

Geno

Geno Breeding and AI Association, is a cooperative owned by 13 000 Norwegian dairy farmers. Geno is the breeding organization for NRF – Norwegian Red, the main dairy breed in Norway.

Geno's main product is high quality semen of the best NRF sires. Our breeding program is based on science and continuous research and development in the areas dairy cattle breeding and genetics, fertility and artificial insemination.

Geno's vision

Breeding for better lives.

Locations

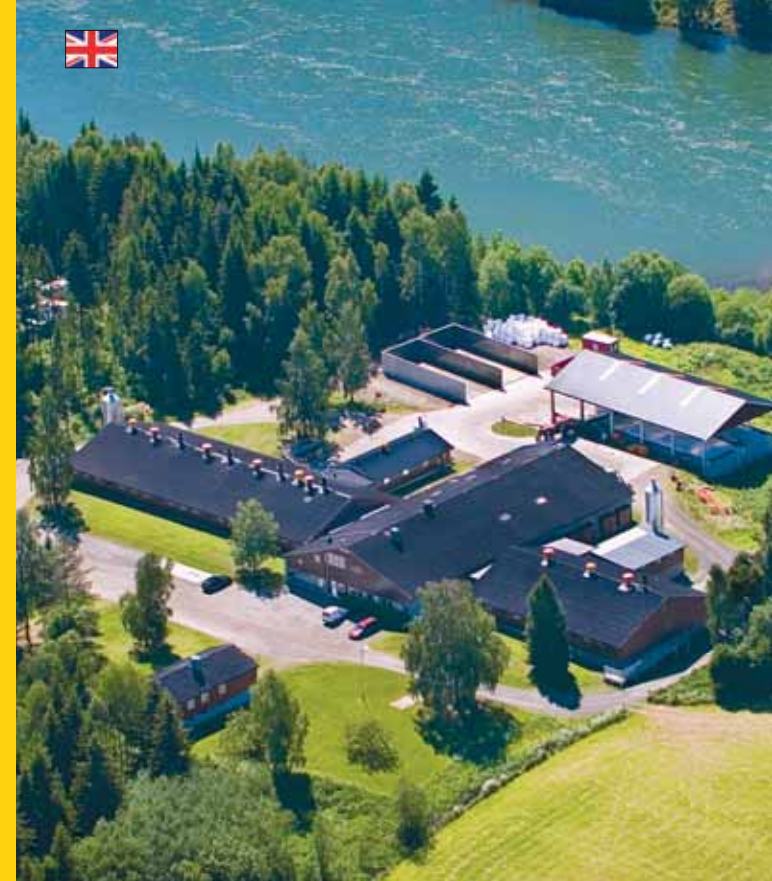
Geno's Head Office is located at Hamar, 130 km north of Oslo.

Geno AI Centre Store Ree is located at Stange, 15 km south of Hamar.

Geno Performance Test Station is located at Øyer, 80 km north of Hamar.



Feriskvann reklamebyrå as • may 2010



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Breeding for better lives

**Geno Performance
Test Station**

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Performance test

Every year Geno buys about 330 of the very best NRF bull calves for performance testing from dairy herds all over Norway. Selection of calves is based on pedigree information and the calves' viability, as well as conformation, milk index and health information of the mother. The bulls are bought before they are 2 months old and arrive at the test station before 4 months of age.

The body weight of the calves is recorded from 150 to 330 days of age. The calves are given a fixed ration of concentrates, depending on their age, and free access to silage and hay. Concentrates is fed in an automatic feeding system, where body weight is registered every time the calf enters. The daily ration of concentrates starts at 2.5 kg, and is gradually increased to 4 kg at the age of 210 days.

At 330 days of age a growth index is calculated based on the performance for growth of each calf. In the calculation, growth is compared to other bull calves at the test station, as well as to relatives that have finished the performance test.

Conformation of the bulls is evaluated when they are 360 days old. The animals should have a harmonic and functional body, strong legs, and good claws. A normal temperament is an absolute criterion to pass the test. Andrological traits are also part of the performance testing. Also the milk production of their mothers is followed closely until the bulls are selected for semen production.

Approximately 40 per cent of the performance tested bulls are selected as test sires to be progeny tested.



The selected test sires are examined for various diseases and then moved to Geno AI Centre Store Ree after a quarantine of 30 days. Bulls that are not selected as test sires, are slaughtered.

From performance test to progeny test

After the quarantine and yet another health control the bulls arrive at Geno AI Centre. The test sires produce 3500 doses of semen before they are transferred to a housing facility where they will stay for about four years, until their progeny testing results are available.

About 2000 doses of semen from each test sire are used for progeny testing. These straws, used for insemination nationwide, will result in 250-350 daughters in lactation. The progeny test of NRF sires includes genetic evaluation for more than 40 different traits. Breeding values for traits in the breeding objective are weighted together to a total merit index,

which is used for sire selection. The best 10-12 of the 130 sires progeny tested annually will be selected as elite sires based on their total merit index and their relationship with the population. The elite sires become fathers of the new generation of NRF – Norwegian Red.

Performance test station

The performance test station is a free housing system with pens with 15-23 animals of about the same age. After the bulls are 240 days old there will not be any reorganization of animals between pens. The pens have concrete floors divided in two areas. The resting area has an 8 per cent decline towards the eating area. The resting area is covered with a thick layer of sawdust. The manure is removed with a slow moving manure scraper from the eating area. Water is supplied through two drinking vessels in each pen. The automatic feeders also record body weight.