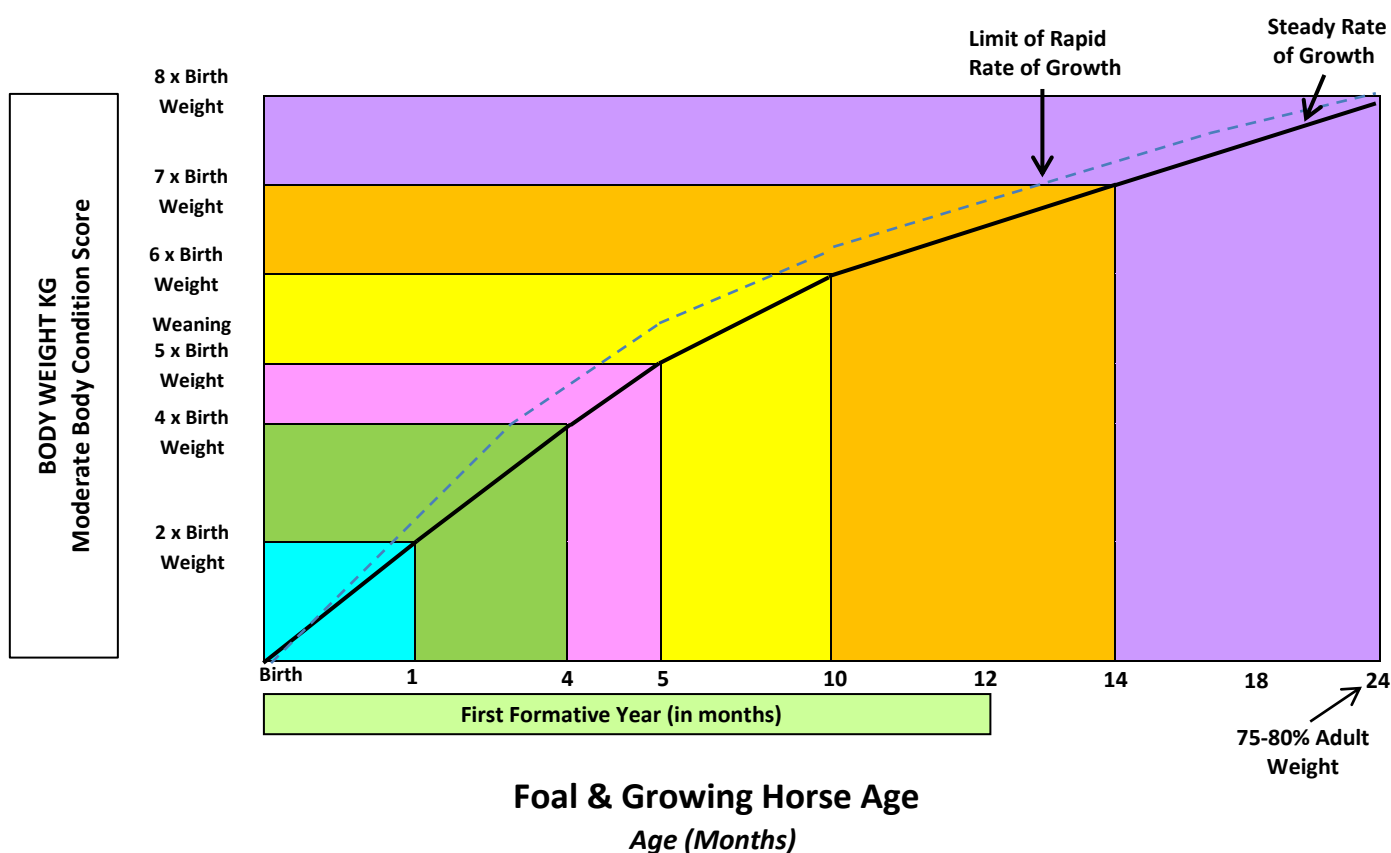


FOAL GROWTH RATE CHART

Monitoring Growth Rates of Young Horses Birth to 24 Months of Age

by Dr John Kohnke BVSc RDA

The strength and quality of bone growth and joint development, occurring in the first formative year of a young horse's life, forms a sound musculo-skeletal system that is paramount to the future soundness of any athletic horse. The young foal has a high rate of Average Daily Gain (ADG) during the first month of life fuelled by milk alone, with a typical foal doubling its birth weight in the first month, doubling it again in another 3 months (by 4 months of age) and then doubling it again in the next 6-8 months to yearling age, as ADG and the growth rate slows. There is a relationship between age, height and body weight in a growing horse up until 2 years of age, with special requirements during the first formative 12 months after birth.



