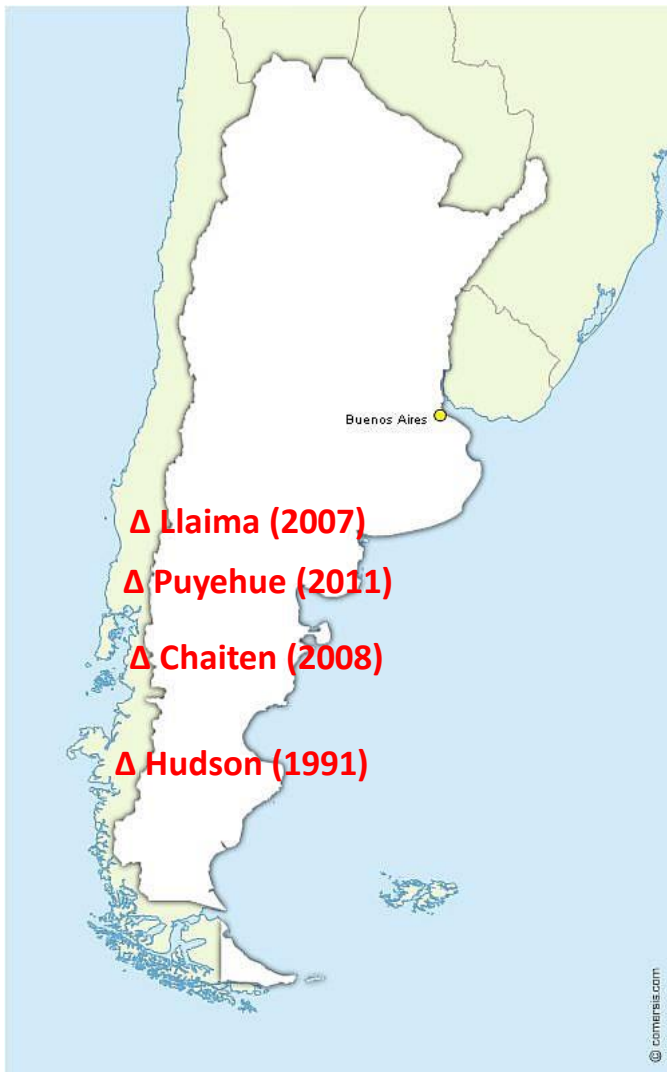




A potential problem: Low resistance



Problem: volcanos





Chaitén, may 2008



Puyehue, June 2011

**4 months after eruption and 200 km away
from Puyehue volcano**



October 2011



Incorporation of the Dohne in Chile for the production of fine wool and fat lambs for slaughter

2004, Patagonia, Chile.



