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Merino´s Branch EAgroup Breeding Program. A Cooperative Experience

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What is EA Group SC?

- 2nd grade Cooperative, involving 8 base cooperatives
- 1600 farmers
- Census of 800.000 breeding animals of the Merino´s Branch
- 450.000 living animals and 220.000 carcasses commercialized per year (national and international markets)
- 9 Centers of lambs Typification (Capacity for 80.000 fattening lambs)
- 2 Slaughterhouses and 3 carcass management rooms
- 1 Center for Merino type wool classification (COMERCIAL OVINOS SL) processing 3700 tn. /year
- 27 Technical Staff: 6 central; 21 peripheric
- 4 Permanent agreements on genetics with universities and other research institutions

Genetic base of Eagroup: Merino´s branch

Maternal base

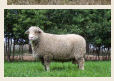
- 25-30% pure Merino

- 70-75% Cross-bred Merino at different levels

Paternal base

- 80% Fleishchaff

- 15% Ile de France



- 3% French Merino

- 2% Other Merino´s Branch breeds

EA group´s Breeding Problems

Problems

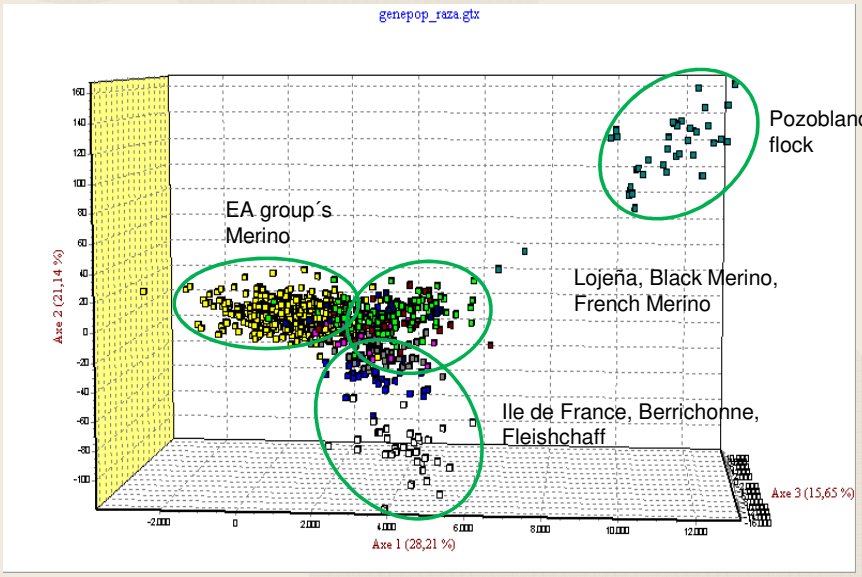
- Cross breeding at the maternal base
- Diversity at the paternal base
- Lambs and carcass heterogeneity
- External genetic dependence
- Official breeding programs did not provide solutions

Solutions

- Development of a multibreed internal breeding program
- Complete “merinization” of the maternal base
- Additive genetic progress of pure maternal and paternal bases
- Improvement of the additive complementarity and heterosis capacity of breeding animals of both bases
- Obtention of improved and homogeneous F1 final products

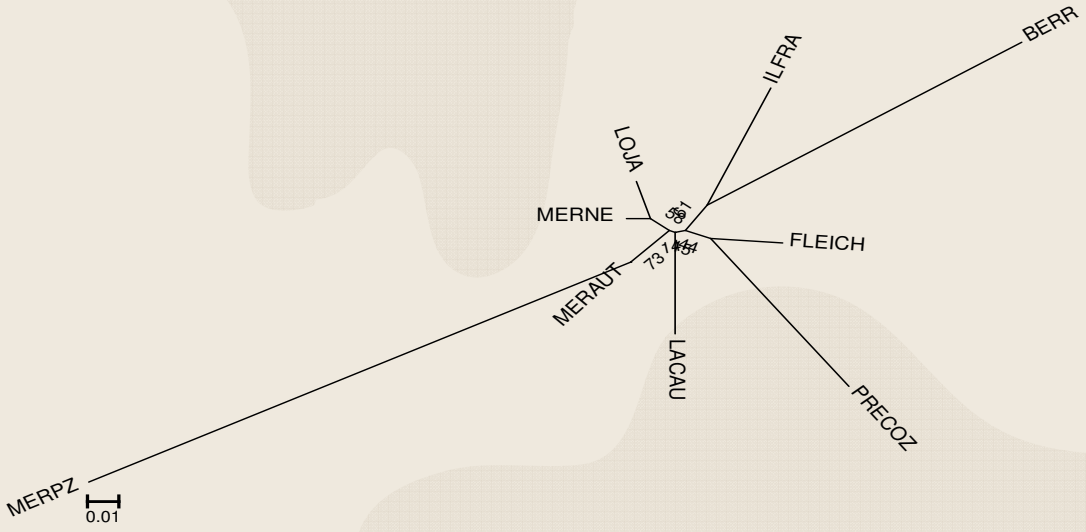
First step. Genetic characterization, microsatellites

