



RESEARCH ■ REVIEW >

RESEARCH >

Constant Nutrition[®] Yields Consistent Results: Feeding Growing Horses Ultium[®] Growth Horse Feed Produces Consistent and Desirable Growth Curves.

A SUMMARY OF RESEARCH CONDUCTED AT THE PURINA ANIMAL NUTRITION CENTER, EXAMINING THE EFFECTS OF FEEDING YOUNG, GROWING HORSES ULTIUM[®] GROWTH HORSE FEED.¹

< INTRODUCTION >

One of the main goals in feeding young growing horses is generally to support optimal growth rates to achieve mature body size in a reasonable time. The unique digestive physiology of the horse requires a thorough understanding of the physiology of the growing horse to develop a proper feeding program. As the young growing horse ages, its individual nutritional requirements change, necessitating a feed that can provide the proper nutrition for varying stages of development. Ultium[®] Growth horse feed has been extensively studied at the Purina Animal Nutrition Center to ensure that it provides the proper nutrients in the correct amounts to support the growth and development of healthy horses. The objective of these studies was to evaluate the effects of Ultium[®] Growth horse feed on the growth and development of young horses. It was hypothesized that the high fat and fiber feed, Ultium[®] Growth would provide the proper nutrition for growing horses, thereby producing optimal growth rates.

< MATERIALS AND METHODS >

Over the course of six years, sixty young growing horses were fed Ultium[®] Growth starting at 1 month of age and continuing through one year of age. Foals were fed individually at a starting rate of 0.3 lb of Ultium[®] Growth horse feed increasing to a final rate of 1 lb per month of age to an ultimate weight of 8 lb, fed in two separate feedings at approximately 0700 and 1500 daily. Prior to weaning foals were fed in creep feeders that did not allow the mare access. Additionally, foals received 1.5% BW hay fed individually and free-choice access to water and a salt block. All feed refusals and weigh-backs were recorded. Physiological parameters measured biweekly were recorded and included: body weight, hip height, hip width, heart girth and wither height. Body condition of foals was recorded and feed amounts were adjusted to maintain proper body condition. Foals were housed in individual stalls with their dam until weaning at 140 d of age with daily access to drylots. Foals were vaccinated and dewormed according to guidelines outlined by the American Association of Equine Practitioners and the staff veterinarian at the Purina Animal Nutrition Center.

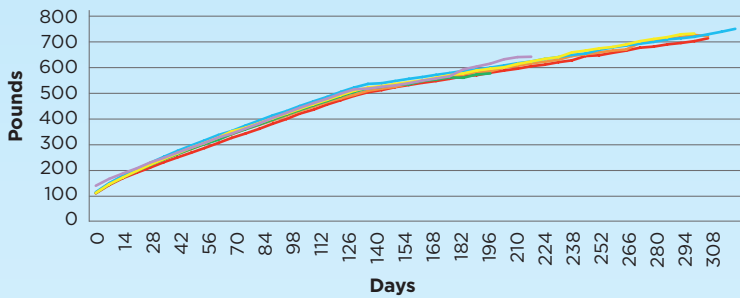
¹Gordon, M.E., Jerina, M.L., et al. 2010-2015. HR 127, HR 137, HR 154, HR 170, HR 179, HR 197.

< RESULTS >

All foals remained clinically healthy, as determined by the staff veterinarian through the course of the studies with no development of developmental orthopedic abnormalities. Physiological parameters measured including body weight, heart girth, wither height, hip height and hip width were similar across all years studied and time points evaluated (Fig. 1-5). All foals developed at a moderate growth rate to a final measured body weight of approximately 750 pounds at 11 months of age.

FIGURE 1

Body weights (lb) of foals measured biweekly from birth through 308 d of age.



< IMPLICATIONS >

The proper growth and development of young horses is of utmost importance. It is well understood that the diet consumed by these animals provides the foundational support for the growth of bone, lean tissue and adipose tissue necessary for optimal development. These data demonstrate that Ultium® Growth horse feed fed at the appropriate recommended levels will provide adequate nutrition leading to repeatable and desirable growth curves, potentially contributing to the development of healthy adult horses.

