

Management of Cattle

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Common Terms



**CO
W**



Bull



Calf



Cow

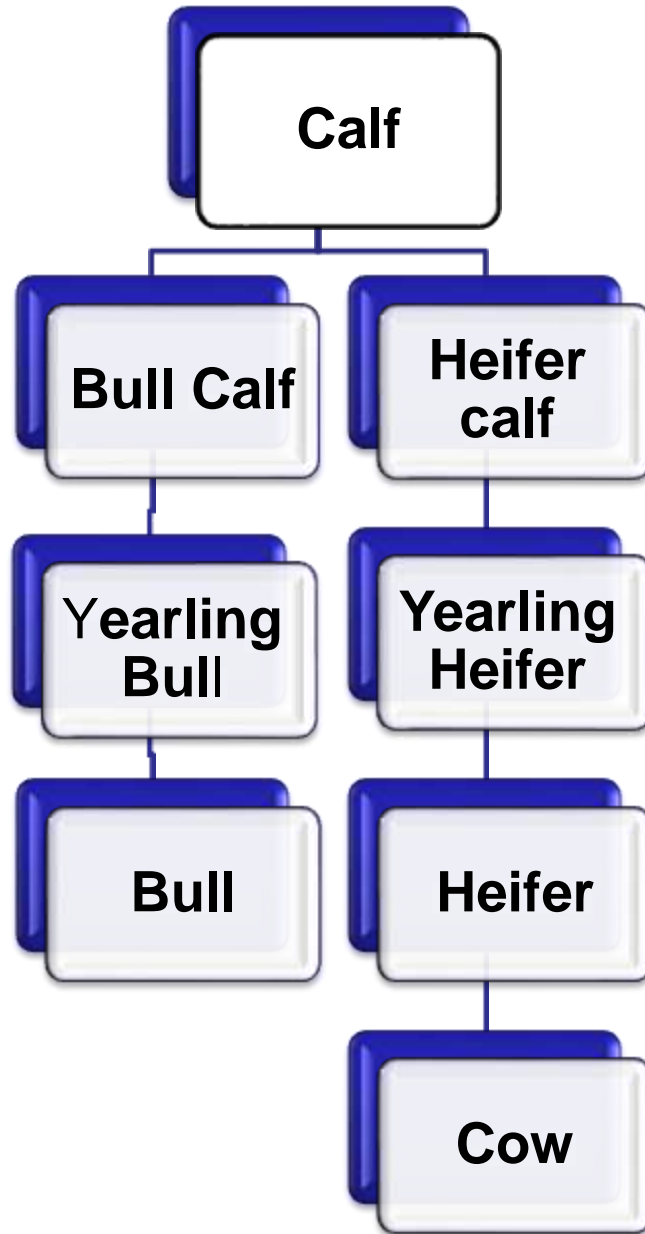
- **Adult female cattle which had given birth to a calf or more before.**

Bull

- **Adult uncastrated male cattle at any age used for breeding**

Calf

- **Newly born male or female cattle from birth till one year of age**



**Bull
calf**

- **A male calf under one year**

**Yearling
bull**

- **Uncastrated bull between one and two years**

**Heifer
calf**

- **A female calf under one year.**

**Yearling
heifer**

- **Female calf between one and two years of age**

Heifer

- **A female (cow) of over one year ;which has not calved.
After calving she becomes a cow.**

Baby calves

- Calves usually of only a week or so old ;from dairy herds. The majority are bull calves .

Slink calves

- Calves which have been aborted or those which are found in the uterus at slaughter .The flesh is unfit for human consumption.

Down calves

- A female cattle nearly to give birth She also called Springer



**STORE
CATTLE**

- **Young male or female cattle which are to be fed for the butcher later on.**



**FATTENING
CATTLE**

- **These cattle which nearly ready for the butcher (slaughter)**



BULLER

- **A cow apparently always in oestrus i.e she behaves like a bull (mount other animals)**

