

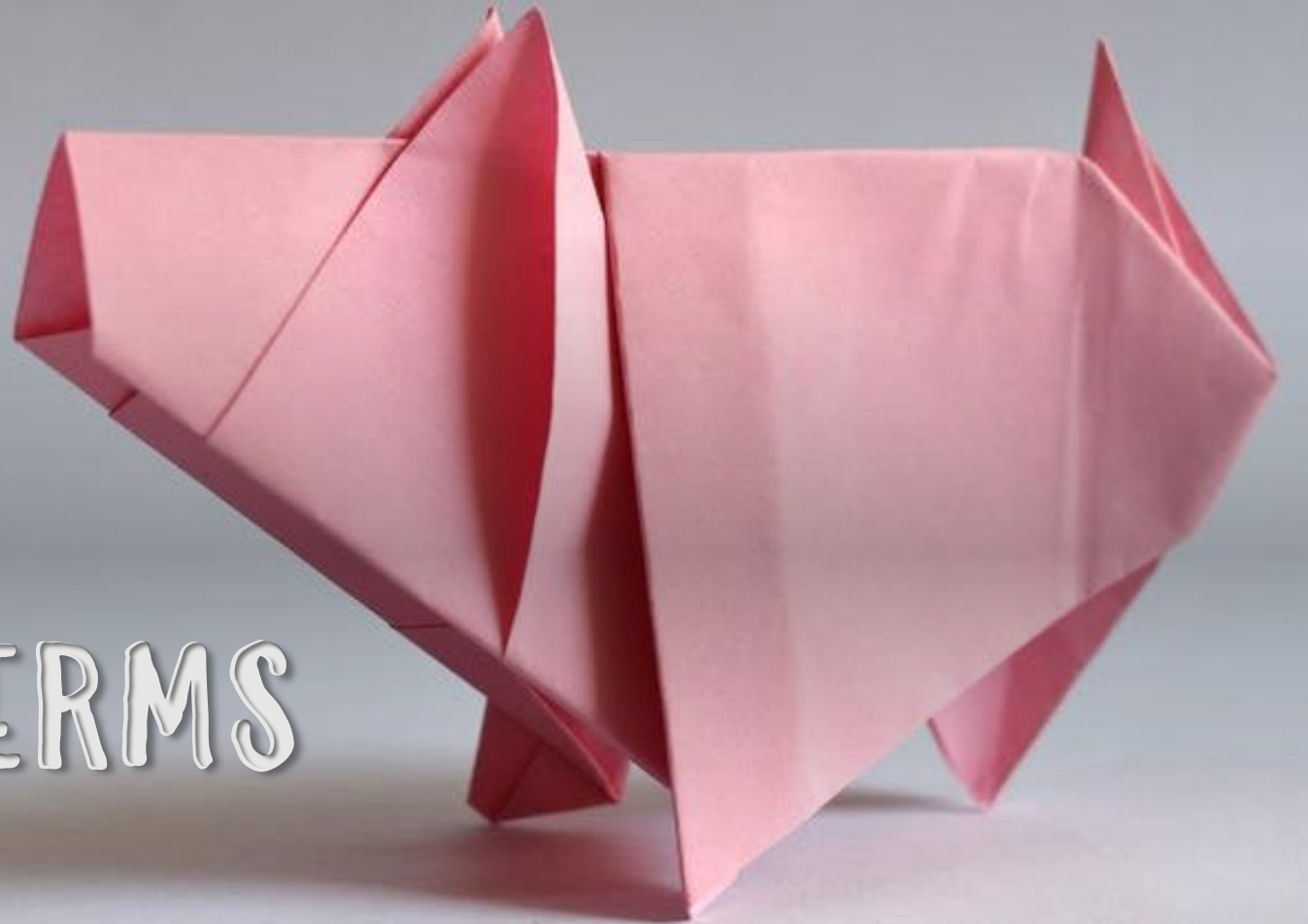


SWINE PRODUCTION

Introduction to Agro-Fishery Arts



DEFINITION OF TERMS





SWINE

A general term for all kinds of pigs.



Hog

Domesticated pig weighs around 280 pounds. Approximately 6 months old and were raised for slaughter.





Sow

A female pig that has given birth to at least one litter of piglets.



Dry sows

unbred sows which have just been weaned; non-pregnant sows



Gilt

A young female pig that has not produced a litter of piglets.



