

## **8<sup>th</sup> European Equine Health and Nutrition Conference: From Nutrition to Disease and Back**

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**Over 220 delegates from 23 countries attended the 8th edition of the European Equine Health & Nutrition Congress (EEHNC) that was hosted in Antwerp, Belgium. Internationally recognised specialists in nutrition, veterinary scientists, veterinarians, industry representatives and equine professionals attended this meeting.**

**The congress focused on “From Nutrition to Disease and Back”. The two-day programme contained 3 main sessions: “Nutrition as Cause”, “Nutrition as (part) treatment or disease modifying tool” and “Nutrition as tool for disease prevention”. Participants could also follow practical workshops. This summary article provides insight in topics covered by the 8th EEHNC invited speakers.**

The first session, Prof. Witkamp and Prof. Geert Janssens looked at the effect of excess energy intake in relation to lack of exercise on fat deposition and associated metabolic consequences, introducing the term meta-inflammation. Here horses and humans have to fight the common problem of obesity and lack of exercise leading to inflammatory processes implicated in arthritis, insulin resistance and excess body fat, which even when reversed leaves behind a ‘history’ of metabolic changes. The difficulty in managing horses with this current status, or a history of obesity, was discussed by Prof. Geor, from New Zealand. He reviewed the ‘Current insights on the role of nutrition on laminitis, Insulin Resistance and Equine Metabolic syndrome’. We then heard from Prof. Dr. Gunther van Loon about feed related cardiac diseases, highlighting that toxins ingested from a range of common trees or ornamental plants as well as Vitamin E deficiency can be the cause. Dr Andrea Ellis reviewed current knowledge on the pathogenesis of developmental orthopaedic diseases (DOD). She pointed out that, even from conception, avoiding overweight mares, while optimising mineral intake, can have an important influence on healthy bone growth and prevention of DODs in foals. Subsequently, Dr. Ingrid Vervuert explored the nutritional requirements of foals for optimum musco-skeletal development. The importance of maternal nutritional status was also emphasised by Morgane Robles who was given the EEHNC Free Communication Award as voted for by the audience. The award was presented by Eng. Peter Bollen, President of the EEHNC and Prof. Dr. Geert Janssens (Chairman of the EEHNC Scientific Committee) for her abstract on the effects of maternal obesity during conception and pregnancy on the foal’s development. Results of this study showed that foals from overweight mares had reduced insulin sensitivity, increased systemic inflammation and increased osteochondrotic lesions at 6 and 12 months of age, compared to mares in normal body condition.

The second part of the programme focused on applied feeding advice for prevention and treatment of problems and we were treated to an interesting panel discussion between Prof Dr. Pat Harris, Prof. Dr. Caroline Argo and Dr. Nicola Jarvis on how to feed geriatric horses. Feeding options and management for horses with dental loss were explored as well as feeding horses with pituitary pars intermedia dysfunction. The day was rounded off by Prof. Myriam Hesta and Dr. Ellen Roelfsema

highlighting the practical options for weight loss programmes in horses and their experience in testing these. The key take home messages of day one, in terms of inflammatory conditions and obesity, were that prevention is better than any cure or reversal, while moderate exercise plays as important a role as nutrition in both areas. The evening's discussions continued at the 'Casino Royal' Congress dinner at the 'Horta Art Nouveau Zaal'.

Two 'firsts' occurred on day two of the Congress. First, the morning started with an 'early bird fun run' around Antwerp at 7.00 am in order to ensure that the message of the importance of exercise and nutrition was applied in practice. Secondly for the first time the European Equine Health and Nutrition Congress and the Conference on Current Veterinary Practices held a joint session in the afternoon.

Ingrid Vervuert opened the day's proceedings with research results from a series of studies on gastric ulcers, showing that high feeding of dried short chopped storky Lucerne (alfalfa) can increase ulcers through mechanical piercing and scratching at the exit area towards the small intestine. Vervuert also indicated that fasting periods of more than 6 hours should be avoided. This was followed by Pat Harris presenting nutritional strategies on preventing gastric ulcers and reviewing latest findings on the efficacy of supplements from around the world. Another in depth presentation on efficacy of supplements was given by Prof. Dr. Wayne McIlwraith in relation to preventing and treating joint disease. Both in humans, dogs and horses we now have a little more evidence that some supplements may help in the healing process while others are ineffective, but there is still a lack of valid studies with horses. Pat Harris and Gunther van Loon explored current understanding on Vitamin E requirements and supply for healthy and sick horses and consequences of deficiencies. Key messages from these presentations were that one-off blood values are not always useful in assessing disease or deficiency status in horses. In addition, Harris indicated that extra vitamin E may be indicated when feeding oil. In terms of digestive efficiency, we learned from Dr. Joan Edwards that donkeys and hybrids have a much higher fungal population in the hindgut, making them even more susceptible to obesity in our climates. Dr. Wendy Pearson presented new research on linking obesity and inflammatory markers to joint disease, strongly highlighting the 'ostrich' effect of horse owners in 'under'-assessing of 'over'-body condition in horses. An in depth review with latest knowledge and research from the USA, on the use of stem cell therapy in joint disease was presented by Wayne McIlwraith, exploring the changes in techniques and advances made in this exciting field.

Key take home messages:

Take home messages from invited speakers were recorded on video and can be found on the “8th Equine congress” YouTube channel.

If you are interested in the excellent in-depth papers provided by the speakers, the Proceedings of the 8th European Equine Health & Nutrition Congress are also available as a booklet. The proceedings booklet contains full papers of most invited speakers and abstracts from the poster session and can be ordered from: <http://www.equine-congress.com/en/proceedings-booklet>



*Impressions of the 8<sup>th</sup> European Equine Health and Nutrition Congress 2017*



*Morgane Robles receives the EEHNC Free Communication Award from the President of the Congress Peter Bollen*



*Prof. Dr. Gunther van Loon from Ghent University discussing poisonous plants and cardiac disease*



*Prof. Dr. Wayne McIlwraith from Colorado State University, USA presenting latest research on joint supplements (part of the CCVP programme)*



*Prof. Dr Ray Geor from Massey University, New Zealand talked about insulin resistance, obesity and equine metabolic syndrome*



*The Chair of the EEHNC Scientific Committee Prof. Dr. Geert Janssens (Ghent University, middle) in deep discussion with Nicolas Galinelli (Ghent University) and Lieselot Hamerlinck (Cavalor).*



*Peter Bollen thanking sponsors for making this congress possible through their contribution*



*Two pre-conference interactive workshops on feeding thin emaciated/rescue horses (top picture) and on feeding donkeys (bottom picture) were held at the EEHNC in 2017.*