

PURINA® EQUINE SENIOR ACTIVE



For Active, Aging Horses –
Designed for Feeding
with Hay or Pasture

THE RESEARCH BEHIND PURINA® EQUINE SENIOR® AND EQUINE SENIOR® ACTIVE HORSE FEED

Purina® Equine Senior® horse feed, the trusted original senior horse feed, has been helping senior horses live healthy, long lives since its national launch in 1993. Today's horses are staying active longer than ever, and new findings suggest that healthy aging horses may benefit from a higher-calorie diet designed with controlled starch and sugar and balanced nutrients. So Purina introduced Equine Senior® Active horse feed, precisely formulated to meet the unique nutritional needs of moderately active senior horses. But Purina's Ph.D. Equine Nutritionists and Veterinarians never stop researching new ways to address the specific needs of aging horses. Amplify® high-fat nugget and ActivAge™ prebiotic are just two of the senior horse nutrition breakthroughs included in Equine Senior® Active horse feed.

THREE REASONS HORSES BENEFIT FROM EQUINE SENIOR® ACTIVE HORSE FEED:

- 1. Nutrition for Healthy Activity Controlled**
Starch & sugar with multiple energy sources help keep aging horses active
- 2. Supports Immune Function Exclusive**
ActivAge™ prebiotic supports optimal function of the aging immune system
- 3. Healthy Appearance Contains** **AMPLIFY**
High-fat nugget to help maintain body condition, shine & bloom

PROPRIETARY ActivAge™ PREBIOTIC: IMMUNE SUPPORT

In a series of experiments completed in 2014, conducted by Purina Animal Nutrition in collaboration with the Gluck Equine Research Center at the University of Kentucky, senior horses were fed either current Equine Senior® (control) or Equine Senior® feed supplemented with ActivAge™ prebiotic and administered an influenza vaccine. Preliminary results show that horses fed ActivAge™ prebiotic demonstrated a significantly greater increase in influenza antibodies following

vaccination vs. control horses (Figure 1), which is one of the markers of a healthy immune response. In addition, ActivAge™ prebiotic helped protect against inflammation associated with aging. A gradual rise in inflammatory cytokine levels is expected as horses age and also during the winter months (when this study took place), but levels of the key inflammatory cytokines interferon-gamma (IFN-γ) and tumor necrosis factor-alpha (TNF-α; Figure 2) increased significantly in horses fed Equine Senior® but did not change in horses fed Equine Senior® with ActivAge™ prebiotic.

FIGURE 1:
CHANGE IN IMMUNE RESPONSE FOLLOWING VACCINATION

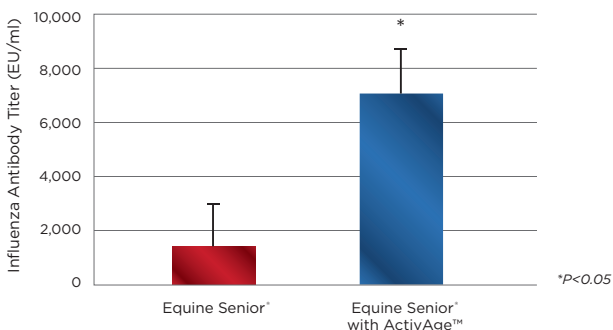
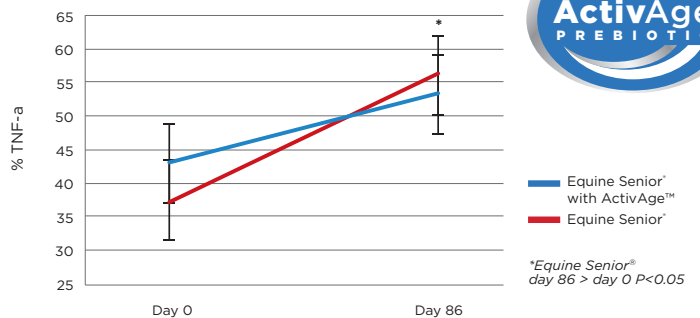


