

The short-tailed Iceland breed of sheep



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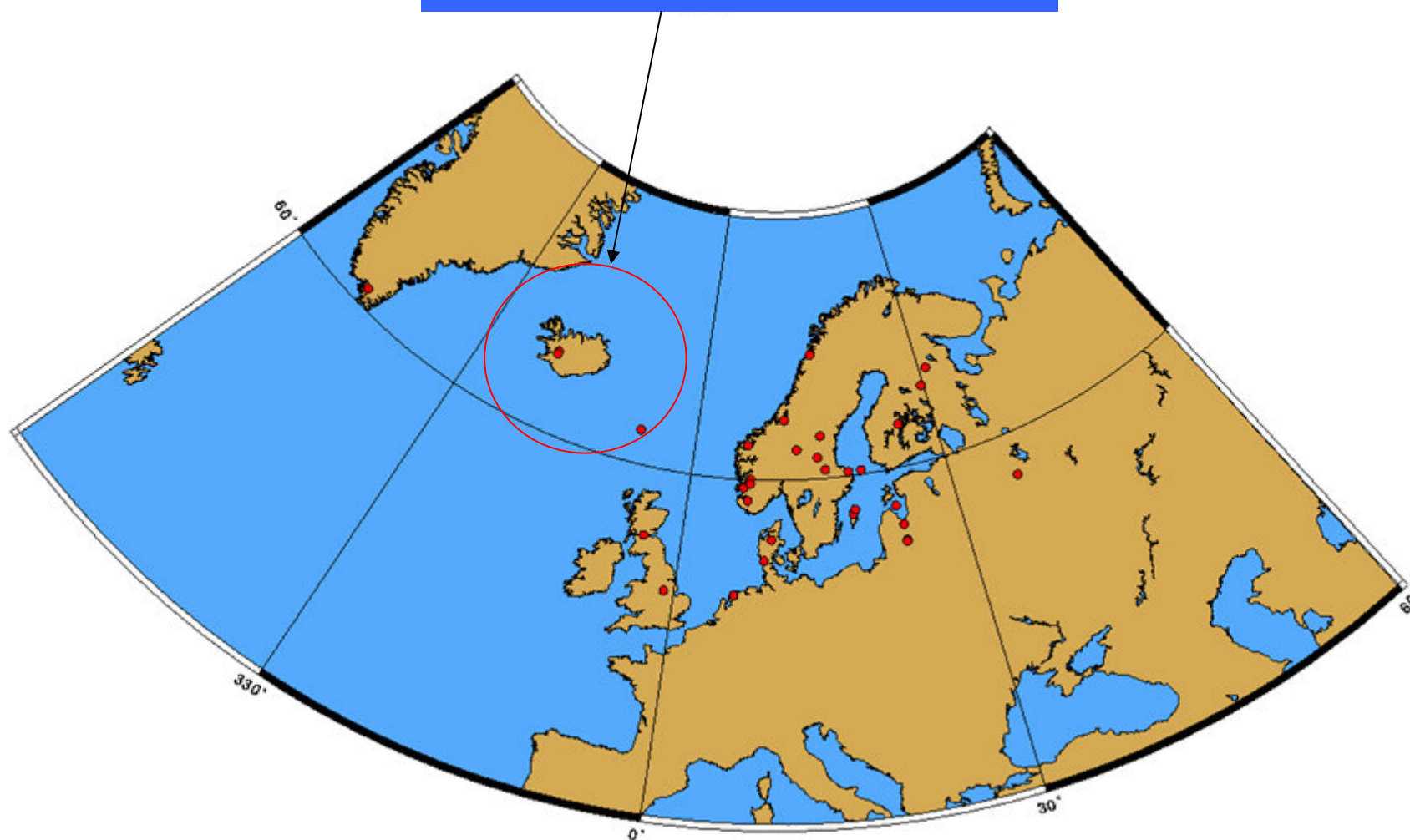
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Where is Iceland?