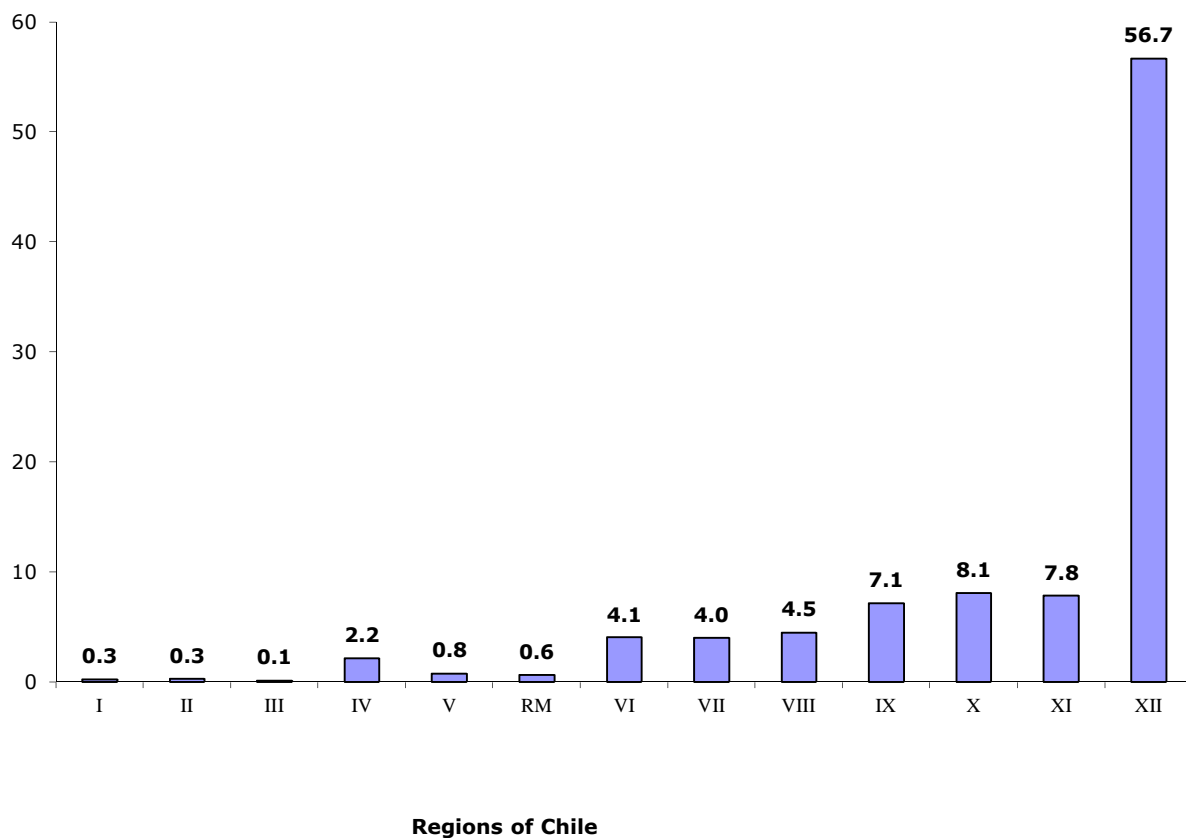
Sheep production in Chile (Patagonia)



4 14:45

Regional distribution of sheep in Chile

In %









FIELD DAY March 2004.



