**Introduction to Animal Husbandry**

**(ANSC-5101)**

**MID TERM EXAM**

**REPEATER**

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**Selection in farm animals**

Selection is the process of allowing different animals to breed while culling others. Animals are removed which do not perform desired level from herd is known as culling. Breeding stock is made up by selecting animals. To improve livestock and for better performance of off-springs breed stock must be of good quality. Desirable qualities are formed if selection process repeated for generations, genetically termed as gene frequency, increase chances of desirable characteristics and inhibit undesirable qualities. Selection improves qualities that are highly heritable.

 Those animals are chosen which met the requirements of breeding objective and pass particular traits onto their progeny. Both subjectively measured traits and objectively measured traits are considered during selection.

Subjective,visual assessment:

It the assessment of an animal on physical basis and the requirements it includes;

* The confirmation or the shape of animals e.g muscling.
* Animal structure.

Objective,Genetic assessment:

It uses actual measurement to asses relative worth of an animal genetic evaluation is its one form which provides an insight into genetic makeup of animal.

**The degree to which selection affects a character depends on the following factors:**

* Character heritability
* Selection intensity
* Internal between generations
* Kind of selection being practiced

While selecting a breeding stock following factors must be considered

* **Age:**
* Young animals.
* Who have not summed for more than 3 times should be selected.
* Have longer productive life.
* Old animals have low productivity and are poor producers.
* Production and breeding efficiency decline with increasing age.
* **Performance level**
* High productive animals must be selected.
* Record must be retained of best performance.

Good performance is indicated by

* High milk, wool, and egg production
* Good mothering ability
* High propetency
* Poor performance animals should be culled
* Good record kept and aids farmer for further production

* **Physical fitness**

Animals selected should be free from any physical defects. e.g.

* Mono-eyed.
* Limping.
* Irregular number of teats
* Scrotal hernia
* Defective and weak back line
* **Health**
* Animals who are sick so not breed well
* Resistant animals pass its characteristics to off springs.
* **Body conformation**
* Animal with proper body conformation should be selected.
* Dairy cow should be wedge shaved with a large udder thin legs long neck.
* **Behavior temperament**

* Culling of animals that have bad behaviour must be done. for example; aggressiveness, kicking egg, eating etc
* **Product quality**
* Animals which yield high quality products (such as meat ,wool egg and milk )should be selected.
* **Mothering ability**
* Animals with good mothering ability should be selected..
* Animals that have good natural instinct towards their off springs.
* Which enable them to rear the young ones up to weaning.
* **Adaptability**
* Animals which adapt well to the prevailing climatic condition should be selected.
* **Prolificacy**
* Highly prolific animals should be selected.
* Animals which have ability to give birth to many off springs at a time.
* Ancestry record aims in choosing prolific breed for mating.

**Selection of cattle and sheep**

**Selection in cattle:**

* Performance level include;
* Milk yield butter content
* Lactation period length
* Intervals between calving
* Age of animal,
* Fertility,
* Physical fitness,
* Health of animals,
* Body confirmation,
* Suitability of enterprise milk or beef.

**Selection in sheep:**

* Performance level include;
* mothering ability growth rate,
* quality of wool,
* carcass quality,
* twining rate
* Mutton or wool enterprise suitability,
* Physical fitness,
* Inheritable defects,
* Fertility.

**Selection in goats:**

* Fertility,
* Mothering ability,
* Growth rate,
* Twining rate,
* Carcass quality,
* Growth rate,
* Health of the animal,
* Age,
* Mutton or milk enterprise suitability.