Litter

piglets born in one farrowing



Weaner/weanling

piglet that has been recently separated from its mother



Grower

swine from 40 to 65 kg



Finisher

swine which are 66 kg and up



Farrowing

act of giving birth in swine



ADVANTAGES OF PIG FARMING

- The pig has got highest feed conversion efficiency
- The pig can utilize wide variety of feed stuffs
- They are prolific with shorter generation interval.
- Pig farming requires small investment on buildings and equipments
- Pigs are known for their meat yield

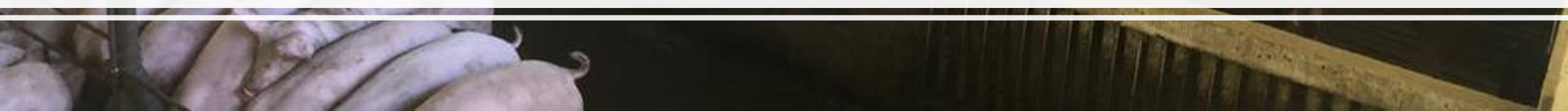


ADVANTAGES OF PIG FARMING

- Pigs manure is widely used as fertilizer for agriculture farms and fish ponds.
- Pig farming provides quick returns since the marketable weight of fatteners can be achieved within a period of 6-8 months.
- There is good demand from domestic as well as export market for pig products such as pork, bacon, ham, sausages, lard etc.



COMMON PIG BREEDS FOR COMMERCIAL PIG PRODUCTION



HAMPSHIRE

- hogs with “the belt”
- known for producing lean muscle, high carcass quality, minimal backfat and large loin eyes.
- Females also are known for their mothering ability, with longevity in the sow herd.



DUROC

- red, muscular, partially drooping ears, desirable as sires.
- valued for their product quality, carcass yield, fast growth and lean-gain efficiency
- also add value through their prolificacy and longevity in the female line.



SPOTTED

- characterized by large, black-and-white spots.
- known for their feed efficiency, rate of gain and carcass quality.
- Spotted females are known for their productivity, docility and durability.



POLAND CHINA

- known for their large frame, length of body, leanness and muscle.
- excellent feeders, gaining well under good care and management.
- quiet in their disposition.



LANDRACE

- White, large droopy ears, long body, good mothers
- Landrace females are heavy milkers and often farrow large pigs.
- Crossing well with other breeds, Landrace often possess length of body, a high percentage of carcass weight in the ham and loin and the ideal amount of finish.



YORKSHIRE

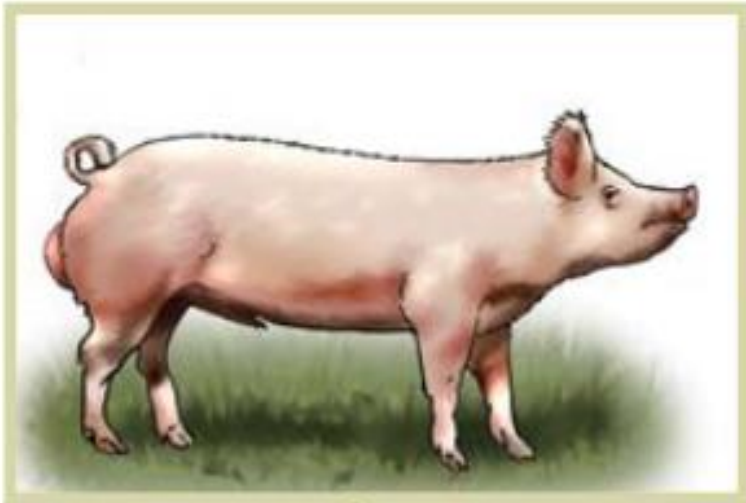
- White, long body, erect ears, good mothers
- known for their muscle, with a high proportion of lean meat and low backfat.
- Soundness and durability are additional strengths.





BREEDING

- Pure Breeding
- Out Breeding
- In Breeding
- Cross Breeding



Yorkshire Male

x

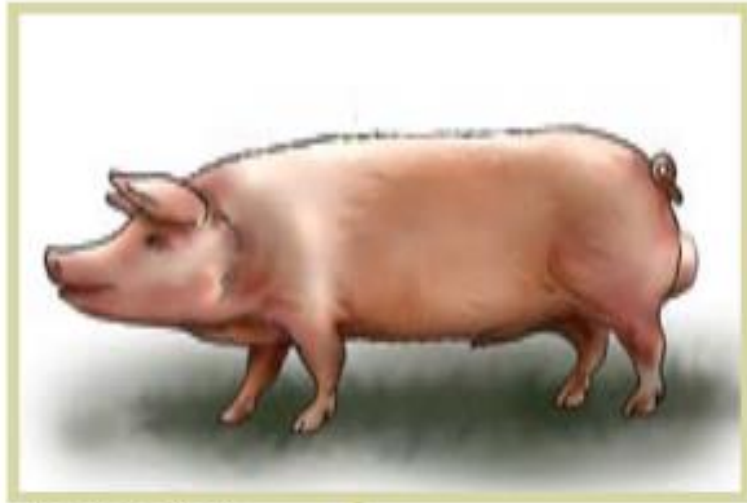


Yorkshire Female



Pure Breeding

Mating purebred individuals of the same breed.

