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**Equine Medical Service – Fort Collins, CO**  
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# Jay Altman

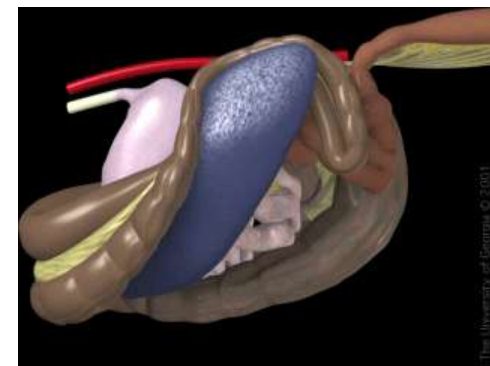
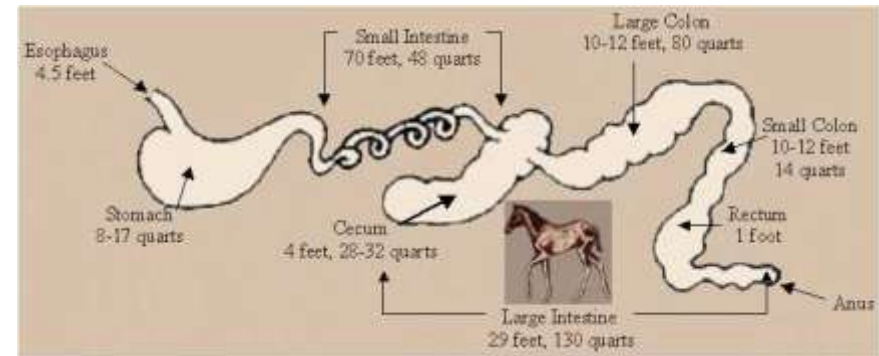
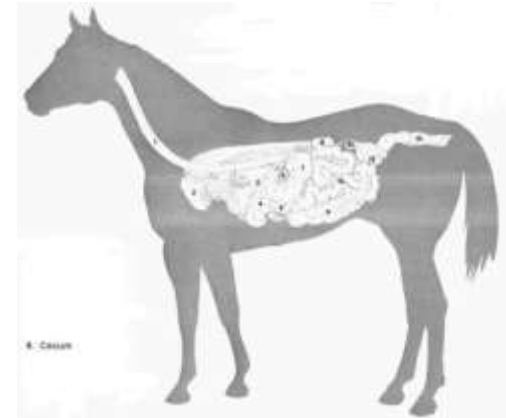


- 5 Years Ago Began Recognized a Need
  - Sand Colics
    - Warmbloods
    - Drought
- 3 Years ago no product on market that worked.
  - Getting Frustrated at the Problem
- Problem  Solution
  - Digestive Aids



# Anatomy

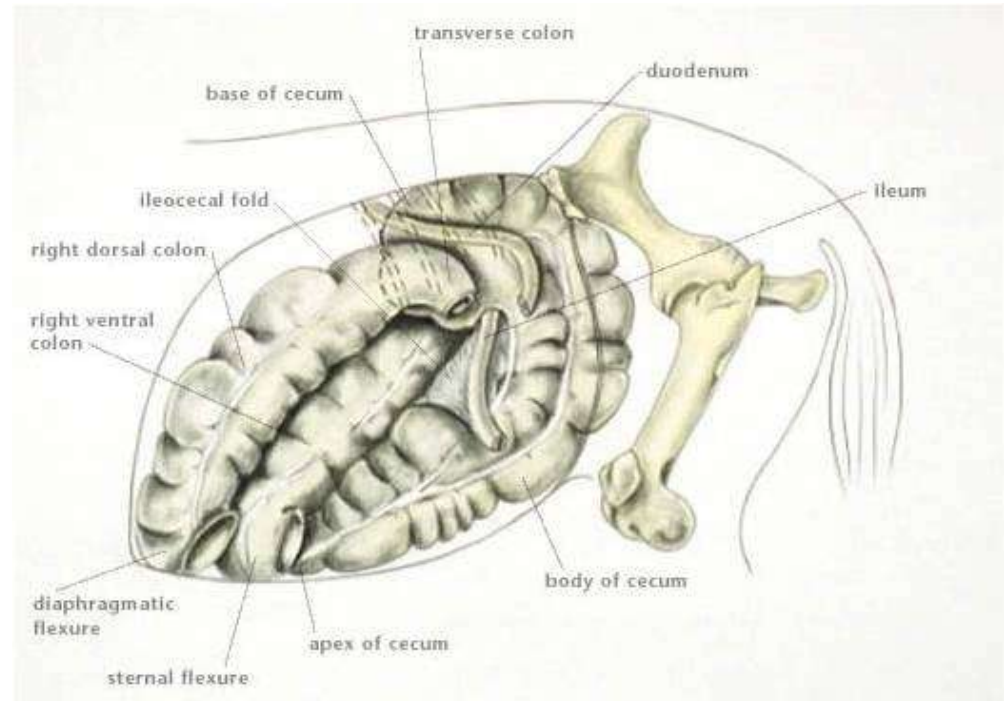
- Length of Digestive Tract
- Stomach
- Small Intestine
- Colon
  - Large Colon
  - Cecum
  - Small Colon
- Free Floating – Tenea





