

Icelandic AI technician association

**European commission in Rennes
2022**



Who am I

My name is Andri Már Sigurðarson.

For the past 9 years I have worked as an AI technician in North Iceland.

In the year 2021 I completed 4,078 inseminations.

Of which 2.488 were first inseminations. The estimated success rate was 71% e.u. 56.

In total I have completed about 40.000 inseminations.



Iceland

Iceland is a volcanic island just south of the Arctic Circle.

The countries closest to Iceland are Greenland, Norway and Great Britain.



Politics in Iceland

Iceland is a republic with a directly elected president.

Formally, the president chooses the prime minister.

Alþingi is Iceland's highest institution and the oldest parliament in the world, founded in the year 930.

Iceland is not a member of the EU, but is a member of the European Economic Area, EEA. Iceland is a member of NATO.



Politics in Iceland

National holiday: 17 June (Republic Day 17 June 1944)

Government: Republic

Assembly: Alþingi (63 seats)

EU membership: No

Membership of the EEA: From 1 January 1994

Membership in NATO: From April 4, 1949

Head of State: Guðni Th. President Jóhannesson

Prime Minister: Katrín Jakobsdóttir, Prime Minister

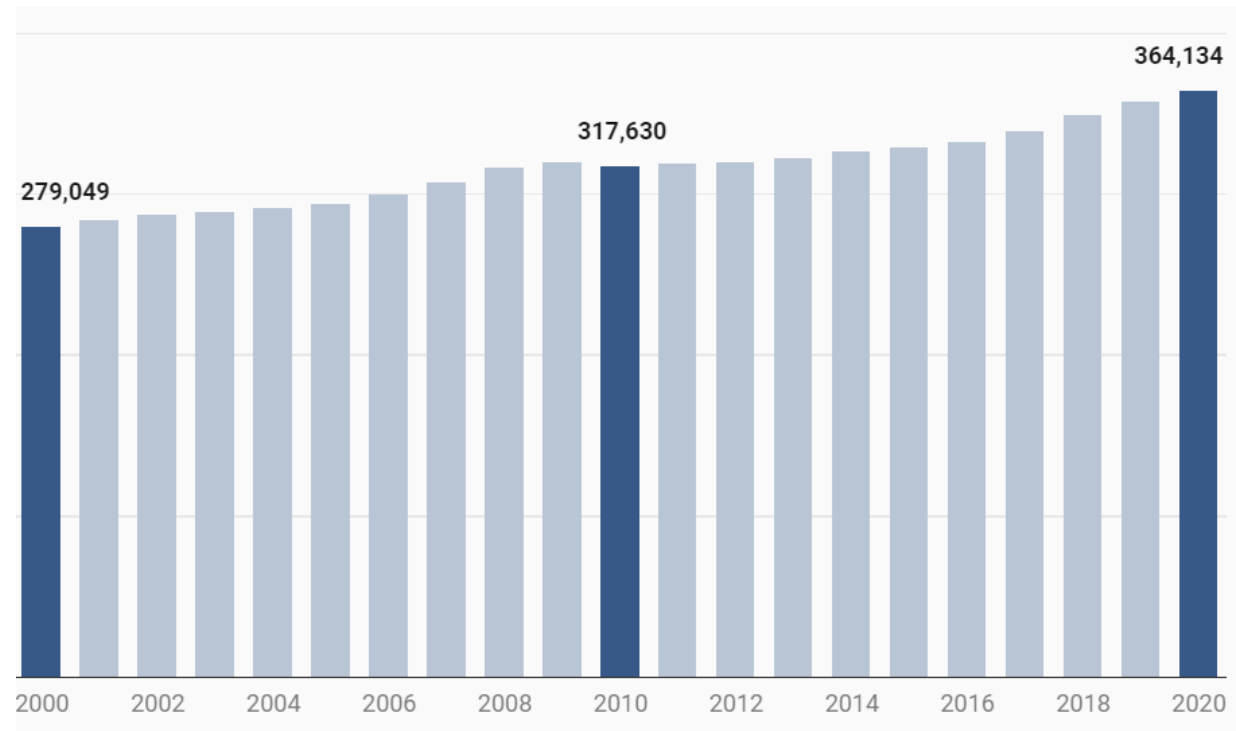


Population

Residents of Iceland

The country's population is only 376.248, more than half of them live in the capital Reykjavík and the surrounding area.

Population in the capital in 2020: 216,878 inhabitants in the capital area



Geography of Iceland

Iceland is 2.5 times bigger than Denmark.

A large part of the country is covered by lava fields and glaciers.