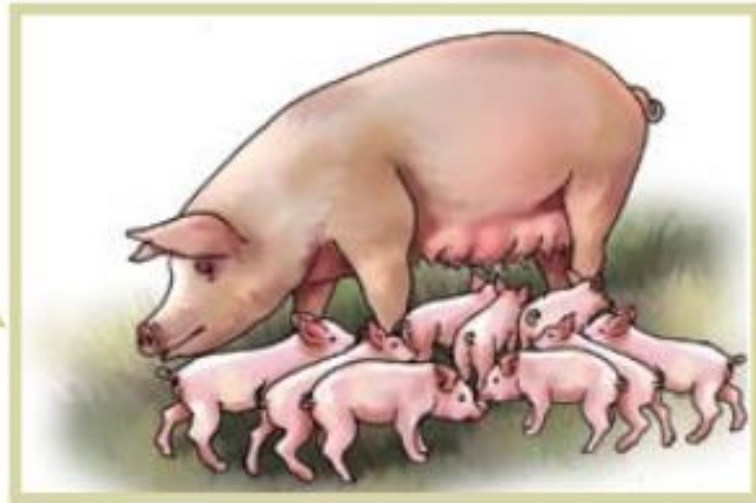


*Landrace Male ;
American*

X



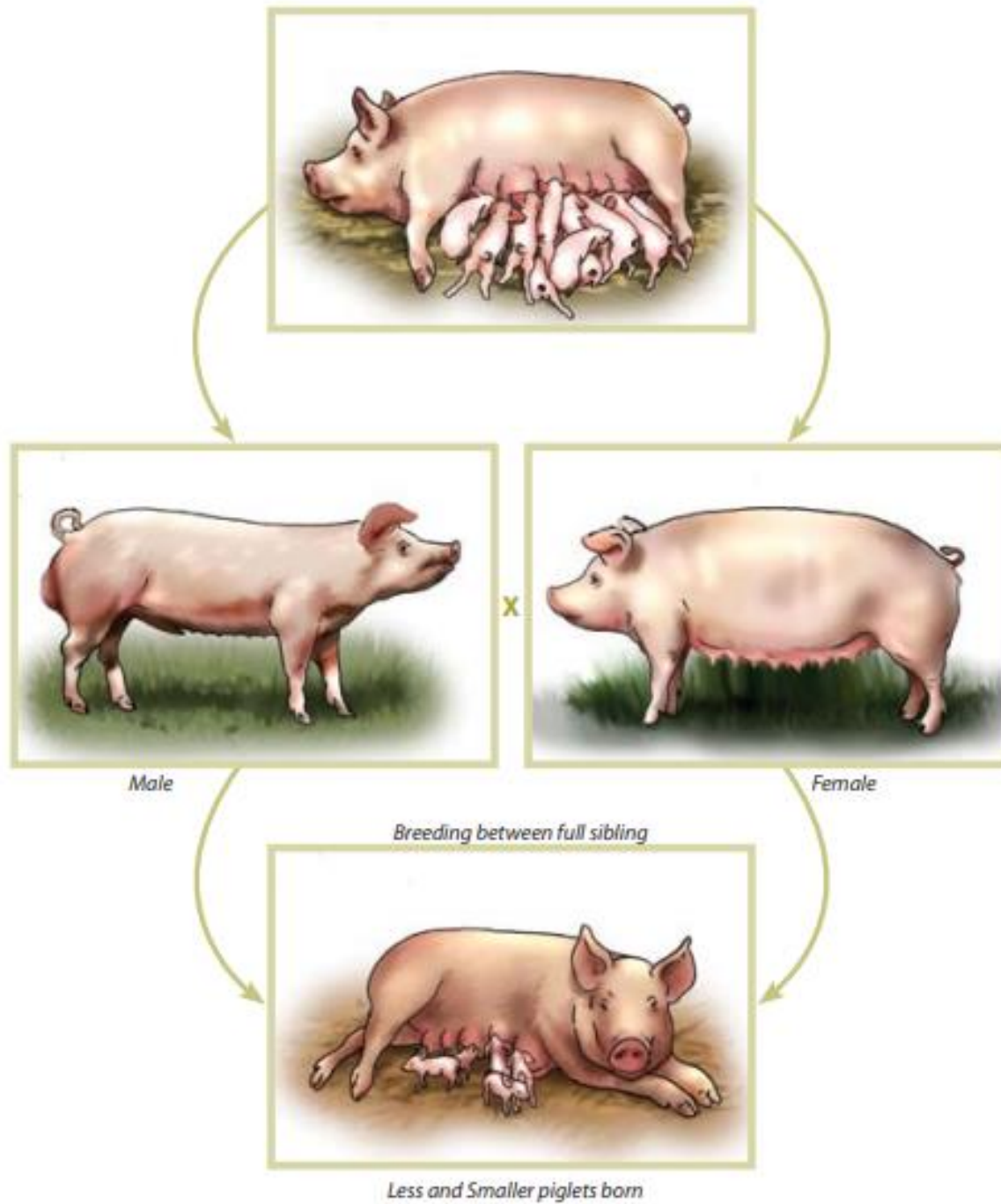
*Landrace Female ;
British*



Dinlete horn

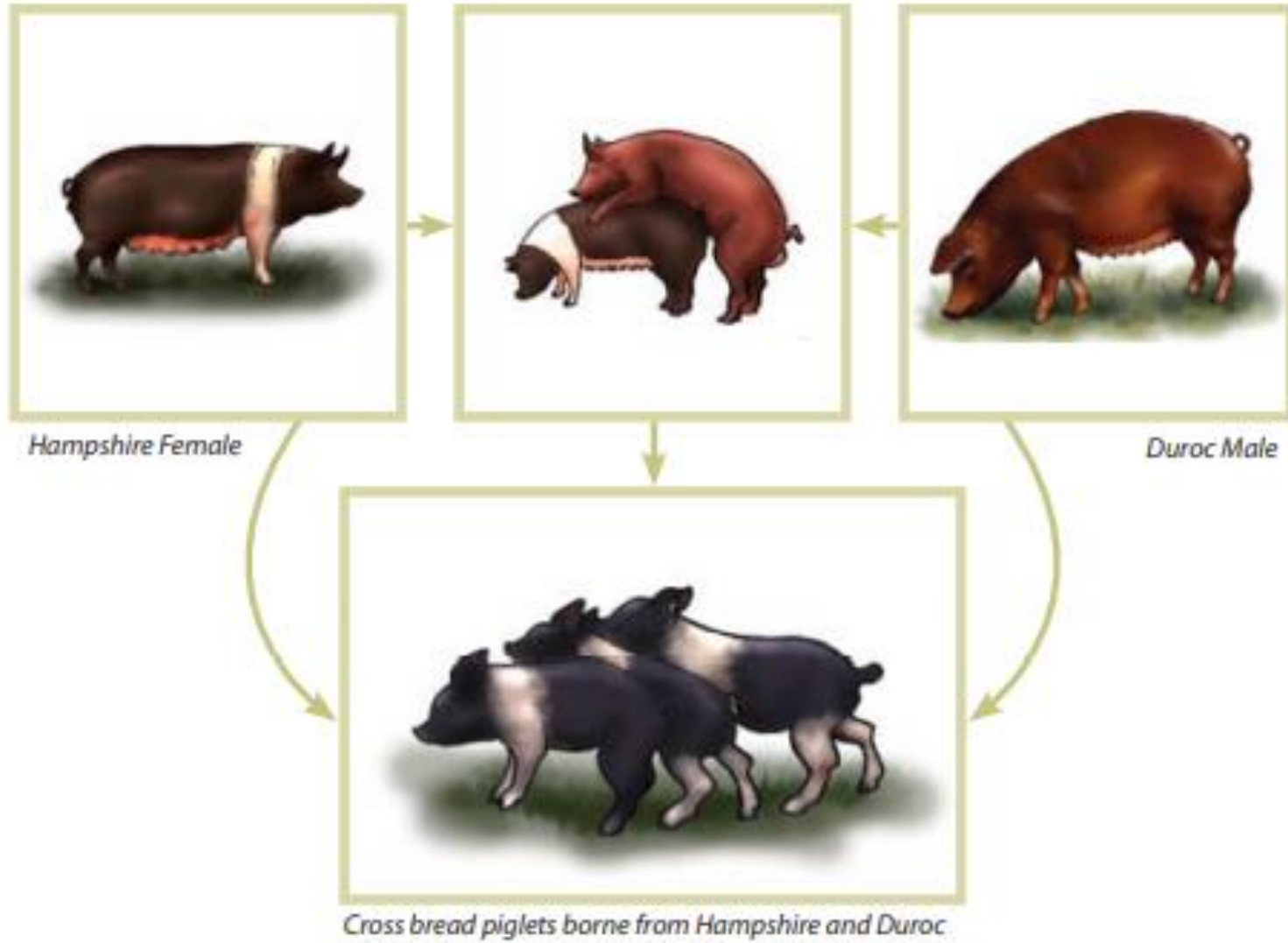
Out Breeding

Mating individuals of the same breed but who are less closely related than the average of the breed.



In Breeding

Mating between individuals of the same breed but which are more closely related than the average of the breed.



Cross Breeding

Mating two individuals from different breeds thus introducing into the progeny a gene combination that is different from that existing in either parent or in the breed of either parent.

SELECTION OF BREEDING GILT

- Gilts selected to have at least 12 teats so as to accommodate a large litter
- Gilts to be selected from sows, which wean 9 -10 or more piglets per litter and are known to be good mothers and first farrowing at one year of age and farrowing interval of seven month.
- Select breeding gilts at weaning period, further selection should be done 5-6 months of age.
- Select fast growing weaners. These will likely consume less feed per unit live weight gain. Thus, less costly to keep.

