

# High-Tech Horse Raising

BY LESLIE DECKARD

**T**racking the growth of young horses is going high-tech with a computer program called Gro-Trac. Developed by Kentucky Equine Research (KER), the program allows breeders to compare the growth rates of horses on their farms to others of the same age and sex on farms in various states and countries.

By using a database of growth records created by KER over the past 10 years, farm managers and breeders can assess how their young horses stack up against other horses of the same age, sex, weight, and breed around the world without ever leaving their farm.

"The idea behind the program was to allow farms to monitor the growth and development of young horses with an idea toward producing better horses," said Dr. Joe Pagan, KER president. "No one really knows how foals develop in specific areas, and this program allows for that type of monitoring and comparing."

The database is arranged in reference groups and includes the weights, heights, and average daily gains of thousands of foals. Specific farm averages can be calculated and measured against a desired reference group, but farm-to-farm comparisons are not available. Individual farm information is confidential and all comparison data is based on averages.

For example, the growth rate of a colt foaled on Feb. 2 in Central Kentucky can be compared to all colts born in Central Kentucky on Feb. 2, or to both colts and fillies that were foaled on Feb. 2 in Central Kentucky or world-wide.

The comparison information displays both graphically and with charts the age of the foal in days, birth weight of foal, periodic updating of weight of foal, ref-

erence group birth weight, average daily weight gain of foal, average daily weight gain of reference group, the height of the foal, and the height of the reference group of foals.

The graphically displayed weight and height statistics display a growth curve for the young horse in question as well as the reference group.

Photos, as well as a comment section, such as when the foal was weaned or if it suffered any illness or change in feed routine, can be added to the program to show changes in the foal from month-to-month. Reports can be printed to create a living history profile of each foal.

"It's basically a living narrative of the growth of your foal," Pagan said.

Gro-Trac was born from a compilation of research gathered by Steve Caddell at Farmer's Feed Mills (Hallway Feeds), who obtained height and weight measurements of young foals when weighing foals each month. The measurements were placed in spreadsheet form and given to farm managers as a way to monitor the growth of their young horses.

"There was all of this data and the farms were not getting the maximum use of this information," Pagan said. "We placed all of the information into a spreadsheet database to monitor growth."

Since its inception, the program has expanded to more than 30 farms in Central Kentucky, as well as Virginia, Australia, England, and India.

Pagan said an example of how the program best compares the growth and development of young horses is illustrated in his work with Equus Stud in India.

"Here is this farm in India, and not a lot is known about how horses develop there," Pagan said. "They weigh and measure their foals and send me the data, and I can make recommendations about feed supplements without making the trip to visually look at each foal. The foals in



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**Dr. Joe Pagan,** president of Kentucky Equine Research and creator of Gro-Trac<sup>TM</sup>



that hot, dry climate are actually growing at about the same rate as foals in Central Kentucky.”

Pagan said he receives Equus Stud foal updates via the Internet and e-mails nutrition information to the farm manager.

“The farm in India is using the program to its full power,” Pagan said. “The real power of this program is going to come from people away from Central Kentucky.”

Edward P. Evans’ Spring Hill Farm near Casanova, Va., has been using Gro-Trac since last year, and has incorporated historical farm records dating from the 1990s into the program.

“It still comes down to knowing your horses,” said Chris Baker, Spring Hill farm manager. “Now you can have quantitative numbers to back up what you see in the fields with your eye.”

Baker said Spring Hill, which often races several generations of the same family, uses the program to track trends developing in certain families.

“Before Gro-Trac, we weighed our foals, but Gro-Trac added height, and now we can go back and look at the development of specific foals,” Baker said. “Having a racing stable, you can go back and see that each successful runner had a pretty steady growth curve. It’s a good way to access who are going to be your better performers.”

KER, whose main emphasis is equine nutrition, provides the Gro-Trac program free to farms that use one of its many supplement-feeding programs. KER works with Kentucky-based companies Hallway Feeds, Woodford Feed, Brumfield Feed, and Producers Feed. Farms not using a KER partner feed company can lease the program.

Feed company representatives weigh and measure foals and input the data into a report that can be accessed by farms via the Internet by linking with the KER Web site. Farm managers can also e-mail questions about rapid growth or slow growth of their foals to Pagan or other KER nutritionists for recommendations about feed supplements.

“We use this information to develop growth profiles and as a way to correct rations. It’s as much a tool for us as it is the farm managers,” Pagan said.

Pagan noted the program isn’t designed to take the art and science out of raising foals, but to aid in making better decisions.

“We’re really careful when speaking to farms about the program, not saying there is only one way to raise foals. We tell them this program can modify their techniques.”

Denali Stud’s Craig Bandoroff said the Gro-Trac program is used as a management tool at his farm near Paris, Ky. “We have always weighed our foals, but with Gro-Trac, we do measurements as well,” Bandoroff said. “It helps evaluate our horses compared to others with something other than our eyes. You can look at a horse and then the charts and say he’s where he should be or maybe we should cut back on the feed or increase the supplements.”



Bar graphs chart the average daily weight gain of foals against other foals their same age

Bandoroff said Denali clients receive Gro-Trac updates on their horses via e-mail each month.

“I think people like to see how their foals are growing,” he said.

Clifford Barry, farm manager of Josephine Abercrombie’s Pin Oak Stud near Versailles, Ky., said the program hasn’t changed the way Pin

Oak foals are raised, but it helps in making decisions concerning grain supplements and other nutrition-related decisions.

“(It’s a) great way to monitor development and draw attention to subtle changes such as foals losing weight after weaning or yearlings gaining weight ahead of the curve,” Barry said.

Pagan called the program “a living beast,” saying it is constantly evolving based on the recommendations of farm managers. “A lot of what is available comes from the farms. We try to incorporate as much of what they want to see into the program. What you see on the program today could change tomorrow. There are a lot of things we have in the works.”

Gro-Trac monitors the growth of a specific foal against a reference group of foals the same age and sex