BULLOCK OR STEER

- **Castrated male ox of over two years.**

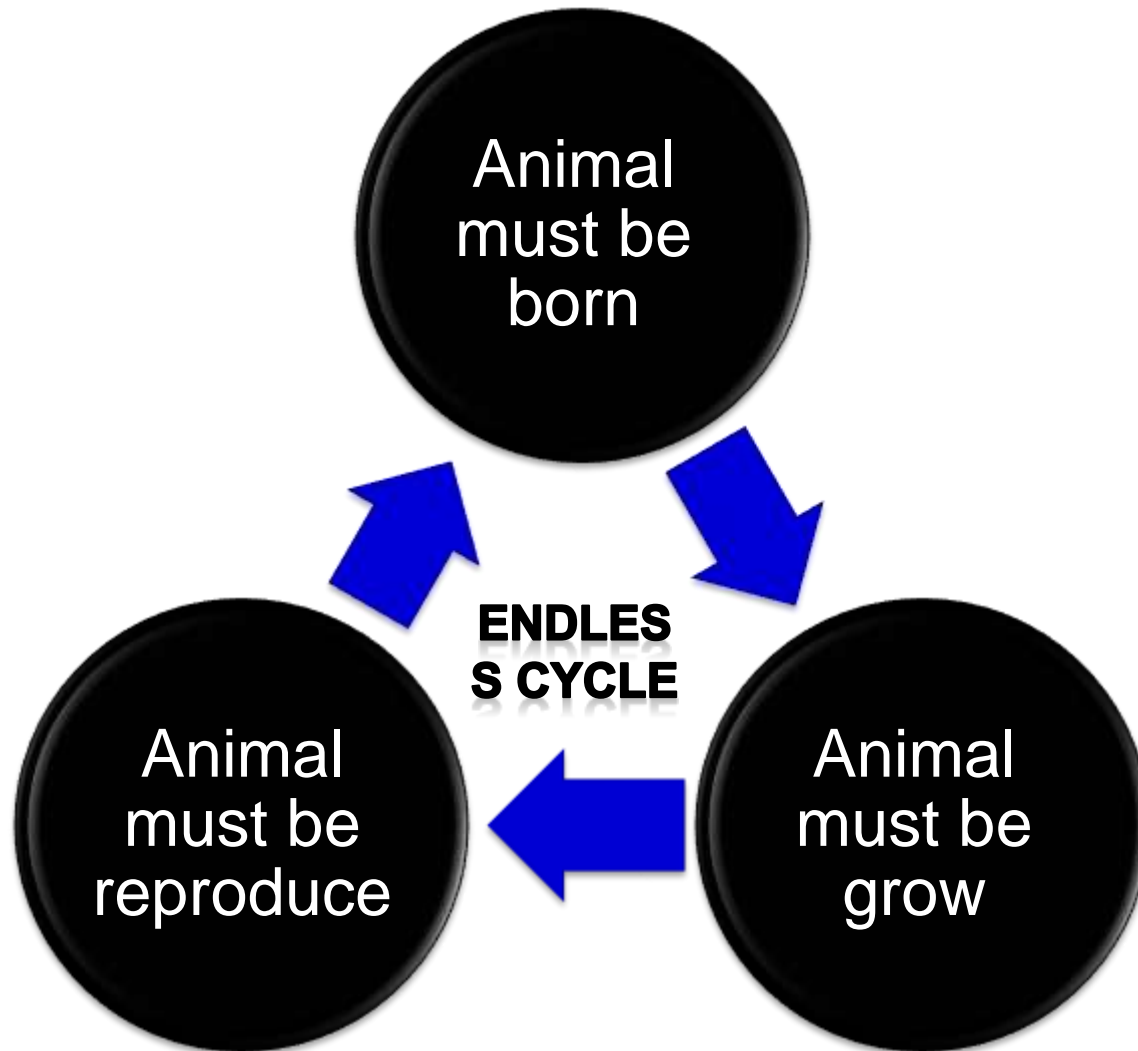
STRICK

- **A heifer or a young bullock from about 15 months to two years .**

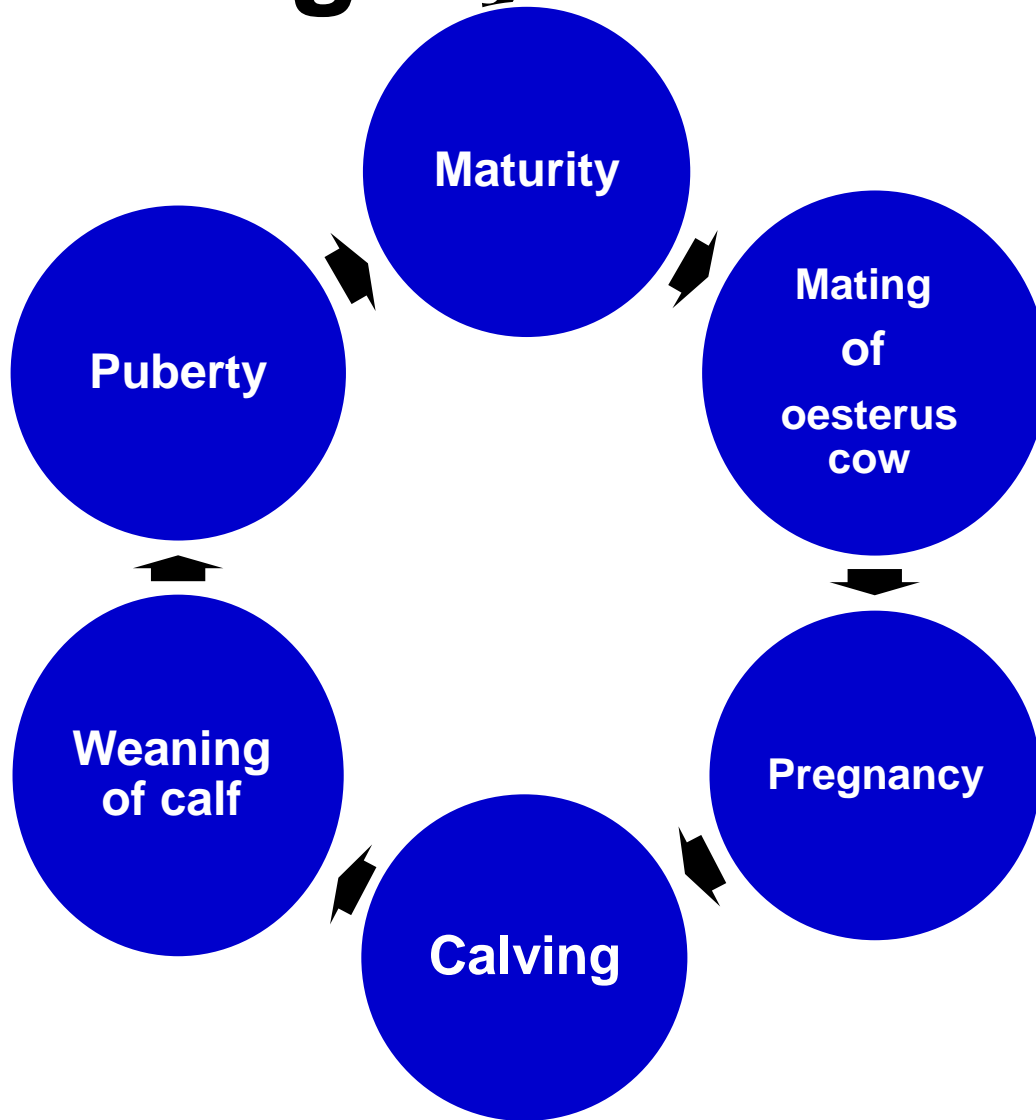
FREE- MARTIN

- **When twin calves of different sexes are born ,the bull calf is usually sexually normal, but the heifer calf is sterile with abnormal external genitalia**

Life cycle of Animals



Breeding Cycle of a cow



Characters of reproduction in dairy cattle

Breeding season :

cow is polyoestrous

Age of puberty: Age of 1st Oestrus

→ cow at 8 month

→ Buffalo cow at 1-2 years

→ Bull at 1-2 years

Age of maturity:

→ Cow at 1.3 -1.5 years

→ Bull at more than 2 years

Oestrous Cycle

Definition

It is a period at which female shows physiological, behavioral changes and become receptive to male

Stages of estrus

Proestrus



last 2 days of
previous cycle

Oestrus



(Heat)
12 -24 hours

Metoestrus



2-6 days

Dioestrus



17-19 days

Total oestrus period about 21days

Ovulation

12 hours after the end of oestrus period

Time of service

In the middle of standing heat to the end of it

Also 6 hours following heat

Behavioural signs during oestrus

- **1-increase motor activity (Excitability & restlessness)**
- **2-decrease food intake**
- **3-Bellowing and switch the tail to one side**
- **4-Mounting to other cows**
- **5-standing heat (cow stand to be mounted by other cow or bull)**