| Birth Weight | AVERAGE DAILY GAIN (ADG) PER DAY | | | | | Adult Mature Body Weight Range |
|--------------|----------------------------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------------------------|
| | ADG 1 Month Rapid Growth | ADG Reducing To 4 Months | ADG Reducing To 10 Months | ADG Reducing To 14 Months | ADG Reducing To 24 Months | |
| M 12-15 kg | M 1,000 g | M 800 g | M 500 g | M 300 g | M 100 g | M 120-150 kg |
| P 17-20 kg | P 1,300 g | P 1,000 g | P 700 g | P 350 g | P 150 g | P 300-350 kg |
| LB 45-53 kg | LB 1,600 g | LB 1,200 g | LB 900 g | LB 600 g | LB 250 g | LB 400-520 kg |
| HB 63-75 kg | HB 1,800 g | HB 1,400 g | HB 1,000 g | HB 800 g | HB 350 g | HB 1000-1100 kg |

Miniatures (M) Ponies (P) Light Breeds (LB) Heavy Breeds (HB)

Please turn over for additional guidelines.

MONITORING OF GROWTH AND DEVELOPMENT

Ideally, a growing foal should be carefully observed at 10-14 day intervals to check it for any signs of joint and limb abnormalities. Its weight and body condition score should be recorded at 4 week intervals to help ensure a safe, optimum Average Daily Gain (ADG) relative to the breed, sex and its mature body weight target.

An electronic weigh scale mat or a girth tape can be used to record growth rates, but careful appraisal of Body Condition Score should also be carried out when monitoring the ADG.

Monitoring Average Daily Gain in Bodyweight

Adult mature body weight of horses can range from 180 kg to 1,100 kg relative to breed, with mature weight being reached in 4-7 years. The increase in body weight is a linear proportion at a moderate, safe ADG. Firstly, estimate the weight of the young foal at birth to obtain a base line weight for monitoring ADG. Colt foals, on average will weigh 2-3% higher compared with filly foals.

It is important to monitor and promote a steady rate of growth and avoid excessive growth spurts related to seasonal conditions. The major causes of joint and bone related abnormalities include over feeding, compensatory growth under good seasonal conditions or excess energy intake in the young horse's diet. They are termed 'Development Skeletal Problems' (DSP), formerly referred to as 'Development Orthopaedic Disease' (DOD). Monitoring ADG at regular intervals, and ensuring access to adequate paddock exercise (at least 2-3 hours per day), as well as maintaining a moderate body condition score, are essential to ensure future athletic soundness in racing, sporting and leisure horses.

Although genetic predisposition can increase the risk of certain DSP's, monitoring ADG, Body Condition Score, factoring in seasonal pasture influences and regular observation at 10-14 day intervals for early signs of limb and joint abnormalities, are all useful tools to monitor and ensure a steady growth.

There is no standard growth rate guideline for young horses as breed, sex, purpose, body condition and feeding influences all contribute to the growth and development targets of an individual young horse. This is illustrated in the coloured zones on the table overleaf as a guide to ADG, which slowly decrease as the young horse develops after weaning.

Unborn Foals

An unborn foal grows rapidly during the last 4 months prior to birth, doubling in size and quadrupling its weight.

1. A daily supplement of **Kohnke's Own® Cell-Grow®**, as recommended on the dose rate chart relative to the mare's body weight, will help ensure optimum development of her unborn foal and allow storage of important nutrients such as copper, zinc, selenium, iron and Vitamin A and E in the unborn foal's liver during the last 3 months of pregnancy, to make up shortfalls in milk during the first month of a foal's life.
2. Maintaining a daily supplement of **Cell-Grow®** for mares during lactation and the young horse up to 24 months of age, as recommended on the product label, will help make up shortfalls of essential bone minerals, trace-minerals and vitamins in a pasture, hay and grain based diet.
3. If a commercial mare, weaner or growing horse mix is provided as the energy, protein and other nutrient base, careful monitoring to avoid too rapid growth rate and increase in body condition must be carried out at 10-14 day intervals. If the commercial feed is cut back because the young horse is overweight or developing joint and limb abnormalities, reducing the energy feed will also reduce essential bone minerals, trace-minerals and vitamins. These shortfalls can be corrected by supplementing with **Cell-Grow®**.
4. A free Ration Analysis Service for pregnant mares, lactating mares, creep fed foals and young growing horses at all ages, to check the adequacy and balance of the daily feed intake, is available by contacting John Kohnke Products at info@kohnkesown.com or rations@kohnkesown.com, or by free call to 1800 112 227.

Our experienced ration advisors will provide recommendations on an optimum ration to ensure growth and sound musculo-skeleton development in your young horse.

Disclaimer: The recommendations in this information sheet have been presented as a guideline based on the veterinary experience and knowledge of the author, Dr John Kohnke BVSc RDA. Whilst all care, diligence and years of practical experience have been combined to produce this information, the author/editor, Dr John Kohnke, accepts no responsibility or liability for unforeseen consequences resulting from the hints and advice given in this alert.

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