

A Forage-Only Diet for Young Horses in Training Evaluated

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Research shows that adult performance horses can [subsist on a quality forage-only diet](#), but what about their younger counterparts? Recent study results from a Swedish research team indicate that a high-energy, high-quality forage diet is not only adequate for growing horses, but can also reduce their risk of several health problems associated with a concentrate-rich diet, including gastric ulcers, colic, and rhabdomyolosis (tying up).

"The aim of the project was to know this: Is it possible to get Standardbred horses in competitive condition at the age of 3 on a forage-only diet?" relayed Anna Jansson, professor at both the Swedish University of Agricultural and Sciences and Holar University College in Iceland.

Over a four month period Jansson and her colleagues evaluated the growth, training response, and overall health of 16 American Standardbred colts maintained on a diet of *ad libitum* high-energy grass haylage and a pelleted lucerne product. The research team then continued tracking the horses' progress during the next two years as they remained on the same diet and began racing.

Shortly after the study's start, the horses began training, and within five weeks the animals were pulling carts around the racetrack at a trot. Training duration and intensity increased from that point, with the end goal being "to vigorously trot 5 to 7 kilometers at a speed of 5.6 meters per second" within a specified time span, the team noted.

To monitor horses' development, the researchers evaluated body condition score and took specific measurements monthly. Evaluated parameters included:

- *Longissimus dorsi* (back) muscle thickness;
- Rump fat thickness;
- Height at withers and croup;
- Body length;
- Body weight;
- Cannon bone circumference; and
- Hoof width, frog length, and coronet circumference.

Other parameters evaluated included muscle fiber and glycogen composition (important for energy storage), heart rate during a standardized exercise test, and blood plasma lactate concentration (an indication of a horse's fitness).

An independent veterinarian evaluated the horses twice during the study period and reported normal growth rates and good health for all study horses.

In addition to normal growth rates and overall good health, the team reported that the young horses maintained on a high-energy forage diet had muscle glycogen levels within the normal range of athletic horses and had few lost training days due to health problems.

"(Our) conclusion was that the horses met the exercise goal and grew at least as well as earlier (studies) reported," Jansson relayed. "The horses had good health, and from other studies it is known that high concentrate diets increase the risk for several health problems."

The study, "Growth, training response, and health in Standardbred yearlings fed a forage-only diet," will appear in an upcoming issue of *Animal*. The abstract can be viewed [online](#).

Disclaimer: Seek the advice of a qualified veterinarian before proceeding with any diagnosis, treatment, or therapy.