

### **Myotony, the current state of affairs (as published in 'The Forester' number 2, 2012)**

We have previously informed you about the myotonytests that we have carried out on all currently approved stallions in the Netherlands. From almost all stallions the outcome is already known and communicated with the stallion owners. Unfortunately, from some stallions the DNA present is not (fully) appropriate for a final outcome. New DNA samples of these stallions have been sent to the laboratory in Bern.

We expect short-term results of the latter stallions. The result of which we will communicate with the stallion owners. In the short term we will publish a summary of all results on our website provided that the stallion owners give permission. In the next issue of our magazine 'De Forester', we will record the complete overview with a detailed explanation.

Because the breeding season has already started we recommend all our breeders to inquire about the results of this test with the stallion owner.

The Board of the Dutch New Forest Pony Studbook Society

### **Myotonypresentations at the annual members meeting at 18-04-2012 (also published in 'The Forester', number 2, 2012)**

IngeWijnbergPh.D, Specialist in Internal Horse Diseases at the University Horse clinic, Faculty of Veterinary Medicine, University of Utrecht presented the first part and Wim van Haeringen, managing director of Dr. Van Haeringen Laboratory ([www.vhlgenetics.com](http://www.vhlgenetics.com)) presented the second part. The studbook and the owners of the ponies involved were complimented for the professional manner in which the discovery of this disease is treated.

#### Symptoms

During the presentation, video images were shown of a 'sufferer' of myotony. The seven-month-old foal had great difficulty moving through stiffness. The foal suddenly fell over. It looks like a type of epilepsy, but the foal was struggling to get up again. It was specified that the foal ate and drank normally and had normal stools. The movie made a big impression on the audience in the hall. The symptoms are caused by problems in the 'flow channels' of muscles. The muscle relaxation mechanics is disturbed, making it possible that even when the pony is resting, muscles tighten and then have great difficulty relaxing again. This explains the symptoms of the occurrence of sudden stiffness. The muscle will quickly become overstimulated. After the discovery was made, a much broader investigation checked whether these abnormalities could be found in other horses. This study showed that the problem could not be identified in unrelated animals. The two new forest foals are the first horses in the world where it has been established, it was already known to man, goat and dog. This is not to say that other horse breeds do not have this problem. It has not been previously discovered. The full DNA of the horse has only been known for a short time DNA. It is therefore quite likely that in the future other genetic disorders will be discovered.

#### Research approved stallions

The Board has decided to carry out myotonytestson all approved stallionsin the Netherlands. Unfortunately, this is not yet fully completed.IngeWijnberg explained that the results are overdue because of the additional checks that scientists perform to make sure that the results are correct. For

a number of stallions it proved necessary to send new samples because the current DNA material was found to be inadequate for research. The Board has indicated that currently all stallion owners of stallions whose outcome is known are informed about the outcome. A large part of the owners unfortunately, have not yet replied on the question to give consent for publication of the results. Once most of the results are known the board will publish the results in our magazine 'the Forester' and on our website ([www.newforestpony.nl](http://www.newforestpony.nl)) . If you want to breed your mare we advise our members to inform about the results of the stallions myotony test with the stallions owner. When asked how the mother studbook has responded the board indicated that they have been informed. Until now, a response by the mother studbook has not been received. We need to resolve this problem by ourselves.

How to proceed?

Once the outcome of the myotony test is known, the studbook will have to decide how they wish to proceed with this problem. A number of options were discussed, including a prohibition to breed with a carrier of the deviation, or breeding of a carrier with a carrier. It is also indicated that the risk of defects increases with the use of inbreeding. Breeds with a narrow base have more problems. These measures are drastic, but perhaps the best guarantee to prevent spreading of the disease. In subsequent steps that go beyond the current statutes and regulations, the board will submit new proposals on which the members can decide on the next annual members meeting or a specifically called members meeting.

Myotony test

Wim van Haeringen continued with his presentation. Genetic material consists of 3 billion building blocks. He pointed out that Myotony is caused by an error in one of these building blocks. He continued with an explanation of how the research is conducted. On the basis of the DNA it is determined whether there is a carrier, a sufferer or a normal situation. The chances of offspring with different DNA is shown as follows:

free x free -> offspring is free

Carrier x free -> 50% carriers, 50% free

Carrier x carrier -> 25% free, 50% carriers, 25% sufferer

The laboratory of Van Haeringen now offers the possibility to have a pony tested for this disorder. The test costs about 65 euros. Mr. Van Haeringen stated that owners who want to use the test to sell their pony should build safeguards to ensure that the results can be officially matched to their pony. The easiest way to do this is to have your pony tested at Van Haeringen through the studbook office. The costs are not yet known but we do not expect that they will exceed the rate applied by Van Haeringen. The board will announce the costs on the website at short notice. In addition, also the form which you will have to use for the test will be made available on the website.

