



DEPARTMENT OF LIVESTOCK PRODUCTION MANAGEMENT




COMMON FARM MANAGEMENT PRACTICES

Introduction

- Farm practices are generally refers to the common activities which are performed during the whole day.
- Proper farm practices indicates the good managment .
- Punctuality of routine work can also enhance the ptoduction of animal and it should be economically benefitial.
- Proper managment all make animal stress and disease free.

1. Care and management of calf
2. Colostrum feeding
3. weaning
4. Identification
5. Castration
6. Disbudding
7. Extra teat removal
8. disinfection
9. Quarantine
10. Isolation of sick animals

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11. Deworming
 12. Vaccination
 13. Proper time breeding
 14. Pregnancy daignosis
 15. Insuring of animals
 16. Disposal of carcass
 17. Register maintenance

Care and management of calf

1. Removal of mucous

- ✓ Immediately after birth :- Removal of mucous from nostril, mouth, eyes & ears for normal breathing.
- ✓ Rub and dry the calf with a dry cloth.
- ✓ If cow not licking:- sprinkle a little common salt on calf's body.



✓ If calf does not start breathing provide artificial respiration by

- Compressing and relaxing the chest with hands
- Swinging
- Inserting twing in nostril



2. Ligation of naval cord

- ✓ Cutting of naval cord :- Ligate 2.5 cm & cutting 1cm below.
- ✓ Douching 0.5% tincture iodine or boric acid or any antibiotic on stump for 2-3 days.



colostrum feeding

- ✓ Colostrum is the first milk secreted after parturition.
- ✓ Colostrum is rich source of gamma globulins (antibodies), vitamin and minerals.
- ✓ Colostrum feeding -first 3-5days
- ✓ Whole milk- after 5 days
- ✓ Feed colostrum- thrice a day
- ✓ Colostrum temperature- 37°C - 40°C

✓ feed colostrum in the first 15-30 minutes followed by a second dose in approximately 10-12 hours.

✓ First $\frac{1}{2}$ hour to 12 hours of life, calf should be given with colostrum of its 5-8 % of body weight. Then 2nd and 3rd day, 10% of its body weight.



Advantage of colostrum feeding

1. Transfer of passive immunity

- Gamma globins
- Permeability of intestinal mucous membrane for the large globins :- higher for 1st 24 hrs.

2.Laxative

- Colostrum has twice as much dry matter as milk, acts as laxative and has a disinfectant action of bowels.
- Easy passage of meconium (first faeces)

- Prevent the chances of gastrointestinal tract infection.

3. Nutritious feed

- Rumen development in calf- around 3 months.
- At birth- colostrum is only food.

4. In absence of colostrum

- 1 egg+ 3ml castor oil +10000 IU vit. A +80mg auromysin+rest water till 1000ml soln (artificial colostrum)



weaning

- ✓ Separation from mother either at time of birth or after colostrum feeding.
- ✓ In this method, the cow is not allowed to suckle by its calf after colostrum feeding.
- ✓ Weaned calves should be trained to drink milk from pails / nipple pail so that feeding management is easier.

