

A glimpse of Southram's history

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The Sheep Breeding Centre of South Iceland or Southram, as it is usually referred to, was founded on the 25th of November 1968 and has therefore now been operating for nearly 35 years.

Background

Artificial insemination of sheep has been practiced, although not on a commercial scale in Iceland since 1956, or twelve years before Southram was founded. One can say that Southram's history begins in 1956 when Dr. Halldor Palsson, then national sheep breeding consultant, makes an agreement with Southagri to lease facilities at Thorleifskot for experiments on artificial insemination in sheep. Hjalti Gestsson, Southagri's sheep breeding consultant, arranged rams for semen collection. Semen from these experiments were used fresh in various locations in the North, West and South Iceland. Approximately 400-600 ewes were inseminated every year. In 1956, the first year of operation semen was collected from seven rams including Durgur from Fjall farm, Valur from Steinsholt farm, Thrandur from Stora-Armot farm and Jokull from Austurkot farm. These inseminations continued in 1957 and 1958 when the first progeny testing was performed by using selected lamb rams. Seven lamb rams were selected, three from Laxamyri farm and one from each following farms; Steinsholt, Hrafnkelsstadir, Thrandarholt and Stora-Armot. The progeny test took place at sixteen farms in four sheep breeding clubs. Approx. 200 ewes were inseminated. Unfortunately this proved to be to an expensive method at that time and was not done again until 1988.

Foundation of Southram

The contagious disease eradication regulations severely restricted movement of sheep and under these situations the sheep breeding authorities in Iceland realized that new breeding schemes and methods had to be developed to optimize the breeding of The Icelandic sheep. On 25th of November 1968 The Sheep Breeding Centre of South Iceland (SOUTHRAM) was founded by The Agricultural Association of South Iceland (Southagri) and fourteen local sheep breeding clubs in South Iceland. In the beginning Southram's sire facilities were in an inexpensive shed at Thorleifskot and semen collection and preparation was performed in The Dairy Breeding Centre which at that time was operating in Thorleifskot. It has always been one Southram's main goals to offer as good and inexpensive semen as possible.

Rams were bought from Skaftafellssýsla (sýsla is a county), from Lundur Sheep Breeding farm near Akureyri and from The Sheep Breeding Club, Thistill in Thistilfjordur in North Iceland. Two of the first rams came from Nordurhjáleiga farm and Seglbudir farm and three from Lundur Sheep Breeding Centre. Eight ram lambs were bought; five from Thistill Sheep Breeding Club and three from Seglbudir farm. The ram lambs from Thistill came from following farms; Holt (2), Sydra-Aland (2) and Laxardalur (1). The first year 2,790 ewes were inseminated during the period 9th-20th of December.

Number of inseminations

People's interest in using AI as part of the breeding program grew quickly and in 1970 number of inseminated ewes had reached 4,000 and in 1977 a total of 8,915 ewes were inseminated.

