

News from Norway

What is happening at Geno?

Summer is soon coming to an end in Norway and autumn is approaching. This means that all though we have calving all year round, the calving reaches its peak the next months. For the Geno team members working with selection, this is exciting as we have more selection candidates and the chance of finding the extreme superior bull is even greater. For all involved in dairy breeding, that is what it is all about - chasing progress. For those of you not familiar with the Norwegian Red population, it is based on a nucleus of 200 000 cows. When we do selection, we rank these cows on their Total Merit Index and identify the best 8000 dams of young bull calves. Ear tags for genotyping are then send to the farmers. Some weeks later we have the genotype information and genomic breeding values ready. We calculate the breeding values every two weeks. This means that on average, 300 new bull calves reveal their breeding potential every evaluation. Looking at the fresh breeding values is like opening presents for Christmas. Selecting 50 elite bulls every year, we only need to select a couple every two weeks. My colleague started a new evaluation with 1600 new genotyped calves yesterday, so results should be ready by the end of the week.

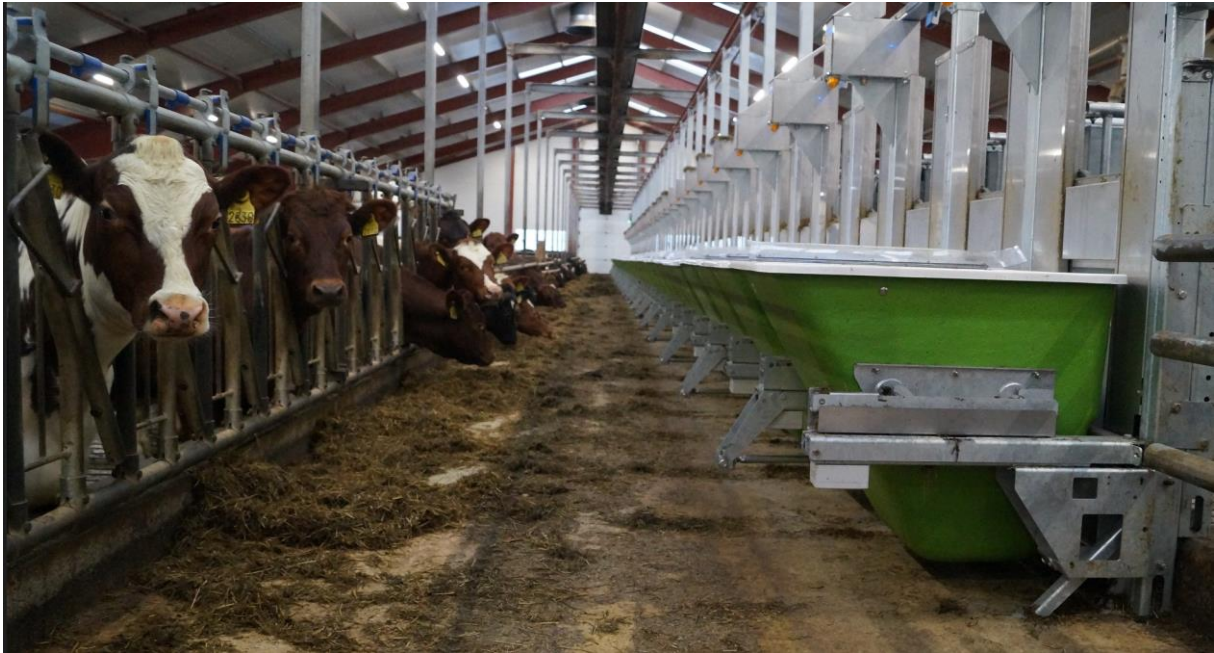


Norwegian Red cows grazing in Sirdal. Photo: Els Korsten

As sexed semen, RedX, is increasing in use in Norway, Geno has accelerated the embryo production to strengthen bull selection even further. 120 heifers are selected for embryo production at Store Ree where we do a combination of MOET and OPU. Last week 33 MOET-embryos were harvested, and we just can't wait to get them implanted the next month.

