



Production Animal Husbandry

MegAnn Harrington BS,CVT, VTS (PAIM)

Beef Cattle Production System

A cow/calf operation breeds cows and heifers by artificial insemination, embryo transfer, or live cover with a bull to produce calves yearly. The gestation of a calf is 283 days +/- depending on breed. This producer typically will sell their calf crop at the end of the season once the calves are weaned at 6-7 months of age. Some producers choose to keep their calves for an extended time frame and pre-condition them before selling them to a stocker or feedyard operation. Pre-conditioning means to wean, vaccinate, castrate, dehorn, and put on a high-grain diet to promote weight gain. The typical minimum time frame for pre-conditioning is 45 days.



A background, stocker or grower operation will purchase weaned and un-weaned calves from producers or sale barns and grow them to an adequate weight so they can be sold into the next production phase. Typically, these producers will purchase a calf weighing 550# and grow them to 800-900# before selling them for the next production phase also known as the feedyard. Most of these cattle are grown on grass and grain.



The feedyard operation is the final production phase of beef cattle prior to slaughter. Cattle may be on feed for 150-300 days while in the feedyard. Once they have reached optimal finishing weight, they will be purchased by a meat packing facility and rendered into high-quality protein for human consumption.

Management Practices

- Castration of bull calves by open (surgical) and closed (banding) methods.
- Disbudding or dehorning prevents injury to pen mates and handlers.
- Ideally, castration, disbudding or dehorning should be done as young as possible.
- Bulls should be tested for fertility every breeding season.
- Cows should be pregnancy tested 30 days after breeding.
- Vaccination of herds is performed 1-2 times per year depending on the herds risk.
- Core viral vaccines for beef herds in the U.S and Canada includes
- BVD,IBR,BRSV,PI3



Dairy Cattle Production System

- Gestation of a dairy cow is approximately 282 days +/-.
- Dairy cows produce milk for approximately 10 months out of the year. Milk production peaks 40 to 60 days after calving, which is near when the cow is bred back, usually by artificial insemination. Milk production steadily declines after that until milking is completely stopped. At around 10 months, milking is stopped, and the cow is then "dried off" for about sixty days before calving again, and the cycle continues.
- Dairy calves are removed from their dams shortly after birth and are raised in individual or group housing with other calves. These calves are provided colostrum at birth and milk daily until weaned onto a forage and grain diet.



Management Practices

- Castration of bull calves by open (surgical) and closed (banding) methods.
- Disbudding or dehorning prevents injury to pen mates and handlers.
- Ideally, castration, disbudding or dehorning should be done as young as possible.
- Most dairy's utilize artificial insemination for breeding.
- Cows should be pregnancy tested 30 days after breeding.
- Cows in milk should be monitored daily for signs of mastitis.
- Somatic cell counts are used to monitor subclinical mastitis in dairy operations.
- Vaccination of herds is performed 1-2 times per year depending on the herds risk.
- Core viral vaccines for dairy herds in the U.S and Canada includes
- BVD,IBR,BRSV,PI3



Swine Production Systems

A farrow-to-finish operation involves breeding and farrowing sows, and then feeding the pigs until they reach a market weight of about 280 pounds. The entire production period takes approximately 10 months, with 4 months for breeding and gestation and 6 months to raise the litter to market weight.

A farrow-to-feeder operation involves breeding and farrowing sows and then selling the piglets to finishing operations when they weigh 30 to 60 pounds.

A feeder-to-finish operation buys feeder pigs weighing 30 to 60 pounds and then feeds them to market weight.

Management Practices

- Castration of males by surgical method should be done as young as possible.
- Clipping of needle teeth occurs usually at 1-2 days of age. This is done to prevent injury to other pigs.
- Piglets and weaned pigs perform best indoors, with temperatures around 90-95 degrees.
- Sows are placed in confinement crates near the time of farrowing to protect piglets from being crushed to death by the sow. The gestation of a pig is 114 days.
- Breeding is achieved by artificial insemination and with a boar by live cover.
- Pigs are at high risk for diarrhea and respiratory disease infections; therefore, strict biosecurity measures should be taken when working on swine operations.



Sheep Production System

- Stock sheep operations breed ewes with rams to produce lambs for food or fiber.
- Gestation of an ewe is 150 days.
- Lamb feeding operations feed weaned lambs until they reach market weight of approximately 120lbs.
- High risk for predation.



Management Practices

- Castration of male lambs by open (surgical) and closed (banding) methods should be performed as young as possible.
- Sheep are raised for meat and fiber/wool production.
- Shearing occurs in wool breeds
- Hair sheep like the Katahdin are more heat and parasite-tolerant and do not require shearing.
- Sheep can be surgically A.I'd.



Goat Production Systems

- Goat production systems include meat goats or dairy goats.
- Does are bred to bucks to produce kids for feeding operations where kids are fed until they reach a market weight of approximately 100#.
- Dairy operations function similarly to a dairy cow operation. Goat milk is also used for a variety of cheeses and soaps.
- Gestation of a Doe is 150 days. Goats often undergo transcervical or surgical artificial insemination.



Management Practices

- Castration of males by surgical method should be done as young as possible.
- Disbudding or dehorning should be performed as young as possible. This is done to prevent injury to pen mates and handlers.
- Highly susceptible to parasitic infections.
- High risk for predation.



Poultry Production Systems

- Operations are going to raise birds for either eggs or meat.
- Pullets are young female birds raised to adult laying hens for egg production.
- A chicken's reproductive system takes about 26 hours to form and lay each egg fully.
- Boiler or fryer is the term for young chickens raised for meat.
- Brooding refers to the early growing period of chicks.
- Hens that are in production for almost two years are considered "spent" hens. The quality and quantity of the eggs produced are generally considered poor and uneconomical the older the hen is.



Management Practices

- Birds are susceptible to extreme temperatures and predators; therefore, many operations choose to house poultry indoors for the birds' safety.
- Beak trimming involves the clipping of the upper beak. Debeaking the birds will minimize the incidence of feather picking and cannibalism.
- Birds are at high risk for diarrhea and respiratory disease infections; therefore, strict biosecurity measures should be taken when working on poultry operations.