Cow mounting other cow



6-Signs that the cow has been mounted

a-dirty rump and flank

**b-ruffled hair on tail head and patches of hair
are removed**

c-streaks of saliva on the back

Physiological changes during oestrus

1-drop in milk production

2-clear,glissening mucous discharge from vagina

3-reddness and swelling of vulva

Management during breeding season

Detection of the oestrus cow

1. Visual observation of Behavioural signs
2. Using of teaser bull
3. Using of androgenized female
4. Training dogs
5. Tail and rump painting of female
6. Using Automatic Devices

2-selection of good quality bull :

Bull is very important as it said a sire is half the

herd as it used for fertilization of the whole herd cows

either natural or by artificial insemination



Management of breeding bull:

- 1-the bull should be of typical breed .**
- 2-give the bull regular exercise to keep legs in good condition**
- 3-better libido and good quality**
- 4- proper feeding to maintain the health**
- 5-should be docile and free from vices**
- 6-don't use bull in breeding till reach maturity over 2 years**

3-Management of pregnant cow

Pregnancy is result of successful mating

Gestation period about 280-290 days(9 M +15 days)

Diagnosis of pregnancy :1- clinical diagnosis

(a) Behavioral signs

- 1. cessation of oestrus**
- 2.Chang in temperament from vicious to docile**
- 3.Marked improve of body condition**
- 4.enlarged mammary gland specially at the end**
- 5. Quickning : give the cow cold water at morning and examine the movement of life fetus in right flank (uterus)**

6. with approach parturition

- increase size of abdomen and udder**
- waxy secretion(bead like) in udder at last days**
- swelling of vulva –relaxation Of pelvic legament**

(b) Rectal examination

- to detect corpus lutum on ovary**
- thrilling of uterine artery**
- movement of fetus**

(c)vaginal examination

for detection of closure of cervical canal by cervical plug

2-Laboratory diagnosis :

a-presence of Ig in serum indicate pregnancy

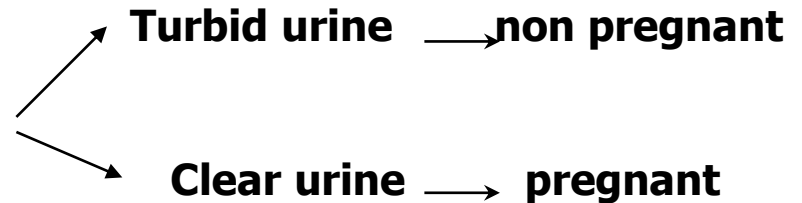
-at 10 days :76 %success

- 90 days :93%success

-180 days :100% success

b-Barium chloride test :

- 4-5 drops Ba cl +4-5 drops urine



C- oxidation reduction test

3ml urine +0.6 Na benzoate → permanent turbidity indicate pregnancy

Management of pregnant cow :

- 1) Mild exercise or work**
- 2) Good quality ration and plenty full clean water
- 3) Avoid –narrow doors**
 - crowding during movement**
 - slopping**
- 4) Take care to prevent injuries by mounting cows or bulls**
- 5) Calculate the expected day of calving and isolate the cow in calving box 3-5 days before parturition.**

6) Steaming up

From 6 M of pregnancy ,cow should be given 1/2 to 1 kg extra concentrate mixture gradually increase .in high producing cow give 2 kg.

Function of steam up

1. Development of fetus
2. Build up body reserve for coming lactation .
- 3- Increase milk yield and fat % of milk
- 4- Lengthen of lactation period

low plane of nutrition



- reduce total lactation
- weak and thin new born
- increase rate of death between calves

high plane of nutrition



- fattening of cow
- narrow pelvic
- Dystocia

7)Drying off udder

The cow dried off 40-60 days before calving000

Function of drying off:

- 1-Rest of milk secretory organ**
- 2-Allow use of nutrient in fetus development**
- 3-permit built up of reserve of body flesh before calving**

Methods of drying off

1.Incomplet milking:

Don't extract all milk from udder 2 times daily after decrease milk to few litter stop milking

2.Intermittent milking :

milking the cow once a day for awhile then once in every next day finally milking will stopped

3.Complete cessation of milking:

