



Tikrit University
College of Veterinary Medicine

Lec no. 4.

Parts of animal body (cattle) .

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SCAN ME

Lecturers link

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ينقسم الراس الى ثلاث اجزاء رئيسة هي .

1- الراس والرقبة ..

اجزاء الراس :

poll - قمة الراس .

ears - الاذنان .

nasal bridge - قنطرة الانف .

muzzle - المخطم .

upper lip - الشفه العليا .

dental pad - الوسادة الغضروفية .

horns - القرون .

forehead - الجبهة .

nostrils - فتحة الانف .

mouth - الفم .

اجزاء الرقبة :

jugular vein - الوريد الوداجي.

throat - الحنجرة .

esophagus - المريء .

trachea - القصبة الهوائية .

dewlap - اللبب .

trunk - الجذع .

الخط الظهري :

withers - الغارب .

loin - القطن .

dock - راس الذيل .

tuft of tail - سبلة الذيل .

back - الظهر .

croup - العجز .

tail - الذيل .

مناطق الجذع الجانبية :

chest - الصدر .

abdomen - البطن .

flank - الخاصرة .

hind-quarter - الكفل .

anus - فتحة المخرج .

milk vein - وريد الحليب .

الاجزاء التناسلية (الاناث) :

vulva - فتحة الحيا (فتحة المهبل الخارجية) .

udder - الضرع .

teat - الحلمة .

teat canal - قناة الحلمة .

teat orifice - فتحة الحلمة .

الاجزاء التناسلية (الذكور) :

scrotum - كيس الصفن .

testicles - الخصيتان .

penis - العضو الذكري .

مصطلحات مهمة :

calf - عجل رضيع ذكر او انثى من الولادة حتى الفطام .

bull calf - عجل ذكر من وقت الولادة حتى عمر عام .

heifer calf - عجلة انثى من وقت الولادة حتى عمر عام .

- yearling bull - ثور ذكر غير مخصي عمره بين السنة الى السنتين .
- steer-bullock - ثور مخصي ذكر مخصي عمره اكثر من سنتين .
- heifer - بقرة بكر انثى بالغة عمرها اكثر من عام لم يسبق لها الحمل والولادة .
- cow - بقرة ولودة انثى ناضجة تستخدم للحمل والانجاب .
- Buller - بقرة شائعة او صارف وهي بقرة تظهر عليها علامات الشبق .

Reproduction in the equine family.

Pregnancy and production mares: broad mares.

The mare reaches the age of (2-3) years, and she sheds or inseminated for the first time when she is (3-4) years old. Her oestrus is of the seasonal type, with multiple cycles of oestrus between the months of (April and August). The average length of the reproductive cycle is (21) days, of course, in the absence of pregnancy. The oestrus phase lasts from (7 - 9) days, and ovulation occurs about (24 - 48) hours before the end of oestrus.

There is a special case in horses, which is the occurrence of an oestrus cycle after birth. It occurs 7-11 days after birth. It is called foaling heat, but it lasts for a short period compared to the length of the oestrus phase in natural oestrus. Mares are inseminated during this cycle if the birth occurred naturally and without any problems, while if there are problems with dystocia and the health condition of the mare is not good, then it is not recommended to perform bleeds. The mare continues to conceive and give birth until she is 18 years old, while the gestation period is 11 months.

Signs of oestrus in mares.

- 1- Anxiety and disorder.
- 2- Refrain from eating fodder and grazing.
- 3- The tendency to kick when approached.
- 4- Neighing at regular intermittent intervals.
- 5- Increasing the number of times urination and urine coming out in drops.

6- Congestion and swelling of the mucous membranes lining the vagina, with transparent mucus secretions coming out of the genital opening (vulva).

7- The animal is calm and calm when placing the hand next to the tail.

8- Stand quietly in front of the male and raise the tail.

9- A slight increase in body temperature.

When harnessing mares, correct control methods must be used, including (service hobbles) or the use of twitches in order to prevent any harm that may befall the stallions. After insemination, it is recommended that the horse be lightly exercised for 10 minutes.

Signs of pregnancy in mares.

A pregnant mare will show the following signs.

1- The oestrus cycle stops, but some mares accept the male while they are pregnant.

2- A change in the nature of the horse. We find that nervous mares become calm and not disturbed.

3- Improvement in the general health condition and weight gain in pregnant mares.

4- The abdomen gradually increases in size and enlarges as the pregnancy progresses, then descends to the bottom, with the back arched and the flanks hollowed out after the fourth or fifth month of pregnancy.

