Equine Choice
Prebiotics & Probiotics

The Natural Choice For
EQUINE DIGESTION
THE EQUINE DIGESTIVE PROCESS

At birth, the foal’s digestive tract lacks the normal microbes for fibre fermentation. It obtains “good” bacteria during nursing, from ingesting its dam’s feces and from its environment. As the foal matures, a healthy microbial population builds in the developing cecum and large colon (hindgut).

On pasture, a mature horse grazes 16–20 hours a day to maintain a full hindgut which ferments fibre 24 hours a day. During grazing, the horse consumes enzymes and bacteria from grasses, soil, and weeds, thus maintaining a healthy microbial population throughout the digestive tract.

The equine stomach is small (only 8% of the digestive tract), empties in 15–20 minutes, and produces the hydrochloric acid and pepsin enzymes necessary for digestion 24 hours a day.

Continuous chewing of fibre produces saliva, containing bicarbonates that buffer stomach acids minimizing gastric ulceration.

Enzymatic digestion of most nutrients occurs in the small intestine while bacterial fermentation of fibre occurs in the hindgut. With adequate fibre, the hindgut produces vitamins B & C and volatile fatty acids, the horse’s natural energy source.

WITH ADEQUATE FIBRE, WATER, HEALTHY LEVELS OF BACTERIA AND ENZYMES, THE HORSE’S BASIC DIGESTIVE NEEDS ARE MET.

THE PROBLEM

Our affinity for horse sports changes the horse’s lifestyle and natural grazing habits.

Race, show, and performance horses are stalled, stressed, trained intensively, trailered long distances, left off feed for long periods, and given limited turn-out. They are de-wormed and treated with antibiotics, proton-pump inhibitors, and NSAIDs. Mycotoxin and Aflatoxin mould from some hays and grains are also an increasing problem for a horse’s digestive system.

Hay and pasture access and intake are limited and horses are often fed excessive amounts of grains (starches and sugars).

DECREASED CHEWING OF FIBRE CAUSES THE HORSE TO PRODUCE LESS SALIVA AND THEREFORE LESS BICARBONATES TO BUFFER STOMACH ACID.

The horse begins to develop acidic stomach conditions (gastric ulcers); a reduced appetite for hay, grain, and water; decreased enzymatic digestion; and lowered nutrient absorption of protein, starches, minerals, vitamins, and fats in the small intestine.

When grains (starches and sugars) undigested in the small intestine, reach a hindgut under-supplied with hay or pasture, the normal fermentation of fibre is accelerated. Lactic acid is produced and causes a decrease in pH (ACIDOSIS). The healthy microbial population of the hindgut, which is essential for digestion, is compromised. Beneficial bacteria die off and harmful, pathogenic bacteria flourish. Chronic acidity damages and ulcerates the mucosal lining of the cecum and large colon. Toxins are produced and absorbed directly into the bloodstream. Water and electrolyte absorption decreases.

These digestive changes result in dehydration, weight loss, poor hair coat, loss of top line muscle, stomach and hindgut ulcers, hindgut acidosis, loose stools, colic, tying up, laminitis, compromised immune system, and poor performance.
THE SOLUTION
Many metabolic, digestive, and growth problems can be managed or prevented by providing optimal fibre-based nutrition programs that contain balanced proteins, fats, minerals, vitamins, carbohydrates, and by adding supplemental live survivable yeasts, MOS, bacteria, enzymes, amino acids, and B vitamins.

Generation 2 - Equine Choice™ Prebiotics & Probiotics added to the horse's daily diet helps restore healthy fibre fermentation, hindgut function, nutrient absorption, and ultimately, performance.

What are Prebiotics and Probiotics?
Prebiotics are Mannan oligosaccharides (MOS) from inactive yeast cell walls that contain beta-glucans. MOS benefits the microflora in the digestive tract. Research indicates MOS also alters and excretes pathogenic bacteria (E-coli, Salmonella, Clostridium, etc.) from the digestive tract allowing beneficial bacteria to flourish. Beta-glucans enhance immune system function for disease resistance and promote repair of the hindgut mucosal lining.

Probiotics are live microorganisms consisting of bacteria, yeast and enzymes that reach the small intestine and hindgut in an active state. They exert positive health effects on the intestinal tract, digestive microflora and immune system. Probiotics help to improve appetite, fibre digestion, cecum and colon pH, nutrient absorption, water retention and electrolyte uptake for hydration.

Generation 2 - Equine Choice™ Prebiotics and Probiotics Provide:
- Yeast (live protected Saccharomyces cerevisiae)
- Prebiotics (MOS and beta-glucans from the yeast cell wall)
- Six digestive enzymes
- Viable Bacillus bacteria (Subtilis and Licheniformis)
- Amino acids (L-Glutamine and L-Threonine)
- Eight B vitamins
- Vitamin E
- Oat bran (an additional source of beta-glucans)

Equine Choice™ Prebiotics and Probiotics Can Have a Positive Impact on the Following:
- Hyperactivity
- Obesity
- Gastric ulcers
- Hindgut acidosis
- Colonic ulcers
- Colic
- Laminitis
- Cushing's
- IR (Insulin Resistance)
- EMS (Equine Metabolic Syndrome)
- Tying Up
- PSSM (Polysaccharide Storage Myopathy)
- RER (Recurrent Equine Rhabdomyolysis)
- DOD (Developmental Orthopaedic Disease)
- OCD, Epiphysitis, Contracted tendons

Feeding Management for Optimum Performance
Meet the horse's basic nutritional requirements. Adjust nutrient intake based on reproductive status, growth, age, body condition, activity, workload, and health.

