

PRESS RELEASE | November, 2017

VikingDefence™ supports reduction of antibiotics in dairy cattle breeding

VikingDefence™ reduces the risk of incidences of clinical diseases treated with antibiotics such as mastitis and digital dermatitis, among others, by selecting directly for actual diseases registered under the indexes: General Health, Hoof Health, and Udder Health.

VikingGenetics is launching VikingDefence™ as our solution to reduce the use of antibiotics in the dairy cattle industry; in times when we are facing an increased global concern about the use of antibiotics in animals and the increase of antibiotic-resistant infections in humans.

“Overuse of antibiotics on animals create resistant bacteria. These bacteria can spread between animals and from animals to humans. At VikingGenetics, we are conscious of the problem, and we have a long experience in breeding for healthy cows. Therefore, we have the knowledge that backs up VikingDefence™, as a part of our reliable breeding program which farmers’ trust”, CEO of VikingGenetics, Rex A. Clausager, states.

In the Nordic countries, we have a central database where farmers (under supervision of veterinarians), veterinarians and hoof trimmers record all clinical diseases on each and every single cow. Then, the NAV (Nordic Cattle Genetic Evaluation) is evaluating, investigating and following genetic trends to form the best and most reliable breeding values. This valuable information is the foundation of VikingDefence™ to identify the sires with the best genetic potential to transmit resistance to reproductive and metabolic diseases as well as mastitis and hoof disorders.

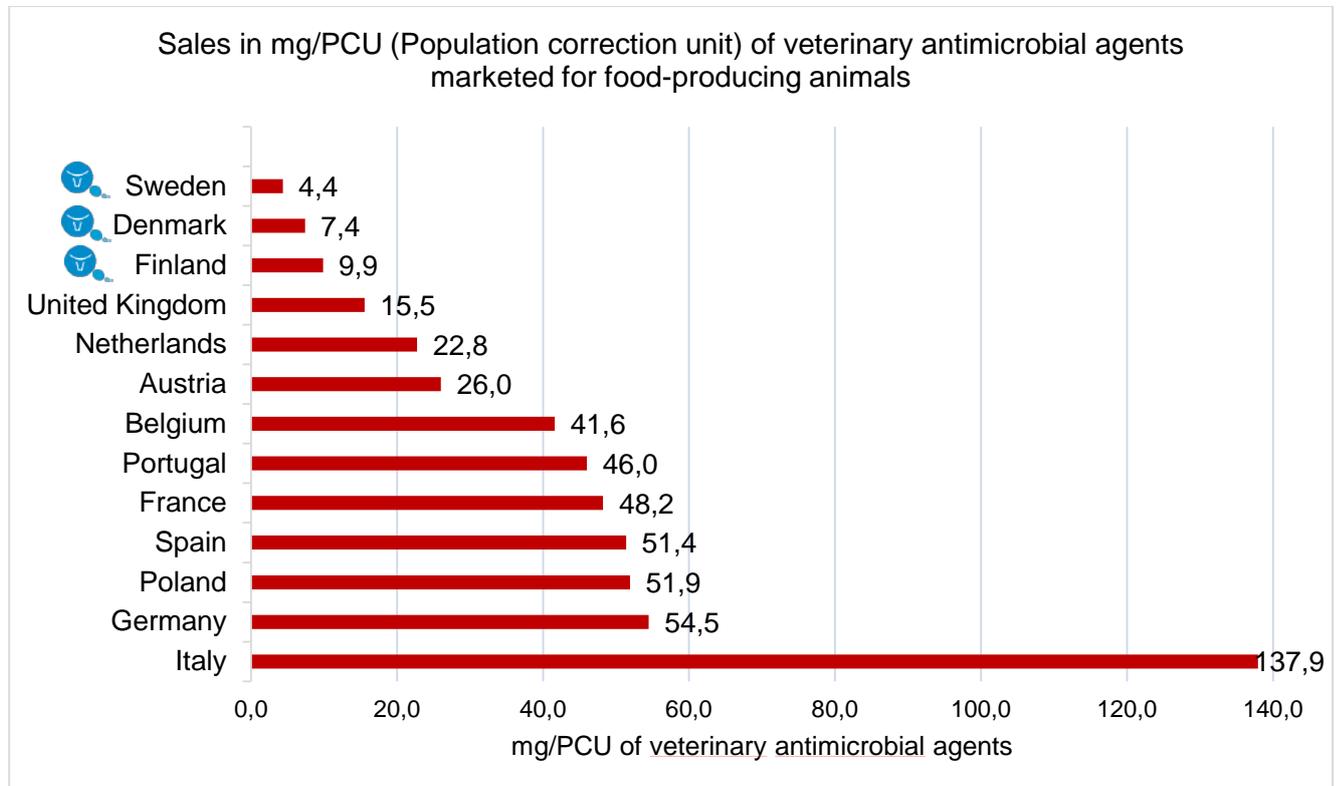
“With the lowest use of antibiotics in the world, and the highest reliable breeding program, VikingDefence™ is a trustful choice, regardless of the farmers’ production system,” Clausager adds.