Genetic characterization of the maternal base (2010)



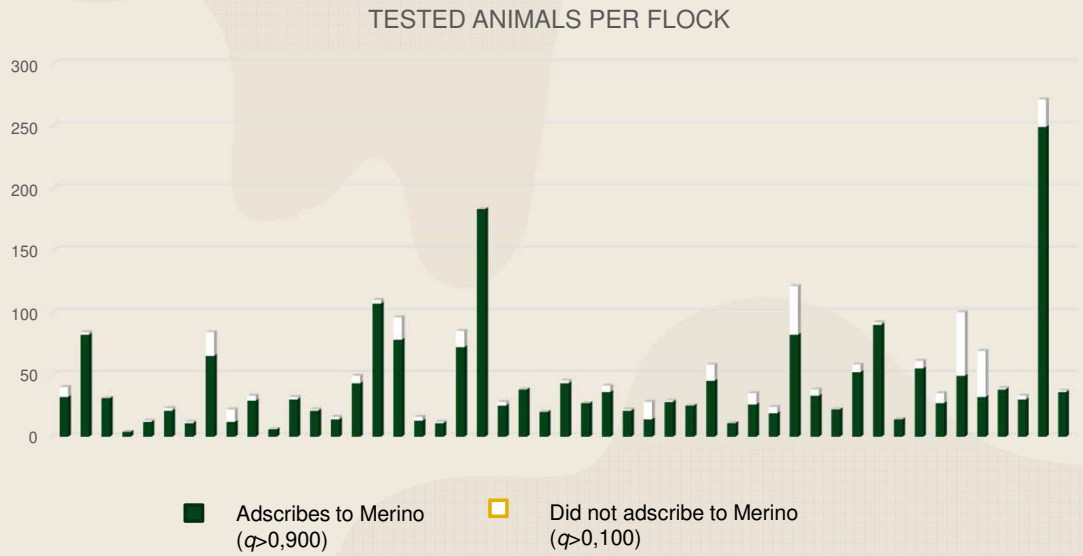
First stage of the EA group´s Breeding Program

Genetic characterization of the maternal base



First stage of the EA group´s Breeding Program

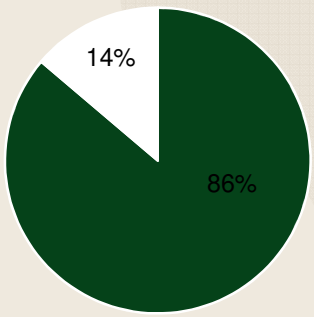
Genetic characterization of the maternal base



First step of the EA group´s Breeding Program

Genetic characterization of the maternal base

TOTAL= 2394 Tested animals



Tested Flocks	Genetically Pure (%)	Genetically no pure (%)	Animals
49	2064 (86,22)	330 (13,78)	2394

Ascribed to Merino (q>0,900)

Did not ascribe to Merino (q>0,100)

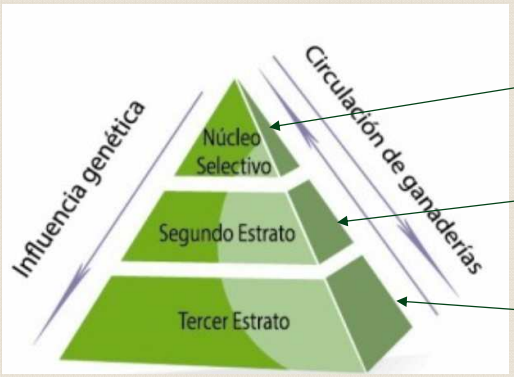
Note:

1.- We are speaking about animals genetically pure Merino. Different of the administratively pure animals, which are only those registered in the herd book

2.- A 45% (24 flocks) of the studied animals had both considerations, belonging to the breeders association and the cooperative

Eagroup´s breeding program development. 2013

2nd step: Multi breed breeding program



Pure maternal and paternal base breeding: Complementariry, heterosis

Multiplication of maternal and paternal improved pure animals

Productive stratus F1 production

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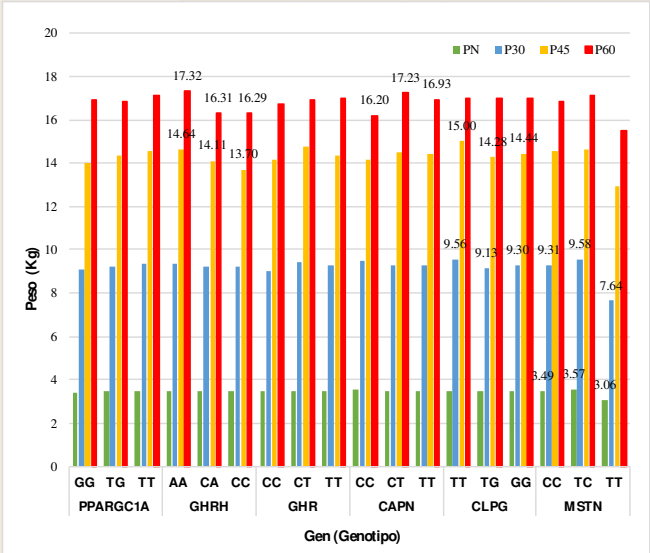
3rd step: Genomic applications

