***APH 411***

**TITLE: Commercial Feedlot Operation**

It is a modification of an intensive system of ruminant production especially meat animal. It involves the growing and fattening of young animals under confinement. Animals are placed on full feeding always with the aim of growing and finishing them for slaughter within a short period of 90-120 days.

A proper system should afford the animals the opportunity to show the highest feed conversion efficiency and best growth performance. The feedlot cattle fattening project used to exist in Mokua. This system ensures that an adequate supply of meat animals and meat to the market. It has been observed that under feedlot operation and good husbandry practices, the performance of indigenous breeds of cattle compared well with their counterparts of temperate zones. In two separate expts. the live weight gain of white Fulani and Sokoto gudali bulls averaging 0.99 kg and 0.91 kg respectively were recorded.

For small ruminant production, this system has been practiced by the traditional farmers on a small-scale. Most of them fattened between 1and 3 rams around the Eld-el-Kaabri period. Such animals are usually kept at home and are provided with wheat offals, crop residues and legumes hay which the other animals do not have access to. The main aim is to finish them around the Sala when demand is very and good prices can be obtained.

**Types of feedlot**

Feedlot is classified based on the feedstuffs or ingredients used:

1. Grains only
2. Grains and silage
3. Grains and roughage
4. Soilage (cut materials being fed as green chop to animals)

The type of feed used by an entrepreneur in Nigeria depends on the season of the yr in which the animals are put in the lot. In this country, no one can successfully operate either an all grains or all green chop feedlot. While scarcity, competition and high cost would account for inability to operate an all grains feedlot, nutritive value of most Nigerian forages especially as growth advances coupled with seasonality would mitigate operating an all green chop feedlot.

**Purchase of animals**

Young and healthy animals i.e. males should be purchased. Animals within 1½ -2yrs old (cattle) are recommended because they grow faster, add more flesh and requires more protein than older animals for muscle and not fat as the case in older animals. Preference should be given to animals adapted to the ecological zone where the scheme is sited.

**Management of feedlot animals**

Animals of appropriately same size and age should be put together. For the 1st few days, it is important to watch them at feeding time to make sure that each is getting its fair share of the feed. Animals that appear wild should be kept apart from the others. When the animals arrive, the ration should be roughage with small amount of grain. After two weeks, the roughage is reduced and the grain gradually increased until the desirable ratio is attained. Clean cool water should be made available at ad-libitum to ensure proper utilization of high concentrate ration provided. Regularity in the time of feeding and uniformity in the feeds are both important. Any necessary change must be made gradually. Usually, ½ of the ration is given in the morning and the other half in the evening based on the live weight of the animal (2-4%). Sufficient space is necessary in the lot for exercise and rest. A neglect of this lengthens the fattening period and predisposes animals to digestive disorders.

**Major constraints to feedlot operation in Nigeria**

1. **Inadequate capital:** The initial investment on infrastructure as well as feed is very high and most people cannot practice it due to this problem.
2. **Short supply of ideal beef animals:** The ideal beef conformation has been likened to parallelogram. Most Nigerian breeds do not have this frame. Two local breeds which have shown good performances in terms of growth rate and feed utilization are usually recommended for feedlot operation: white Fulani and Sokoto gudali. Operating feedlot in areas where these breeds are not readily available would lead to increased cost resulting from transportation. Even in areas where they are available another problem is the unwillingness of cattle owners or herdsmen to sell off their young animals.
3. **Inadequate feed and water supply:** This is due to inadequate production of grains and competition between man and animal for them. Even though there are oil mills in the country, there are also irregularity in the production of mill and cakes. This results in escalated prices feedstuffs. The practice of buying concentrates in bulk and stored when they are available in abundant to avoid future scarcity is not supported due to fast rancidity of the concentrate. Their nutritive value especially the grains have been noted to decline rapidly with time as a result of insect pests activities. The use of other energy sources is suggested e.g cassava, maize cob etc.
4. **Inability to dispose of the animals:** Continuous keeping and feeding of fattened animals beyond the stipulated time has been observed to reduce the profit margin of production in feedlot operation by 40%. Its not easy to dispose of fattened animals unless during festivity or there is a ready-made market
5. **Non-employment of skilled personnel:** Sincethe feedlot animals are in confinement, certain routines must be carried out in achieving the desired goals such operation include regular feeding, vet. care etc. These operations must be under skilled management. People who handle the operations must not only be hard working but be devoted to their work. They must be committed to the welfare of the animals.

Prospects of feedlot operation

1. Utilization of agro-industrial by-products and other non-conventional feedstuffs e.g crop residues.
2. Less demand on land and effective utilization of grassland products. Feedlot operation does not require a vast area of land such as in extensive or free range system as practiced by the nomadic people. While a feedlot area of land of 182 mx36.4 m will conveniently house 300 herds of fattening bulls another area of about 3.2 acres can be used for forage production.

***Assignment***

**Find the area of unit land/bull and forage production/animal. Submit to me on-line**

1. Reduction of age at slaughter: Feedlot operation reduces the period at which indigenous animals can reach slaughter weight and at the same time producing well finished animals. It has been reported that the wide variation in age at slaughter between indigenous and temperate bulls is due partly to the extensive system of management of indigenous animals.