

Feed for Gastric Ulcers & Condition

Brought to you by Barastoc Horse and
British Horse Feeds
Please be patient, the webinar will begin shortly...

Fibre-Beet
Quick Soaking Conditioning Feed



British Horse Feeds



Housekeeping:

This is a pre-recorded webinar. Therefore the chat button is disabled.

If you have any questions about this webinar please contact: Dr Tom Shurlock.

E: tomshurlock@btinternet.com



Dr. Tom Shurlock
Equine Nutritionist
British Horse Feeds

The Beet Story

OUR BEET STORY

From field to bag



Our beet is
grown in the UK



Delivered to the
beet factory



Cleaned
with water



Clean beet sliced
in to strips



Hot water removes
sugar from beet



Pulp press
and drying



Beet delivered
to the British Horse
Feeds Mill



Our unique patented
feeds are produced
and bagged

The development of Fibre-Beet



Fibre-Beet – more than its components

Ulcers

- Constant acid secretion in the stomach
- If not “contained” free acid can:
 - Lower pH of stomach contents to below 4.0
 - Encourage growth of acidophilic bacteria, such as *Helicobacter*, that may allow necrosis of stomach wall where mucin lining has been compromised



Fibre-Beet – more than its components

Ulcers

- Constant acid secretion in the stomach
- If not “contained” free acid can impact;
 - Unprotected areas of the stomach – where mucus layer is thin or absent:
 - Squamous area
 - Compromised parts of glandular region
- Mucus can be reinforced by dietary pectins in the presence of surfactants in pH range of 4-5



Fibre-Beet – more than its components

Ulcers

- **Factors that can increase risk of ulceration:**
 - Stress
 - Factors that restrict normal behavioural activity
 - Disrupts production of mucus
 - Breach of physical defence allowing acid burns
 - Exercise
 - Withdrawal of feed
 - Constricts stomach and forces acid up into squamous region
 - Acid burns of unprotected area
 - Feeding
 - Disruption of continuous feeding
 - Use of starchy feeds
 - Low acid binding
 - Encourages microbial negative factors



Fibre-Beet – more than its components

Ulcers

- **Nutritional actions to minimise risk**
 - Inherent moisture of feed
 - Helps maintain saliva flow
 - Natural buffers
 - Reduce starch intake
 - Low ability to soak up acid
 - Promotes acidophilic microflora
 - Improve Acid Binding Capacity
 - High fibre diets
 - Beet pulp ABC@pH4 = 200-370meq/kg
 - Legumes ABC@pH4 = 280-640meq/kg
 - (Cereals ABC@pH4 = 70-100meq/kg)
 - Mucosa
 - Pectin can reinforce mucosa; structure alters @ pH4
 - Surfactants can help incorporate pectin into mucosa
 - Potential to extend into squamous region



Fibre-Beet – more than its components

Fibre-Beet; Characteristics for Gastric Support



Fibre-Beet – more than its components

Fibre-Beet; Characteristics for Gastric Support

- **What is Fibre-Beet?**
 - A complementary conditioning feed
 - High fibre content
 - Low starch/sugar (<10%)
 - %ED 50% greater than forage
 - Includes components that have complementary roles