# Physiology

- Stomach
- Small Intestine
- Large Intestine
- Cecum
  - Fermentation Vat
  - Microbes
    - Delicate Balance
  - Nutrient Absorption
  - Nutrient Production



# Digestive Ailments

- Where to Start

- Colic Colic Colic -10-12 % incidence rate

- Why

- Anatomy & Physiology - Management

- AAEP Owner Information - Classification

- Intestinal Dysfunction
  - Spasms, Gas Distention, Impaction, Decreased Motility
- Inflammation or Ulceration
  - Stress, Medication, Infection, Parasites
- Intestinal Accidents
  - Less Frequent – Twists, Entrapment



# Colic



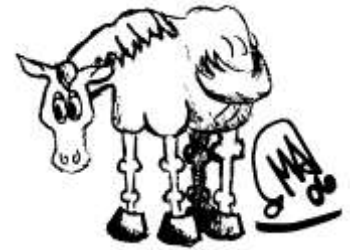
- Retrospective Studies
  - Management, Management, Management
- Parasites
  - No Longer #1
  - Incidence not down and may have Increased
- Management
  - Stress - Trailering, Travel, Performance, Showing, Isolation
  - Feeds – Poor, Wrong
  - Feeding Schedules
  - Sand
  - Enteroliths
  - NSAID's (Bute, Banamine, Ketoprofen), Antibiotics



# Colic

- Gastro – Intestinal Dysfunction

- Colic = Motility Disturbance
  - » Key Diagnostic Parameter = Colonic Motility Alteration
- Gastric Ulcers
- Colonic Ulcers
- Life On The Edge!
  - » Improper digestive physiology – Feeds, Stress , Drugs
  - » Low level inflammation
    - » Ph
    - » Microbial imbalance





# Colic

- Sand
  - Dirt
  - Silt
  - Inorganic debris
- Enteroliths
  - Start Small



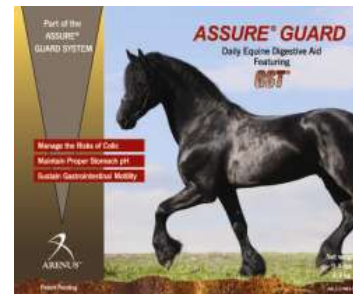
# Sand

- Soil
- Dry-lot Confinement
- Environment
  - Drought
  - Season
- Urbanization
- Even Good Pasture
- Enterolith formation



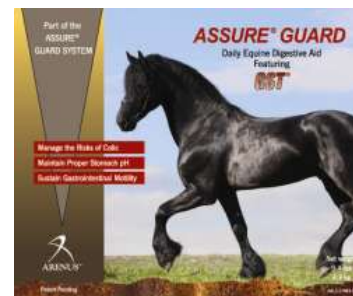
# The Assure Products

- Texas Study 180 Horses
  - 90+ % Gastric or Colonic Ulcers or Both
  - 64% Colonic Ulcers
- “LIFE ON THE EDGE”



# The Assure Products

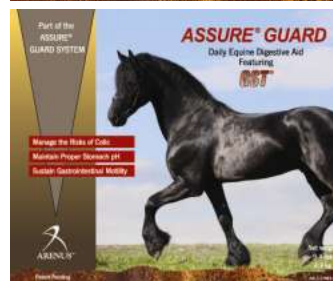
- Unique group of digestive aids for horses
- Patent Pending Formulations
- The most effective products aimed at improving the digestive health of the Equine Athlete





# Product Overview

- Assure
  - Daily Granules
- Assure Guard
  - Daily Granules
- Assure Hoof
  - Daily Granules
- Assure Plus
  - Pelleted





# Product Formula

- Base – Proprietary Patent Pending
  - Prebiotic
  - Probiotic
  - Yeast
  - Psyllium
- Gastro-Intestinal Stabilizing Technology

The logo for Gastrointestinal Stabilizing Technology (GIST) features the letters G, I, S, and T stacked vertically in a stylized, purple font. To the right of the letters, the words "Gastrointestinal", "Stabilizing", and "Technology" are stacked vertically in a purple, sans-serif font. A small "TM" trademark symbol is positioned to the right of the word "Gastrointestinal".

