

# PREGNANCY DIAGNOSIS IN BOVINE

PRACTICAL OBSTETRICS-5TH STAGE

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## INDICATED OF PREGNANCY DIAGNOSIS:

- 1) To identify non-pregnant animals soon after breeding or insemination .
- 2) Early detection of pregnancy allows early recognition and treatment of problems.
- 3) To certify animals for sale or insurance.
- 4) To reduce waste in breeding programs using expensive hormonal techniques.
- 5) To assist in economic management of livestock.
- 6) Allows for identification of twins early in gestation which allows manager to make the decision to eliminate one twin before gestation is too far along. Twins are not desirable in horses.

## Methods of pregnancy detection:-

1-Management m.

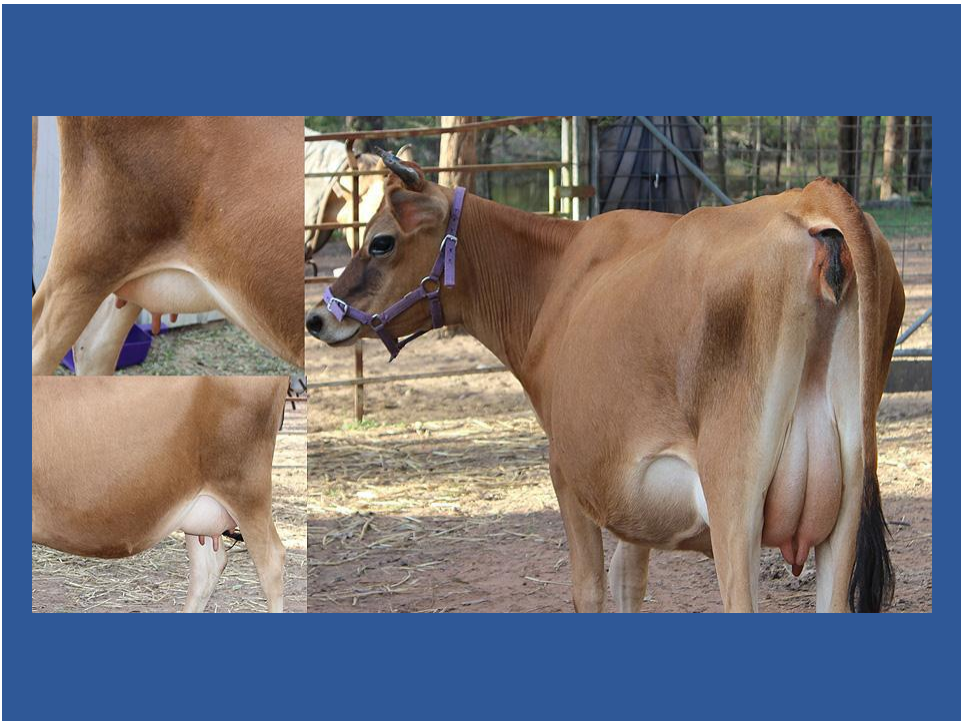
2-Clinical m.(Rectal P. ,US, Radiology)

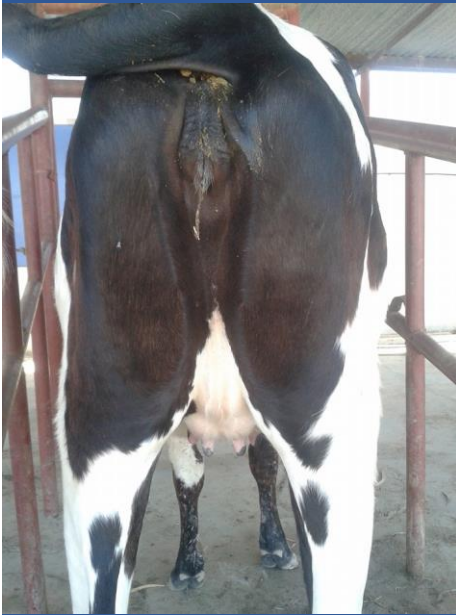
3-Laboratory m.

