Camelid Reproductive Ultrasound Examinations in Nunoa Peru

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Portable Ultrasound with 7.5 MHz Linear Probe
Interpreting Ultrasound Images

- Fluid density = black
  - Urinary bladder
  - Fetal fluids
  - Ovarian follicles and cysts
- Soft tissue density = white
  - Uterus
  - Intestinal tract
- Bone/gas = bright white with no image below (acoustic shadow)
Coupling Medium

- Between probe head and tissue in contact for good sound wave transmission and reception
- External exams= alcohol
- Internal exams= water soluble methylcellulose lube
Examination Types

- **Internal/Transrectal Exam**
  - Non pregnant uterus and ovaries at any time
  - Good up to approximately 60 to 90 days of gestation depending on probe size
  - Embryonic heartbeat- first seen at approximately 25 days of gestation

- **External/Transabdominal Exam- Nunoa**
  - 40 to 80 days on the left side of the abdomen
  - Above 80 days on the right side
Systematic Transrectal Examination of the Repro Tract

- Starting reference point is the urinary bladder
- Follow uterus from body to horn tips to ovaries
- Track growth and regression of follicles
- Useful for timing of natural service or AI breeding
- Watch for double ovulations- 2 large follicles
Ultrasonography in Camelids

M. Aba
Transrectal Examination
Urinary bladder - occasionally seen on transabdominal exam if very full
Uterine Horn

Transrectal Exam

Horn

Urinary Bladder
Urinary Bladder and Pregnant Uterus

Transrectal Exam
Pregnancies

- **Transrectal exam**
  - Well tolerated by most alpacas
  - Evacuate some feces from rectum
  - Insert 60 cc of lube via anus
  - 16 to 60 - 90 days
  - Look right after the urinary bladder
  - Fetal fluids are seen as black
  - Fetus within the fluids is soft tissue = white
● **Transabdominal exam- Nunoa**
  - Left side of abdomen 40 to 80 days
  - Right side thereafter
  - Less well tolerated than transrectal exam
  - Use alcohol as the coupling medium
  - Look just in front of the hind leg over the side of the abdomen, in the lightly fleeced area
45 days

Transrectal Exam
46 days
66 days
78 days
84 days 2