More safe method in high milking cow increase pressure on secretory organ so stop secretion of milk and milk reabsorbed

8)When the cow approach parturition :

- . isolate cow in calving box (should be clean ,well ventilated and well bedded)**
- . Avoid noise and disturbance**
- . Manipulation of udder and teat to open teat orifice before suckling**











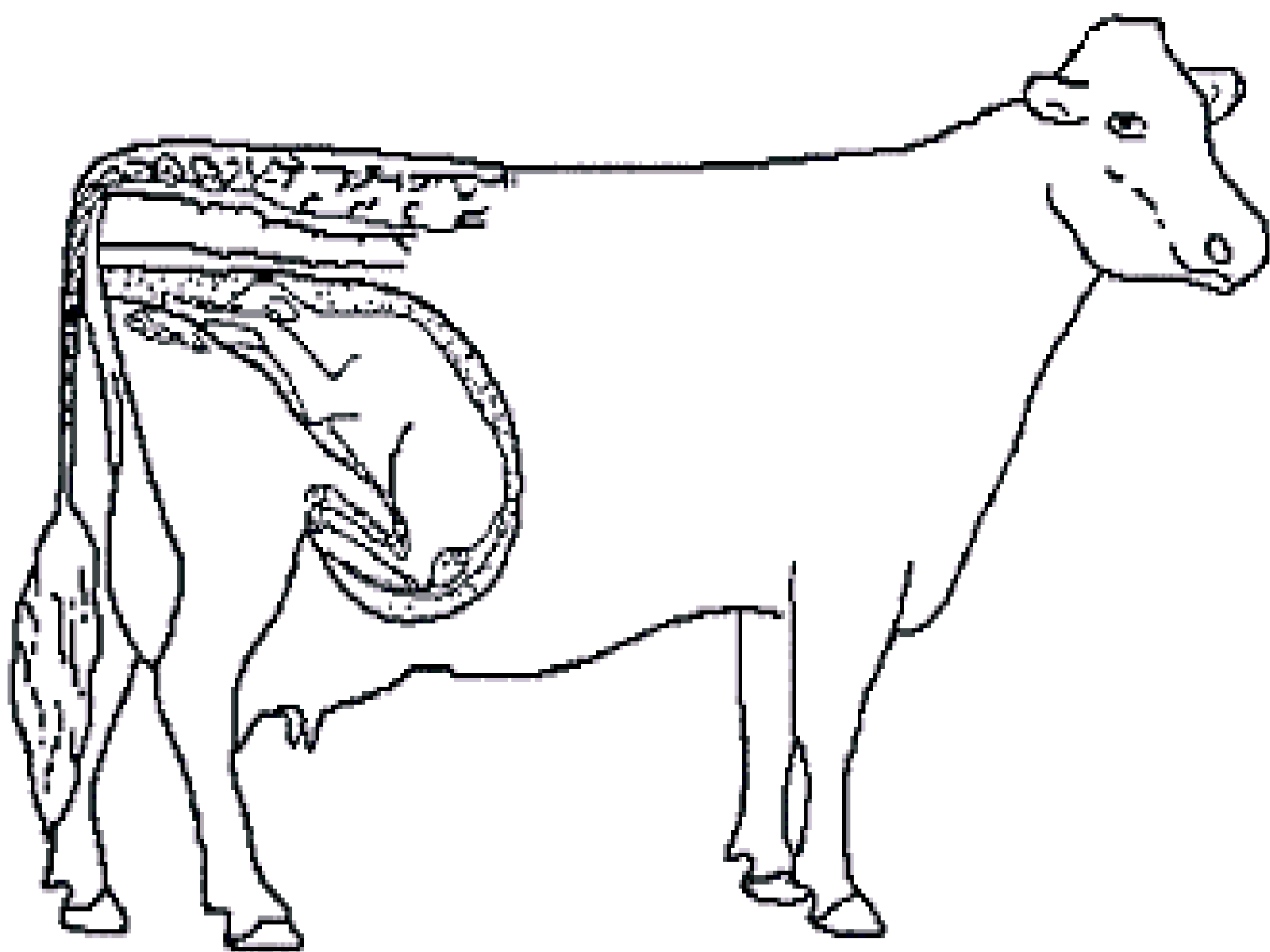
Parturition

1) Preparatory stage

begin by active contraction of uterine muscle and dilatation of cervix

Last for 1-4 hr and end ends with rupture of fetal membrane

Cow tend to standup and lie down showing signs of straining



2)Expulsive stage:

a-expulsion of fetus

Begin with rupture of fetal membranes and end with expulsion of fetus

Last for $\frac{1}{2}$ -4 hrs ,most cows are lying for final delivery















b-Expulsion of placenta

Placenta normally leave female uterus within 2-4 hrs

If not expelled after 8-12 hrs manual interfere should be Done

In general at difficult birth manual interference should be done by veterinarian





4-Management of cow after parturition (calving)

