

Mitahato Education and Development Fund



PIG FARMING MANUAL



Nurturing The Roots Of Change In Rural Kenya

Large White

- They are distinguished by their erect ears
- Slightly dished faces
- They are long bodied with excellent hams
- Fine white hair.
- Very prolific
- late maturing with good mothering ability



Figure 1 showing large white breed

- Can be used for pork and bacon production.
- Fairly hardy animal.
- Large white are found practically in all crossbreeding and rotational breeding programmes.
- Sows have an enviable reputation as dams and form the foundation of the classic F1 hybrid gilt.
- They are the favorite breed in the country and the world over.

Landrace

- It is a very versatile breed performing well under good management.
- They are white in color



- Have drooping ears and a straight snout.
- Sows produce and rear large litters of piglets with very good daily gain (ADG)
- High lean meat content ideal for either pork or bacon production.

Yorkshires

- Many consider them the mother of all pigs.
- This breed has set the standard for large litter sizes
- good milking ability



- Strong mothering instincts at birth and through weaning.
- They consistently have high yielding carcasses.
- It has erect ears
- They have a long, big frame and are white with erect ears.

Duroc

- Durocs are golden brown to black in colour with a thick auburn coat and hard skin.
- They have small, slightly drooping ears.



- Traditionally, Durocs have been used as terminal sires (traits associated with it are quick growth, deep body, broad ham and shoulder).
- Its tenacity in looking after its young, combined with its docility between times, makes it an ideal candidate for an outdoor pig either as a sire or as a dam.
- Its succulent carcass and heavy muscling makes it a very suitable pig for anything from light pork to heavy hog production.
- Reddish in color with droopy ears.
- Have the best tasting pork.
- It is also considered one of the hardiest breeds and they do well outside with simple housing.
- Fast growth and good feed efficiency, are a reddish color with droopy ears.
- On the average, this breed needs less feed to make a pound of muscle than the other breeds.

Hampshire

- is now one of the world's most important breeds
- It is used extensively as the sire of cross bred pigs for pork and bacon production.
 - The Hampshire is very prolific.



- It produces an abundance of lean meat and has more meat than the large white or landrace.

Marketing of pigs in Kenya

The following companies buy pigs

- Farmers Choice Ltd processing well over 70% of the pork produced in the country.
- Chefs' Choice
- Hurlingham Butcheries
- Oscar foods (Kikuyu)
- Many local pork butcheries in urban centres across the country.

Value addition

Pig's meat can be converted into

- bacon
- ham
- Pies
- Rolls
- Sausages
- pork cuts
- Tallow& lard.
- Pig manure is used on farms as fertilizer.

How to Start a Successful Pig Farming Business

- Pigs can be raised in controlled or free environment, as a small- or large-scale business.
- But in whatever size, a prospective farmer would need inputs as to how to raise pigs efficiently and in a more productive manner.
- Raising pigs can be pursued as a small-scale operation as source of family meat and supplement income or it can be made into a large-scale operation.
- Pigs may be raised in highly controlled environments (hog lots) indoor, in open spaces

Choosing Piglets to Raise

- Pig feeders can be obtained from stock breeders, and producers, in auctions and classified ads.
- Pigs are of different breeds some of them are well suited for specific environments, indoor or outdoor.
- Crossbred pigs tend to grow faster, consume feed more efficiently and are vigorous.
- When buying a feeder, choose the large and healthy looking ones, at least 11kg.
- If you are choosing a male, which is observed to grow slightly faster than females, get one that is already castrated.
- Male or female, they are preferably immunized.
- Ask the breeder for health information and stock of the breeder.

Proper Nutrition for Pigs

- Pigs feed on both grains and meat.
- They can also be fed with cooked table scraps and vegetables.
- Corn is their most common food, but they could benefit from having a diet with protein from soybeans or cooked meat.
- They grow faster with vitamins and other supplements.
- Piglets have higher protein requirements than mature ones.
- Feeds can be bought packaged and in bulk.
- Pigs must also have adequate supply of drinking water daily, about 8 to 15 litres.
- Provide water either through a tub or automatic nipple waterer.

Ideal Housing for Pigs

- Pigs need housing to keep them warm during cold temperatures and to shelter them from excessive heat.
- Pigs are sensitive to heat and could die from heat stress.
- When housed indoors, temperature conditions must be well regulated.
- Controlled temperature conditions can help maximize growth.
- Cooling mechanisms for pigs can come in the form of drip water system or a wallow (for a hog pen).
- Pigs can be housed indoors in individual stalls, pens (in groups or batch) or in barns.
- Even if the pigs are raised outdoors they would need a shelter during cold and hot weathers.
- The housing should have a space for feeding and bedding.