### 1-Managemental m.

**NON- RETURN TO ESTRUS IS AN UNRELIABLE PROCEDURE FOR PREGNANCY DIAGNOSIS IN MOST DOMESTIC ANIMAL SPECIES.**

- INCREASE IN THE SIZE OF THE ABDOMEN.
- DEVELOPMENT OF THE UDDER SPECIALLY IN DAIRY HEIFERS (4 MONTHS ONWARDS), SLIGHT VAGINAL DISCHARGE (FROM 4-5 MONTHS ONWARD IN DAIRY COWS).
- MOVEMENTS OF THE FETUS VISIBLE EXTERNALLY (SPECIALLY IN FED COWS ON THE RIGHT SIDE OF ABDOMEN ,6 MONTHS ONWARDS).





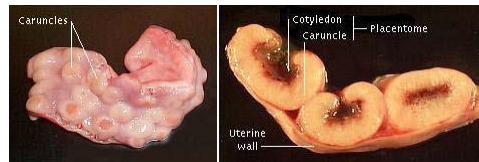
## 2-RECTAL PALPATION

Cow & Buffalo

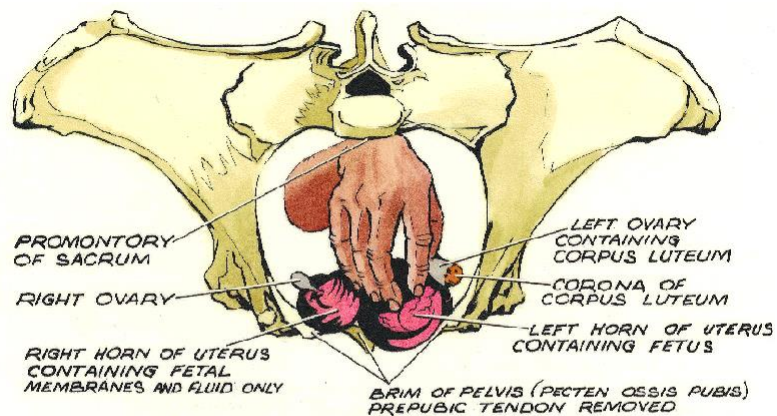
- .First month: fully developed C.L, quiescent uterus.
- .Second month : Enlargement & bulging of gravid (pregnant) horn , amniotic vesicle .
- .Third m.: Fetus is palpable , descent uterus commence. Slipping of the fetal membranes.



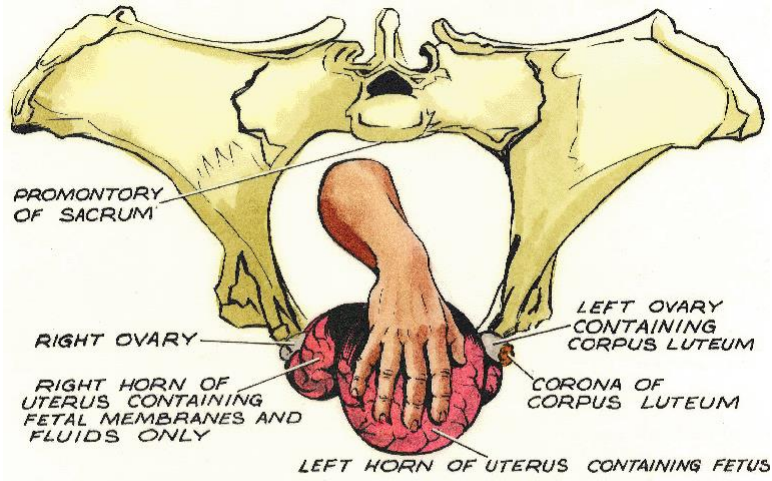
**Fourth to seven m.** : Uterus on abdominal floor and Cotyledon 2-5cm ,fetus difficult to palpate , M.U.A. hyperatrophy &pulse change to fremitus .