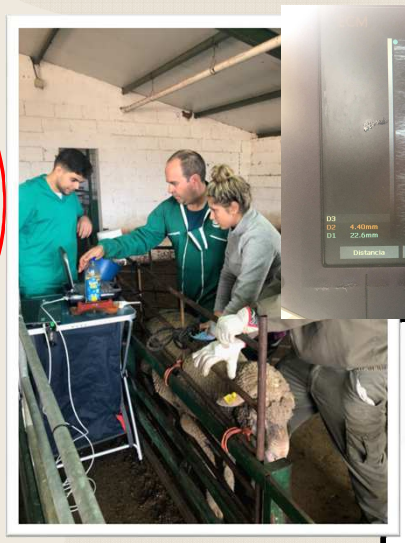
Genomic associations for weigths at different ages

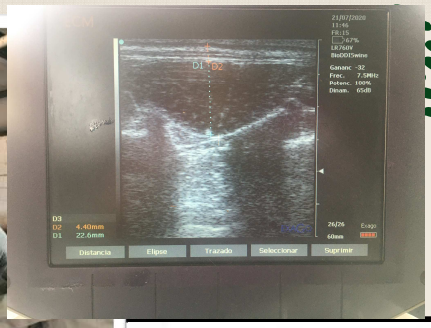


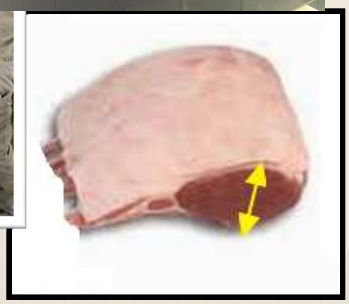
Genetic improvement of the meat and carcass

Future challenges

Meat and carcass indicators



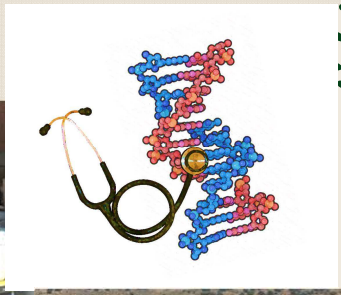




Genomic studies on disease resistance

Future challenges

Industrial Project (GENXLAMB) "Markers Assisted Selection of disease resistance for the extensive sheep" 295.000 Euros/2 years



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Future challeges

Wool genetic improvement

comercial ovinos

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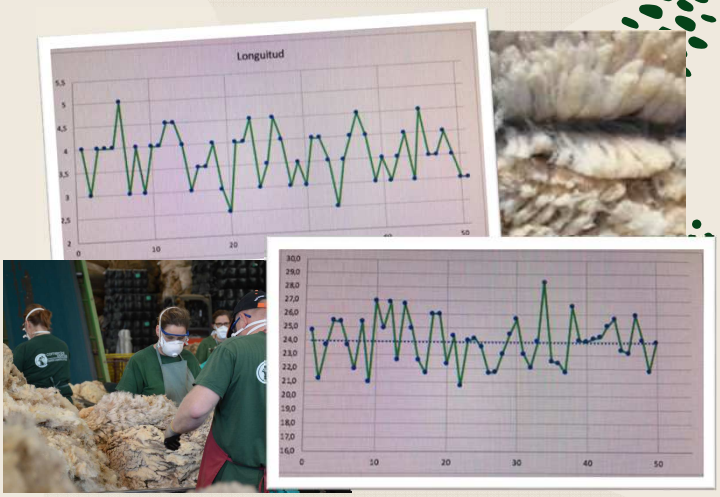
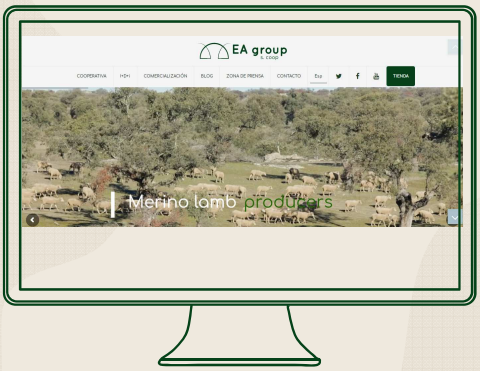


Our WEBSITE and SSNN



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- **WEBSITE: https://www.eagroup.coop/**
- **Facebook:** ganaderos EA Group – EA Group
- **Twitter: @Eagroup**
- **Instagram: eagroup.coop**

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Many thanks from our farmers and staff