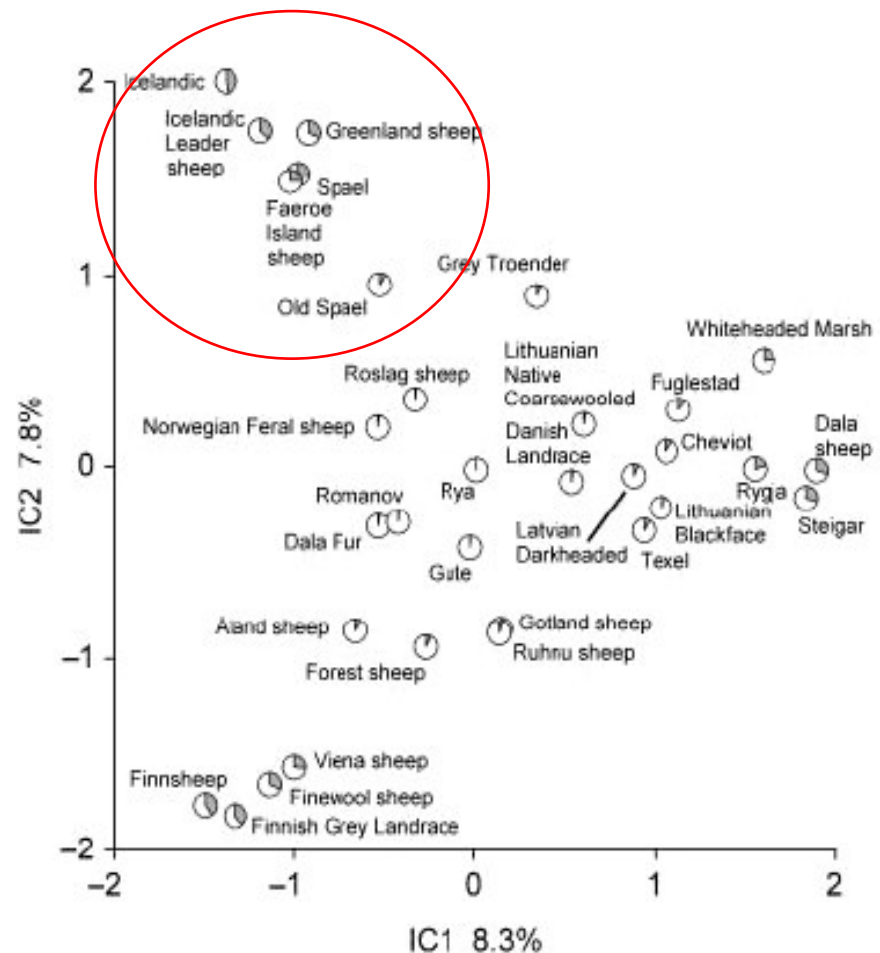
An old local breed.....

- Sheep were among the livestock brought to Iceland by the Nordic settlers in the period from 870 to 930 AD.
- The likely origin of the sheep is in Western Norway
- The old breed may have resembled the Old Norse Sheep (Villsau)



A unique breeding history

- Research on genetic relationship between sheep breeds in N. Europe shows, that sporadic imports during the 18th to the 20th century have had negligible impact.
- (Tapio, et al. 2005. Molec. Ecol. 14, 3951-3963)



Population

- National flock: 455,000 in Iceland – all purebred
 - 45,000 in other countries
 - Greenland (slightly influenced by other breeds)
 - USA, Canada, UK
 - Small numbers in Denmark, Norway, Germany, Switzerland
- The most numerous North European short tailed population (> 50% of total)
- Economic value:
 - lamb meat 90%,
 - wool, pelts and milk 10%

Sheep production

- Hardy, seasonal breeding in December
 - for lambing in May
- Ewes weigh 60-70 kg, rams 90-100 kg
- Great genetic diversity; horned/polled,
 - white/coloured
- Prolificacy:
 - 1.8 lambs /ewe lambing
- Average meat production:
 - 26.3 kg/ewe mated



... sustainable rangeland utilization in summer



..... housing and indoor feeding in winter



The housing period is from November through lambing in May.

The main feed is home grown hay or silage.
Minimal concentrates



Typical yearling, horned white ram

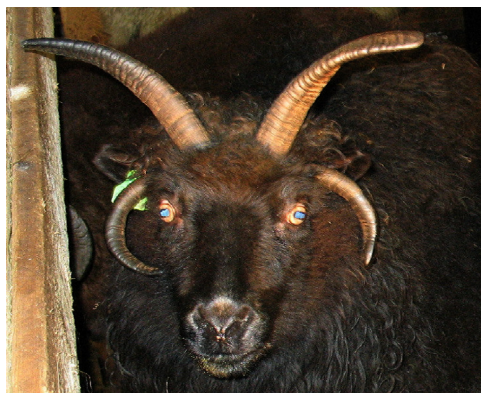


Iceland sheep products



- **Meat:**
 - 8700 tons/yr – 25 – 30% exported
 - Seasonal slaughter, September – October
 - Sheep heads and offals utilized
- **Wool:**
 - 638 tons of clean wool/year, 80% autumn shorn
 - Double coated fleece; undercoat 6 cm, 20-25 microns, outercoat 21 cm, 40 – 80 microns.
 - Natural colours – handicraft
- **Pelts:** 500.000/yr – lightweight, woolskins and leather
- **Milk:** traditional staple food before – niche production now – mainly cheese.

Great diversity



Special traits



Leader sheep strain, ca. 1000.
Unique behavioral trait



Two single genes that increase
prolificacy, with a similar effect,
+ 0.6 lambs per single copy

Sheep AI since 1939

- AI is applied in 80-90% of the 2500 commercial and hobby sheep flocks
- Semen exports to North–America
- The main aim is breed improvement through distribution of valuable genetic material
- Main emphasis on lamb production (meat) but also conservation of other traits (colours, leadersheep, fourhornedness)

Breeding work

- Nearly 100% of national flock individually recorded.
 - Central data bank
 - BLUP evaluation of prolificacy, mothering ability and carcass quality (EUROP-class)
 - Progeny testing of rams for growth and carcass quality
 - AI rams tested for PrP genotypes – VRQ excluded
- Emphasis on prolificacy, mothering ability, growth rate and carcass quality



Improvement with breeding and improved husbandry



- Productivity has been greatly improved through genetic selection combined with appropriate management
- Genetic diversity is maintained
- A good example of an old breed playing an important role in modern agriculture
 - Sustainable production
 - Quality products produced in harmony with nature