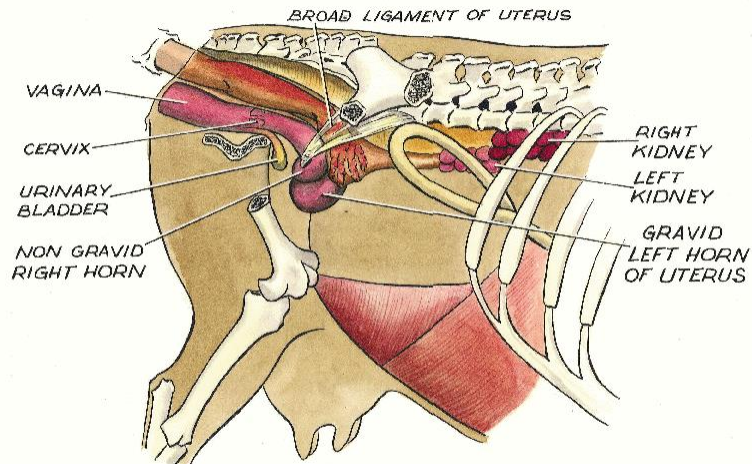
- Seven m. to term: Cotyledons, fremitus & fetal parts are palpable



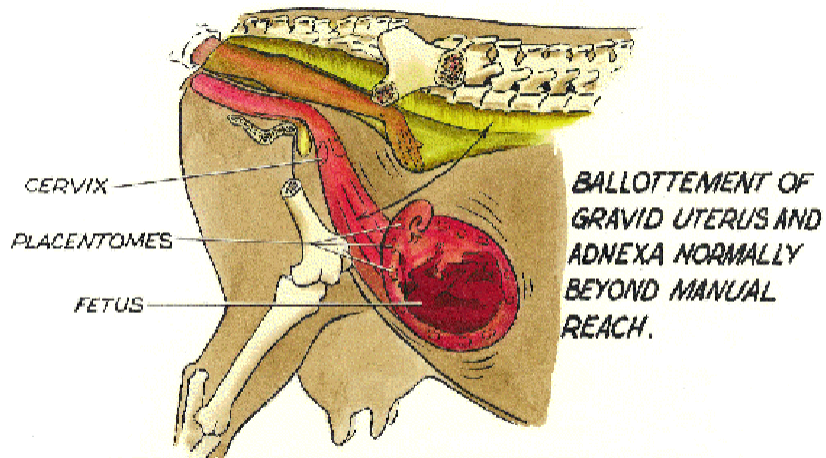
**RECTAL EXAMINATION of PREGNANT COW.  
GRAVID UTERUS -70 DAYS.**



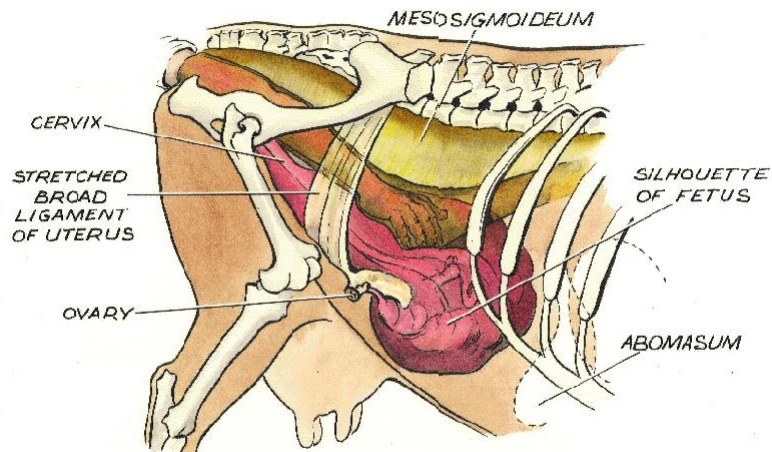