Pig Farm Sanitation

- Sanitation is important to keep the pigs disease-free.
- A mechanism for easy cleaning and removal of waste is necessary for any type of pig housing.
- Some use slotted pen floors to make waste collection easy.
- Hosing a barn and removal of manure daily are recommended. So is keeping the floor dry to reduce odour.
- After five to seven months, pigs are likely to reach ideal market weight of more than 90kgs.
- They could be sold at livestock auctions or slaughtered for meat.

PIG FEEDING PROGRAM

- ✓ There are several types of pig industrial feed concentrates in used in pig farming:
 - Starter feed
 - Grower Feed
 - Sow and weaner feed
 - Pig finisher feed.

- ✓ Pigs are fed with these feeds depending on their age
- ✓ Piglets require starter meal from one week to three months,so that they grow well from the start.
- ✓ They eat very little but as they grow feed should be increased at an approximate rate of 50 grams per week and by the time they are three months old, each will be requiring about one kg of feed per day.
- ✓ Rate of feed increase should be sustained all the way and by four months each pig would require about 2kg of pig growers feed per day.
- ✓ By four and half months a well growing pig requires about 3kg of feed per day of Pig finisher in preparation for market at between 6 and 7months on average.
- ✓ Clean water should always be available for the pigs

Other supplement for the pigs

Sweet potato vines

- ✓ You ferment the vines and roots for a minimum of three weeks.
- ✓ Fermentation process helps to break down trypsin enzyme found in fresh vines and inhibits digestibility of fresh vines when fed fresh.

Procedure of the sweet potato silage Making.

- Harvest the vines and the roots from the farm.
- Chop the vines in to small pieces about 2 to 3 inches long
- Chop the roots to small chips.
- Mix the chopped vines and roots in a ratio of 3:1.
- Wet the mixture with molasses diluted in a ratio of 1:10.
- Add some salt at 0.05%.
- Pack the mixture in air tight containers either plastic bags of plastic containers
- Compress the material completely to ensure that all air is expelled out.
- Store for a minimum of three weeks

- Open and start feeding your pigs

You should not do this to replace commercial feeds; it only enhances the pigs' growth rate hence one sells his pigs faster

Other products that can be used to feed the pigs includes

- pig weed (Amaranth,)
- Lucerne
- Kales
- Spinach
- ripe avocado
- pawpaw
- Chicken cooked food

Vaccination Scheme

- Replacement gilts and boars.
- From the age of 3 months: Vaccination against Erysipilas.
- Revaccinate 3 weeks later.
- From the age of 6 months, vaccination against PoreinParvo.
- Revaccinate 3 weeks later.
- Impig gilts: 6 weeks before farrowing. Vaccination against E- coli and Clostridium, revaccinate 3 weeks later.
- Sows and Boars: Yearly revaccination against Erysipilas and Parvo.
- Concerning sows, it will be appropriate to do Parvo and Erysipilas- revaccinate in connection to weaning once a year.
- Productive Sows: Parity 1:- Vaccination against E-coli and Clostridium about 6 and 3 weeks before farrowing. If any risk for Rhinitis use simoultaneously BP.
- Parity 2 and more- Revaccinate every 3 weeks before farrowing

What to consider when selecting a sow for breeding

- The sow must be white (Combination; Landrace and Yorkshire)
- The current litter must be uniform, well fed and at least 10 (white)
- The Sow must have provided 10 weaners at least 3 times
- The Sow must have a healthy udder and at least 14 healthy productive teats
- The Sow must have a long, strong back with well performed hams
- The sow must have 4 strong legs, healthy uniform trotters and no lameness
- The Sow must have a long straight nose (preventing Rhinitis and Pheumonia)
- Preferably the Sow should be in parity 3 times or more

- Unfortunately, good mothers can be aggressive, but should have a limit
- No pain reaction by moving

Farrowing House Management

- ✓ To have success in farrowing-in house you need to take stock in dry – sow houses before arrival of the pregnant sows in farrowing pens.
- ✓ Look for body performance and if in a group of sows there are some with poor and down trodden condition, they should be removed and properly fed to do the best preparation for farrowing.
- ✓ Arriving to farrowing pens should take place 5-6 days before delivery to help them acclimatize and get used to lactating feeding.
- ✓ Also to reduce stress, normally high pregnant sows look for isolation. The pen should be well prepared, white washed and disinfected. Ensure the white wash is totally dry- because the sows can be skin – burned.
- ✓ The movement of the high pregnant sows from dry sow houses should be done carefully. Most appropriate use guiding- boards and preferably done by staff from farrowing houses.
- ✓ Vaccination Scheme: About 3 weeks before delivery for sows and 3 to 6 weeks before delivery for gilts (parity 1). E- Coli and Clostridium, incase of threatening Atr. Rhinitis use BPE.
- ✓ Deworm because of endemic Ascaris infestation. It is advisable to deworm 1-2 weeks before delivery. Before arriving to the cleaned pen, sows can get appropriately washed in temperature water to clean the body for worm eggs.
- ✓ Usually the appetite is reduced before delivery. Don't overfeed, but be aware the sows need power to give birth and the piglets need some power to struggle for life. It may be advisable for some poor performance sows, to add a little creepers feed.
- ✓ The delivery should be observed but not disturbed. When the last born piglet is getting dry or the interval is about an hour, then it is time for taking action.
- ✓ All approaches to a delivering sow should be done very carefully and only by well trained staff. Take time to approach the sow, give some very soft massage on the udder, it stimulates contractions in the uterus and works better than Oxytocin. After communicating with the sow, clean your hands and the external birth canal.
- ✓ Use a lot of lubrication and insert your arm in the birth- canal. Extract as many piglets as possible and leave some lubrication inside the uterus (womb).
- ✓ After birth assistance, direct the piglets to the udder and stimulate by massage to lay - down milk and further uterus contractions.
- ✓ When birth assistance fails because no piglets can be reached, then let the sow move slowly down the corridor and back again.

