

Techniques and Equipment used in Animal Production

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Common Management Practices

- Housing
- Feeding
- Watering
- Identification
- Breeding
- Vaccination
- Record keeping

Housing

- Protection from direct wind, sunlight and wet, but able to withstand quite extreme temperatures
- A clean, dry, comfortable and disease free environment
- Access water and feed
- Adequate ventilation with clean air
- Ex : cattle- cattle shed
 - pigs- piggery
 - chicken- poultry house
 - goat – goat unit



Cattle shed



Piggery



Poultry house

Feeding

- Varies with the species and age of animals

Calves

- Important to feed calves with colostrums for first 3 days which is rich in proteins and vitamins
- Feeding methods :
 - Natural feeding- suckling
 - Artificial feeding- bucket/bottle feeding



Piglets

- Sow milk for suckling piglets
- Sow milk does not provide all required nutrients
- Additionally concentrated feeds should be given
- Ex : creep feeding of piglets



Poultry

- Shallow trays used to feed mash for chicks
- Layer chicks- chick mash, grower and layer mas
broiler chicks- broiler starter, broiler finisher
miscellaneous poultry- grasses, weeds, water plants
- Feeders and waterers used to provide feed and clean drinking water, respectively



Identification

- Important in record keeping
- It is helpful in assessing the efficiency

Different identification methods;

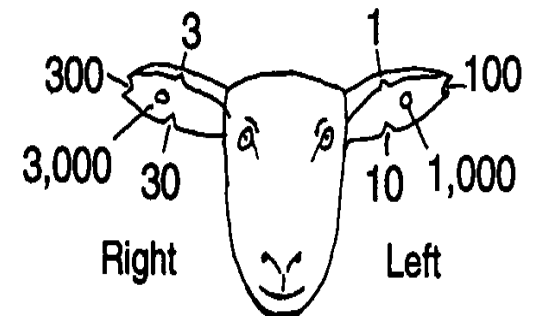
Ear tagging

- Application of tags by tag applicator
- Ex: cattle, buffalo, goat



Ear notching

- Remove part of the ear cartilage
- Ex : pigs
- Permanent method
- Practice 1-2 days after birth
- Easy to manage
- Less pain for the animal
- After notching, apply chemicals to prevent fly attack



Leg/wing banding

- Done using color bands
- Ex : poultry



Tattooing

- Use for white skin animals
- Ex : pigs, cattle
- By applying ink
- Cheap method



Other Management Practices

Dehorning/Debudding

- Process of preventing horn growth in calves
- Removal or killing of the horn buds
- Methods :
 - Chemical - caustic pastes used to kill the horn bud
 - Physical - hot iron
 - Surgical removal - using scoop or tube disbudder or scoop dehorner
- Ex : goat, cattle

Castration

- Remove or inactivate the functions of testicles
- Done at early stages, to reduce stress and to heal the wound
- Done before 3rd week after birth
- Ex : Cattle, pigs
- Castration is done;
 - To reduce boar odor in meat
 - To prevent unnecessary mating
 - Easy management



1. Surgical method

- An incision made in the scrotum
- Testes are completely removed
- Blood vessels sealed using blunt scissor
- Apply iodine

2. Non surgical method

- Using equipments
- Ex : Burdizzo castrator
Elastrator



Teeth clipping

- Removal of pair of tusks/needle teeth of the animal soon after birth
- Done using pliers
- Prevent injuries to other piglings and sow during suckling
- Ex : pigs (specific to pigs)



Tail docking

- Leave a portion (1-2 inches) of the tail and cut the rest
- Done within 48-72 hrs., after birth
- Reduce the problem of tail biting due to stress, less space and less nutrients
- Ex : Sheep, swine



Restraining

- Very important in bull management
- It is often necessary to confine cattle
- Done using bull holder, nose ring, rope on the horns, chutes
- Ex : cattle



Hoof trimming

- Removing of overgrown parts in hoof
- Regular hoof trimming is important
- Ex : cattle, goat sheep



Wool shearing

- Removal of fleece from a sheep in such a manner that the quality and the economic value of the fleece are maximized
- Electrical shearing or using scissors
- Ex : sheep



Brooding

- Provision of warmth to chicks until their bodies develop the thermoregulatory mechanism
- Ex : poultry
- Types :

Natural



Artificial



Debeaking

- Partial removal of the beak of poultry birds
- Ex : specially layer hens, turkeys
- Done to reduce cannibalism and mortality



Desnooding

- Removal of snood
- Ex : Turkey
- Done at day old age



Egg candling

- A method used to study the growth and development of an embryo inside an egg
- To determine the interior quality of egg



Egincubation

Process of hatching eggs

- Widely used in large scale operations and suitable for commercial farmers



Vaccination

- Done to ensure a healthy herd
- Injection of material into animal to promote immunity



Record keeping

- To assess growth
- To assess production
- To assess reproduction rates
- To evaluate profit-loss of the farm
- To schedule the farm activities and expenditures