**RECTAL EXAMINATION of PREGNANT COW.  
GRAVID UTERUS - 90 DAYS.**



**RECTAL EXAMINATION OF A COW AT THE  
END OF THE THIRD MONTH OF GESTATION.**



**RECTAL EXAMINATION OF A COW AT THE FIFTH MONTH OF GESTATION.**



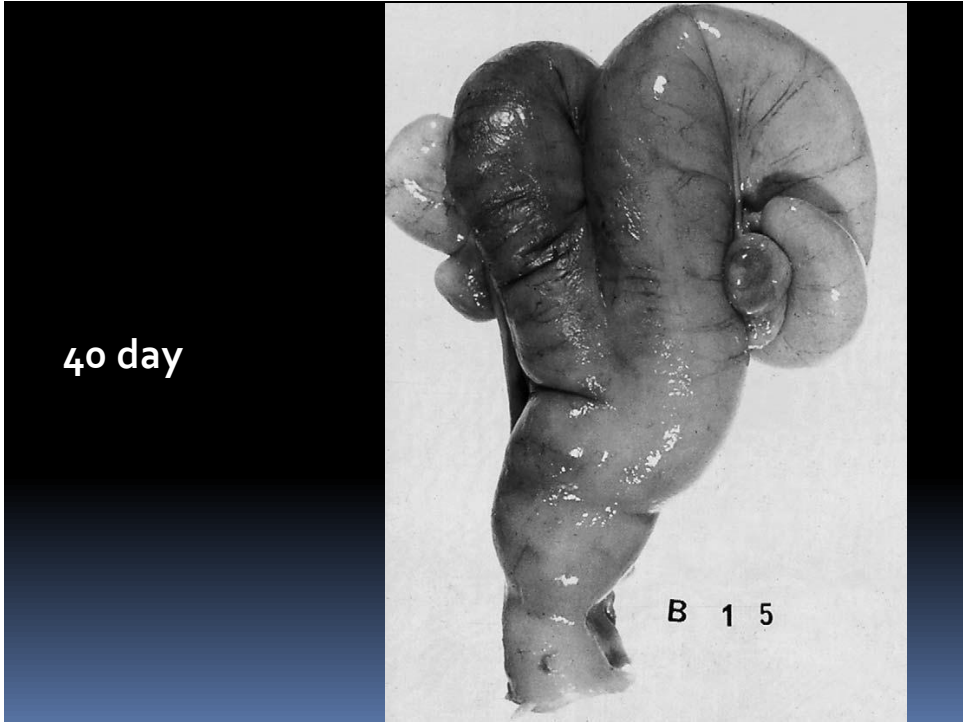
**RECTAL EXAMINATION OF A COW AT THE SIXTH MONTH OF GESTATION.