Indian Farmer
Volume 10, Issue 08, 2023, Pp. 392-395
Available online at: www.indianfarmer.net
ISSN: 2394-1227 (Online)

Popular Article

OPEN ACCESS

Scientific care and management of piglets

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Received:15/08/2023 *Published:30/08/2023*

Piglets begin to explore his environment within a few minutes after birth and soon find his way to nipple and begin to suckle. Because of his curiosity, it is essential that the pen environment should be clean to minimize chance of exposure to disease and parasite. Normally individual piglets identify themselves with a particular teat during the first few days of life and jealously protect their access to it. The teat order will be set within 10 days. But in small litter it is common for a piglet to claim more than one nipple. On the other hand in larger litters, the weakest pig may starve because they cannot compete for a nipple.
The normal nursing behavior pattern is for a uniform time interval between each feeding over a 24 hours period. The average nursing interval is less than 1 hour so that suckling piglets receives more than 24 feeding daily, each feeding consist of only few minutes and it decreases when lactation advances.

- Clean all the piglets and make their body dry.
- Allow piglet to suckle milk from mother sow for 8-10 Times in days.
- To prevent 'naval ill' the naval card should be tied off to prevent loss of blood and it should be cut 3-5 cm distal to the legation and this portion should be dipped in a solution of 2% iodine or 70% ethyl alcohol.
- The 'needle teeth' should be clipped. The baby piglets have four pair of sharp teeth tow on each jaw called needle teeth or wolf teeth. They are of no practical value to the pigs themselves and they may irritate the sow's udder during nursing and cause injury to otherpiglets while fighting or playing. Therefore it is advisable to clip these needle teeth shortly after birth [with in 10 days]. Side cutting pliers are suitable for this purpose. It is important to avoid loosening of the base of the tooth or leaving jagged edges or causing injury to gum.
- The piglets should be ear-tattooed immediately after birth and the same animal ear punched/ ear notch at 6 weeks of age.
    - Male piglets not required for breeding are generally castrated as this operation generally facilitates easy of management and prevent indiscriminate breeding. This operation should be done after 3 – 4 weeks of birth. This allows the piglets to recover from thecastration check [growth retardation] before it receives a weaning check.
- Cutting of ta.ils is advisable whenever pigs are to be raised in total confinement. This can be done at the time of needle teeth clipping using side cutting pliers.
- Tramping of piglets by sow should be preventing during first two weeks.
- Creep area provide to piglets for protected from crushing , overlying by sow and separatecreep ration.

Creep feeding:

Piglets take dry feed at 2-3 weeks. Provision of additional nutrients at this time is essential to have maximum growth and development. Creep feed is also called as pig starter for vigorous growth the thriftiness, sows milk alone .is not sufficient for piglets. Creep feed contains 25-30% CP.

- Creep is a device by which piglets are allowed access to the concentrate mixture. It may be arranged of the corner of farrowing pen. Creep feed is' fed from 14-56 days. The composition is as follows.

Ingredient	Parts
Maize	65
GNC	14
Molasses	5

Wheat bran	10
Fish meal	5
Mineral mixture	1
Antibiotics	-

- Concentrate feeding start 2-3 weeks its are separate from mother.
- **Weaning of piglets:** Usually weaning is done at 7-8 weeks. The sow should be separated from the piglets for a few hours each day to prevent stress of weaning and its feed is reduced gradually.
- **Orphan piglets :** Can be raised either with a foster sow or the use of milk replacer

Feeding of piglets

Age (Days)	Feeding
0-7	Mother milk= 1- 2 liter milk, 8-10 times a day
7-21	Pre starter ration protein 24 %, Mother milk
21- 35	Ration protein 18 % , 0.5 Kg, Mother milk
35- 56	ration protein 16 %, 1 kg , Mother milk

1. **Orphan Pigs**: The 'orphan pig' results when the sow dies after farrowing, mastitis, lactation failure or litter larger than the sow is able to rise.

Two possibilities are there to raise 'orphan pigs' [1] adaptation by a foster sow
[2] raising by cow milk or sow milk replacer

First the piglets should receive colostrum before 'gut closure' cow colostrum apparently provides some immunity. If some other sow farrowed during the same period their colostrum can also be used.

Adaptation by a foster sow: if another sow has farrowed within a short period before or after birth of the orphaned litter, the piglets may be transferred to her. This transfer must be done within few days after farrowing because those mammary glandsthat are not used soon stops their milk production. To insure acceptance of new pigs, the sow should be separated from her own litter while the new pigs are combined, and a
disinfectant or other odorous materials should be sprinkled on all the pigs to disguiseodour

Raising by cow milk or sow milk replacer: Pigs raised on cow milk or sow milk replacer have a strong suckling instinct and will suckle the ear and naval of other pigs when kept together causing unrest that drains their strength. This can be avoided by housing them individually for the first two weeks.