5- Swelling of the genital opening and the release of some secretions, which are in very small quantities, almost unnoticed.

6- Swelling and hardening of the udder in the last stages of pregnancy (the animal is very close to the date of parturition).

7- Milk production in a pregnant mare stops at the eighth month if she is breastfeeding a foal.

8- When two-thirds of the pregnancy has passed, starting from the date of conception, fetal movement can be observed at the left flank in front of the stifle joint. This usually happens when drinking cold water.

Pregnancy diagnosis.

1- Palpation of the rectum.

After the first three months of pregnancy, the foetus causes the uterus to enlarge and fall from its original position in the abdominal cavity.

2- Vaginal inspection.

After (25-30) days have passed since successful ejaculation, the colour of the mucous membrane of the vagina and cervix becomes white, with the formation of a large network of blood vessels on the surface of the mucous membrane, which is white and free of blood. Then the mucous secretion becomes thick and sticky, which works to Closing the cervical opening to prevent pathogens or foreign bodies from entering the uterus during pregnancy.

3- Blood test or blood serum test.

The hormone gonadotropin could be detected in high concentrations in the blood of pregnant mares. It is very similar to the hormone found in the urine of pregnant women, and also similar to the hormone secreted from the pituitary gland. This hormone appears in the blood of pregnant mares after (37-42) days from the beginning or occurrence of pregnancy and reaches its highest concentration after (45-75) days, then it begins to decrease gradually until (160) days, when it completely disappears from the blood.

4- Chemical test (Cuboni test).

This chemical test is conducted to determine whether or not pregnancy has occurred in mares by detecting the presence of the hormone estrogen present in the urine of pregnant mares. This test is done by taking a urine sample and then adding sulphuric acid. If a radioactive green colour appears, the test is positive, meaning there is pregnancy and vice versa. This test gives positive results 140 days after pregnancy.

Care of mares during pregnancy.

Pregnant mares must be given special care in terms of management and nutrition during pregnancy. It is possible to use mares for work until the time of birth, but it must be noted that the effort exerted by females should be reduced and their use for racing completely stopped throughout the pregnancy period.

As for mares that are used for riding purposes, they can be used after the middle of the pregnancy period (6 months), provided that the walking is in a trotting manner.

Free grazing is recommended for pregnant mares, especially the last two months of pregnancy, noting that the transition to grazing should be gradual to avoid any digestive disorders that may occur and lead to colic.

Pregnant mares suffer from constipation in the last periods of their pregnancy, so it is recommended to provide bran with the addition of table salt to stimulate the appetite.

Birth signs. Signs of foaling.

During the last days of pregnancy, an increase in the size and hardening of the udder, a relaxation of the flanks in front of the iliac protrusions, and a fall of the pelvic ligaments on both sides of the tail, are observed due to the secretion of the hormone relaxin, with a gradual decline of the abdomen. Hours before birth, it is noted that granules of waxy material form around the nipple opening, which is a secretion of part of the Colostrum leaking through the nipple canal.

Postpartum care of the new-born.

The strong foal can stand on its feet within half an hour of birth, and the mother begins to lick the new-born, especially in the area of the urinary system and the exit hole, in order to stimulate the processes of secretion and defecation. The infant feeds on colostrum during the first (2) days of birth, which is a very important substance because it contains immune bodies. Please, A Due to its high protein content, it also stimulates and softens the intestines. The foal starts eating fodder at the age of 45 days until it gets used to it and is weaned at the age of 6 months.

Weaning systems in foals.

The weaning process is undoubtedly a physiological process that causes shock to the foal by depriving it of valuable food from its mother. It also loses her companionship and protection. There are several weaning systems, which are:

1- Sudden weaning.

This method is used with calm foals, where the foal is removed from its mother when it reaches the weaning age of 6 months, while providing specific fodder materials.

2- Gradual weaning.

At the age of weaning, the foal is taken away from its mother for an hour/day, then returned to her on the first day. Then the period of its removal from the mother increases as the day's progress until it is permanently removed.

Caring for orphan foals.

There are several ways to do this process.

1- natural suckling.

The foal is placed with a surrogate mother or a nursing mare (foster mother). The mare must have lost its foal at the same age and colour as the orphan foal. Be careful when introducing it to her because it will most likely be subject to kicking and biting.

2- Artificial feeding. artificial suckling.

This process is performed using cow's milk with a fat percentage not exceeding 3.5%.