SELECTION OF BREEDING GILT

- Select gilts which have developed hams and comparatively light heads.
- The selected gilts should have good body confirmation i.e. strong legs, sound feet etc.
- Gilt should not select for breeding purpose having supernumerary and inverted teats, and fat deposited at the base of the teats
- Gilt must be at least 8 months old at first service.

SELECTION OF BREEDING BOAR

- Boar to have sound feet with good, full hams, uniform curve at the back and of good length.
- Boar to have at least 12 nicely placed rudimentary teats so as to pass on this characteristic.
- Boar to be selected from sows, which wean 8 -10 or more piglets per litter and are known to be good mothers.

SELECTION OF BREEDING BOAR

- Boar to be selected from the herd which is having normal sex organs, active, healthy and strong.
- Selection to be done before castration i.e. at 4 weeks. Select biggest from the litter.
- Boar must be at least 8 months old at first service.

HEAT DETECTION – COMMON SIGNS OF HEAT

1st stage: Early heat signs

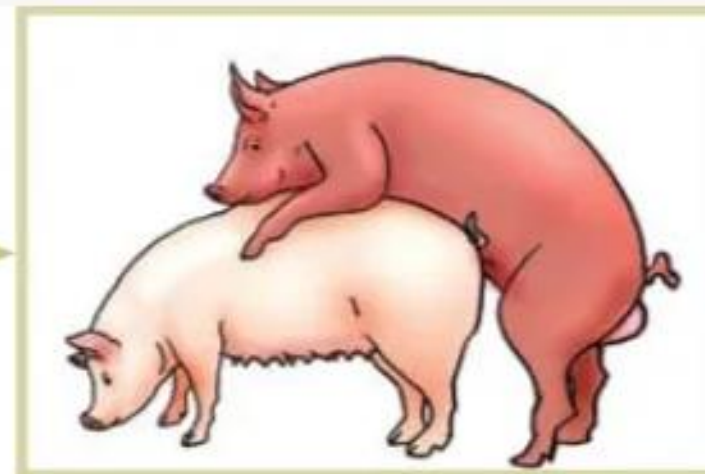
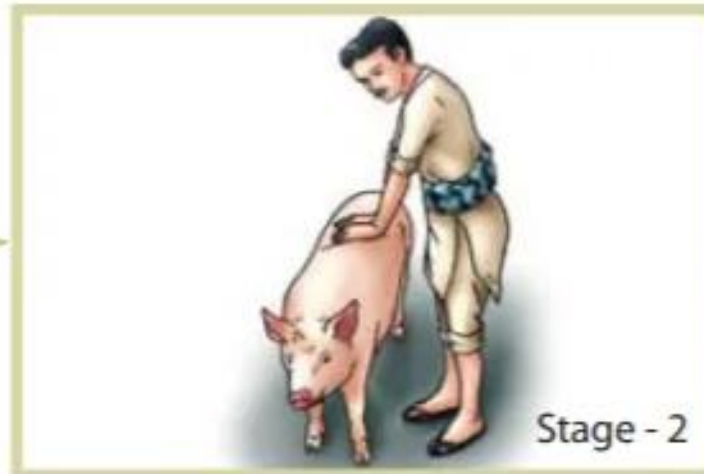
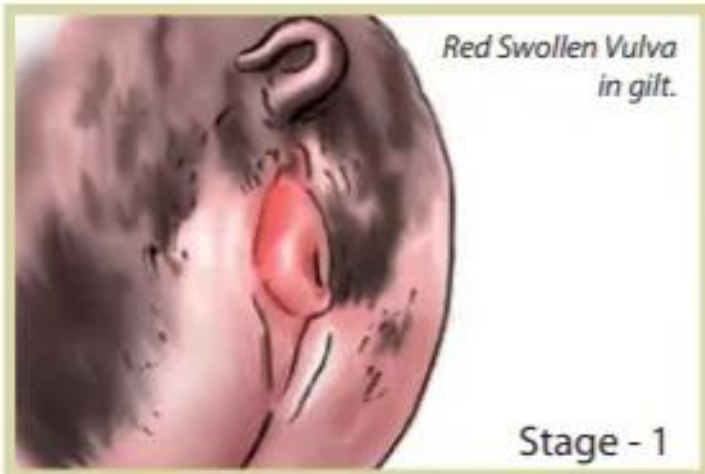
- General restlessness
- Vulva turns red and is swollen
- White mucus discharge

2nd stage: Service period signs

- Real Oestrus lasts for 40 - 60 hours
- Vulva becomes less red and swollen
- Slimy mucus discharge
- Tendency to mount and be mounted by others.
- The sow or gilt will stand still when pressure is applied to her back (can accept a man's weight sitting on her. Thus the right stage to send her to the boar).