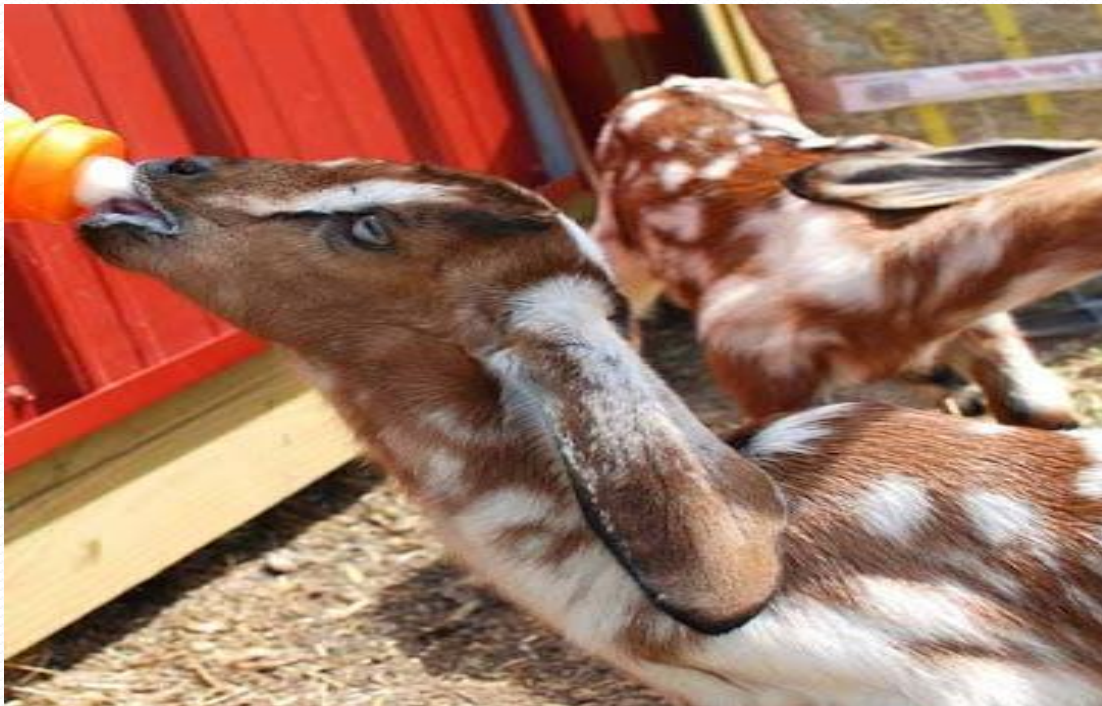
✓ Pail should be clean and milk should be heated to body temperature.

✓ Total amount of milk may be fed at 3 or 4 equal intervals up to the age of 7 days and then twice daily.





Bottle feeding calves
after weaning



Wean bottle feed
goat kids

Advantage-

- Early weaning is recommended for better management.
- Proper recording of cow milk production.
- For proper let down of milk without calf.
- Culling of calf any early age.
- Prevention of any teat injury due to calf suckling.
- Milking without calf:- more hygiene and sanitary.

Identification of farm animals

✓ Requirement in the daily management, to spot and identify a particular animal in a herd/group/flock.

Reasons :-

✓ For registration and recording of the parentage in breeding programme / birth.

✓ For individual feeding of animals.

✓ During milking

✓ For treating the animal, heat detection etc.

Methods of Identification :-

- Neck chain/Neck rope
- Black/light coloured paints
- Ear tattooing
- Ear Notching
- Branding
- Ear tagging

1. Ear tattooing

- ✓ Permanent methods of identification system.
- ✓ The required dies (Numbers and letters) assembled in the tattooing forceps.
- ✓ Locate the area in the ear to be tattooed. (between tip and cartilage of the ear).

✓ Position the equipment. Check the Number / letter in a piece of paper before applying in the ear.



2. Ear tagging

- ✓ Most popular method of identification system.
- ✓ Locate the area in the ear for tagging (half the way between base and tip of the ear).
- ✓ Use the contrasting ink and style based on the skin colour of the animal.



3.Branding

✓ It is one of the permanent method.

Hot Iron branding:-

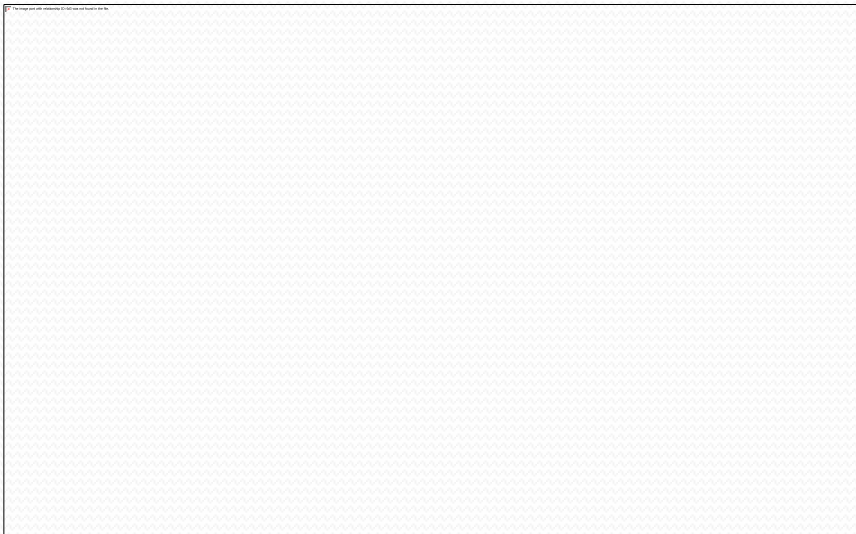
- Iron branding should be visible.
- Destroys hair follicles located under several layers of the skin and leaved a permanent bald scar on the skin of the animal.
- Check the temperature of branding iron. It should be grey ashes.