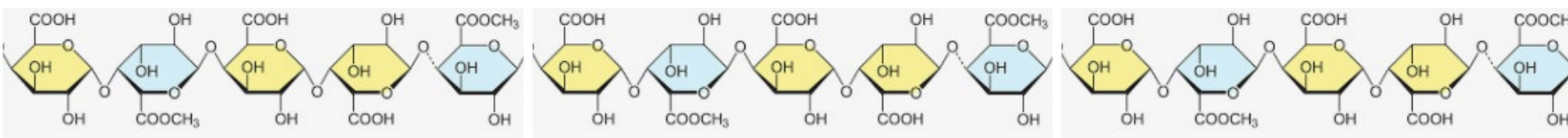
Fibre-Beet – more than its components

- Speedi-Beet
- Lucerne
- Oat Fibre



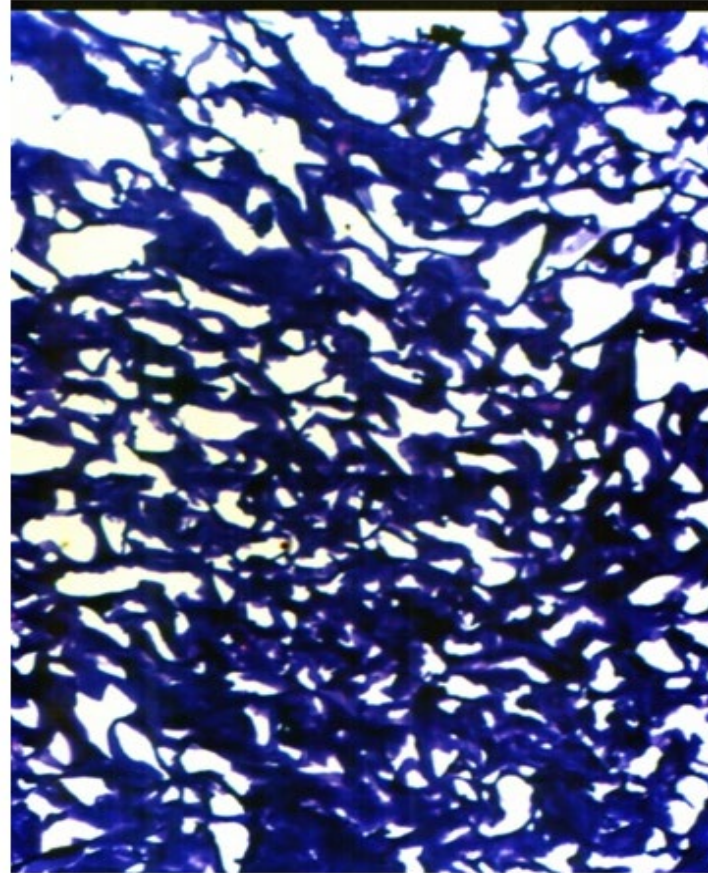
Fibre-Beet – more than its components

- Speedi-Beet
 - Beet Pulp
 - High levels of pectins – rich in uronic acids
 - Moderate acid binding capacity
 - Favourable VFA release pattern
 - Prebiotic effect – increase in hemicellulytic fermenters