**



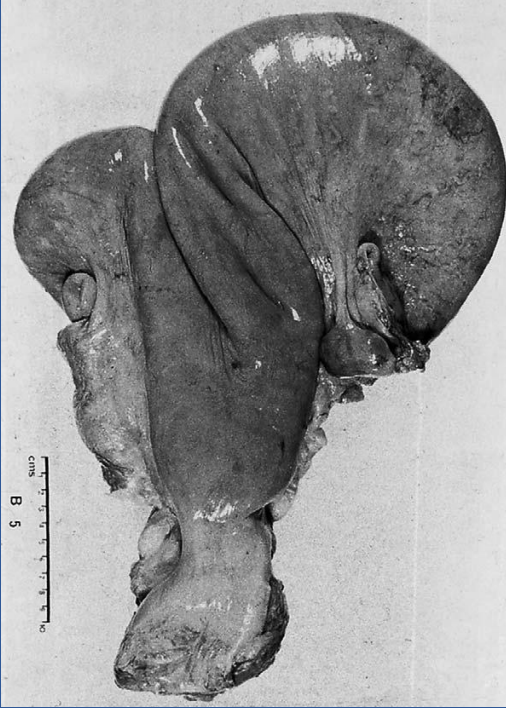
Pregnant cow in 35 day



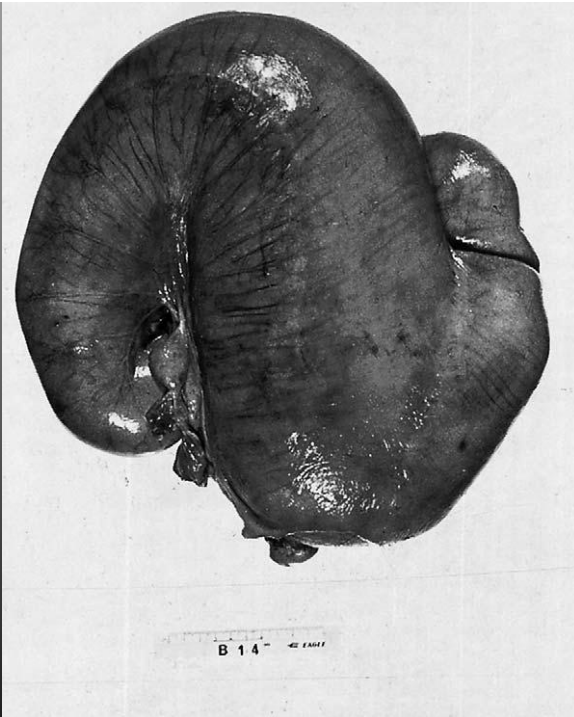




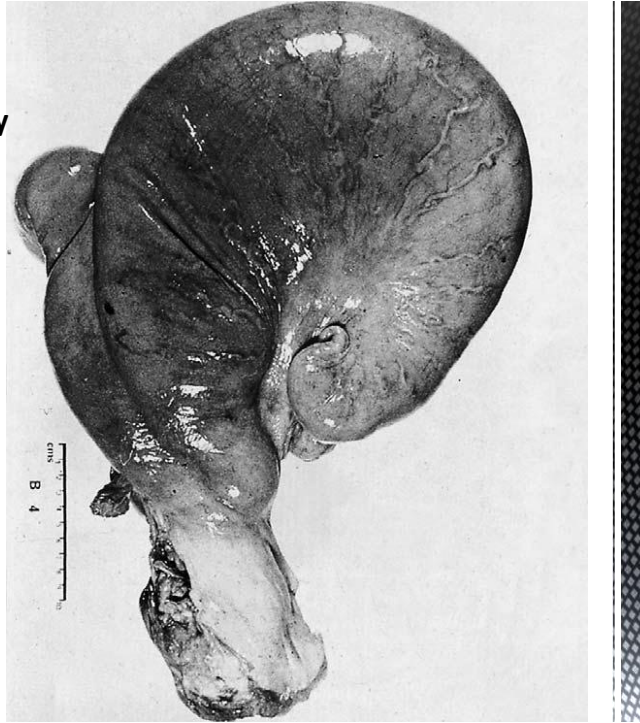
85 day



4 month



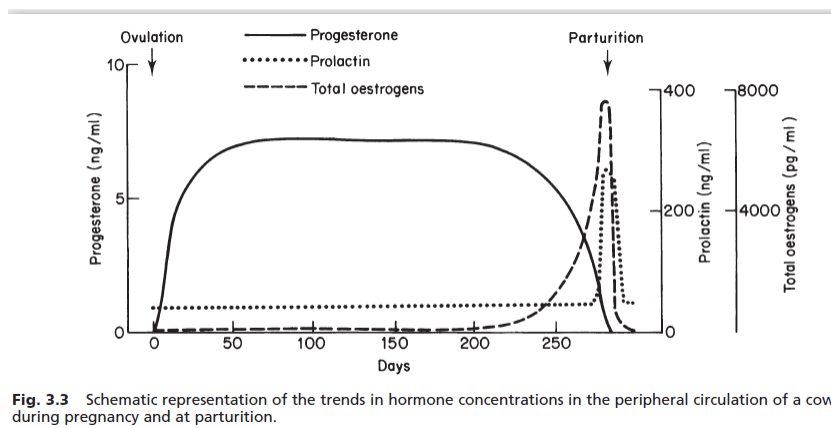
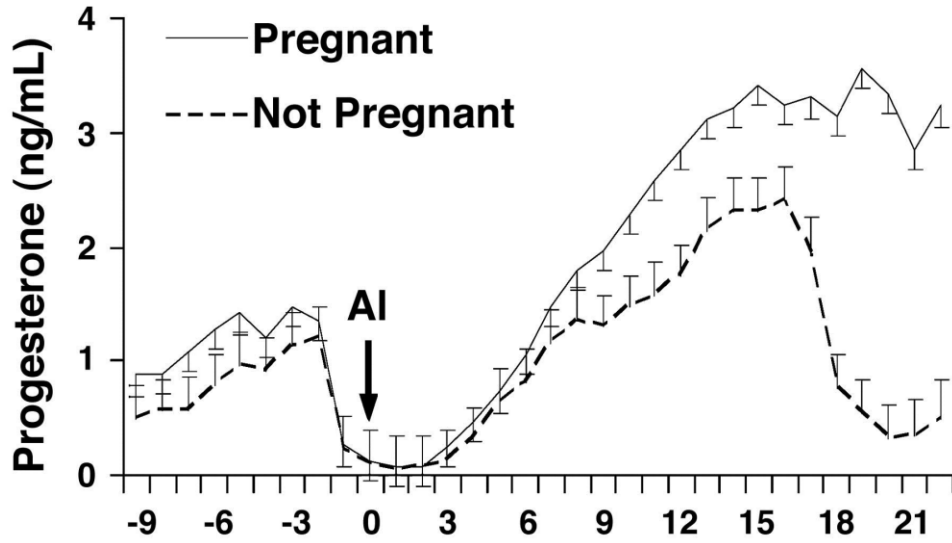
4.5 month of pregnancy