Before summer we passed an important milestone in Geno. Installation of individual feed recording units were completed. We will now get data on individual roughage and concentrate intake in

addition to methane recordings of 1000 cows per year. Preliminary results indicate heritability of 0,26 for dry matter intake and 0,34 for methane emission. We are excited to develop a sustainability index that will help bringing Norwegian Red to the next level when it comes to resource utilization and climate efficiency.



Feed recording equipment installed at the Eklo/Jermstad farm. Photo: Eli Hveem Krogsti

Visit to the Skøien farm

The Norwegian Red Bull 12222 NR Skoien has emerged as a top contender in the Geno breeding program, establishing itself as one of the most popular new bulls in the breed. With its breeding values published last year, the bull has maintained a stable position as number one in the rank for Total Merit Index (TMI) in Norway, making it a preferred choice for dairy farmers worldwide.



The 2023 breeding statuette for the bull 12222 Skoien was presented at Geno's annual meeting. From left, breeder Line Borgerud Skøien and Geno chairman Vegard Smenes. Photo: Ingunn Nævdal

According to Line Borgerud Skøien and Ole Hjerpaasen, who bred 12222 NR Skoien, the bull has always stood out for its unique personality and impressive physical attributes. "As a bull calf, he was very nice looking and grew faster than any others," she said. His dam is now in 3rd lactation, she is a healthy and nice conformed cow with a daily production of 40 Kg of milk (123 DIM). In her 2nd lactation, she produced in 305 days 10.237 Kg milk at 4.65% fat & 3.60% protein.



Line Borgerud Skøien and Ole Hjerpaasen. Photo: Kristin Malonæs

Line and Ole come from a family of dairy farmers that has been in the business for five generations. They purchased their farm in Hølen, south of Oslo, in 2001. Originally a tie-stall facility, they recently completed a new modern loose housing barn in October 2022, complete with a milking robot installed. Despite the challenges of upgrading their facility, Line and Ole were pleased with the smooth process and reported that all their cows easily adapted to the new system, with none needing replacement.

The barn is designed with the welfare of the animals in mind, with ample space, proper ventilation, and a focus on creating a comfortable environment for the cows. With 12222 NR Skoien leading the way in the Geno breeding program, the Skøien family is well positioned to continue their legacy of producing top-quality dairy cattle for years to come.



The barn is designed with the welfare of the animals in mind. Photo: Diego Galli

Line and Ole are passionate about breeding Norwegian Red bulls and use the support of the Geno mating plan to help them make their selections. As firm believers in the benefits of technology, they genotype all of their female calves to improve the accuracy of their breeding decisions. "We believe that technology has helped our industry to make improvements, and we like to take advantage of it," says Line.

When selecting new bulls, they place a great deal of focus on calving ease, as it is crucial to ensuring their cows have the best possible start to lactation. "We want our cows to have the easiest and most stress-free calving experience," adds Ole.

We have identified some indicators that help Line and Ole succeed in managing the farms after spending a significant amount of time observing their entire herd. Here are some key takeaways we can draw from our observations:

- Their herd displays an impressive level of uniformity, consisting of medium-sized, robust dairy cows with great consistency.
- Their cows have excellent udders, which has helped to facilitate a smooth transition to the milking robot.
- None of their cows have experienced lameness, with claw trimming being done twice a year.
- The cows also have an excellent temperament, which is important for both their own welfare and that of their handlers.

- They have achieved a good balance between younger and older animals, with their oldest cows currently in their seventh lactation.

Line and Ole assert that the Norwegian Red is an exceptional dairy cow, not only because it represents their native dairy breed, but also due to its practicality in terms of management and financial considerations. The breed has experienced remarkable advancements in the past two decades, positioning it as a high milk yield cow with unparalleled fat and protein content when compared to other dairy breeds.

The herd's health and fertility are self-evident from the figures below:

Trait	Frequency/year
Mastitis	0.0 %
Ketosis	0.0 %
Milk fever	0.0 %
Calving interval	12 months
Age at 1st calving	22.9 months

Moreover, Norwegian Red's fertility and health remain impressive attributes, and its conformation has also greatly improved. The modern Norwegian Red is a medium-sized, robust cow that is easy to handle, requiring low maintenance yet yielding high output. "Overall, a kind of cow that many dairy farmers like to deal with every day", say Line and Ole.