Gastrointestinal<sup>TM</sup>  
Stabilizing  
Technology



# So What is IT??

- **Psyllium, Probiotics, Prebiotics**
  - Psyllium is used in humans to relieve constipation and to treat diarrhea, it has a cholesterol lowering effect, it may lower the risk of colon cancer, and has been found to be beneficial in the treatment of inflammatory bowel disease. In horses, psyllium has been used as a laxative treatment for impactions due to sand and for diarrhea from sand enteropathy.
  - Probiotics are living organisms that when ingested exert a beneficial effect beyond nutritional value. The organisms typically used in commercial preparations are the non-spore forming lactic acid bacteria and yeast.

# So What is IT?

- **Psyllium, Probiotics, Prebiotics**
  - Prebiotics are nondigestible food ingredients that beneficially effect the host the host by stimulating growth or activity of certain bacterial components of the intestinal microflora. Examples of these are the nondigestible fructooligosaccharides, soybean oligosaccharides, and mannan-oligosaccharides derived from the cell wall of the yeast *Saccharomyces cerevisiae*. Psyllium is also considered a prebiotic in humans.

# The Assure System



- **Colonic Conditioning**

- » Sand Removal
- » Motility Enhancement
- » Manage the Risk of Colic
- » Support Digestive Function
- » Improved Performance
- » Improved Feed Utilization



# The Assure Guard System



- **Colonic Conditioning**

- Sand Removal
- Motility Enhancement
- Manage the Risk of Colic
- Support Digestive Function
- Improved Performance
- Improved Feed Utilization

- **Gastric Conditioning**

- Gastric Antacid –ph control
- May Minimize Incidence of Ulcers
- Improved Performance
- Improved Attitude
- Reduce Colic Risk
- Reduced Costs – When Used in a Program with Pharmaceuticals



# The Assure Hoof System



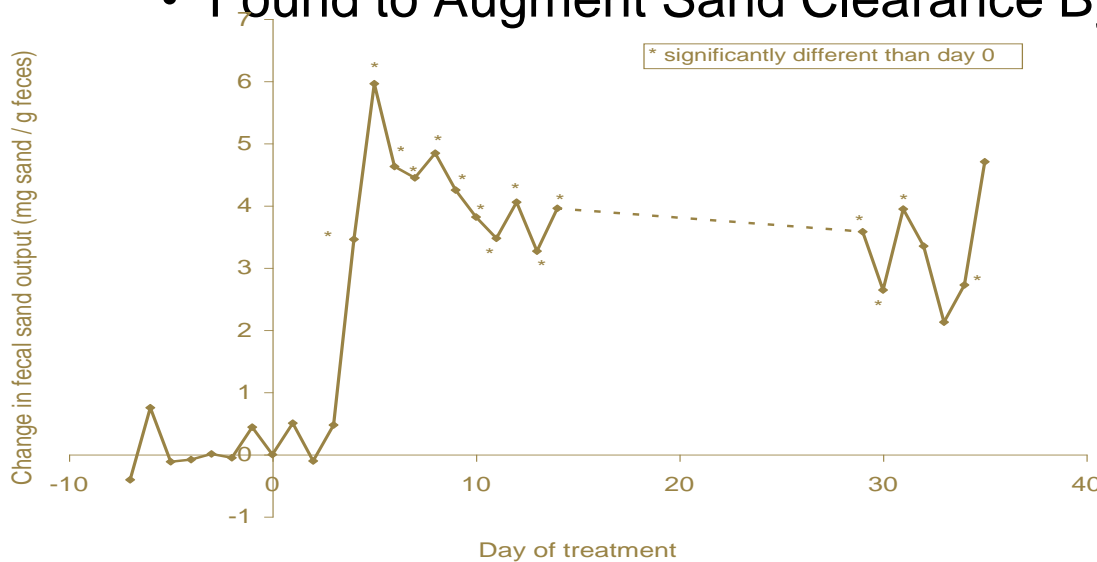
- **Colonic Conditioning**
  - Sand Removal
  - Motility Enhancement
  - Manage the Risk of Colic
  - Support Digestive Function
  - Improved Performance
  - Improved Feed Utilization

- **Augment Hoof Growth and Strength**
  - Vitamin – Biotin- Researched and B-6
  - Amino Acids- Methionine & Lysine
  - Zinc – Strength & Integrity
  - Improved Condition
  - Improved Performance