**OFFICIAL PUBLISHED RESULTS of the myotony test on the website of the NNFPS**

**( [www.newforestpony.nl](http://www.newforestpony.nl) )**

**08-05-2012:**

By permission of the owners, the following results of the myotony test are published.

In so doing, the code AA indicates that the respective stallion does not carry the myotony gene whereas the result A/C indicates that the stallion is a carrier of the myotony gene.

If additional information becomes available we will publish it on our website and/or in our magazine 'de Forester'.

Stallions name	Registration number	Myotony test result
<b>Stallions name:</b>	<b>Registrationnumber:</b>	<b>Myotonie testresult:</b>
Arenberg's Maurits	He.Stb. 213	A/A
Arpad D.J.	528018020081101 Stb.	A/A
Berkhof's Business	F register	A/A
Brummerhoeve's Boss	He.Stb. 205	A/A
Brummerhoeve's Levi H	528018020091208 Stb.	A/A
Burley Phantom	He.Imp. 97	A/A
Cillaarshoek's Danny's Micro	He.Stb. 191	A/A
Comm's Forest Dille	528018020081073 Stb.	A/A
Diogenes Kay	He.Stb. 215	A/A
Easter Mountain Didly Do	He.Stb. 259	A/A
Elshof's Marnix	528018020081249 Stb.	A/A
Esse Golden Bigwig	34-07-1812 RNF	A/A
Frodo's Boy	528018020091141 Stb.	A/A
Haywards Guardsman	S48/109	A/A
Holthausen Frodo II	He.Stb. 267	A/A
Hoppenhof's Hero	He.Stb. 278	A/A
Hoppenhof's Tycko	528018020081111 Stb.	A/A
Jacodi's Bo Barclay	He.Stb. 273	A/A
Jasper	He.Stb. 210	A/A
Justice H.R.	He.Stb. 235	A/C
Kantje's Appart	He.Stb. 269	A/A
Kantje's Armando	He.Stb. 226	A/C
Kantje's Carter	528018020071459 Stb.	A/A
Lex	He.Stb. 252	A/A
Magic Roses Coctail	He.Stb. 270	A/A
Mastwood Black Cherry	He.Stb. 274	A/A
Mr. Peanuts	528018020091382 Stb.	A/A
Melle Wiebert	He.Stb. 276	A/A
Mikel	He.Stb. 230	A/A
Molenaar's Golden King	He.Stb. 193	A/A
Nieuwmoeds Patrick	He.Imp. 88	A/A
Noordhof's Surprise	528018020081301 Stb.	A/A
Oosterbroek Francois	He.Stb. 265	A/A
Orchid's Highland Surprice	528018020081485 Stb.	A/A
Orchid's Romario II	He.Stb. 271	A/A
Orchid's Tygo	He.Stb. 244	A/A
Orlando	He.Imp. 99	A/A
Orlean	528018020081030 Stb.	A/A
Paddington's O'Malley	He.Stb. 248	A/A

Reekamp's Eclips	528018020071146 Stb.	A/A
Reekamp's Slogan	528018020091231 Stb.	A/A
Rivaldo H	528018020071299 Stb.	A/A
Schoonderlogt Jerom H	528018020091234 Stb.	A/A
Sulaatiks Peter Pan	He.Stb. 261	A/A
Sulaatik's Versace	He.Stb. 256	A/A
Sulaatik's Versaille	He.Stb. 280	A/A
Sweet Forest Wizard	F register	A/A
Tongerenhof Peridoot	He.Stb. 254	A/A
Tongerenhof Osmium	528018020081212 Stb.	A/A
Tunja's Eduard	F register	A/A
Valentino	He.Imp. 81	A/A
Vivienne's Vision of Freedom	He.Stb. 237	A/A
Wellhouse Sportsman	He.Imp. 101	A/A
Wicked Nightshift	528018020091167 Stb.	A/A
Wielgerma's Nelson	He.Stb. 241	A/A
Woodrow Carisbrooke	He.Imp. 98	A/A
Young Winsome's Adrian	He.Stb. 202	A/A