■ F1 Dohne ■ Corriedale

40

35

30

25

20

36.8

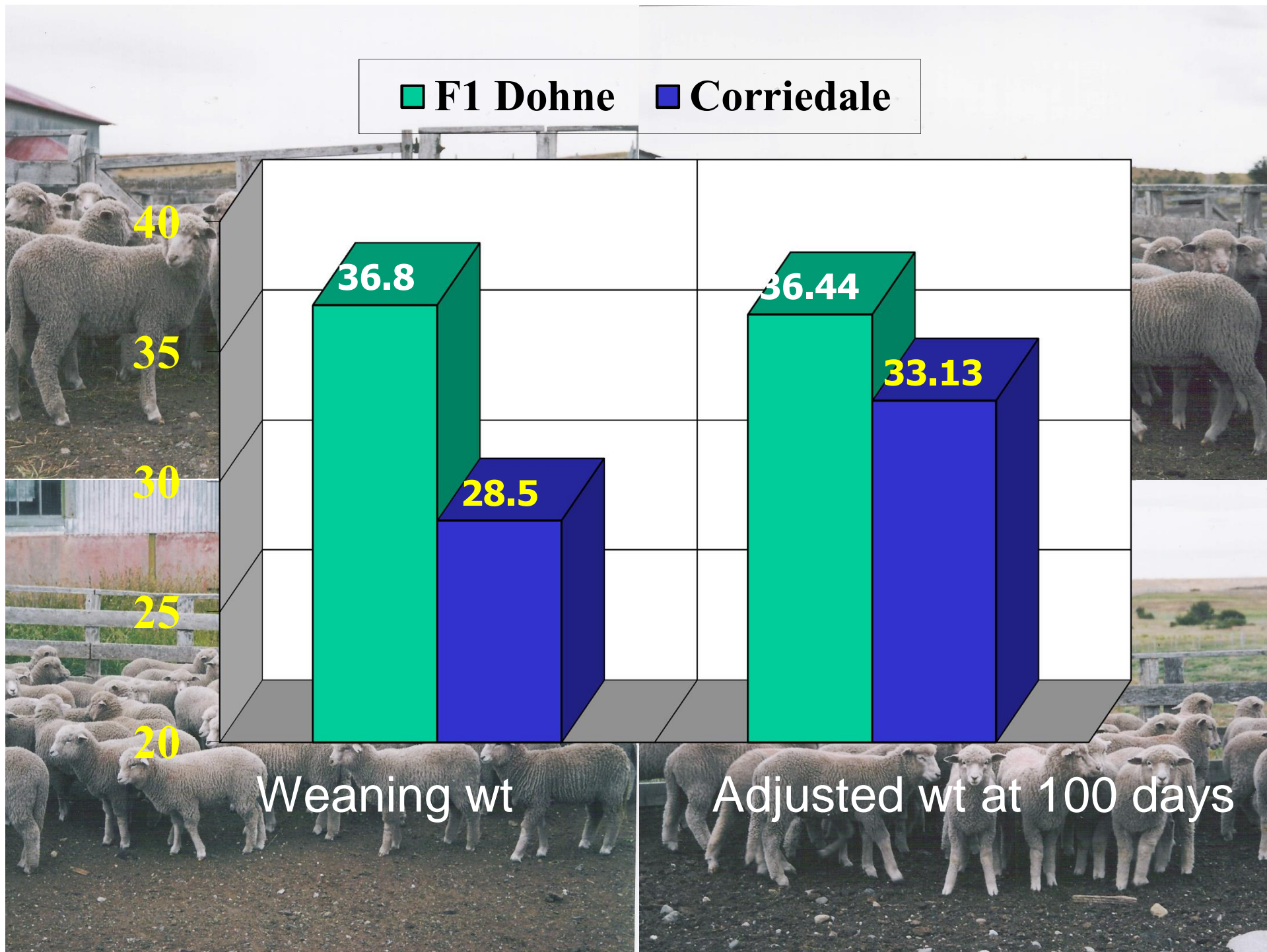
28.5

36.44

33.13

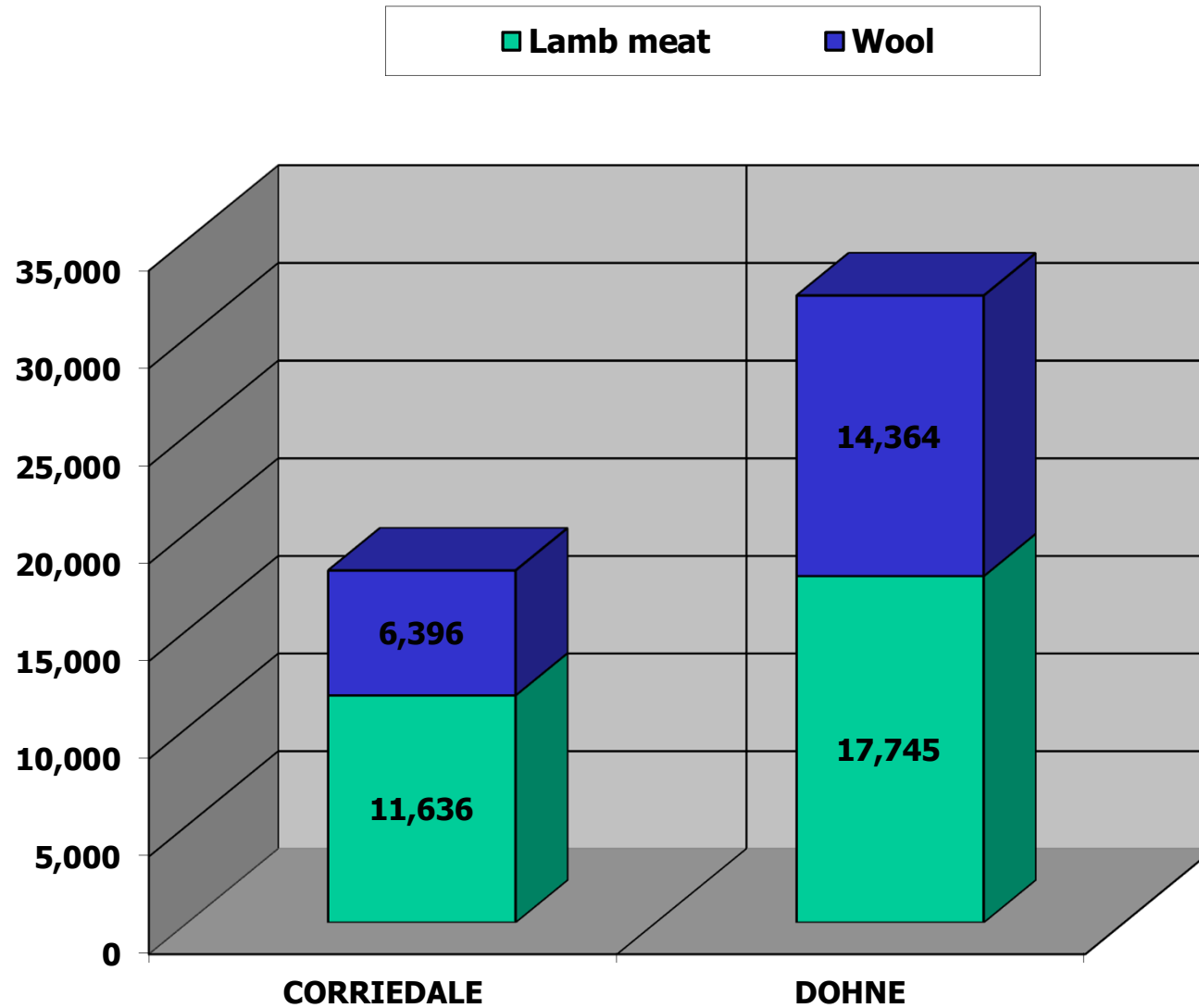
Weaning wt

Adjusted wt at 100 days

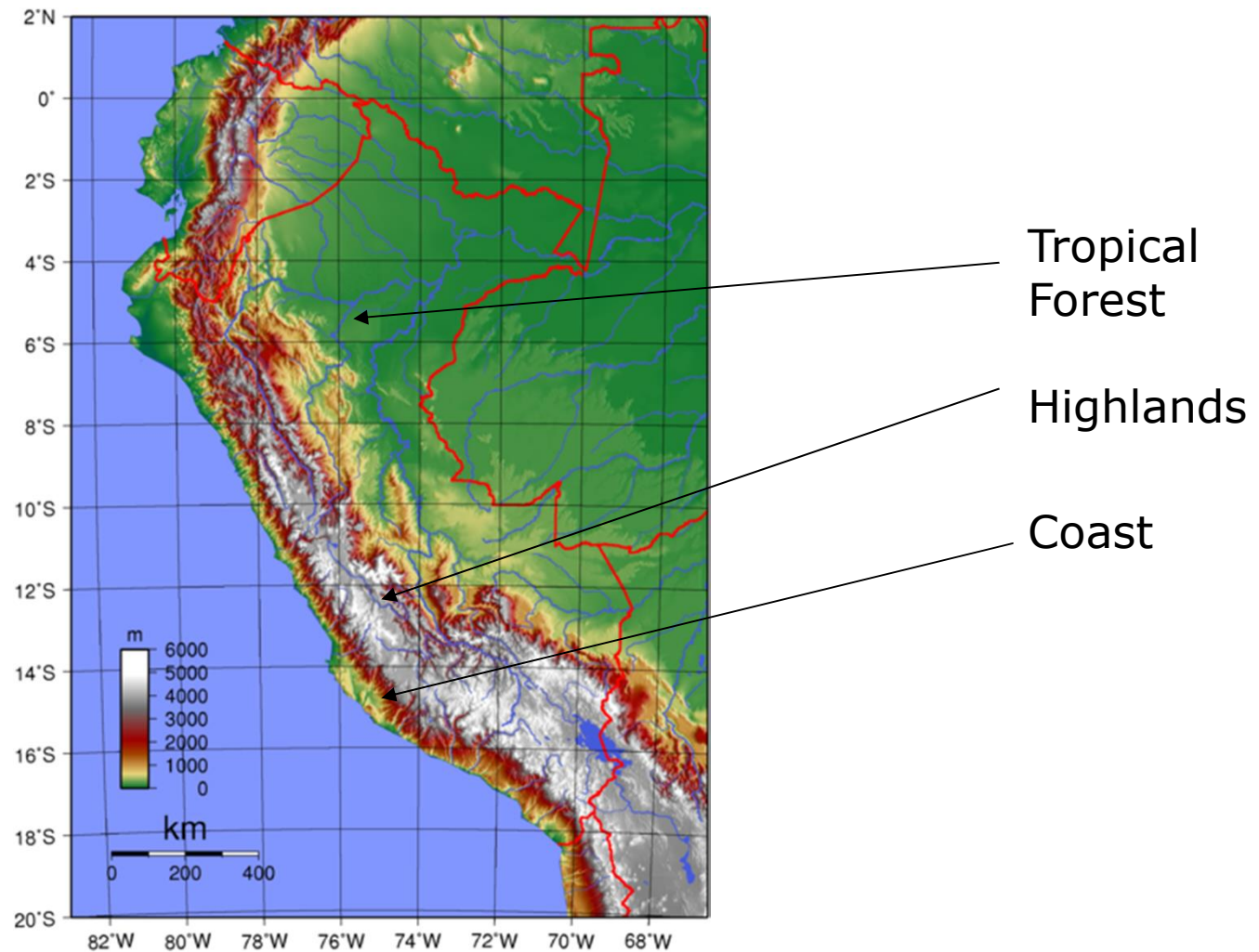