### Fetus

- 2 months *mouse*
- 3 months *rat*
- 4 months *small cat*
- 5 months *large cat*
- 6 months *beagle dog*





## 3-Ultrasonographic technique . (Sonar)



Linear Array Probe (Transducer) 5-  
7.5 MHz

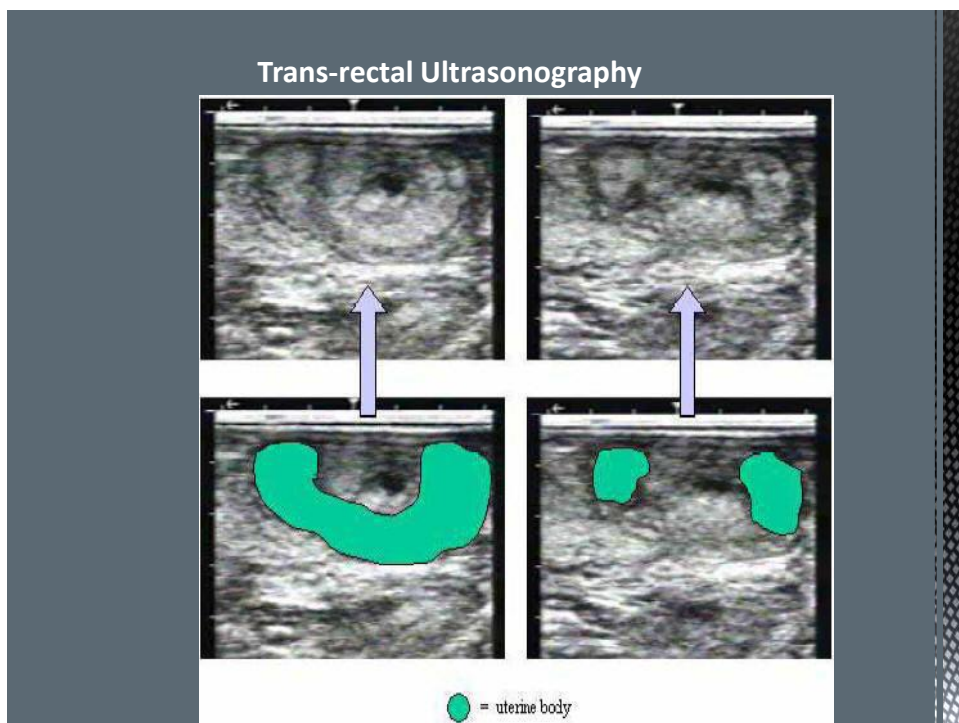


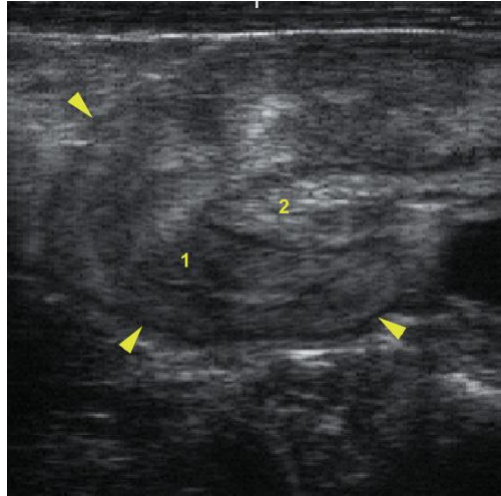
Curved Array Probe (Sector probe) -  
2.5-5MHz



