Every year Geno buys 230 Norwegian Red bull calves for performance testing to determine which will ultimately become elite sires.

At 360 days of age bulls undergo examinations to decide their ability to produce sperm of good quality and acceptable quantity. Scrotum is examined to be sure that the testicles have a normal anatomy and no pathological changes.

geno

Fedkvarn – november 2014

The organization
Geno is a co-operative owned by Norwegian cattle farmers. Geno conducts research and development for cattle breeding in Norway and produces and distributes genetic material.

Geno's vision
Breeding for better lives

Offices
Geno's head office is in Hamar, Norway.
Geno AI center at Store Ree is 17 km south of Hamar
Geno performance test station at Øyer is 15 km north of Lillehammer

Geno SA
Holsetgata 22, N-2317 Hamar
Norway
Tlf: 950 20 600
E-post: post@geno.no

Geno performance test station at Øyer

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Performance testing

Every year Geno buys 230 Norwegian Red bull calves for performance testing. The testing takes place at the Geno performance test station at Øyer. Calves are selected based on pedigree and GS (Genomic Selection) value. The mother's exterior (conformation), health history and milk production traits are also assessed.

Bull calves arrive at the station at the age of 4-6 months and are weighed at the start and end of the test period. They are fed concentrated feed corresponding to their age and access to the feed is computerized. Daily portions start with 2.5 kg and are increased gradually to 4 kg when the calves are 210 days old. The bulls always have free access to silage and must show satisfactory growth.

The animals must have functional and good to excellent conformation. A conformation assessment is made at 360 days of age. Geno emphasizes strong legs and good hooves. A good temperament is an essential requirement. Andrology (desire to mount, ability to mount and semen quality) is part of the performance test. The production of the calves' mothers is recorded until the calves are approved as semen-producing bulls.

115 of the 230 bulls enrolled for testing are selected for semen collection and ultimately progeny testing. These bulls undergo a comprehensive health and quality check before being put into quarantine.

From performance testing to semen production

Following a quarantine period and health checks, the bulls are transferred to the Geno AI (Artificial Insemination) center at Store Ree, where they are put into semen production. Here each bull produces 2100 doses of semen. The bulls are then housed in waiting bull facilities where they remain for 4 years.

About 1500 semen doses are used for the insemination of cows and heifers across Norway and the rest is stored.

At the test station bulls are kept in pens of 12-18 animals, grouped according to date of birth.

Progeny testing of the bulls determines which bulls are to become new elite bulls. The elite bulls will father 1,000's of new calves in Norway and in other countries via artificial insemination (AI).

Operations at the test station

Bulls are kept in pens of 12-18 animals, grouped according to date of birth. After 240 days of age, the composition of animals in each pen does not change.

Pen design includes water-resistant flooring and a feed-access fence against the feed bunk. The sleeping area in the pen is covered with a thick layer of sawdust and has an 8% drop off to the scratching area. In the scratching area, mucking out is performed with a rope-driven, slow-moving scraper. Water is available in two automatic float-controlled waterers placed centrally in the pen.