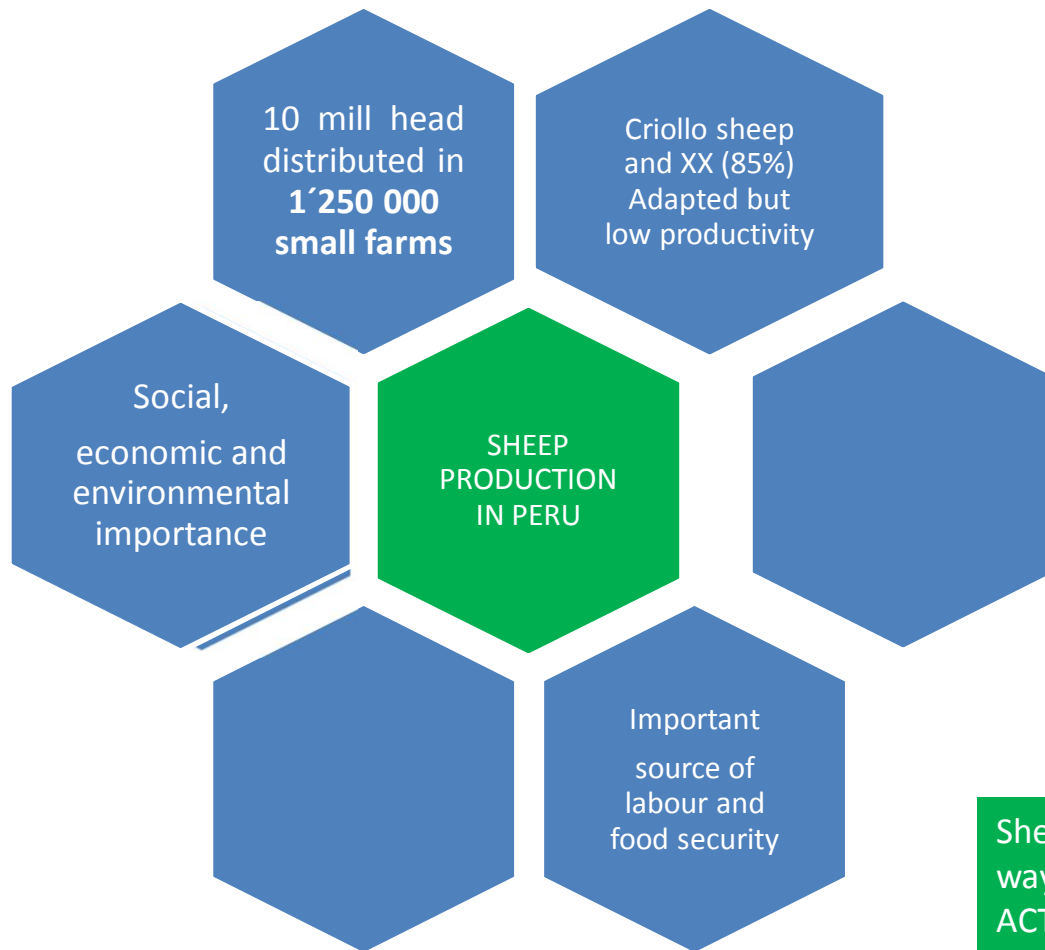
Gross Income / sheep



Peru: Geographic regions



SHEEP PRODUCTION IN PERÚ



Shepherding sheep has been part of the communities way of living for the past 5 centuries: **MAIN LIVESTOCK ACTIVITY IN PERU**

“Perú can not compete in the world export market and not even offer a good quality product for the domestic market, due to the fact that the present genetic resources DO NOT HAVE the desired genes with the required frequencies” (W.Vivanco)



