

Best cattle and buffaloes:

Selection and procurement

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Selection is the key to successful and profitable dairy farming. The important fact is to provide farmers with the best germplasm that are efficient producers. With the purpose of doubling farmers' income for which the production of the animals has to be doubled, selection of superior producing cattle and buffaloes is the preliminary step. Failure in selection and procurement of superior animals perhaps will be the drawback for the dairy farmers. Hence, this article will focus on all the essential steps to be considered during selection of cattle and buffaloes in Indian context.

Key words: Buffalo, Cattle, Selection

SELECTION and procurement of animals for various purposes should be done with utmost care to achieve the targets of the plan in a time bound manner. In case of large ruminants (cattle and buffaloes), the most important character is milk production, whereas, in case of small ruminants (sheep and goats), the desired trait is live body weight in addition to milk up to some extent.

In both cases, following points should be kept in mind before procurement of animals.

Choice of species: The species to be reared (cattle, buffalo, sheep, goats etc.) should be finalized based on major objectives of the farm. A dairy farm must select species with higher milk production and considerable milk quality. For higher milk production, one may choose cattle group, however, for better milk quality and milk constituents, buffaloes may be the choice. Or a balanced mix of both can be used.

Selection of breed: Based on the agro-climatic conditions of the area and resources available with the entrepreneur, we have to select a breed suiting our conditions. For example, a dairy farmer located in western arid to semi-arid zone of our country may go for best western

region cattle breeds (Sahiwal, Tharparkar, Rathi etc.) and buffaloes (Murrah, Nili Ravi etc.) or a skilful balance of two.

Selection of animals from the breeding tract: Every breed of cattle and buffaloes in our country are mainly concentrated in some specified pockets of a state/area. For selecting best and cheap animals, we should move to breeding tract of that breed. If the choice of breed is Murrah, to have best Murrah buffaloes, we have to move to Haryana (Rohtak, Jind, Bhiwani, Hisar area) where these animals are found in abundance. The desired type of buffaloes once located in an area, are to be evaluated for best dairy characters and milk production capability.

Evaluation of animals: It desirable to purchase freshly calved cattle/buffaloes of first to second lactations (1st to 2nd week after calving), because these may express longest productive lives as well as improvement in milk production over the forthcoming lactations. Maximum number of offsprings may also be obtained from such superior animals.

The selection of animals is a science as well as art. The person

should possess quick, accurate and precise powers to observe the merits/demerits of an animal. The preferred animals (dairy, draught or dual purpose) should be true to the selected breed, expression of dairy characters (thin skinned, wedge shaped body, appropriate BCS etc.), free from all types of physical/congenital abnormalities and prevailing diseases and infestations, free from difficulty of calving/express ease of calving etc.

Once these desirable characters are met in an animal, one should proceed for evaluating its production potential. For assessing the milk production potential, the udder system of cows/buffaloes should be emptied at a specified time, either in the morning or evening, say at 6.00 PM it has been emptied, then at 6.00 AM and consecutively at 6.00 PM and so on, and this animal has to be milked and milk production has to be weighed. We can repeat this milk assessment and weighing process for at least 1-2 days to have a precise value of per day milk production of that animal. Based on milk production of this animal and the sex of calf, we may bargain the price based on prevailing prices in that area.

In case of selection of maiden heifers and pregnant cows/buffaloes, it is very difficult to assess the future performance of these animals, because most of the assessments are based on the statement of owners, which may be true or untrue. In addition, these groups may express calving difficulties too. Heifers expressing stunted growth, belonging to free martin group, repeat breeders - more than 4 APs, congenital defects etc., should be ignored at the time of final selection.

Finalization of selected animals: Once, the per day milk production is accurately assessed and prices are bargained, the animals are to be finalized and payments are to be made with a proper and authenticated receipt.

Transportation of procured animals: Transporting livestock from one place to other is another very important issue. Livestock should be transported in appropriate type of vehicle, viz. truck, tractor trolley, mini truck, matador, tempo, auto etc. depending upon the body size and number of animals to be transported. Following points should be kept in mind at the time of transporting animals from one place to other:

- Making a place (ramp) for animal loading depending upon the type and size of vehicle.
- Choosing the time of animal transport i.e. day or night.
- Gentle handling of the animal before loading (feeding, watering, milking etc).
- Diseased animals/animals ailing with serious diseases should not be transported, if at all it is essential, these should not be transported with healthy animals.
- Putting the anti-slippery bedding material on the platform of vehicle eg. 6 inch thick sand-bed, paddy straw, wheat straw, dry grasses etc.
- Final loading of the animal in the vehicle.
- Tying of animal in the loading vehicle.
- Arrange for the feeds and fodder

for use during the journey.

- Freshwater may be arranged on the spot of stay. Water should be offered to animals at least thrice in summers and twice in winters during journey.
- It is advisable to keep few essential materials with the attendant, viz. scissors, blade, torch, bucket, mug, rope etc.
- An attendant has to accompany animals in the load area throughout the passage/pathway.
- Fast acceleration/speed of vehicle should be avoided.
- Fast sudden braking should be avoided.
- Milch animals should be milked during milk timings say morning and evening.
- Good green fodder should be made available to animals throughout the journey. In summers, the solution of jaggery, salt and water should be offered to these animals during journey to promote water intake and to provide salt to animals.
- Young calves, if any, should also be placed appropriately with the mother.
- Partitions/cells should be made with the help of rope or bamboo to avoid unnecessary collision of two animals with each other.
- Unloading of animals should be done using appropriate ramp and as early as possible.
- Loaded animals should be offered water as well as good green fodder immediately.
- In summers, journey during nights is preferred over day time due to extreme hot and sunny days and to avoid heat stroke and heat stress.
- The unloaded animals should be placed in an environment which is free from climatic stress, has appropriate bedding material on the floor of shed, appropriate ventilation and which is free from insects, pests and flies.

Mixing these newly procured animals with old ones: Before mixing these newly procured animals with old ones, these should be kept in

quarantine shed/pens for almost one month to observe any abnormality/occurrence of disease etc. which should be treated appropriately with the help of a trained qualified veterinary doctor and after ensuring its disease free status and normality it should be mixed with the existing herd, if any.

Management and care of newly procured animals: These newly procured animals should be managed appropriately and scientifically to harvest best production levels. These animals should be in the continuous vigil and surveillance of farm manager. After involution period, these should regularly be inspected for symptoms of heat and AI, to be done accordingly. In case of surplus animals, culling should be at least 20-30% on production grounds to formulate an elite herd. In addition, cows with abnormal reproductive status, health problems, congenital defects, physical abnormalities, free martins, undesirable characteristics should be removed from the herd regularly. Males to be used for breeding should either be selected on the basis of best 305 days' yield of dam or if facilities are available one can use latest techniques for breeding value evaluation. Top 5-10% males should be retained for semen collection and freezing and rest of the males should be culled from the herd. Bulls should be maintained in separate bull-pens with provision for specified open/covered shed spaces. During days of semen collection bulls should be provided with additional concentrate allowance for breeding, so as to ensure good reproductive health.

Finally, if we follow such steps judiciously at the time of selection and procurement of best animals, we may formulate an elite herd with considerable profitability and continuity.

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