3rd stage: Post oestrus-period signs

- The sow/gilt will not stand still when pressure is applied to her back.
- The swelling of the vulva disappears.



HOW TO INDUCE HEAT

– RECOMMENDED PRACTICES

- Gently stroke the sow's vagina with a freshly cut papaya stalk every morning for 3-5 days.
- Spray the sow's (or gilt's) pen with boar urine every morning for 3-5 days.
- Grind 1 kg of fresh or dried lotus (*Semen nelumbinis*) seeds. Mix with 20 kg of dry feed. Feed to the sow twice a day for 5-7 days.
- Bring the sow to the boar or place the sow in a pen next to the boar.
- Put the sow with the boar for a short period every day when the heat is expected.
- Always take the sow to the boar. This is less upsetting for him.
- Put the sow and boar together just before feeding.

- During her 24-hour pick heat period allow the boar to serve twice, with an interval of about 12-14 hour intervals between services. Do not mate animals during the hot time of day.
- If the sow doesn't conceive, she will return on heat again in about 3-week's time.
- 10 days before service, give the sow/gilt 1 - 2 kg of feed extra per day. Continue this for one week after service.
- During the last month of pregnancy, give 0.5 kg extra feed per day but decrease this gradually one week before farrowing. Provide plenty of water to help prevent congested gut during farrowing.
- Each boar should be kept in its own pen to avoid fighting. For mating, the sow is taken to the boar.

STIMULATING REGULAR HEAT

- Remove the sow from the piglets early (at 4 - 6 weeks of age) and all at once.
- Take the sow to a house with dry sows.
- Put the sow close to a boar, in a way that makes direct contact (hear , see, smell) possible.
- The sow should not be given any feed on the day of weaning.
- The next day feed about 4 kg/day. This is called flushing and should be done for a maximum of 10 days or until the service takes place.

- Put the sows in groups (stress stimulates heat)
- If there are heat problems, change the type of feed for a few days.
- Maintain a good climate; see to it that there is sufficient light in the house.
- Sows should not be too fat or too thin when they are served. It is important to keep this in mind when determining the ration during the suckling period.