- Time of application usually 3-5 sec.
- Brand marks should be big enough to read identify at a distance and each letter separated 2.5cm to prevent sloughing of the skin.



Freeze branding

- ✓ Cold iron to the skin of the animal causes destruction of melanocytes and white hairs grows on the branded area.
- ✓ Cool the branding irons in the liquid nitrogen or dry ice.
- ✓ Time of application 30 sec to 1 min



4. Ear notching

- ✓ Commonly used in pigs and in beef cattle.
- ✓ Notching means making a 'V' shaped notches at specific areas of the ear with the help of a sharp scissors or pincers.



Castration

✓ Making the animal unable to reproduce is generally known as castration.

Purpose:-

- To render the animal docile.
- To control indiscriminate breeding.
- To induce faster gain in body weight and to improve the quality of meat.
- To prevent certain genital diseases.



✓ Castration should be performed during cold season and strictly avoid rainy season for fear of fly problems.

✓ Young animals: within 3 months (Surgical method and elastrator)

✓ Adult animal: within one year of age (Closed method – Burdizzo castrators)

Methods:-

1. Burdizzo method :-

- Also known as bloodless castration.
- Crush the spermatic cord and thus stopping the blood to the testes.
- Results in atrophy of the testes and stoppage of spermatozoa production.
- Move the spermatic cord to the side of the scrotum and then clamp the Burdizzo at about 3-5 cm above the testicles and it is held for a few seconds.

- This operation on the same cord at a location about 1cm below the first one.
- This method is safe, quick and less chance of getting infection.



2. Open or surgical method :-

✓ Scrotum is opened and testicles are removed, aseptically and the wound is treated with antiseptics.

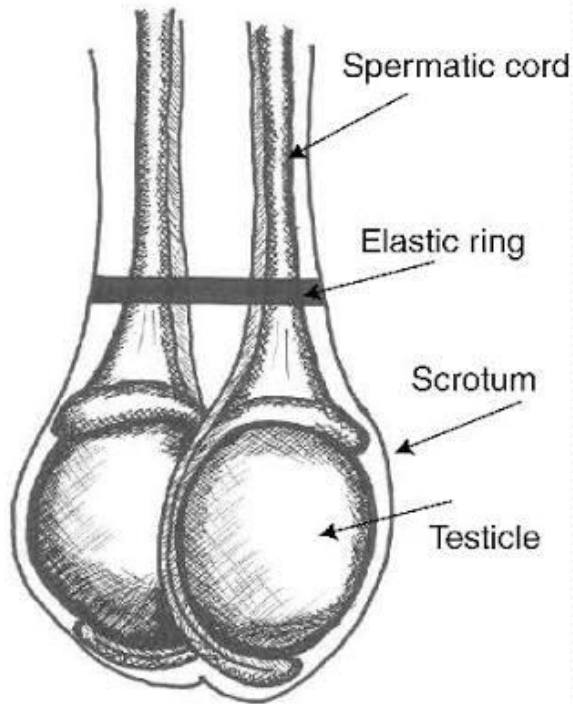
3. Rubber ring or elastrator method :-

✓ A strong and tight rubber ring placed around the cord at an early age of calf.

✓ constant pressure and the testicles are atrophied and absorbed and the ring drops down.

✓ Elastrator rings are very painful to the animal and so it is not usually recommended.

✓ Optimum age: below 3 months.