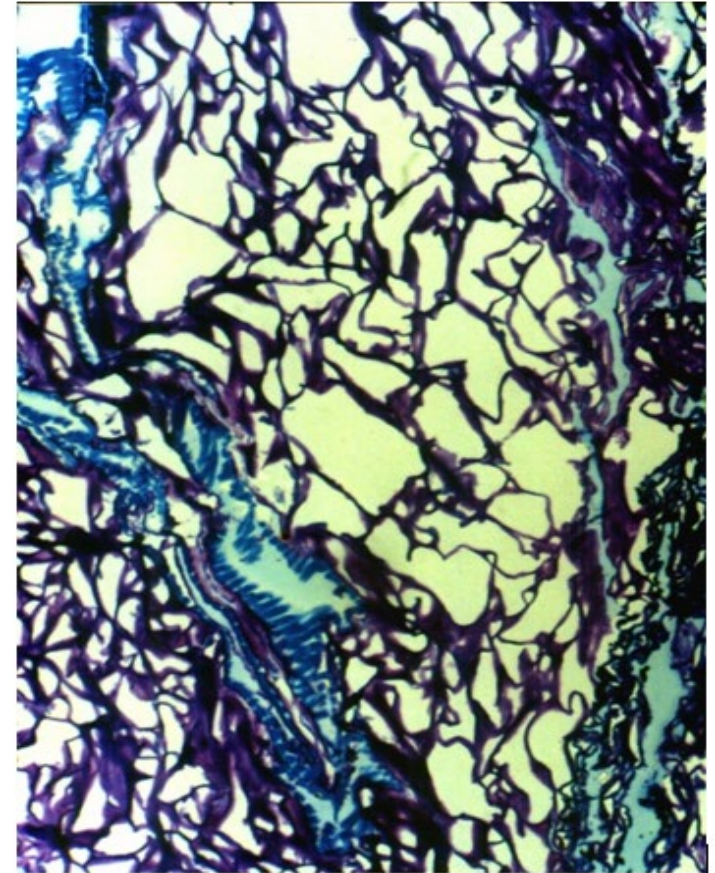


Fibre-Beet – more than its components

- Speedi-Beet
 - Micronized beet pulp
 - Disruption of cell wall material



Electron Microscope Image of
Sugar Beet Pulp



Electron Microscope Image of
Speedi-Beet

Fibre-Beet – more than its components

- Speedi-Beet
 - Micronized beet pulp
 - Disruption of cell wall material
 - Improved microbial activity – increased surface area for physical contact & fermentation
 - Greater effective degradability – both for Speedi-Beet & the fibre component of the entire diet
 - Mild protein denaturation – improved protein digestibility



Fibre-Beet – more than its components

- Lucerne

- Palatable product
- High acid binding capacity
- Good amino acid profile – potential for bioactive peptides
- Favourable VFA release pattern
- Interaction with beet fibre increases fermentability by 25% - Independent research



Fibre-Beet – more than its components

- Oat Fibre

- High levels of surfactants/emulsifiers – aids binding of pectins in gastric mucosal layer
- Enhances nitrogen digestibility
- Rich in β -glucans – prebiotic/immunomodulatory function
- High in Tocotrienol (Vitamin E) antioxidants