- Total area: 103,492 km²
- Lakes and waterfalls: 2,656 km²
- Ice-free area: 92,692 km²
- Arable land, and fruit acres: 1,290 km²
- Forest: 1,907 km²
- Largest lake: Þingvallavatn 82 km²
- Coastline: 6,088 km
- Highest peak: Hvannadalshnúkur 2,110 meters above sea level



Agricultural land

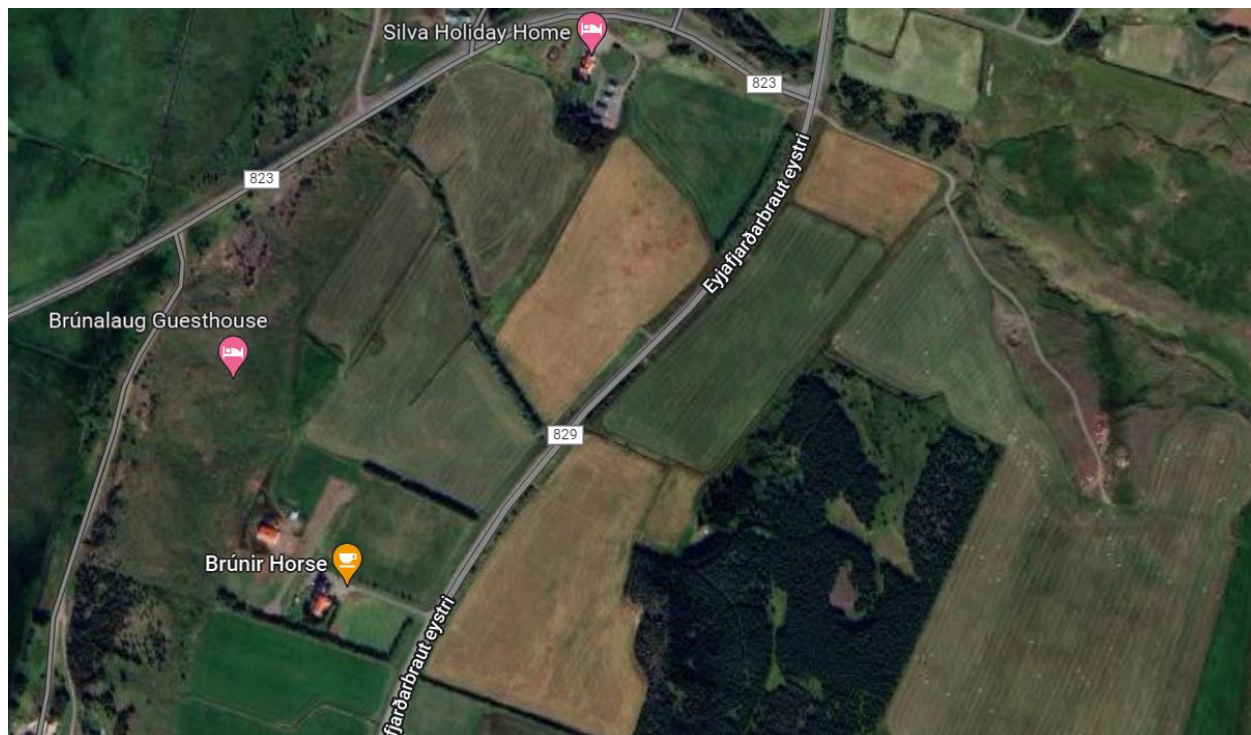
Agricultural land is a total of 2602 km² or **2.5%** of area of the country.

In Iceland there are only three land types.

By far the largest land type is grassland and pastures with 97% of its area.

The other two categories are very small:

- Arable and gardening 0.8%
- Mixed crops which is 2% of agricultural land.