VIVANCO
INTERNATIONAL SAC

Criollo sheep: reared and xx without a clear objective

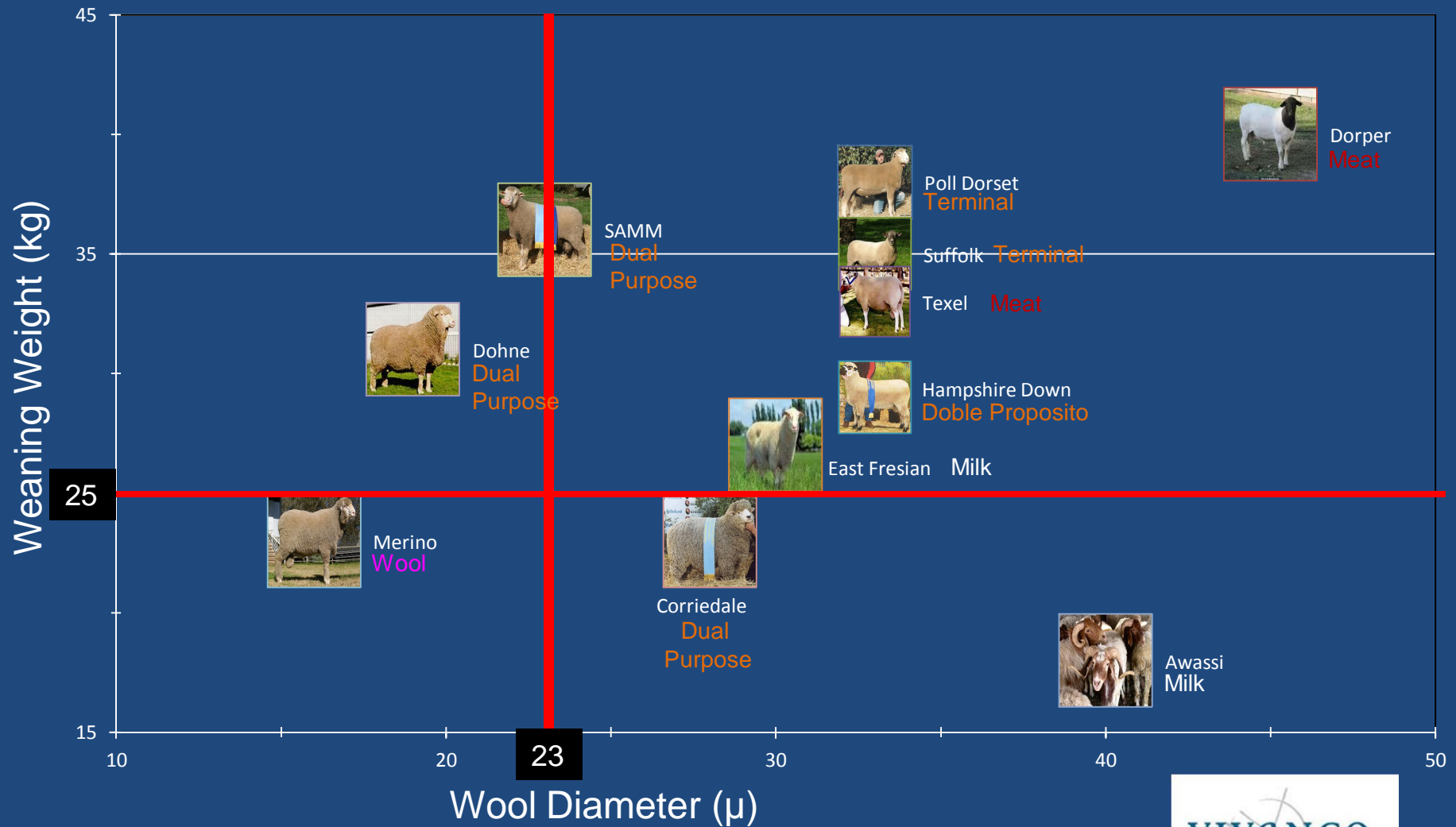
Fuerabamba,
Apurímac,
2007



VIVANCO
INTERNATIONAL SAC

Poor conformation, low production, poor quality of products

Potential Productivity of different Breeds (weaning weight and fiber diameter)



Proposal

- Sheep Breed Replacement (DOHNE and Milchschaff)