The Nordic tradition in breeding for healthy cows is reflected in the latest report from the European Medicines Agency (EMA), from 2016: “Sales of veterinary antimicrobial agents in 29 European countries in 2014”. EMA is a decentralized body of the European Union with primary responsibility for the protection and promotion of public and animal health. According to this agency, Sweden, Finland and Denmark are the EU member states with the lowest use of antibiotics in livestock, with an outstanding leading position.

The graphic on next page explains how the amounts of veterinary antimicrobial agents sold in the different countries are linked, among others, to the animal demographics in each country. Population correction unit (PCU) is the term used as estimate of animal population in individual countries. In other words, it is animal biomass estimated based on number of animals. 1 PCU equals 1 kg of living animal weight.

All figures are given in milligram (mg) of veterinary antimicrobials purchased for every kilogram (kg) of livestock biomass. That way it is possible to compare the use of antibiotics across different countries.

Graph: Sales in mg/PCU (Population correction unit) of veterinary antimicrobial agents marketed for food-producing animals by country in 2014. The graph includes the EU members states that have > 200,000 tones PCU for Cattle. Sales in mg/PCU is weighted according to the proportion of cattle among all food-producing animals in each country.



Source: Adapted from the report by European Medicines Agency, European Surveillance of Veterinary Antimicrobial Consumption, 2016. 'Sales of veterinary antimicrobial agents in 29 European countries in 2014'. (EMA/61769/2016).

The usage of antibiotic treatments in cows includes therapeutic treatment (when ill), treatment of a batch of animals when at least one is diagnosed as sick and for some countries within the EU and as in the United States, also as a preventive treatment against diseases. There is also the use of sub-therapeutic doses in animal feed and water to promote growth and improve feed efficiency. This practice has been banned in Europe since 2006.

“Because we have had strict veterinary regulations when it comes to the use of antibiotics, we needed to get around the use of antibiotics and this is how the 40 year-long tradition of breeding for health started”, Camilla Rosman, Marketing Manager at VikingGenetics explains. “As a result, our cows need less antibiotics, because they have a natural defence against diseases in their genes, and with the launch of VikingDefence™ we are practically exporting our excellence”, she says.

“Approximately 90 % of our dairy herds in the Nordic countries deliver data on treatments directly into the cattle database, as it is seen as a natural management tool. This means that 90 % of our dairy cows are included in the evaluation of health traits, which is amazing and something we are very proud of. This ensure a very high reliability level on the health traits” Lars Nielsen, Head of Breeding at VikingGenetics, states.

In modern dairy cattle operations around the world, mastitis is one of the most frequent infectious diseases, and accounts for most of the doses of antibiotics given to dairy cows.

VikingDefence™ reduces the risk of incidences of clinical diseases such as mastitis and digital dermatitis, among others. By selecting directly for actual diseases registered under the indexes: General Health, Hoof Health, and Udder Health, the dairymen make breeding far more successful than only relying on correlated measurements such as somatic cell count, feet & legs or immunity.

“For instance, we register clinical diseases while many countries rely on Somatic Cell Score (SCS) as an indicator to mastitis. We know it’s better to go straight to the core. The correlation between SCS and mastitis is only 0,6; so you do not necessarily reduce mastitis by breeding for lower Somatic Cell Score”, Nielsen explains.

"Like all the other VikingGenetics tools and solutions, VikingDefence™ is focusing on high NTM (Nordic Total Merit) sires that accumulate the desired genetic progress as a permanent solution," CEO of VikingGenetics, Rex A. Clausager emphasizes.

Here you can see the different diseases that are registered under VikingDefence™.

Hoof Health Index	Udder Health Index	General Health Index
Sole ulcer	Mastitis	Early reproductive disorders such as retained placenta and Hormonal & infectious reproductive disorders
Sole hemorrhage	Cell count	Late reproductive disorders such as Hormonal & infective reproductive disorders
Heel horn erosion	Udder conformation	Metabolic diseases as Milk Fever and feed related disorders
Digital dermatitis + interdigital dermatitis		Ketosis
Verrucose dermatitis + interdigital hyperplasia		Feet and Leg problems
Double sole + white line separation		
Cork screw claw		

<http://www.vikinggenetics.com/vikingdefence>

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About VikingGenetics:

During decades, the Nordic farmers have contributed to create a breeding goal that leads to healthy and productive cows. VikingGenetics is a cattle breeding company built for farmers by farmers. Today it's owned by 25,000 beef and dairymen from Denmark, Sweden and Finland. The company exports genetics to 50 countries and genomically tests 8,000 bull calves annually to select 220 for progeny tests (VikingHolstein, VikingRed and VikingJersey).