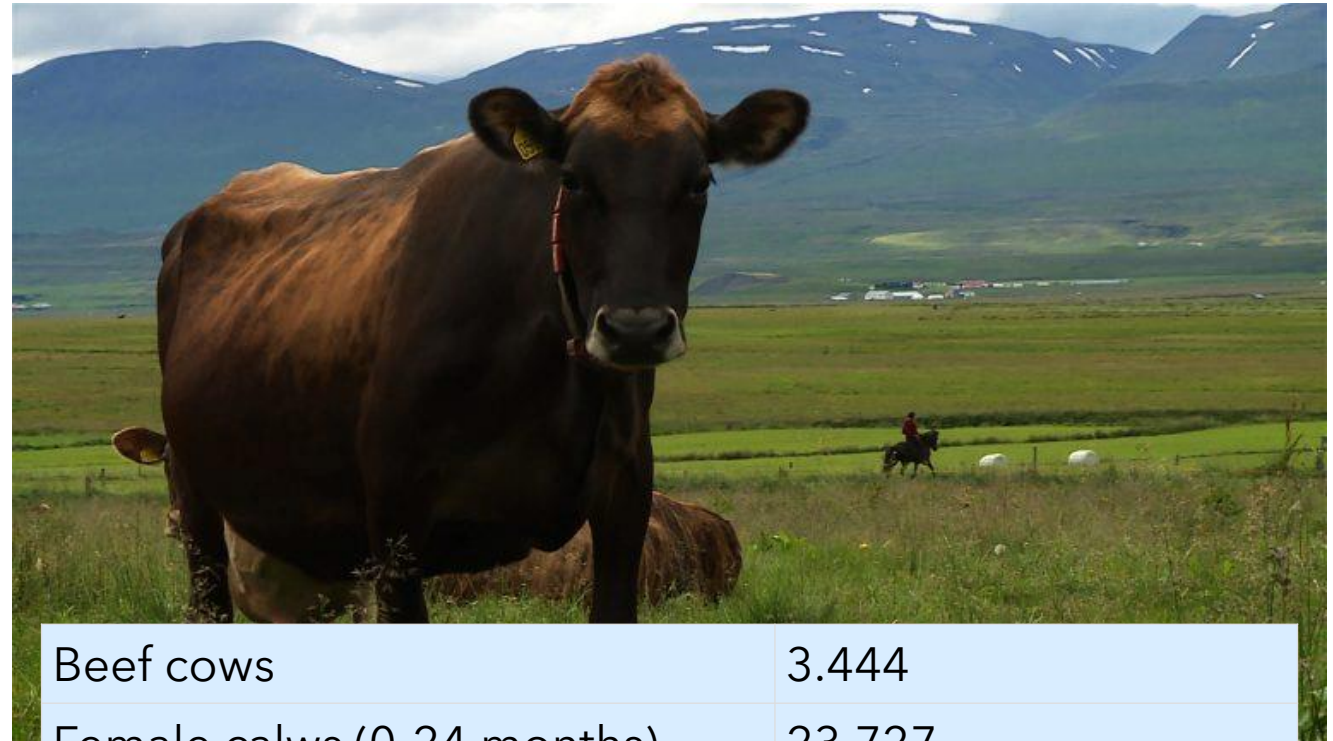


Icelandic cow

The origin of the Icelandic cow has been traced back to the settlement of Iceland, around 874.

it is most closely related to the Norwegian breed "Sidet Trønder og Nordlandsfe".

All milk production in the country is based on this colonial breed, and there are now a total of 26,400 dairy cows in the country.



Beef cows	3.444
Female calws (0-24 months)	23.727
Bulls (0-24 months)	20.362

Icelandic dairy cow

The Icelandic dairy cow is small, the average cow weighs only about 470 kg.

The cows are multicolored and have more colors than any other cattle breed in Europe.

Nowadays, there are few horned cows due to targeted selection against horns in recent decades.

The average milk yield of reported cows in Iceland in 2021 is 6,336 kg with 4.2% fat and 3.39% protein.

In a few cases, the annual yield of individual cows can reach 11,000-13,000 kg.



Milk protein

The protein properties of Icelandic milk are special and positive for health and quality.

The special protein composition makes Icelandic milk extremely suitable for cheese making.

There are also hypotheses that the protein composition provides protection against diabetes in children.

Outside of Iceland, there are only a few cows of Icelandic stock, i.e. in Greenland and Denmark, but semen has been transported to Sweden on a small scale for use in old and endangered cattle breeds.



Beef cattle

In Iceland we have three types of beef cattle; Galloway, Limousin and Aberdeen Angus.

Beef cattle breeds in Iceland are of Norwegian, British and French origin.

The first Galloway import was in 1933 and was based on a single bull calf.

Galloway semen was imported in the 1970s, and in the 1990s, Aberdeen Angus and Limousin beef stocks were bred through embryo importation.



Beef cattle – Aberdeen Angus

At the end of 2017, Aberdeen Angus embryos were imported to the country and placed in cows at an isolation station at Stóra-Ármót in Flóahreppi.

Is it the first time in 20 years that new genetic material has entered the beef cattle population in this country.

The first calves were born in autumn 2018 and more have been added since then.

Cattle can be moved from the isolation center at 9 months of age and semen from bull calves will also be distributed.

Farmers can also buy embryos from the station.



Icelandic AI technicians

All inseminations in Iceland are handled by AI technicians.

According to huppa.is (Icelandic database), there were 44 AI technicians working in the year 2021. Of these, 6 were women.

In 2021 there were a total of 45.156 inseminations of which 26.109 were first inseminations



Inseminations – Iceland 2021

Uppgjörssvæði	Fjöldi sæðinga	Tvísæðingar	Fengnar við fyrstu	Kvígur	Kýr	Notkun nauta (Reynd / Óreynd)
Kjalarnesþing	323	1%	68%	60%	70%	56% / 44%
Borgarfjörður	1.835	5%	66%	66%	65%	55% / 44%
Snæfellsnes	778	11%	70%	79%	68%	66% / 34%
Dalasýsla	278	16%	68%	40%	69%	58% / 41%
Vestfirðir	508	5%	75%	70%	76%	56% / 40%
Húnaþing og Strandir	1.396	3%	74%	78%	73%	61% / 37%
Skagafjörður	2.522	6%	67%	78%	66%	52% / 45%
Eyjafjörður	4.723	3%	71%	73%	70%	51% / 45%
S-Þing.	1.319	4%	64%	79%	62%	57% / 41%
Austurland	898	3%	61%	70%	59%	56% / 42%
A-Skaft.	405	7%	68%	74%	66%	64% / 33%
V-Skaft.	587	4%	69%	73%	68%	58% / 40%
Rangárvallasýsla	3.568	6%	68%	78%	66%	56% / 43%
Árnessýsla	5.573	6%	64%	76%	62%	55% / 43%
4020 AMS	2.422	3%	72%	76%	71%	53% / 43%
Samtals	24.713	5%	67%	75%	66%	55% / 43%

Icelandic cowsheds



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