- ✓ The movement should be done with great patience because most sows don't like to leave the farrowing environment. After some movement, most dislocations of the uterus will take its natural place and after some relaxation, the delivery will carry on.
 - ✓ Most important after farrowing, is to observe the piglets. If they are hungry, restless and look freezy, then the sow may have problems related to the udder (Mastitis).
 - ✓ Call your veterinarians and get the sow properly examined. If the piglets have already developed dehydration, then immediately use temperature electrolytes by drinking.
 - ✓ There may be some discharge from the sow after delivery- it is normal, but if the discharge looks inflammatory, alert your veterinarian and take action.
 - ✓ It is all about the comfort of the sow and later reproductive performance. Because the piglets are born with very little iron- deposit, it is necessary to inject 150-200mg iron on the 2nd or 3rd day (providing the red corpuscles for oxygen transportation) if the piglets look pale.
 - ✓ Later while suckling, the treatment can be repeated. Because of ambiguous prevalence of coccidiosis (causing diarrhea), it is advisable to treat the piglets with Baycox through its mouth on the 3rd day after birth. Ensure the drug is placed on the tongue and not in the wind pipe.
-
- ✓ The most appropriate time for weaning should take place at 35 days of age.
 - ✓ Move the sows to service houses, keep them in stable groups. Weaners should be kept properly- warm and dry.
 - ✓ Weaners should be transferred to weaners' accommodation by some cages or small wagons to avoid contact with contaminated corridors.

Reasons for culling sows instead of transfer to service:

1. Poor performance concerning litter size (productivity)
2. Poor milker because of mastitis and loss of productive teats
3. Lameness because of bad trotters and arthritis
4. High parity

Fostering Schemes

- ✓ Main target to provide survival for as many piglets as possible.
- ✓ At first, look for suitable fostering mothers as close to orphans as possible.
- ✓ Try to assure that the piglets intending to get moved if possible have got some colostrum from the mother. After getting a suitable fostering mother, don't remove all her piglets, let at least 4-5 piglets stay, the smallest.
- ✓ If possible look for low parity sows for fostering.
- ✓ Protect the piglets not to get crashed. Implement of crashed – bars along the wall in farrowing pens can highly be recommended. Most important in farrowing houses, T.L.C- Tender, Loving Care.

Diseases affecting pigs

Erysipelas.

Erysipelas is an infectious disease mostly of growing or adult swine. Actually caused by a streptococcal infection.

Symptoms

- enlarged joints
- lameness
- Endocarditis
- Rhomboid skin (diamond-skin) lesions are an inconsistent feature only associated with acute cases.
- Occur in animals approaching market weight.
- Acute outbreaks often begin with the sudden and unexpected death of one or a few pigs.
- Sick pigs have very high temperatures (104-108°F). usually without respiratory signs or diarrhea.
- Sick pigs often have reddened or cyanotic skin, especially about the ears, snout, jowls, throat and ventral abdomen.
- On a few of the animals there may be discrete, raised, and red to purple areas of skin. These often have a rhomboid or diamond shape and are more obvious on white pigs.
- On dark skinned pigs, the lesions may be visible or palpable as slightly raised patches of hair.
- Leg joints are painful but may or may not be swollen.
- Affected pigs resist getting on their feet but are alert. When forced to arise, they often have to be assisted, squeal with pain, stand with their feet close together and soon lie down again.
- Pregnant sows may abort.

Control

- Controlled by administering penicillin and/or erysipelas antiserum to affected pigs along with antimicrobials added to the drinking water until no sick pigs have been observed for at least three days.
- Vaccination in the face of an outbreak is warranted.
- Booster vaccination at least 1-2 times per year is recommended for breeding stock.
- A combination of regular vaccination, good sanitation, the elimination of carriers with skin and joint lesions, and appropriate quarantine measures for purchased stock usually will aid control of the disease