- 1. Give the cow clean warm water to compensate the fluids losses in calving**
- 2. Give the cow easily digested food and laxitive (bran mash)**
- 3. Increase amount of concentrate gradually till full dosage after 3days**
- 4. Washing external genitalia , buttocks and around udder with warm water +antiseptic (KMnO_4)**
- 5. Cow should be kept under observation for 24 hrs after birth to avoid milk fever**
- 6. Squeezing first milk from the udder before suckling to get rid any m.o in teat**

7.Keep the cow with the calf in calving pen for few days to enhance maternal filial bond





8. Post partum oestrus : few cows come in oestrus after 30-50 days but conception rate 50%

5) Management of calf:

A) Caring of calf by the dame

- 1. Cow stand immediately after birth, it take care to avoid *to avoid stepping of the calf***
- 2. The dame make vigorous licking to the calf (head, neck, back, abdomen tail and premiums)**







Function of licking

1-drying off the calf

2-removal of the mucous and fetal fluid from nostrils to stimulate breathing

3-massage to cutaneous lymph and blood circulation

4-stimulate first stand of the calf

5-stimulate first urination and defecation

6-labelling of the calf and formation of cow calf bond

3. The cow seems to help calf to stand and find the teat **by** positioning her body to help calf to take colostrums







**B) If the cow is exhausted during calving ,still recumbent
and
can not care the calf**



1. Dry the calf with dry cloth or straw

2. Remove the mucous and fluids from mouth and nostrils

3. IF the calf not breathes, make artificial respiration (compressing and relaxing chest wall by the hand)

4. Normally calf stand after 15-45 Min if not, should be helped to stand



5. Cutting of umbilical cord 6-8 cm from umbilicus then tied and touch with tincture iodine to reduce risk of infection



6. be sure that calf take first colostrums 48-72 hrs after birth(18%protien (IgG))





7. Calf should be void muconium within 4-6 hrs after first colostrums

8. Light bedding for the calf (straw bedding)



C) Other management practice of calf

1. After removal of the calf from the mother it should be kept in individual pen for 3-4 weeks to allow more attention then at one month joined with the group





2. Identification should be done early as possible by tagging or tattooing



3. Dehorning at 3 weeks of life

4. Castration at 8-10 weeks old

5. Amputation of extra nummarary teat (extra teat)
1-2 month old at

6. Vaccination against FMD, Black leg, hemorrhagic
septicemia

D) Feeding of calf after taking colostrums

1-Natural feeding (Nurse Cow system)

Allow to the to nurse its mother directly

:Regime

Age	amount of milk
0-2 weeks	whole udder
3W- 2 M	half of udder
2M-4 M (weaning)	one quarter









Advantages of natural suckling

1. prevent development of abnormal behaviour



2. More healthy and large size calf

Disadvantages of natural suckling

1. Milk yield of the cow can not be judged

2.Amount of milk taken by the calf can not be controlled



3. Young calf more subjected to diarrhea .



4. If the calf dies cow refuse milking

2-Artificial feeding

a. Hand feeding

Take calf at 4 days from the dame; teach calf to drink whole milk From pail after wetting your fingers put in calf mouth then gently Force its head to pail until nose touch milk calf begin to suck milk



B. Nipple feeding:

Nipple fitted on pail , calf sucking this nipple like teat of dame udder





N.B: the amount of milk offered to calf should be not more than 8% of body weight

Skimmed milk



**Given to healthy calf at 2 weeks Chang 1:
1 whole milk to skimmed gradually
milk Until complete change**

Hay



**given to calf raised on skimmed milk at 6 M
3-5 pound hay**

At 4 months calf can graze on pasture

calf grow and reach to puberty then maturity and

can used in breeding and soon









thank you