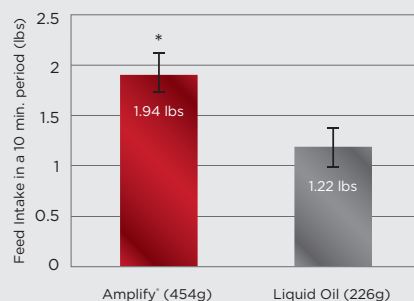
FIGURE 2:
TNF-α LEVELS AT THE BEGINNING AND END OF THE STUDY



PROPRIETARY AMPLIFY® HIGH-FAT NUGGET: PALATABILITY OF FAT

High levels of fat can affect the palatability of horse feeds, so delivering optimal palatability is crucial for encouraging intake. The Amplify® nugget has been scientifically formulated with rice bran, flaxseed and vegetable oils for an optimal fatty acid profile and nutritional balance while maintaining strong palatability. Trials at the Purina Animal Nutrition Center showed significantly higher palatability for Amplify® nugget, compared to top-dressed liquid oil.

AMPLIFY® SUPPLEMENT VS. LIQUID OIL



Amplify® or liquid oil were top-dressed on 3 lbs of Strategy® GX Horse Feed, with amounts calculated to deliver similar calories

*P = 0.0039

HR 161, Purina Animal Nutrition Center H-1, 2012



To learn more about our research, visit our web site at purinamills.com/horse-feed.

DAILY FEEDING CHART

LIFESTYLE	WEIGHT OF HORSE IN POUNDS				
	600	800	1,000	1,200	1,400
Minimum Hay or Equivalent Pasture*	7.00	9.50	12.00	14.50	17.00
	<i>(lbs/day)</i>				
	<i>Equine Senior® Active Horse Feed (lbs/day)**</i>				
Maintenance – Average Activity	2.25	2.75	3.50	4.25	4.75
Maintenance – Elevated Activity	2.75	3.50	4.25	5.25	6.00
Light Work	3.25	4.25	5.50	6.50	7.50
Moderate Work	4.50	6.00	7.25	8.75	10.00
Heavy Work	5.50	7.50	9.25	11.00	12.75
Very Heavy Work	8.25	11.00	13.75	16.25	19.00
Early Gestation (first 250 days)	2.25	3.00	3.75	4.50	5.25
Late Gestation (last 90 days)	3.50	4.50	5.50	6.50	7.50
Lactation (fed separately from foal)	7.25	9.75	12.00	14.25	16.75
Breeding Stallion	4.00	5.50	6.50	7.75	8.75

* This is the recommended minimum amount of hay to be fed. If feeding more hay, reduce the feeding rate of Equine Senior® Active horse feed by 1.0 lb for every additional 2.0 lbs of hay fed.

** Do not feed less than 0.3 lbs per 100 lbs of body weight per day. If your horse gains too much weight at that minimum feeding rate, then you should replace Equine Senior® Active horse feed with Purina® Strategy® Healthy Edge® horse feed or Purina® Enrich Plus® Ration Balancing Feed.

*** This is the recommended minimum amount of hay to be fed. If feeding more hay, reduce the feeding rate of Equine Senior® Active horse feed by 1.0 lb for every additional 2.0 lbs of hay fed. EXAMPLE: Using the chart above, if feeding 14 lbs instead of 12 lbs of hay to a 1,000 lb maintenance-elevated activity level horse, reduce Equine Senior® Active horse feed offered by 1.0 lb from 5.25 to 4.25 lbs per day (2.0 lbs of additional hay divided by 2.0 lbs = 1.0 lb less of Equine Senior® Active horse feed).

**** Do not feed less than 0.3 lbs per 100 lbs of body weight per day. EXAMPLE: A 1,000 lb horse has ten 100 lb increments (1,000 divided by 100 = 10). So for this horse, do not feed less than 3 lbs per day (10 x 0.3 = 3.0 lbs per day). If your horse gains too much weight at that minimum feeding rate, then you should replace Equine Senior® Active horse feed with Purina® Enrich Plus® Ration Balancing Feed.