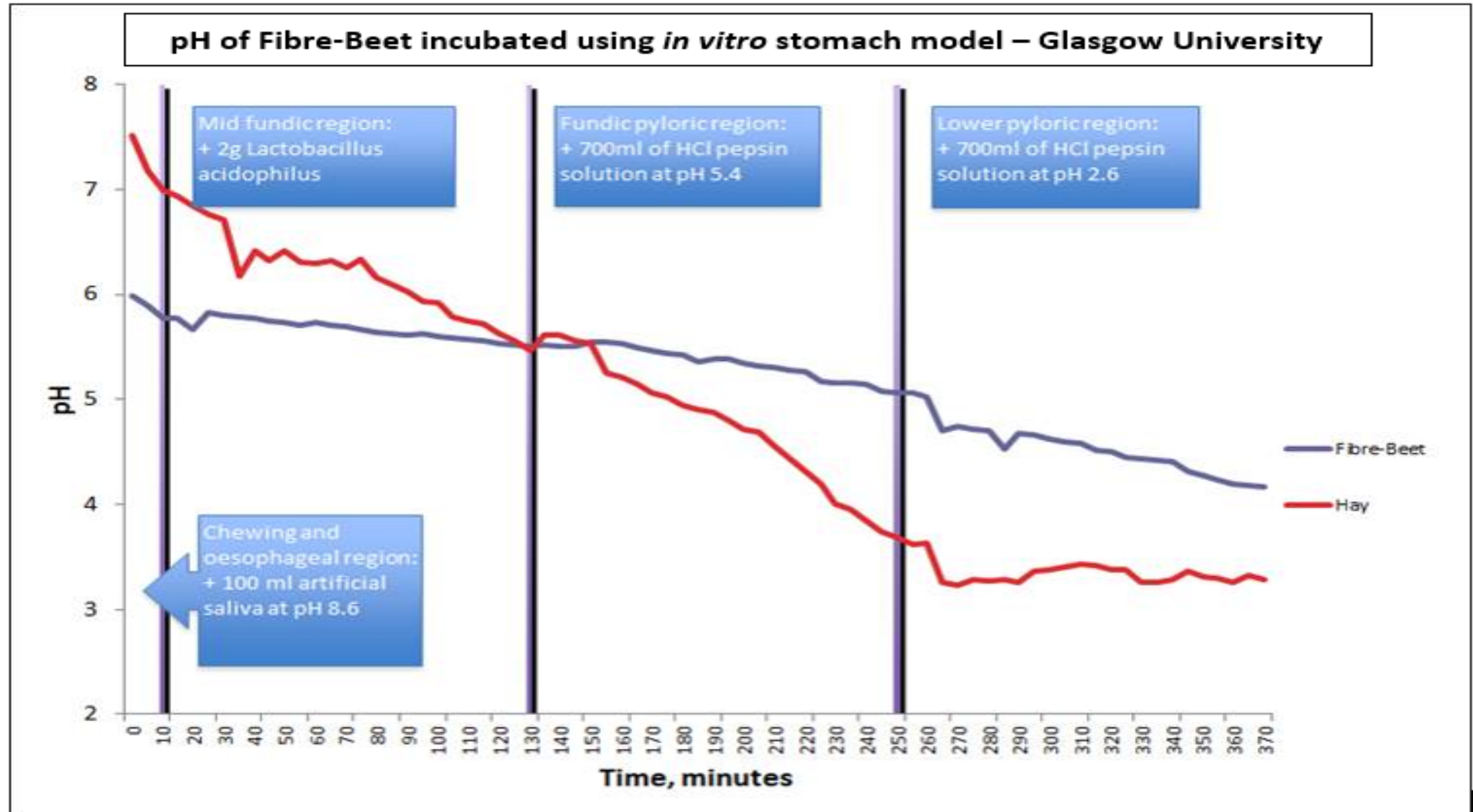
Fibre-Beet – more than its components

Fibre-Beet; Characteristics for Gastric Support Results to Date

- In vitro simulation of stomach
