



Lecture title: Cattle husbandry

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Summary: This lecture highlights the dairy herd management, characters of dairy cattle, productive Characters, selection basis of suitable cattle breeds, some productive parameters and original dairy cattle breeds

Dairy Herd Management

Dairy animals constitute as a productive economical unit, their feeding depends upon feedstuffs, mostly unfit for human consumption. After eating of these plants by _products, cows produce essential food e.g.: meat, milk having high nutritive and economic value. Also the presence of cattle is necessary to fulfill balance in agricultural cycles for soil fertility. Due to reproductive phenomenon of cattle, e.g. "Non-seasonal polyestrus, it is possible to regulate, organize and synchronize the delivery of cattle in different period of year, and subsequently, availability of milk at different times.

In many countries cattle play important role in the economy of these countries due to:

1. High ability of these animals to consume huge amounts of crop by _ product and remains of other crops.
2. Equilibrium between plant and animal production and exchangeable cycles between soil and animal.
3. High capacity of feed conversion efficiency of these animals (the ability to convert feed into meat in cattle is 10.7:10).

Characters of dairy cattle

Dairy cattle are characterized by special features, which can be classified into two groups, morphological and productive characters.

1. Large and well __developed udder: extended forwards and backwards but not downwards (suspended or pendulous).
2. Prominent, and well __developed& well-formed mammary (milk) veins.
3. Elongation of the body, enlargement of abdomen with pinned bone appearance.



4. Thinness of head and neck with their homogeneity.
5. The body has triangular, wedge shape due to narrow shoulder, moderate chest, deep abdomen and broad hind quarter. This triangular shape can be observed at upper, front, and back view.

Productive Characters

It is more important than morphological characters from practical point of view. The parameters depend mainly upon different "production record" of the farm (if available)

1. Quantity of milk produced.
2. Fat percentage of milk.
3. Time of milk produced (date of production) at first calving.
4. Period of milk produced (month).
5. Length of dry period (days).
6. Intervals between two deliveries and mating.
7. Intervals between two successive calving.
8. Persistency of production.
9. Calmness at milking process.

Selection Basis of suitable cattle breeds:

- a. The capacity to produced milk:

The ability of cow the use local feedstuff and convert it into mainly milk.

- b. Body traits:

Cows should be characterized by body depth, large heart girth (broad chest girth) enable these cows to consume huge amount of feedstuffs.

- c. Udder characters:

Large and sound (healthy) udder with its extension forwards and backwards but not swing, teat_ balanced with the prominence of mammary (milk) veins.

- d. The follow of pedigree, lifetime and production concerning with milk yield (production) if available.

Some productive parameters: RECORDS

- i. Age at first calving (months).
- ii. Milk produced (305 day) kg/day (1st season, 2nd season, etc)
- iii. Length to lactation season (day).



- iv.Length of dry period day.
- v.Interval period between two successive calving (days).

Original Dairy cattle breeds

1. Holstein _Friesian:

Mean of milk production in 5000kg in 305 days of 3.5 % butterfat. Color of milk is more whitish than other dairy breeds due to high efficiency to convert carotene (colorless).

2. The Jersey:

Milk produces 2500kg in 305 days with 5.3__5.5% butterfat. Milk of Jersey is yellowish due to high containing of butter fat.

3. The Ayrshire:

This type produced 4100kg milk with 4% butter fat.

4. Brown Swiss:

Milk production is 2570 kg with 4 % fat.