- Feeding should be as frequent as possible to stimulate normal nursing pattern [feeding once in every hours for few minutes]
- The first feeding should be given during the first 12 hours if possible
- The piglets should be trained to drink from shallow bowl. It can be done by pushing their snout into the milk. After one or tow feeding they learn to consume milk quickly from the bowl

Diet composition of a sow milk replacer

Constituent	**composition**
Casein	44.3
Glucose	44.1
Lard	33.00
Soya lecithin	2.00
Vitamin and mineral	10.60
Water	To one liter

A readily available sow milk replacer is one egg thoroughly mixed in 1 lit of cow milkwith 1/8 teaspoon full of ferrous sulfate

PIGLET MORTALITY

The major task in pig husbandry is avoiding piglet mortality and raising pigletssuccessfully up to weaning. After weaning the mortality is comparatively less

Still birth

Still birth may be due to

1. Death before start of parturition (pre-partum death)
2. Dying during parturition (intra-partum death)

Pre-partum death may be due to deficiency of iron, which can be prevented by injection of sow with iron. Intrapartum death is due to anoxia induced by lack of placental blood flow associated with uterine contraction or premature rupture of umbilical card. This intra-partum death occurs mostly in aged sows.

Pre-weaning mortality

The pre-weaning mortality ranges between 12-30%. As for as lowest mortality of 11% is equivalent to the loss of approximately 250 piglets in a year in a 100 sow herd. Over 50% of losses of live born piglets occur with in first 2-3 days of life.

Causes of mortality

Sl. No	Reasons	%
1	Still birth	17.4
2	Eaten by the sow	0.50
3	Genetic defect	1.60
4	Over laid (crushing by mother)	66.30
5	Enteritis	2.20
6	Pneumonia	0.50
7	Unknown	11.50

Congenital abnormality

Congenital abnormality accounts for 5% of losses. The most common cause of death inthe category are *atresia ani*, congenital splay leg and cardiac abnormality

Disease

Disease condition accounts for 6% of mortality. Disease condition such as agalactia in sow, sour in piglets are responsible for loss. Maintenance of high level of hygiene, proper selection of replacement stock, arrangement for feeding of adequate colostrum, proper vaccination and proper therapeutic measures can avoid this risk.

Starvation and overlying by the pig

70% of death is due to starvation and overlying by the sow, which can be avoided by 1. Improving birth weight and vigor of newborn piglets

Higher plan of nutrition during pregnancy ensures better birth weight. Piglets with higher birth weight have higher glycogen reserve, which is the source of energy, which the piglet can utilize most effectively, in early life.

2. Minimizing risk of chilling or hypothermia

The normal deep body temperature of the pig is 39C, the lower critical temperature is 34 C. When the new born piglet exposed to cold condition, it has to mobilize its limited glycogen reserve to maintain body temperature. As a result it is less competitive at the udder and is more likely to suffer from starvation and or by over lying by the mother. At the same time higher temperature of the farrowing pen may affect the sow's appetite and there by weight loss and lower milk yield of sow. To avoid such dual problem localized comfort environment can be provided to the piglets in the form of infra red lambs and adequate dry bedding in a localized area for piglets. The litter materials will provide 8 ☐C more temperature to the piglets which is an cost effective measure. Similarly new born piglets during their first 24-48 hours prefer to lye close to the sow's udder. Only older piglets use the creep area or localized heat source. During this period sow prefer to lye close to the heat source showing their udder or back. Heat source can be kept on either side of the sow's udder and back.

3. Improving the chance of adequate and regular nutrition

When the litter size is large, the stronger piglets may get more colostrum and milk than weaker one. The stronger suckling stimuli induce secretion of more milk hence the litter can be dividedin to 6-7 as a sub group so that all the piglets can be ensured with sufficient colostrum.

4. Minimizing agalactia

It is a part of complex condition of MMA (M= mastitis, M= metritis & A=agalactia). The MMA syndrome can involve metabolic, bacterial and hormonal factor with stress plays a part. Since its main effect is loss of milk in the first three days after farrowing, the condition contributes to

piglet loss from starvation.

Reason and control of MMA

- Elevated temperature of sow is associated with this condition, hence regular monitoring of sows rectal temperature and treatment with antibiotic and oxytocin is essential to avoid this condition. Such conditions which are not detected earlier, it can be noticed by loss of body condition of piglets and it is very difficult to recover the condition quickly. In refractory
- case prompt provision of an alternative source of food for piglet by foster sow or artificial feeding will minimize the loss
- Heat stress to sow due to artificial brooding of piglets may be another reason. Cooler condition to the mother is likely to give benefit.
- The udder and teat of sow should be dry and kept hygiene to avoid such problem

<u>Using farrowing equipments</u>

Crushing by sow can also be prevented by providing suitable farrowing equipment or making necessary fittings inside the farrowing pen like guard rails can minimize this. (Guard rails are thick iron rails fixed 12" above floor and 12" from the wall. This provides space for the piglets to escape at the time of accidental crushing. Mortality due to over laying is usually lower during first and second litters and culling of those animals is an uneconomical practice and more rational practice is providing properly designed farrowing pen.

Piglet anemia

It is highly fatal disease of suckling pigs caused by a marked decrease in hemoglobin and fatty degeneration of the liver.
Cause – lack of iron and copper salts in milk of sow, On concentrate floorand limited milk diet from sow
Symptom of piglet anaemia

- Pale in the region of ears and belly
- Listlessness
- Rapid breathing
- Often exhibit diarrhea

Piglet anaemia can be controlled by

- Placing fresh, clean earth in the piglets pen each day
- Using soil drenched with a solution made from 500 gm ferrous sulphate, 75 gm copper sulphate and 3 litter of water
- Daily administration of 4 ml of 1.8 percent ferrous sulphate solution
- The daily painting of the mother's udder with ferrous sulphate solution and sugar
- All these methods are labour intensive and the safest and easiest method of combating piglet anaemia is to inject the piglet with 100-150 mg of iron in the form of iron dextron 3 days after birth.