- On site scoping of ex-racehorses



Fibre-Beet – more than its components



Fibre-Beet – more than its components

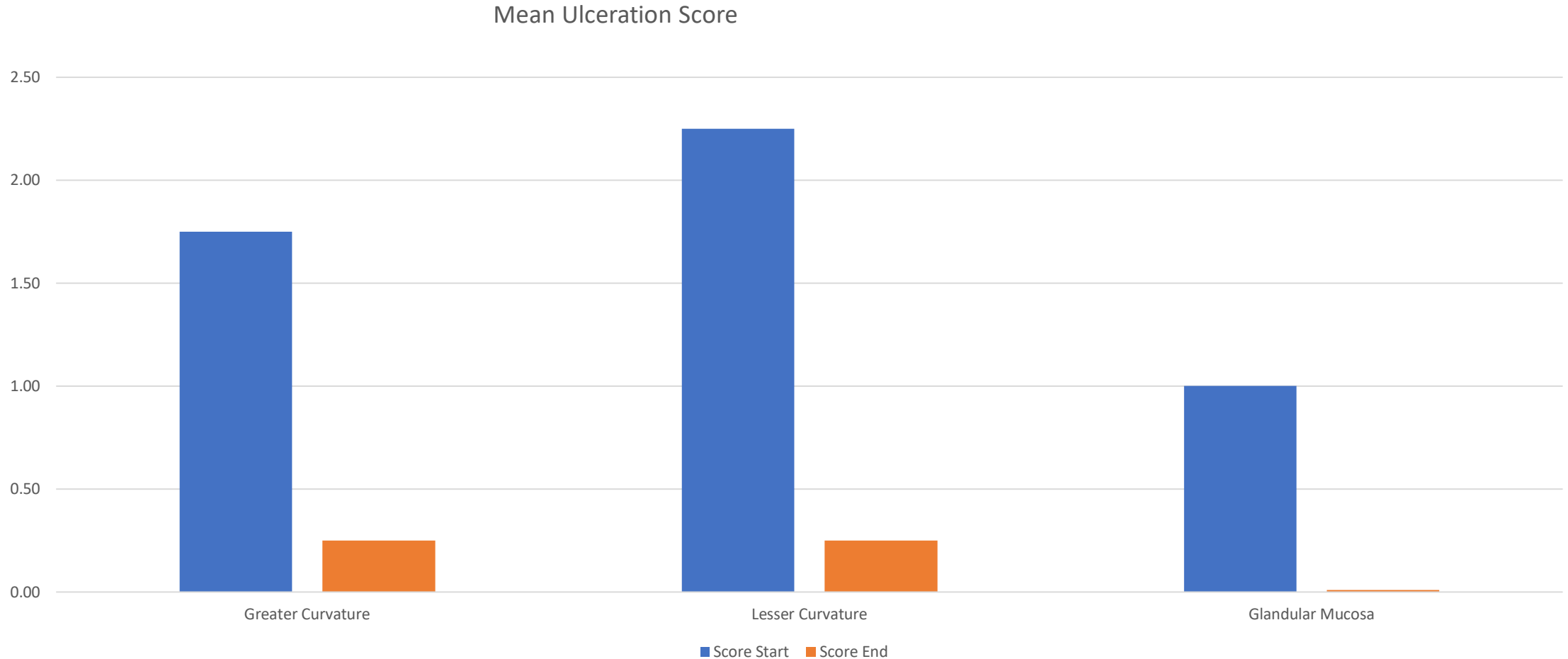
Work undertaken at New Beginnings on racehorses

