SPILLERS research presented at prestigious scientific conference

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SPILLERS was the only UK feed brand represented at the prestigious Global Equine Endocrine Symposium (GEES) earlier this month, where the latest ground-breaking work on endocrine (hormone related) disease was revealed. More than 25% of the research projects presented were carried out in collaboration with SPILLERS and are helping to improve our understanding of Pars Pituitary Intermedia Dysfunction (PPID: also known as Cushing’s syndrome), insulin dysregulation and laminitis. Completing and sharing this research is part

of our ongoing mission to help senior horses and ponies live happier, healthier lives and to help prevent as many horses and ponies developing laminitis as possible.

In the spotlight

Our very own director of science, Dr Pat Harris, together with collaborators from around the world, presented research on:

- How certain cell changes in the pancreas might contribute to high insulin levels in the blood after eating and the risk of laminitis. Insulin is produced by the pancreas and high insulin levels are a known risk factor for laminitis *(Presented by Simon Bailey, University of Melbourne*).

- How levels of non-structural carbohydrate (NSC) or ‘starch and sugar’ in grass change

(morning vs afternoon as well as day by day) and how this can affect blood insulin levels in insulin dysregulated horses. High intakes of NSC and insulin dysregulation are known risk factors for laminitis *(Presented by Morgan Askins, University Kentucky)*

- The production of cytokines (proteins that play a role in inflammation) and the stimulation of insulin production after eating high starch meals. It has been suggested that there is a link between insulin dysregulation and inflammation *(Presented by Simon Bailey, University of Melbourne)*.

- How levels of NSC (starch and sugar) in grass change throughout the day in spring vs late summer and how this can significantly affect blood insulin levels in horses with and without insulin dysregulation *(Presented by Morgan Askins, University Kentucky).*

- Whether testing the concentration of insulin in saliva, rather than blood, might offer a reliable and less invasive of way of diagnosing insulin dysregulation in the future (*Presented by Erica Jacquay, formerly at University Kentucky, now at* Midway University, Kentucky*)*.

- How blood concentrations of certain catecholamines (hormones involved in the body's stress response) were lower in horses with PPID compared with horses of a similar age without PPID. This could help to explain some of the clinical signs typically attributed to PPID, such as changes in demeanour. (*Presented by Nicolas Galinelli, University of Melbourne)*.

- Results of an international survey investigating horse owners' knowledge of PPID *(Presented by Pat Harris, SPILLERS).*

- Factors associated with total adiponectin concentrations (in the blood) in native ponies. Low adiponectin (a hormone produced by fat cells) is a risk factor for laminitis *(Presented by Edd Knowles, The Royal Veterinary College)*.

- The effect of Pergolide (a drug used to treat PPID) on adiponectin concentrations in horses and ponies *(Presented by Skye Mackenzie, University of Melbourne)*.

- How pasture-induced obesity affects insulin sensitivity and total adiponectin concentrations in the blood. Reduced insulin sensitivity is another risk factor for laminitis *(Presented by Nicola Menzies-Gow, The Royal Veterinary College)*.

It doesn't stop there!

These studies form part of our ongoing research into how best to manage senior horses and ponies and those at risk of laminitis. Seniors hold a special place in our hearts, and we want to help them live happier, healthier lives for longer. More than 20% of horses over the age of 15 and more than 25% of horses over the age of 20 may have PPID so improving our knowledge of how best to diagnose, treat, monitor for and manage the condition is an important part of our work. Similarly, we hope that by improving our ability to predict which horses and ponies may be at greatest risk of laminitis, we can help to prevent it. To learn more about our work, look out for our latest science blogs.

For advice on managing your laminitic or horse with PPID, contact our team of friendly nutrition advisors via Contact Us | SPILLERS Feeds

References available on request

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