Introduction of the DOHNE in Perú

2006: Gift of MAB (AUS) to INIA of 130 doses of semen.

2008 Acquisition of 50 doses of semen

2011 INIA introduces 130 embryos



Corderos DOHNE en CATAC, nacidos
Noviembre 2011





**First Dohne
lambs born by
ET at Puno.
2011**





Small sheep producer with her children (Puno Region)



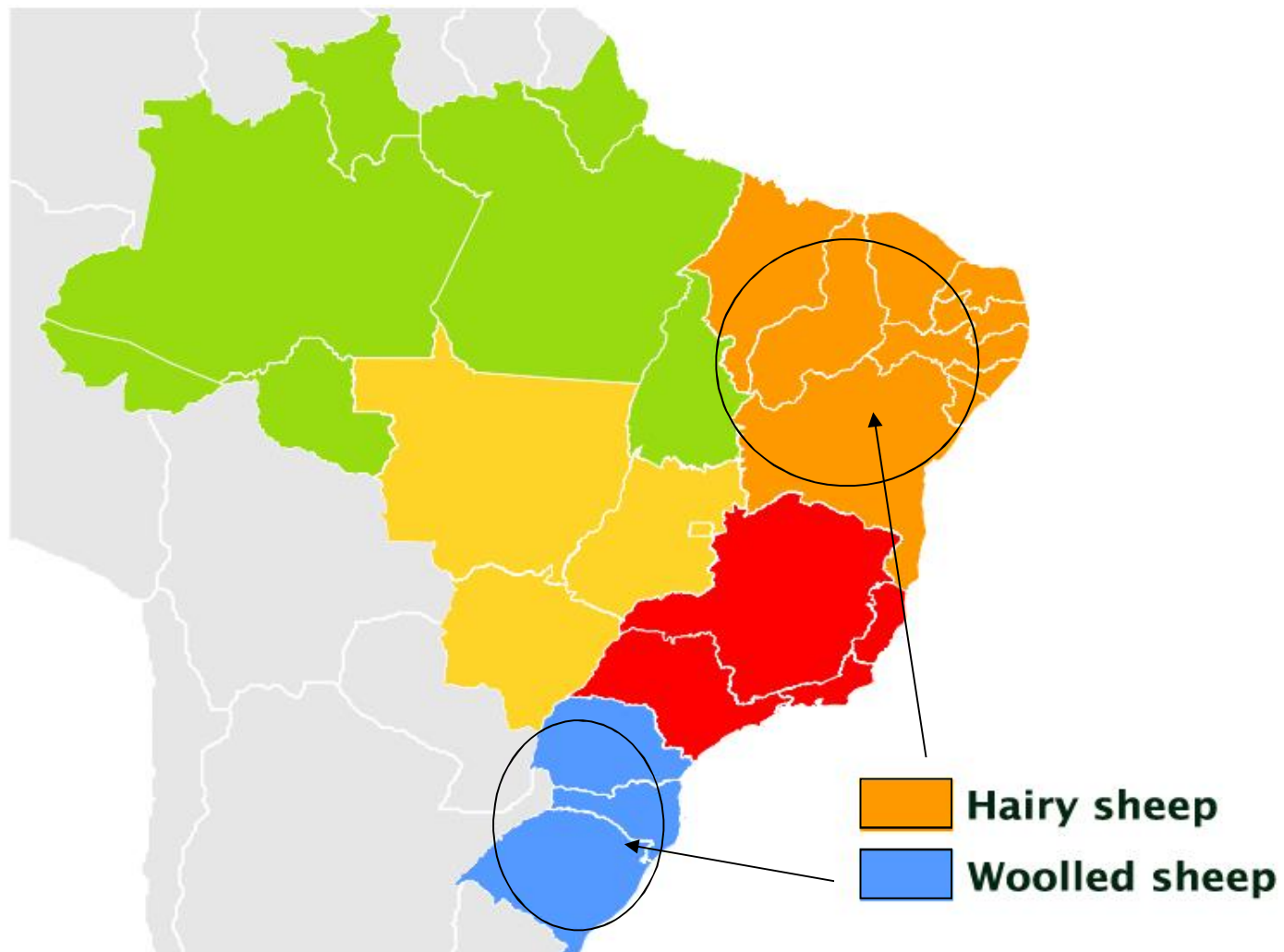
Small producer of sheep (Cusco Region)