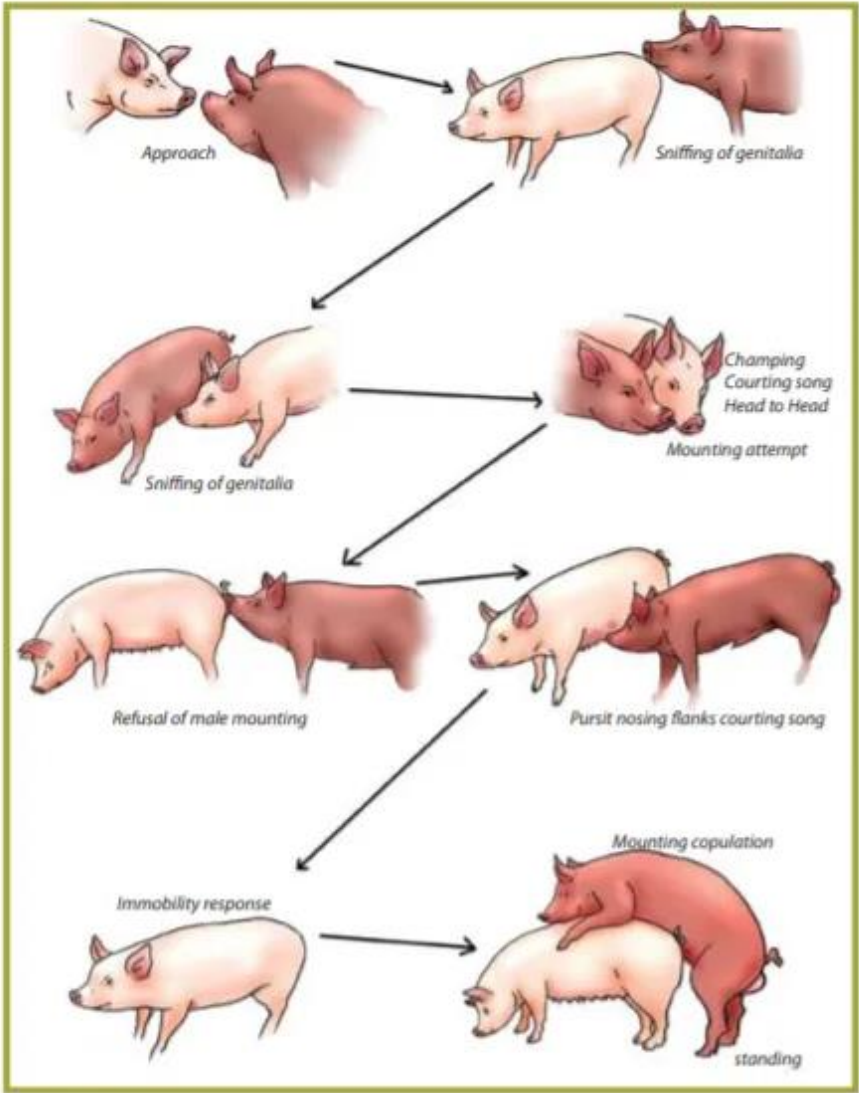
WHEN SOW IS IN GESTATION

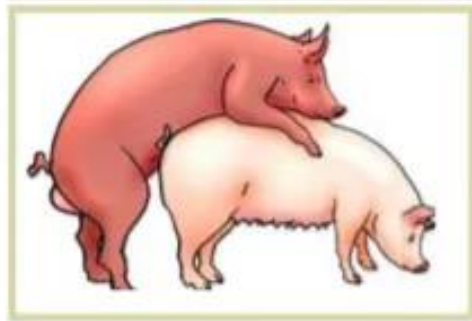
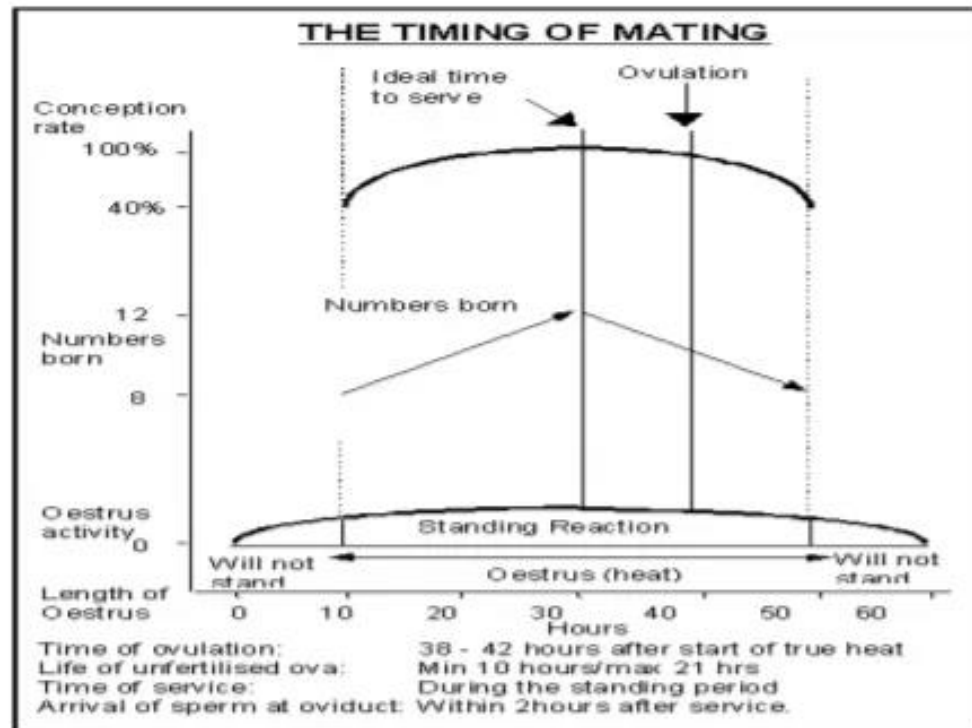
- after 21 days of serving, she does not show heat signs
- Echo scan pregnancy detection 23 - 35 days, positive results

CULLING

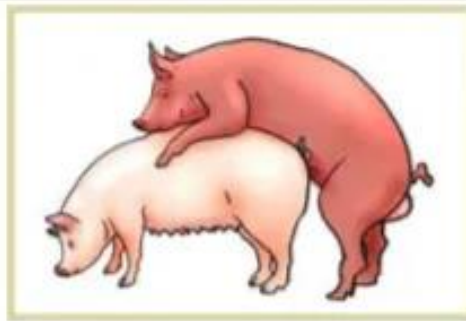
- Sows that are difficult to get in-pig (pregnant) which only manage to rear small litters should be sold off.
- Boars which are infertile or moderately infertile should be culled

Breeding Behaviour expressed during breedy period.