Disbudding

✓ Arresting the horn growth at an early age, when the horn root is in the bud stage is called disbudding.

Purpose :-

- ✓ Dehorned animals need less space in the sheds.
- ✓ Cattle with horns inflict bruises on each other that may result in heavy economic losses.
- ✓ Horned animals are a danger to the operator.

✓ Dehorned animals can be handled more easily.

✓ Prevents the occurrence of horn cancer.

- Optimum age > 15 to 20 days

Methods :-

1. Hot iron method

✓ Electric dehorner is used for this purpose. This is bloodless method it may be used at any season.

✓ Rod heated with electricity and temperature about 1000 F, applying it to the horn bud for 10 seconds is sufficient to destroy the horn tissue.



Disbudding with red hot disbudding iron



- Pressure is applied to the horn buds for a few seconds at a time until you can see a copper-colored ring and the nub is blackened.

2. Elastrator

- ✓ Specially made thick rubber ring applied to the base of the horn.
- ✓ The rubber band shuts off circulation and the horn gradually comes off. Small buds drop off in 3 to 6 weeks and large horns may take even 2 months.
- ✓ It is a painful method and used on cattle when the horn length is about 5-10 cm.



Using bands to remove horns (in goat)

3. Chemical method

✓ Chemical use - caustic potash or caustic soda.

4. Dehorning saw or clippers

✓ Older cattle are to be dehorned a specially designed clippers or saw are used.

✓ To prevent the bleeding the main horn artery should be tied off with a cotton or silk thread.

✓ It is necessary when sawing or clipping the horns, to take about half an inch of skin in order to get at the horn roots.



Extra teat remove

- ✓ Normal udder should have four severely placed teats of uniform size.
- ✓ Animals with one and even two extra teats are also seen. Such extra teats may be blind or leaky.
- ✓ Removed before the calf attains 6 months of age.

✓ Cleaned and disinfected with Tincture iodine and mark extra teats before removal. These teats are clipped off with scissors.



After extra teat
remove

Disinfection

✓ Destruction of pathogenic microorganisms from a place so that the place becomes free from infection.

✓ Disinfectant, germicide, antiseptic is a substance able to kill organisms and their spores.

Physical disinfectant:-

✓ Heat destroys microorganisms by denaturation of their cellular proteins through oxidation.

✓ Solar radiation due to the presence of ultraviolet rays in sunlight is a good disinfectant.

✓ Filtration has been used to control microbial population in air, water and biological materials.

Chemical Disinfectant

✓ Very widely used in veterinary practice, as their aqueous solutions are easy to prepare.

✓ Washing floor of animal houses :-
formaldehyde (5%)

✓ Sterilization of instruments:- Glutaraldehyde 2%
aqueous solution.

✓ Disinfection of animal houses :- boric acid (4- 6%) , calcium hydroxide (lime water) and sodium hydroxide (5%)

✓ Detergents and Soap :-used mainly for washing. They remove grease, dirt and Other organic matter.

Quarternary ammonium compounds; cetavlon; savlon

✓ Metallic compounds :- Copper sulfate (5mg/lit)

✓ Oxidizing agents :- Potassium permanganate (1-2mg/lit)

✓ Gaseous disinfectants :- Formalin gas ,
Ozone gas

✓ 1 kg of bleaching powder (chlorinated lime) can be used with 25 litres of water makes a very good deodorant.



Quarantine

- ✓ Process of segregating apparently healthy animals (especially animal being introduced into a herd or into the country for the first time) which have been exposed to the risk of infection.
- ✓ Minimum period of 30 to 40 days.
- ✓ Newly purchased animals and animals returned from show should be kept in the quarantine shed.

✓ Shed should be constructed at the entrance of the farm.

✓ They should be dipped or sprayed on the 25th / 26th day to remove the ectoparasites.



Isolation of sick animals

- ✓ Process of segregation of affected and in contact animals from the apparently healthy ones, in the event of outbreak of a contagious disease.
- ✓ Animals housed in a separate isolation shed situated far away from the normal animal house.
- ✓ Attendants and equipment for sick animals should be ideally separate.
- ✓ Equipment should be thoroughly disinfected after use in the isolation group.