- Follow a dental health and deworming program
- Ensure constant access to fresh, clean water
- Provide a constant source of high quality hay or pasture, free of dust and mould. Test quality of hay. Feed 1.5% of body weight, minimum per day. Use slow feeders for easy keepers
- Weigh feed and do the math Instead of relying on scoops, slices, percentages, coffee cans, etc.
- Feed salt, loose or with grain ration (60-90 g per day)
- Offer frequent small grain feedings in equal portions (no more than 0.4% of body weight per feeding and 1.3% of body weight per day)
- Minimize rapidly fermentable carbohydrates and starches from grains. Feed high quality fats and digestible fibre as alternative energy sources
- Consider feeding a protein (amino acid), mineral, and vitamin balancer to horses requiring lower levels of carbohydrates or with diminished top line muscle
- Administer ACID FX before daily work to buffer stomach “acid spill” and minimize gastric ulcers
APPLICATION GUIDE:
- Off feed (appetite for hay, grain, and water)
- Weight gain and top line muscling
- Digestive upset, loose stools, or diarrhea
- After ingestion of moulds or toxins
- Colic (prevention and chronic treatment)
- Emergency treatment of colic
- Before and after colic surgery
- Gastric ulcers (+ Acid FX)*
- Colonic ulcers (+ Acid FX)
- Prevent / treat hindgut acidosis (+ Acid FX)
- Tying up programs for ER, PSSM, EPSM
- Pre-race program (+ Acid FX)
- Endurance horses (+ Acid FX)
- Show / performance horses (+ Acid FX)
- Fitting sale or conformation horses
- Bad haulers in a trailer (+ Acid FX)
- Long distance shipping (+ Acid FX)
- Retired race horses (+ Acid FX)
- Senior horses (body condition / top line)
- During / after antibiotic treatment / deworming
- Broodmares (pre-foaling through lactation)
- Foals - first 10 days / promote dry feed intake / pre / post weaning / DOD / growth problems
- Gutty “poor doing” weanlings and yearlings
- Breeding stallions (weight maintenance)
- Laminitic horses (acute and chronic)
- Chronic foot problems
- Horses with IR / EMS / Cushing’s
- When feeding low quality hay / high ADF / NDF
- Rescue and emaciated horses
- Horses sensitive to fructan changes

Refer to EQUINE CHOICE™ publications for more detailed info.

* Probiotics & prebiotics do not directly affect gastric ulcers. They improve hindgut pH and promote appetite for fibre to increase chewing action and gastric acid buffering.
# EQUINE CHOICE™ — RECOMMENDED PRODUCTS & DOSAGES

**RACE HORSES**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Dose (daily starter / loading dose)</th>
<th>Followed by</th>
<th>Supplement</th>
<th>Acid FX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stomach ulcers / hindgut acidosis</td>
<td>20 cc every 6 hrs first day—20 cc per day for 8 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Tying up / EPSI / PSSM / RER</td>
<td>20 cc per day for 8 days (2 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Pre-race / post race</td>
<td>20 cc per day 2 days before, 1 day before, day of and day after</td>
<td>2 scoops / day</td>
<td>60 cc 3 hrs out / close up</td>
<td></td>
</tr>
<tr>
<td>Long haul shipping</td>
<td>20 cc + 60 cc Acid FX pre-loading—20 cc + 30–60 cc Acid FX every 4 hrs</td>
<td>2 scoops / day</td>
<td>See paste dose</td>
<td></td>
</tr>
<tr>
<td>Pre-retention barn</td>
<td>20 cc per day 4 days before retention</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Claiming horses</td>
<td>20 cc per day for 8 days (2 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Poor eaters (hay / grain / water)</td>
<td>20 cc every 6 hrs first day—20 cc per day for 8 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Antibiotic treatment</td>
<td>20 cc per day during treatment—20 cc per day for 5 days after</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Loose stools</td>
<td>20 cc every 6 hrs first day—20 cc per day for 8 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
</tbody>
</table>

**SPECIAL NEEDS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Dose (daily starter / loading dose)</th>
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<th>Supplement</th>
<th>Acid FX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild colic “emergency”</td>
<td>20–40 cc every 2 hrs (call Vet if necessary)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Colic after treatment / prevention</td>
<td>20 cc per day for 8 days (check water intake / moulds / feeding program)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>During / after antibiotic treatment</td>
<td>20 cc per day during treatment—20 cc per day for 5 days after</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Stomach ulcers / hindgut acidosis</td>
<td>20 cc every 6 hrs first day—20 cc per day for 8 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Senior horses / hard keepers</td>
<td>15 cc per day for 10 days (2 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>During worming treatment</td>
<td>20 cc 4–6 hrs before treatment—20 cc per day for 3 days after</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Insulin resistance / cushings / EMS</td>
<td>20 cc every 6 hrs first day—20 cc per day for 8 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Rescue horses</td>
<td>20 cc every 6 hrs first day—20 cc per day for 8 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
</tbody>
</table>

