

Reproductive Endocrine Definitions

Progesterone (P4): Used to determine luteal status, verify/pinpoint time of ovulation, assess need for supplemental progestagens during pregnancy, and monitor fetal adrenal maturation near term.

Total estrogens (E2): Used for monitoring fetal viability/placental health (and assessing pregnancy status) after 110 days of gestation.

Testosterone: May correlate with libido in stallions; rises in response to HCG in Cryptorchids.

T3 (Triiodothyronine): Low levels in circulation converted from T4 at target tissues; may be abnormal in very young sucklings.

T4 (Thyroxine): Higher normal range in young stock; has permissive effects on all body systems; may be associated with malnourished, poor reproductive function and many other symptoms; varies with ambient temperature, type or forage consumed, medication, illness, etc.

Insulin: May be elevated in some horses predisposed to laminitis; is elevated until 4-5 hours after a carbohydrate-containing meal.

Cortisol: Produced by the adrenal glands in response to stress; normal horses have a diurnal rhythm of greater than 30% in a stress-free environment, if housed out of doors. Diurnal rhythm useful in monitoring efficacy of Cushing's syndrome treatments.

ACTH: Elevated in horses with advanced pituitary gland disease. Special sample requirements: plasma, harvested and frozen in plastic, shipped on ice overnight.

LH (Leutenizing Hormone): Varies with stage of cycle in females; may be useful in males with testicular dysfunction as part of a stimulation test with HCG or GnRH.

FSH (Follicle Stimulating Hormone): Varies with stage of cycle in females; elevated in males with testicular degeneration.

PMSG (Pregnant Mare Serum Gonadotropin): Also known as ECG; is produced by endometrial cups between 45 and 90 days of gestation; stimulates accessory ovulations.