Isolation of Sick Animals



✓ Attendant should wash his hands, feet and gumboots in antiseptic lotions and change his cloths.

✓ Brought back to the healthy herd only after they are fully recovered and the chance of passing on infection is removed.

Deworming

- ✓ Started from the first week of calf.
- ✓ A single oral dose of 10 g piperazine adepate for calves , first week of life to control neonatal ascariasis especially in buffalo calves.
- ✓ Deworming every month for first 6 months, thereafter once in three months.
- ✓ Drugs and dose should be consulted with qualified veterinary doctor.

✓ Over dose and under dose of deworming drugs should be prevented to check the side effects.



Vaccination

- ✓ Vaccination in calves and adult animals to prevent the disease outbreak in farm animals.
- ✓ Started from the first four months of calf life.



✓ Vaccination should be performed by a qualified veterinary doctor and should be done at the proper season for a particular vaccine.



Vaccination schedule for calves:-

Vaccine	Months
Foot and mouth	2 to 4 months (first vaccination), 2 to 4 months after first vaccination, twice a year thereafter
Brucella	4 to 8 months
Black quarter(first vaccine	8 weeks before weaning
Anthrax Black quarter(2nd vaccine) Hemorrhagic septicemia	6 months

Vaccination schedule for adult animal:-

Vaccine	Months
Foot and mouth	January to February
Abortion causing brucellosis	March to April
Anthrax disease	April to may
Foot and mouth disease(twice a year)	June to July
Black quarter	August to September(before monsoon)
Hemorrhagic septicemia	September to October