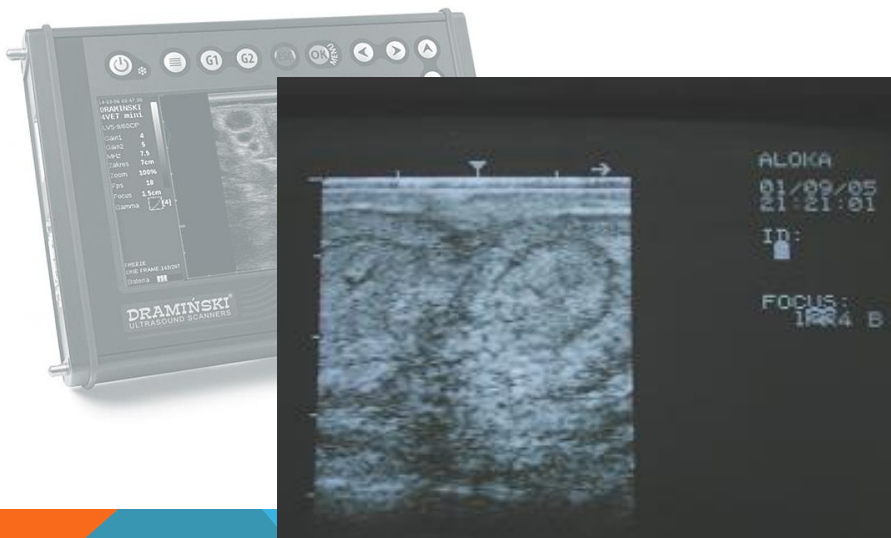
## Trans-rectal ultrasonography

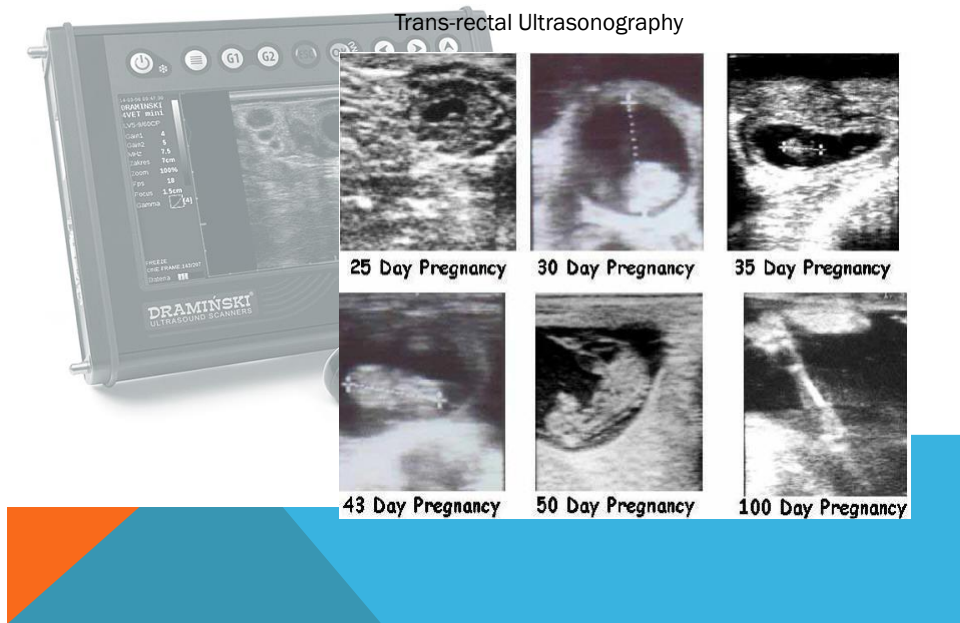
The earliest sonographic finding for pregnancy in most animals is the appearance of **anechoic fluid within the uterine lumen**, With functional CL .





Ultrasonographic image of a longitudinal section of the uterine horn (probe 8 MHz; depth 6 cm). 1:Endometrium; 2: Myometrium; Arrowheads: Edge of the uterus.





**Ultrasonographic features of early pregnancy in various species  
 .Sonographic Structure Appearance (days post breeding)**

	Mare	Cow and Buffalo	Sheep and Goat	Bitch	Cat	Camel
<b>Fetal fluid</b>	10-16	18-22	20-25	18-20	10-16	17-18
<b>Fetal heart beat</b>	24-25	24-30	21-23	24	16-18	28-30
<b>Fetus</b>	20-22	28-30	21-23	24	16-18	28-30
<b>Allantois/ Cotyledons</b>	40-50	35-40	40-50	---	25	---
<b>Fetal gender</b>	50-70	60-70	60-90	---	38-43	---
<b>Fetal movement</b>	40-45	42-50	50-60	---	30-34	---