First mating between 10 - 22 hrs of estrus



Second mating 22 - 40 hrs of estrus

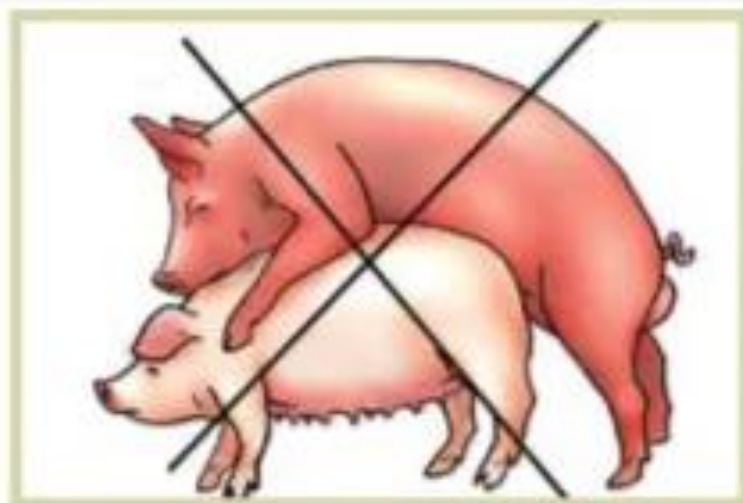


ASSISTANCE

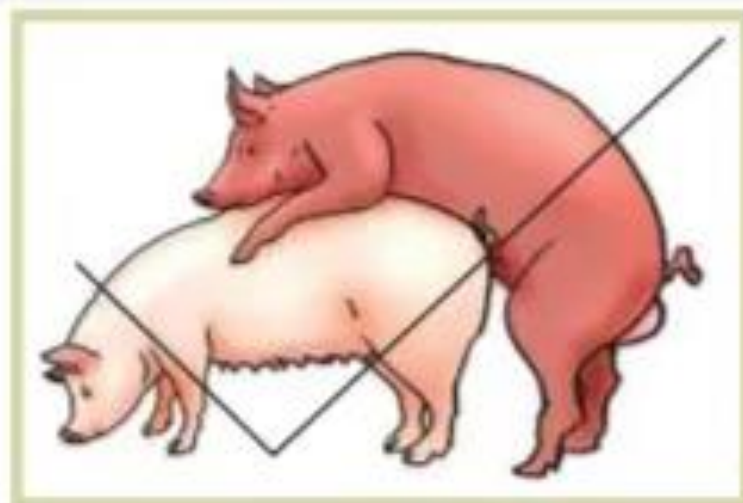
- Young boars may need assistance in lining up their mate. Make sure your hands and wrists are clean and your fingernails are trimmed.
- Pigs mate slowly. The boar may take a minute or more to reach the point of ejaculation.
- To improve conception: Crush 1 kg of Semen nelumbinis (lotus) seed and mix with the sow's feed. Give 2 times per day for 3-5 days.
- Fat sows may have difficulty conceiving. Therefore, if a sow is too fat, reduce her feed.

REASONS FOR NOT CONCEIVING

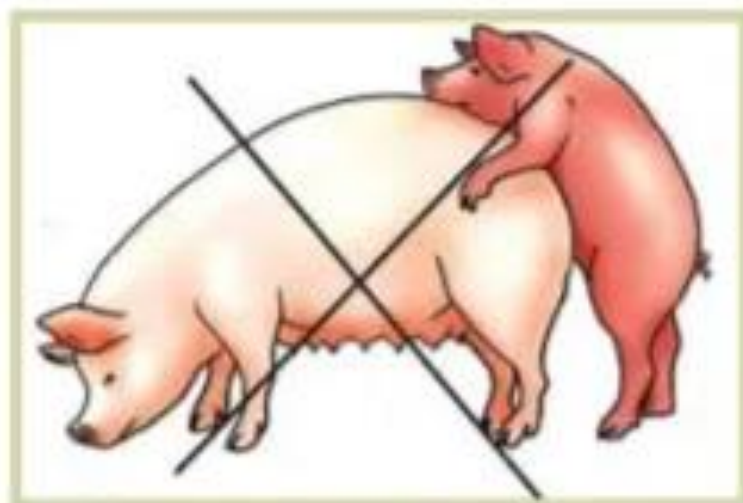
- The sow is too fat.
- It is the animal's first heat cycle.
- The boar is too young.
- The boar is overworked (used for more than five matings a week).



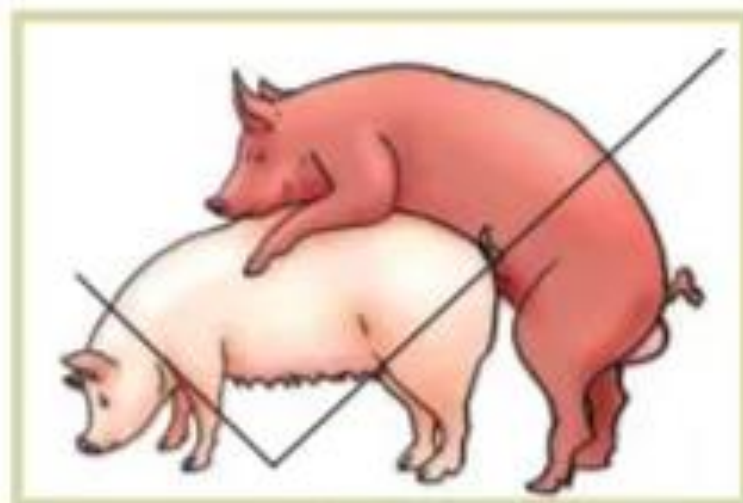
Too big male



Similar body size



Too small male



Similar body size