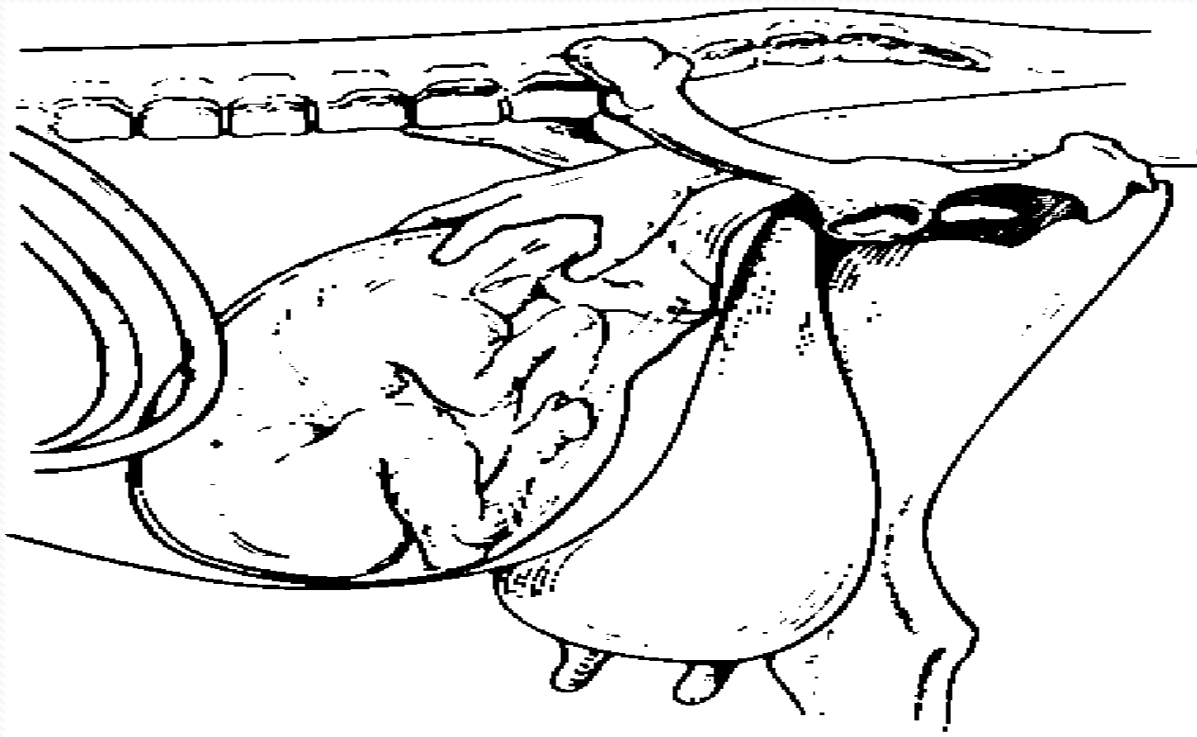
Proper time breeding of the animals

- ✓ Animals exhibiting oestrus signs only should allow for breeding.
- ✓ Oestrus animals maximum conception rate mid oestrus stage.
- ✓ Oestrus signs observed in morning, breeding should be done in the evening.
- ✓ Breeding may be through matured disease free bull or artificial insemination.

Proper time pregnancy diagnosis

- ✓ Pregnancy diagnosis is essential; within 60-90 days after breeding for confirm the pregnancy.
- ✓ This facilitates optimal feeding and care of pregnant animals in positive animals.
- ✓ Provides clear way to breed the animal in next oestrus in negative cases.
- ✓ Proper pregnancy diagnosis reduces the intercalving period and increases the production.

✓ This should be done by qualified veterinary doctor.



Detection of pregnancy

Insuring of animals

- ✓ Provides protection mechanism to farmers and cattle rearers against any eventual loss of their animals due to death .
- ✓ Eligible beneficiaries :- cattle rearers having the cross breed and high yielding cattle and buffaloes
- ✓ Covered risks :- death of cattle due to accident inclusive of flood, cyclone, diseases, surgical operations.

- ✓ Animals insured for maximum (100%) of their current market value
- ✓ General Insurance Corporation of India (GIC), New India Insurance and Oriental insurance are the major insurance companies providing cattle and buffalo insurance
- ✓ For insuring animals, contact their nearest government veterinary doctors / Animal Husbandry department

Disposal of carcass

✓ Primary purpose of safe disposal of carcass is to ensure the check and spread of disease either to other susceptible animals or humans.

Burial of carcasses:-

✓ Carcass must be buried in its skin, be covered with a sufficient quantity of quicklime or other disinfectants.

✓ Dead animals should be arranged upon its back with feet upwards.

✓ Skin is slashed inside the pit all cases except in the case of anthrax.

Pit method

• Pit method for the carcass of a large animals pit measuring about 7 feet long, 4 feet wide and 18 inch deep is dug.

Following sequence:-

✓ Fill the trench with straw soaked with paraffin to provide lighting points.

✓ Iron rails at intervals across the ventilation trench so as to prevent its obstructions.

✓ Saturate with paraffin and add coal.

✓ fire is started by lighting the straw at one or both ends of the lighting points.

Surface burning method :-

✓ Method can usefully be adopted when the nature of ground is not suitable for construction of pit .

✓ Two parallel trenches about 5 feet long, 9 inches wide and 9 inches deep and 2 feet .

✓ Carcass is placed over the trenches.

✓ Coal is placed on and around the carcass.

✓ Wood is soaked with paraffin and the fire is then lit.

Flame gun method:-

✓ The carcass is placed on ground or iron sheet and a powerful flame directed towards it, destroy the carcass.



disposal of carcass

Record maintenance

- ✓ Record keeping is an essential practice in animal husbandry.
- ✓ It needs daily, regular recording the details in the farm office by manager or farmer.
- ✓ Close management and feeding levels can be provided on the basis of production level.
- ✓ Livestock marketing can be promoted on the basis of performance records

Registers to be maintained in a dairy farm

- Daily stock register
- Birth/calving register
- Calf / young stock register
- Adult stock register
- Breeding register/ AI register
- Weighment / growth register
- Milk yield and distribution register
- Mortality register
- Fodder/ feed stock register
- Herd health register

Conclusion

- Calf is known as pillar of dairy so its proper care and management is mandatory.
- Colostrum feeding should be appropriate to reduce calf scour.
- Considering animal welfare and ethics rubber elastator should be avoided for dehorny.
- In case of anthrax never use burning method for carcass disposal use deep burial method for its disposal.
- Vaccination and deworming dose should be according to age and body weight of animal.