# Research Proven

- Researched and by Dr. Landes & Dr Hassel
  - Researched on “Normal Healthy Horses – No Sand Detected
  - Found to support hind gut health and motility through the synergistic use of prebiotic, probiotic and psyllium used in Assure and Assure Plus <sup>3</sup>.
  - Found to Augment Sand Clearance By As Much As 370%



**The Assure**<sup>®</sup>  
System



# References

(3 of 36)

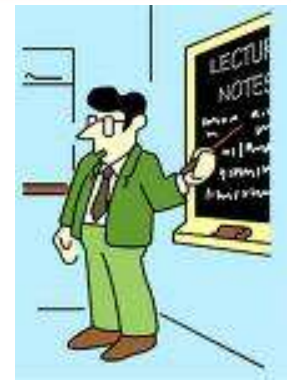
- 1) Weese JS. Probiotics, prebiotics, and synbiotics. In: Robinson NE, ed. Current therapy in equine medicine 5. Philadelphia: Elsevier Science; 2003: 711-714.
- 2) Andolph A, Fuji Yanna Y. Therapeutic approaches targeting intestinal microflora in inflammatory bowel disease. World J Gastroenterol 2006; 12: 4452-4460.
- 3) Landes AD. Et al. Fecal Sand Clearance is Enhanced with a Product Combining Probiotics, Prebiotics, and Psyllium in Clinically Normal Horses. Jnl. Equine Veterinary Medicine 2008; 28, 2: 79-84.

# Landes Discussion



- This study demonstrated that feed supplementation with a prebiotic, probiotic, and psyllium product enhances fecal sand clearance in normal horses.
- Prophylactic treatment
  - These results suggest that this product can be used as a preventative treatment against sand enteropathy and sand colic where management alone is not sufficient to prevent these problems.
- Three day lag time for product to work
  - One possible explanation is that it may take up to three days for intestinal motility to be enhanced sufficiently by the product to expel the sand accumulated in the intestines. Other published reports stated similar results in clinically affected horses in the clearance of sand from the intestinal tract and/or the resolution of their diarrhea when treated with psyllium alone or combined with other laxatives

# Research Discussion



- Theories on Efficacy

- We propose that a potential contribution of probiotics and prebiotics in clearance of sand is reduction of inflammation caused by the sand perhaps improving the health and overall motility of the large intestine. In a recent study of the efficacy of supplementing feed with *Saccharomyces boulardii* for treatment of acute enterocolitis, probiotic administration decreased the severity and duration of the disease. Another scientific study supports the use of probiotics as an adjunct to conventional treatments to help modulate inflammation in the large intestine and normalize intestinal motility



# Research Discussion



- Theories on Efficacy

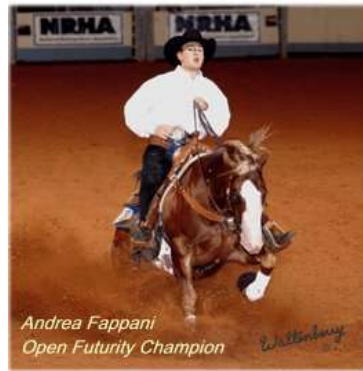
- Probiotics enhancement of the health of the large intestine may also aid in decreasing the incidence of colonic ulcers in horses and possibly increase intestinal motility. A recent large-scale necroscopic study revealed that at least 60% of performance horses have colonic ulcers. Most, if not all, performance horses are fed high-starch diets to meet their high energy requirements. Interestingly, in a study of the large intestines of horses fed high-starch diets, it was shown that supplementing feed with the probiotics, *Saccharomyces cerevisiae*, improved the overall health of the colon by reducing the decrease in pH and decreasing cecal and colonic lactic acid concentrations after feeding.
- Microencapsulation of Synbiotics in Psyllium



# Dosing

- Treatment Versus Prophylactic
  - Developed as Systems for Prophylactic Use
    - » Daily
      - » Assure – Assure Guard – Assure Hoof
    - » Intermittant
      - » Assure Plus
        - » Clearance
        - » Maintenance
  - Treatment
    - » Veterinary Direction
    - » Variable programs





## • Retail

- Assure - \$79.95 \$20.00 /Month
- Assure Guard - \$139.95 \$35.00/ Month
- Assure Hoof - \$99.95 \$25.00/Month
- Assure Plus
  - » 7.5# - \$54.95
  - » 15# - \$99.95 \$25.00/Month
  - » 25# - \$159.95 \$40.00/Month

## • Distribution

- Veterinary
- Direct





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