Rhinebeck Presentation on Southram Station and Icelandic Sheep Farming

Gudmundar Johannasson

Sheep Farming in Iceland seasons:
December: breeding season
December: May - housing season
February - March: shearing season
May: lambing
June - August: grazing season
September: sheep gathering
September - November: lamb finishing and slaughtering

Sheep Breeding/Recording in Iceland
• Approximately 470,000 winterfed sheep in Iceland
• 1,025 farms keep records for a total of 217,599 winterfed sheep
• Average farm size is about 212 sheep
• Average autumn weight (October) of ewes is 65 kg (143 lbs.)
gaining up to 76 kg. (167.2 lbs.) in April, before lambing
• Average litter size is 1.81
• Low incidence of triplets or bigger litter size; only about 5% of the ewes
• Ovulation rate varies much less than other breeds (80% have two corpora lutea)
• Average meat production per ewe is 27.2 kg (59.84 lbs.)
• Highest meat production per ewe on one farm is 41.3 kg (90.86 lbs.)
• Average wool production per ewe is 2.14 (4.708 lbs.)

Sheep Recording - What is Recorded?
• Weight in October, January and April
• Horned or polled
• Health
• Father of lambs
• Number of lambs
• Fleece weight

Lambs:
• Father and Mother
• Date of birth
• Sex and color, health
• Live weight before slaughtering
• Carcass grading
• Ultrasound measures if scanned

SOUTHRAM - www.bssl.is
South Iceland Sheep Breeding Center
• is a subcompany owned by farmers in the region
• about 10,000 ewes AI'd by fresh semen from Southram each year
• Exportation of frozen semen to USA
• Inquiries from UK, Jordania, Denmark, LIthuania, etc.
• Non return 72% (one vaginal AI) - 76% (one laporoscopic AI)

Selection of Sires
• Sires are selected after progeny testing on the farms
• Outstanding carcass grading of progenies noted in sheep records
• Performance of daughters, milking abilities and/or prolificacy
• Breeding value calculated by BLUP (Best Linear Unbiased Prediction)

Evaluation and Judging of Sheep/Measuring and Conformation Scoring
Measures:
• Chest circumference, cm
• Back broadness, cm
• Leg length (left front leg) mm
• Eye muscle thickness, mm
• Back fat thickness, mm

Conformation Scoring
• Head
• Neck and Shoulders
• Chest and Conformation
• Back
• Loins
• Leg Muscle
• Wool
• Feet
• Harmony

Evaluation and Judging of Sheep/Ultrasound Scanning
• Ulrasound measuring of eye muscle and muscle shape scoring predicts total muscling of the carcass
• Ultrasound measuring of back fat predicts the total fat of the carcass
• Ultrasound measuring leads to selecting and breeding for more meat and less fat which translates to more meat for the consumer

Progeny Testing of Sires
Progenies are evaluated by:
• Measuring and conformation scoring
• Ultrasound scanning measuring eye muscle and back fat thickness along with muscle shape
• Wool characteristics
• Carcass grading, including leanness
All calculated into what is called a "meat quality index"
The breeder can select "meat/fat ratio" in the "meat quality index"

Results:
Monitoring of sire's performance by their progenies, meat quaity and mothering abilities through progeny testing and sheep recording on the farms.

• All this gives ability to produce better meat in a more economical way for the benefit of the consumer

Southram: the Future
• Testing new semen concentrates being able to offer fresh semen that lives longer, up to 4 days.
• Changing freezing methods, offering semen for good results with cervical ?AI instead of laporoscopic AI
• Breeder can do the insemination, rather than hiring a veterinarian
• Embryo transfer
• Courses on insemination and breeding for foreign breeders