- Scoping of animals to assess level of gastric ulceration
- Introduction of Fibre-Beet, alongside existing diet
- Re-scope at intervals over a 6 month period
- Ulcer scores given by specialist veterinary surgeon for;
 - Greater Curvature
 - Lesser Curvature
 - Glandular Mucosa

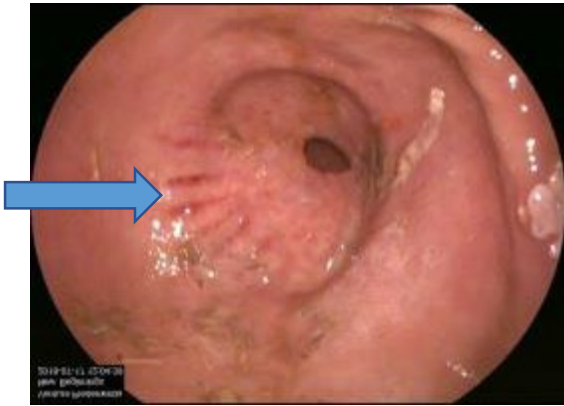


Fibre-Beet – more than it's components

- Summary of results:



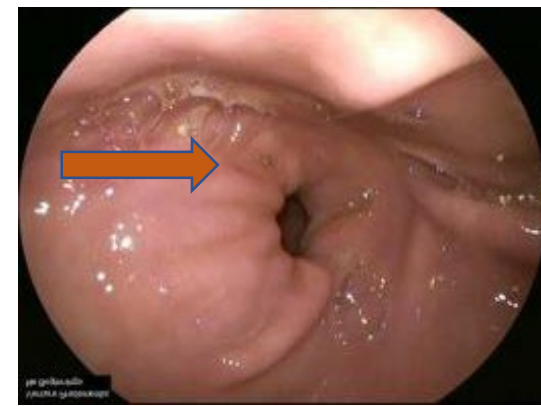
Fibre-Beet – more than it's components



Linear regions of inflammation in the pyloric antrum



Small area of remaining inflammation in the pyloric antrum



Normal

'Venture Predementia' 7yo TB gelding

Fibre-Beet – more than its components

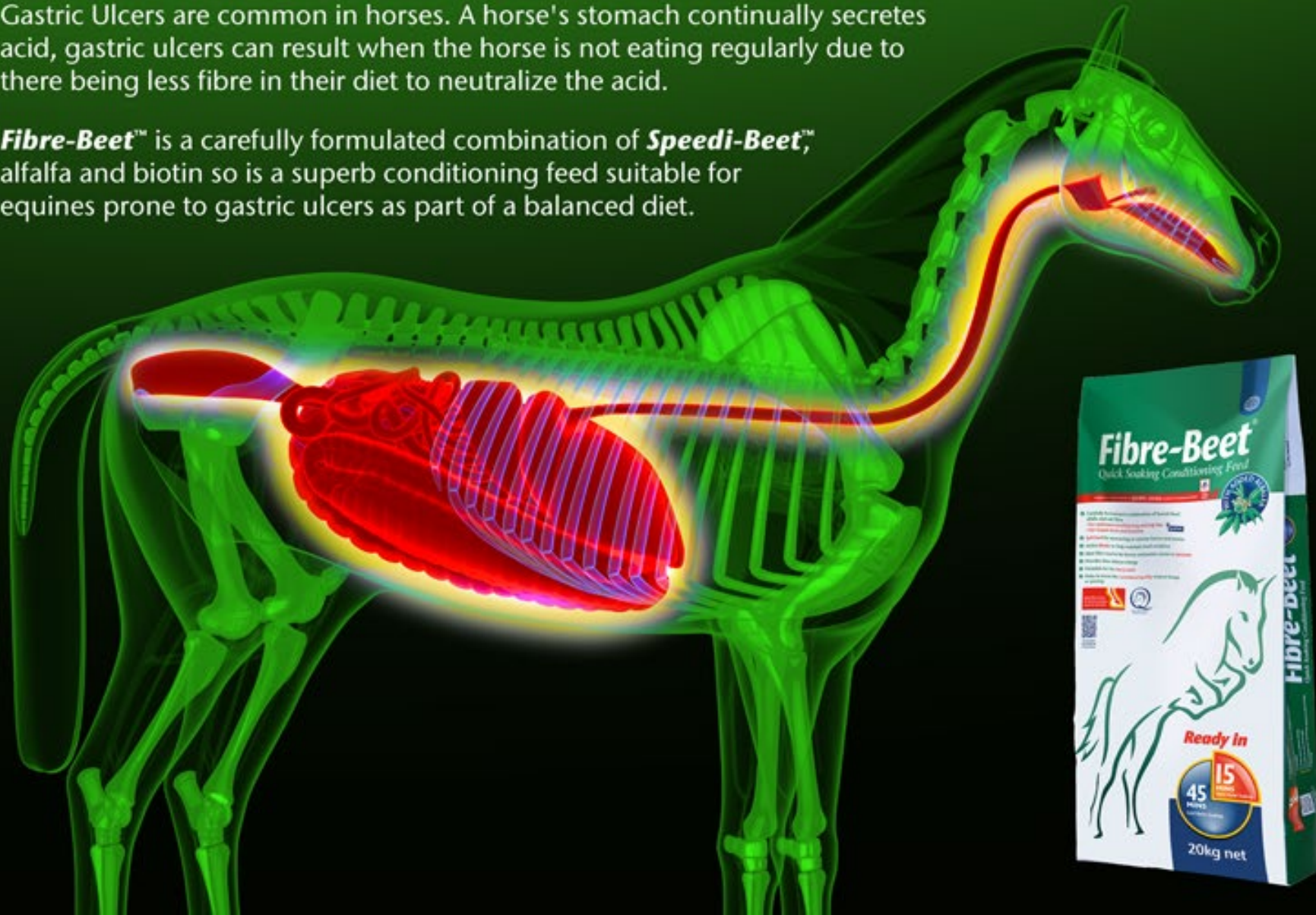
Feeding regime for compromised horses.

- Daily “dose” of Fibre-Beet dependant on feeding regime
- If provided as a supplement to existing regime:
 - 1kg of Fibre-Beet, soaked with 3l of water – split into at least two meals
- If provided as an enteral recovery diet:
 - If sole feed, feed up to 7kg per day – split into as many feeds as practical

Get a good Gut Feeling!

Gastric Ulcers are common in horses. A horse's stomach continually secretes acid, gastric ulcers can result when the horse is not eating regularly due to there being less fibre in their diet to neutralize the acid.

Fibre-Beet™ is a carefully formulated combination of **Speedi-Beet™**, alfalfa and biotin so is a superb conditioning feed suitable for equines prone to gastric ulcers as part of a balanced diet.



Feed smart

THANK YOU