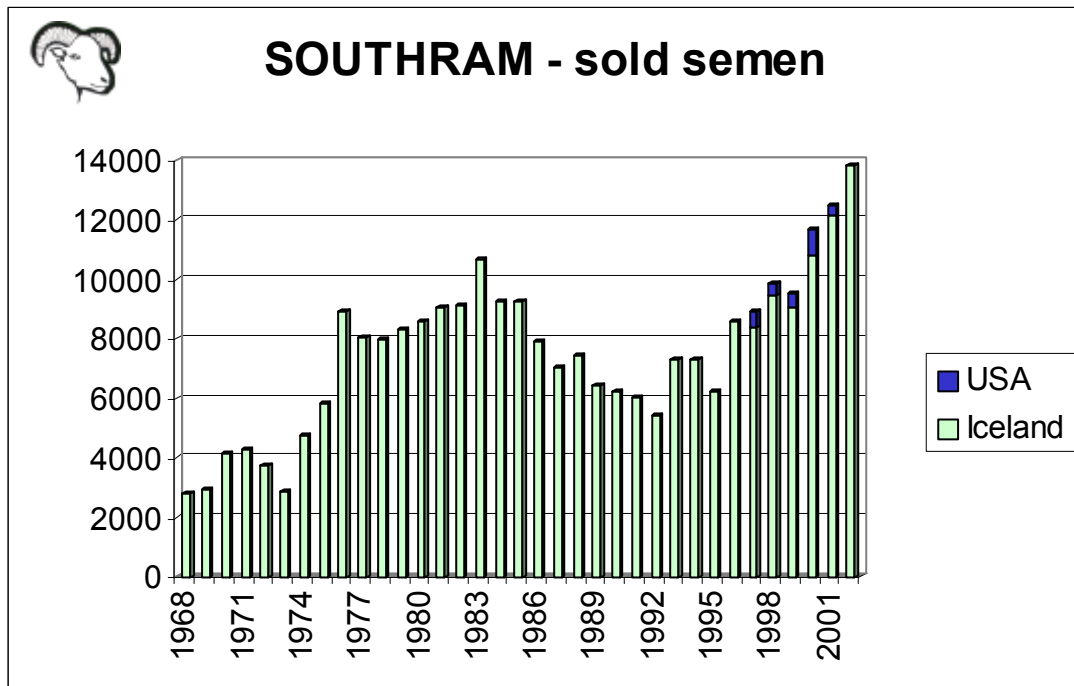


Figure 1 Number of inseminated ewes in Iceland with semen from Southram and sold doses to USA 1968-2002. Sold semen to USA counted when collected although delivered the year after.

Number of AI'ed ewes reached a peak in 1983 when almost 9,000 ewes were inseminated. During the eighties sheep farmers in Iceland went through a recession. State subsidies were reduced as a result of less lamb consumption. Quota was set on the meat production and the following years people lost interest in breeding. Number of sheep in Iceland dropped to about 500,000 but shortly before 1980 there were around 1 million wintered sheep in Iceland. In recent years interest in breeding has increased again and in 2002, a total of 13,845 ewes were inseminated with Southram semen.

Since its foundation in 1968 nearly 260 thousand ewes have been AI'ed with fresh semen from Southram excluding the number of doses which have been exported to USA.

Ram selection improves

From the beginning Southram has tried to follow up on the progenies of AI sires by evaluating them in breeding shows and/or by lamb evaluation on the farms. Since 1973 each breeding club has had a ram show each year. In 1977 organized ram lamb evaluation programs began. The aim by that was to select breeding rams with more accuracy than before. It also resulted in that Southram could more easily evaluate the performance of AI sires and make better comparison between AI sires. Organized ram lamb evaluation has changed the breeding sires drastically and one can say that rams with poor conformation have disappeared and number of well muscled rams with great overall conformation and harmony has increased as well. It is obvious that

the use of artificial insemination has played a big role in what one can call “a revolution” in sheep breeding in Iceland.

Selection of rams for AI has improved a lot since Southram began operation. At first the rams were mainly selected by performance of their progenies and their daughters milking abilities. They also had to perform well in breeding shows. The AI rams had therefore proven themselves before they were used for AI. That meant slower breeding progress than we are seeing today. Big steps have been taken these recent decades to improve the ram selection and speeding up the breeding progress. The main steps are as follows:

1. Since 1973 each breeding club has had a ram show each year giving better overview over the rams and AI ram performance by evaluations of their sons.
2. In 1977 ram lamb evaluation began giving better information of AI ram performance.
3. Improvement of sheep recording and pedigree registration in the sheep breeding clubs for calculation of milking abilities index and prolificacy index.
4. In 1976 synchronising of ewes began resulting in more accurate selection of breeding ewes.
5. Foundation of Stora-Arnot experimental farm has given Southram more opportunities for progeny testing of rams.
6. In 1981 Hestur experimental farm and the sheep breeding centres reached an agreement on that the top rams in Hestur progeny test each year would be sold to the sheep breeding centres for AI. This has resulted in superior meat quality rams being bought for AI after thorough progeny testing at Hestur exp. farm.
7. In 1988 Southram began progeny testing again by inseminating 120 ewes in six farms at various locations in South Iceland. This was done in good cooperation with specialists at Hestur experimental farm.
8. In 1991 ultrasound scanning of the eye muscle thickness and back fat thickness began. Ultrasound scanning is now performed on every lamb evaluated in Iceland giving us better estimation of the AI sires performance than ever before.
9. Progeny testing on individual farms have also improved the ram selection significantly and now almost every ram bought for AI is progeny tested.
10. Today Southram performs progeny testing on chosen farms bringing together outstanding individual rams from number of farms. This means that Southram only buys rams that have proven their performance through their offsprings before being used for AI all over the country.