FIGURE 2

Heart girth (in) of foals measured biweekly from birth through 322 d of age.

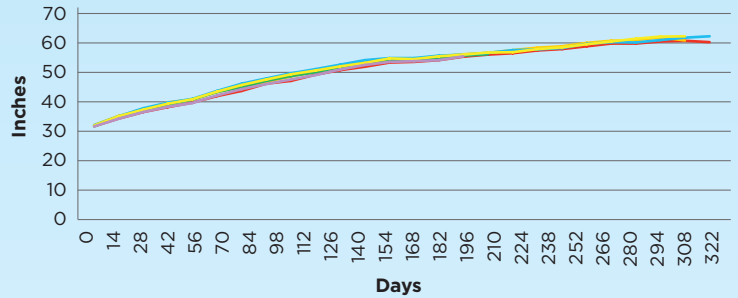


FIGURE 3

Wither height (in) of foals measured biweekly from birth through 322 d of age.

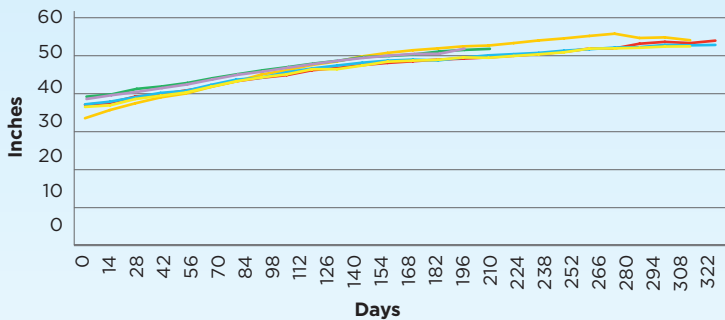


FIGURE 4

Hip height (in) of foals measured biweekly from birth through 322 d of age.

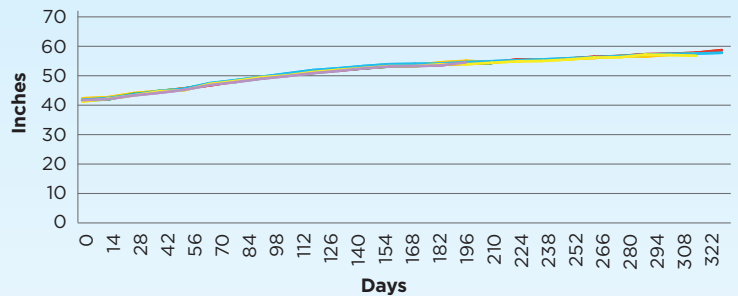
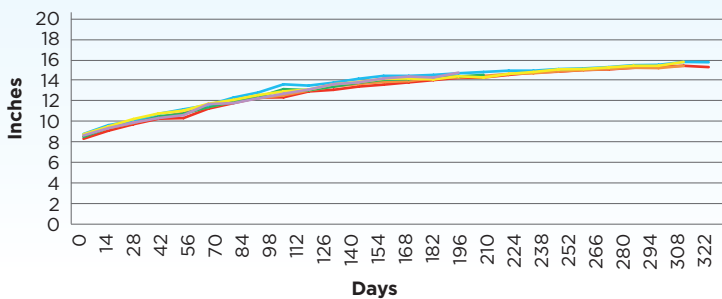


FIGURE 5

Hip width (in) of foals measured biweekly from birth through 322 d of age.



Individual lines represent different years (refer to the key below for Figures 1-5).

- 2010¹
- 2011²
- 2012³
- 2013⁴
- 2014⁵
- 2015⁶

¹HR 127 - Ultium® Growth, 2009.

²HR 137 - The effect of feeding Ultium® Growth on growth of suckling through one year old growing horses and broodmare maintenance, 2010.

³HR 154 - The effect of feeding Ultium® Growth on growth of suckling through one year old growing horses and broodmare maintenance, 2011.

⁴HR 170 - The effect of feeding Ultium® Growth on foals through one year of age and lactating mare maintenance, 2012.

⁵HR 179 - Ultium® Growth, 2013.

⁶HR 197 - Ultium® Growth IA, 2014.

< FOR MORE INFORMATION > Contact your local Purina representative if you would like more information about this study.