**BREEDING FARM**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Dose (daily starter / loading dose)</th>
<th>Followed by</th>
<th>Supplement</th>
<th>Acid FX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broodmares gestation</td>
<td>15 cc per day for 10 days (if lacking body condition, 2 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Broodmares foaling</td>
<td>20 cc per day for 4 days pre-foaling—20 cc per day for 4 days after</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Foals</td>
<td>5 cc per day 2nd through 10th day (30 cc if ulcers suspected)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Foals scouring</td>
<td>15 cc per day (until controlled)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Weanlings (promote grain intake)</td>
<td>10 cc per day (until appetite develops)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>At and after weaning</td>
<td>10 cc per day 4 days prior—10 cc per day for 4 days after</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Gutty “poor doing” weanlings</td>
<td>15 cc per day for 10 days (2 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Yearlings / sale horses / 2 year old</td>
<td>15 cc per day for 10 days (during stress / sale prep / treatment, 2 tubes)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
<tr>
<td>Breeding stallions</td>
<td>15 cc per day for 10 days (before breeding season / high stress)</td>
<td>2 scoops / day</td>
<td>60 cc 15 min pre-work</td>
<td></td>
</tr>
</tbody>
</table>

**SHOW/PERFORMANCE/SALE**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Dose (daily starter / loading dose)</th>
<th>Followed by</th>
<th>Supplement</th>
<th>Acid FX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily work / training</td>
<td>15 cc per day for 10 days (weight maintenance)</td>
<td>2 scoops / day</td>
<td>60–60 cc pre-work</td>
<td></td>
</tr>
<tr>
<td>Pre-show / event / during show</td>
<td>15 cc per day 3 days before—15 cc per day during show / event</td>
<td>2 scoops / day</td>
<td>60–60 cc pre-work</td>
<td></td>
</tr>
<tr>
<td>Trailing / long haul shipping</td>
<td>20 cc + 60 cc Acid FX pre-loading—20 cc + 30 cc Acid FX every 4 hrs</td>
<td>2 scoops / day</td>
<td>See paste dose</td>
<td></td>
</tr>
<tr>
<td>Show / performance (day of)</td>
<td>20 cc + 60 cc Acid FX 3 hrs before show / performance</td>
<td>2 scoops / day</td>
<td>60–60 cc pre-work</td>
<td></td>
</tr>
<tr>
<td>Thoroughbreds off-track</td>
<td>20 cc every 6 hrs first day—15 cc per day for 10 days (3 tubes)</td>
<td>2 scoops / day</td>
<td>60–60 cc pre-work</td>
<td></td>
</tr>
<tr>
<td>Fitting halter / sale horses</td>
<td>20 cc / day for 8 days</td>
<td>2 scoops / day</td>
<td>60–60 cc pre-work</td>
<td></td>
</tr>
</tbody>
</table>
Equine Gastric Ulcer Syndrome (EGUS)

Gastric ulceration is caused by chronically acidic stomach conditions affecting 90% of racehorses and 35-60% of show or performance horses.

Given free access to hay or pasture, the horse will chew 16-20 hours a day. Chewing fiber produces large amounts of saliva that contains bicarbonates to naturally buffer the stomach's continuous production of hydrochloric acid and pepsins. Due to reduced hay feeding and pasture access, race and performance horses chew less than half this time and therefore their secretion of bicarbonates decreases accordingly.

During work, showing, or racing, the horse's stomach tends to shrink and collapse as blood flows away from the stomach toward the extremities. Mechanical "acid spill" occurs and causes irritation and ulceration of the squamous mucosa (upper lining of the stomach).

EGUS negatively affects appetite, disposition, body condition, and performance.

The Acid FX Solution!

Equine Choice™ created Acid FX, a palatable liquid designed to buffer the digestive acid remaining in the horse's stomach during prolonged activity.

Acid FX contains USP Calcium carbonate, USP Magnesium oxide, and L-Glutamine carried in a soy lecithin base.

Administer 30-60 cc 10-15 minutes before work, trailering, racing, or showing. (DOES NOT TEST.)

Available in:

PASTE (80 cc tubes) contains high levels of bacteria, enzymes, MOS, B vitamins, branched-chain amino acids, live protected yeast, and vitamin E.

GRANULAR SUPPLEMENT (1.7 kg and 4.2 kg pails, 20 kg tub) contains all ingredients listed above plus an optimal level of live protected yeast to stabilize and buffer hindgut pH and improve fibre digestion and nutrient absorption.

Your local dealer is:

Manufactured For:
Animal Pro Products inc
8648 HWY 6 Arthur, ON N0G 1A0
800.420.3633
519.848.2097

For Sales & Technical Support Contact:
Doug Campbell
p. 519.856.4146
c. 519.820.5898

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