Famous rams

Shortly after the inseminations started sheep farmers began to notice that some of the rams proved to be better than others. One of the first top sires was **Gamur 74891** from Oddgeirsholar farm. Gamur was at Southram breeding center for four years, and very much used. In lamb evaluation he always came first or second and his daughters passed on his reputation long after he passed away.

Soldan 71870 from Hestur experimental farm made a superb record at Southram. In 1972 he was Grand champion ram at show in Andakill parish and was rewarded 1st price for progenies in 1974. He was for three years at Southram and proved to be a superb sire. His last year a total of 933 ewes were inseminated with semen from him.

Strammi 83833 from Hestur experimental farm was used for one year at Southram stud. His qualities were great leanness along with exceptional body muscling. These

qualities has been passed on mostly through **Horvi 92972** which was widely used. Horvi was also from Hestur.

Aron 83835 from Hestur experimental farm is one of the best rams that Southram has used. He was longbodied with great back, loins and gigot muscling, passing on these qualities to his progenies.

Thettir 91931 from Oddgeirsholar farm was very popular amongst Icelandic sheep breeders. His progenies had superb conformation and gigot muscling was the best at that time. Unfortunately Thettir did not pass on the character for leanness.

Moli 93986 from Efri-Gegnisholar farm is the most used sire in Iceland ever. His progenies were superb in every respect but his daughters have proven to be not



Figure 2 Dreitill 00891, beautiful son of Laekur 97843.

prolific enough. His sons and grandsons have also been widely used amongst farmers working on improving fertility. Many of The Icelandic sheep breeders in USA have seen Moli as he was at Southram stud when Isbona group came to Iceland in 1998. **Garpur 92808** from Laekjarhus farm carried on great meat qualities and gigot muscling was magnificent. His sons are proving to be superior concerning meat grading as well as passing on leanness. His sons and

grandsons are widely used and as can be seen in Southram sire list, they really are outstanding.

Laekur 97843 from Laekjarhus farm is Garpur's son. He has been used a lot passing on Garpur's qualities and even doing better. Superb ram.

All 00868 from Hestur experimental farm is Laekur's son. By mixing Garpur and the Hestur sheep breeding line a great improvement in meat qualities and leanness have been achieved. The Hestur sheep is superb in combining meat characteristics and leanness as a result of progeny testing for more 40 years. All is already very popular, has proven himself and is expected to do even better.

Semen export to USA

In 1998 Southram exported the first deep frozen ram semen to USA after several years of preparation getting necessary permits. The buyers, which we can call pioneers, were Barbara L. Webb in Massachusetts and Susan Mongold in Montana. One should not overlook the fact that Stefania Sveinbjarnardottir supported and assisted them and she can truly be called the "godmother" of The Icelandic Sheep in North America. No one has worked as hard and with such an enthusiasm for introducing The Icelandic Sheep abroad. Since then Southram has exported frozen semen to USA every year and the prospects are good for the future.

In 2000 Southram participated in New York Sheep and Wool Festival in Rhinebeck. The Icelandic Sheep was “The Featured Breed of The Show” which brought a lot of attention to it. There we got an great and very much appreciated opportunity to meet Icelandic Sheep breeders in North America by also participating in Isbona general meeting.

Sothram also has had enqueries from countries like Denmark, Jordania, Estonia, Netherland and UK but no semen has yet been exported to these countries.

New methods and development

Southram is now working on methods for extending semen life so that fresh semen can be used for 2-4 days after collection. So far the results have been promising but not good enough for commercial use. This would mean better utilisation of the semen which is necessary as the center is being run at maximum capacity during the short breeding season.

Southram is also developing methods for freezing semen intended for vaginal insemination but until now all frozen semen has been for laporoscopic insemination. The tests that have been made so far are promising and it looks that frozen semen for vaginal AI will be available next autumn, in small quantities though as this method requires more semen per insemination than with the laporoscopic method.