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# PURDUE UNIVERSITY COLLEGE OF VETERINARY MEDICINE CLINICAL PATHOLOGY LABORATORY

625 Harrison Street, G351 Lynn Hall

#### West Lafayette, IN 47907-1249

#### Laboratory Director: John Christian, DVM, PhD

**For Test Information or Results:** (765) 494-7563

Interpretation of Results: Janice Sojka, VMD, M.S., Diplomate ACVIM jes@vet.purdue.edu or 765-494-8548

Clinic Name:	Owner:
Email Address: Date Collected:	DOB:

Clinical Signs / History: \_\_\_\_\_

Thyroid / Other Medications:

(\*Instructions & reference ranges on back)

## <u>Thyroid</u>

- □ T4 Baseline
- □ T4 (post TRH 2 Hr)
- □ T4 (post TRH 4 Hr)

## <u>Adrenal</u>

- □ Cortisol Baseline
- □ Cortisol (post TRH 30 min)
- □ Cortisol (post TRH 60 min)
- □ Cortisol (post TRH 90 min)
- □ Cortisol (post dex 12-15- Hr)
- □ Cortisol (post dex 24 Hr)
- □ Cortisol (post ACTH 8 Hr)

## **Miscellaneous**

- □ Progesterone
- □ Endogenous ACTH \*

#### **Collection and Shipping Information**

**General Instructions**: Do not send whole or clotted blood for any test. Label all tubes with the owner's name, patient name, designated test and time of collection, if part of a specific function test. Most of our tests require serum; please send a minimum of 0.5 ml of serum for each assay requested. Use plain glass clot tubes, allow clotting at room temperature, centrifuge as soon as possible, remove serum and refrigerate until shipment. The use of Serum Separator Tubes is **not** recommended by the manufacturer due to a potential 30% positive bias for T4 and Cortisol results.

<u>All samples for measurement of Endogenous ACTH should be frozen until shipment and shipped on dry ice in an insulated container</u> using crumpled paper or other material for insulation and protection of the samples. Samples for measurement of cortisol should be sent on frozen ice packs during the summer months.

**Thyroid hormone protocols:** For evaluation of equine thyroid function, T4 assays are recommended. For an equine TRH stimulation test 1 mg of TRH should be given IV. Blood samples should be collected prior to TRH administration (for T4) and 2 and 4 hours after TRH administration (for T4). The TRH response test can also be used to screen for equine Cushing's disease (see below).

**Evaluation of the adrenal axis**: For an equine ACTH stimulation test, after collecting a resting sample for cortisol assay, inject 1 IU/kg ACTH gel (HP Acthar or other ACTH gel) and obtain an 8 hour sample. For a dexamethasone suppression, after collection of a pre-test sample, inject 0.04 mg/kg IM (Azium) and collect samples at 12-15 and 24 hours after injection. For a TRH screen test, give 1 mg TRH I.V. after obtaining a baseline sample and then additional samples at 30 minute intervals for 90 minutes.

**Progesterone Assay for Pregnancy Diagnosis:** This test requires a minimum of 0.5 ml of serum (Red top tube). Serum should be removed from the red cells before shipping. Progesterone is made by a functioning corpus luteum. In horses, progesterone is secreted throughout the luteal phase of the estrous cycle. The concentration is similar whether or not the mare is pregnant. Progesterone is a useful means of diagnosing pregnancy if interpreted in light of breeding dates and knowledge of when a mare would be in estrus if she were not pregnant. Llamas usually (90%) ovulate and form corpora lutea after they have been bred.

**\*Endogenous ACTH:** Collect 3mL of whole blood into a plastic K2 EDTA tube. Centrifuge within 30 minutes of collection. Separate plasma into a plastic tube containing no additive. Freeze plasma. Plasma should arrive frozen on dry ice with next-day shipping to our lab.

**Test interpretation:** Reference ranges are given on the reporting forms. For further interpretation of tests please feel free to use our consulting services.

#### **Delivery Address:**

Purdue University Clinical Pathology Laboratory 625 Harrison St. Lynn Hall – RM. G-351 West Lafayette, IN 47907-1249