Shepherd and criollo crosses in Peru





Brazil



SANTA INÊS (Massive introduction of DORPER)



Falkland Islands / Islas Malvinas

Introduction of the Dohne 2003

Total sheep: 600.000

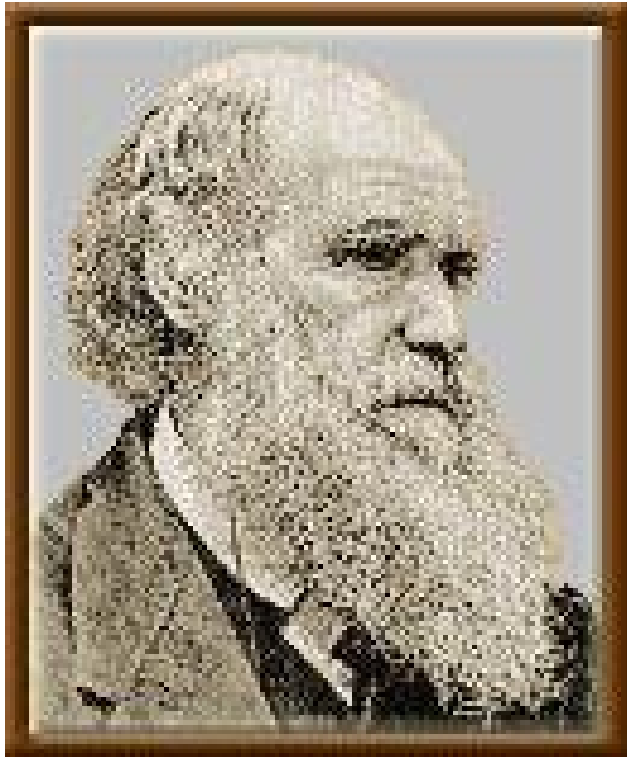


Falkland Islands/Islas Malvinas



Topics of Importance for discussion

- Relative importance of meat and wool:
Australia 70%-30%
South America: more importance of wool.
Alternative: optional selection indices.
- “ Selection for resistance to internal parasites (WEC)
- Tendency to wool yellowing in wet and hot climate
- WPP%: issue to be discussed
- Competition at shows ? How to perform them?



Charles Darwin

It is not the strongest of the species that survive, nor the most intelligent. It is the one that is the most adaptable to change.



The Dohne Breed
has a bright
Future in South America



Thank you