CONCENTRATE FEED

Formulated to be fed with hay or forage.



HIGHLY DIGESTIBLE

Special blend of fiber sources including loose beet pulp helps maintain the senior horse's body condition and support normal digestive function.



SUPPLIES 100% OF REQUIRED VITAMINS AND MINERALS

Precisely formulated to meet the specific nutritional needs of senior horses, to support immune function and overall health.*

*When fed as directed, with free-choice or added salt, based on Nutrient Requirements of Horses Sixth Revised Edition - 2007, published by the National Research Council



MULTIPLE ENERGY SOURCES

with more calories from fat, less from sugar to provide a diet lower in nonstructural carbohydrates that may help aging horses with difficulty managing blood sugar levels.



CONTROLLED STARCH AND SUGAR

Formulated to provide a diet lower in nonstructural carbohydrates that may be suitable for aging horses with carbohydrate sensitivities.



ADDED ANTIOXIDANTS

Contains Vitamin E to provide additional support for a healthy immune system.



HIGH QUALITY PROTEINS

Formulated for a proprietary amino acid profile to support strong muscle growth, shiny coat and healthy hooves.



FEED GREATNESS®

At Purina, we are always striving for greatness.

With over 120 years of research and innovation, greatness shows in the animals we feed. If there's greatness on the inside, it shows on the outside.



PURINA

For more information on this or other Purina® horse feeds, visit purinamills.com/horse-feed or call 1-800-227-8941.

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IMPORTANT CONSIDERATIONS

- Any feed changes should be made gradually over a period of 7 to 10 days. Changes in the rate of feeding should not exceed 1 pound per day for each horse. Feed at regular times — at least twice daily — with three daily feedings preferred. Be sure to weigh your feed using a scale. A small scale can be purchased in the fishing department of many sporting goods stores.
- Reduce and/or delay feeding a horse which is hot, excited or showing pain, has fever or diarrhea. Consult your veterinarian if any problems arise. Prevent rapid eating.
- Let horses feed in a natural position from large feed containers.
- Have plenty of fresh, clean water available at all times. Supplemental salt should be added to the feed or provided free-choice.
- Store in a dry, well-ventilated area protected from rodents and insects. Do not feed moldy or insect-infested feed to animals as it may cause illness or death.
- Observe horses daily. Consult your veterinarian for proper preventive health. Maintain a regular deworming and vaccination program.
- Feeding added selenium resulting in total diet levels in excess of 0.3 ppm is prohibited.

NUTRIENT COMPOSITION

Crude Protein (Min)	14.00%	Chloride (Cl) (Min).....	0.54%
Lysine (Min)	0.90%	Sulfur (S) (Min).....	0.23%
Methionine (Min).....	0.25%	Cobalt (Co) (Min).....	0.55 ppm
Threonine (Min).....	0.40%	Copper (Cu) (Min).....	80.00 ppm
Crude Fat (Min).....	10.00%	Iodine (I) (Min).....	3.00 ppm
Crude Fiber (Max).....	18.00%	Iron (Fe) (Min).....	200.00 ppm
Starch (Max).....	9.00%	Manganese (Mn) (Min).....	200.00 ppm
Sugars (Max).....	7.00%	Selenium (Se) (Min).....	0.60 ppm
Calcium (Ca) (Min).....	0.95%	Zinc (Zn) (Min).....	280.00 ppm
Calcium (Ca) (Max).....	1.45%	Vitamin A (Min).....	3,000 IU/lb
Phosphorus (P) (Min).....	0.60%	Vitamin D (Min).....	800 IU/lb
Magnesium (Mg) (Min).....	0.25%	Vitamin E (Min).....	125 IU/lb
Potassium (K) (Min).....	0.75%	Thiamin (Min).....	6.35 mg/lb
Sodium (Na) (Min).....	0.24%	Riboflavin (Min).....	2.49 mg/lb