



Original Research Article

Analysis and Countermeasure of Sow's Postnatal

Yixiang Sun, Hongmei Fu, Peifa Jiang

College of Life Sciences, Dali University of Agriculture, Yunnan, China

ABSTRACT

In the delivery, the sow postpartum non-eating disease is often occurs, once the disease, if not cured, the occurrence of the disease will lead to sows lack of milk or no milk, affecting sow and piglets growth and development (for example, Piglets yellow and white diarrhea), more serious and even death, can also lead to sow death or forced to eliminate, affecting the normal production and reproduction of the continued, to the pig industry to bring some economic losses. In this paper, the sow postnatal do not eat the careful observation, do the corresponding experiments and records, the system introduced the sow postpartum not eat the performance and impact, and finally according to the sow postnatal do not eat the different factors, to take the appropriate countermeasures and Prevention. Through comparison, a more comprehensive comprehensive prevention and control program is obtained.

KEYWORDS: sow postpartum; non-food factor; countermeasure

Preface

Sows do not eat the phenomenon is due to pig postpartum digestive system disorders, loss of appetite caused by it is not an independent disease, but by a variety of factors caused by a symptom of the performance of large-scale pig farms is the most common symptoms. With the reform and opening up and the development of market economy, people's demand for meat products continue to improve, want to develop better aquaculture, we must strengthen the sow feeding and management. Sow postpartum once the performance of loss of appetite or waste, if not treated in time, will be on the growth of piglets, sows estrus rate, the stability of production and so on. Therefore, the sows do not eat should immediately identify the reasons for the diagnosis, comprehensive prevention and control, strengthen the feeding and management, the right medicine, will achieve a good therapeutic effect. Pig farms must take the pig farm disease prevention and treatment in the first place. To make the pigs do not get sick, we must proceed from the prevention, a comprehensive epidemic prevention and control work, to establish a complete disease prevention and control system. Before the labor to do a good job not to sow a good mark, and feeding juicy green fodder, given the appropriate exercise; in the sow should pay attention to the length of labor, injection of oxytocin can shorten the labor, to avoid sow overwork without eating; postpartum given high-quality, full price feed, appropriate control materials, to strengthen the sow care, help to increase appetite, postpartum recovery and purification of the uterus.

1. The performance and influence of sow postpartum do not eat

1.1. Sow postpartum do not eat the performance

Sow postpartum non-eating disease is one of the common diseases of sow lactation, it refers to the day of natural delivery of sows to the end of the period of lactation caused by a variety of factors caused by loss of appetite, and even abandoned a pathology phenomenon.

1.2. Sow postpartum do not eat the impact

The disease in the event of light caused by the rapid reduction of weight of the sow, lactation function decline, resulting in suckling piglets diarrhea, weakened resistance, slow growth or even become a dead pig or cause death; heavy sows due to stubborn food and high degree of weight loss, Resulting in weaning after weaning or although estrus breeding, but the end of the body due to lack of nutrition and calving reduction, or prolonged with infertility or even death.

2. Causes the sow to live without food

2.1. Feeding and management factors

Due to sow childbirth barn lax disinfection, midwifery disinfection is not strict, pathogens take advantage of the cause of urinary system diseases, resulting in pig postpartum do not eat.

2.1.2. Before and after delivery of improper feeding and management mainly due to improper feeding during pregnancy, resulting in physical condition too fat. Pregnant feeding too much concentrate, feed concentration is too large, causing sows anorexia, constipation, indigestion.

2.1.3. Postpartum sow abdominal pressure decreased, increased hunger, due to excessive feeding, resulting in sow digestion function is not suited. The occurrence of 'top food'. Or due to improper postpartum care, lack of adequate, clean drinking water caused by sow loss of appetite. Even do not eat.

2.1.4. On the dystocia sow is not promptly handled, resulting in sow long labor, so that sows overwork and not eat; or artificial midwifery when the method is not correct, disinfection is not strict, resulting in the sow's uterus, great damage, which causes inflammation, after the body temperature, physical discomfort, loss of appetite.

2.1.5. In the usual feeding and management, there is no control of the temperature inside the house, humidity, resulting in sow stress and affect appetite.

2.2. Disease factors

2.2.1 Puerperal heat

Puerperal fever is a sow in the process of delivery or postpartum, in the discharge or midwifery to remove the fetus, the soft birth canal injury, or lochia discharge delay caused by infection, also known as postpartum sepsis. The disease is caused by postpartum uterine infection caused by high fever. Clinically, postpartum body temperature rise, chills, loss of appetite, pussy out of brown with stench odor secretions characterized by the disease. Midwifery bacterial (mainly hemolytic streptococcus, Staphylococcus aureus, Corynebacterium pyogenes, Escherichia coli), these pathogens into a large number of blood Produce toxins and produce puerperal fever.

2.2.2 Constipation

Sow constipation is mainly caused by the excretion of toxins from sows, manifested as indigestion, loss of appetite, postpartum without milk and other symptoms; easily lead to fetal absorption, abortion, physiological dysfunction, estrus cycle damage and other reproductive diseases, constipation intestinal inflammation, secondary infection, gastrointestinal bleeding, necrosis and other intestinal diseases.

Sow constipation occurred in the main reasons: management factors: lack of drinking water, lack of appropriate exercise; feed factors: rice bran, rice husk, concentrate increased, green feed reduction; material added too much mineral elements such as ferrous sulfate Such as early pregnancy, shortly after childbirth, sow rectal paralysis; secondary intestinal constipation Infectious disease and parasitic disease, early swine fever, chronic intestinal tuberculosis, intestinal worm disease, febrile disease failed to timely treatment of indigestion and pica.

2.2.3 Sow cold, high fever

Due to childbirth difficulties, labor is too long, resulting in sows overgrowth cold, high fever caused by postpartum do not eat, the clinical symptoms are more obvious, often manifested as high temperature, fasting heartbeat, limbs, ear cold, breast shrinkage and lactation reduction.

2.2.4 Foot and foot disease

Sows due to mechanical damage, exercise restricted, the floor of the material and roughness, cleaning is not enough after disinfection, the swine group when the staff was beaten and other reasons caused sows due to foot pain often lying down, do not eat.

2.2.5 Postpartum infection

Most of the postpartum suffering from vaginitis, uterine inflammation, urethritis, such as sow childbirth pest disinfection, by the pathogenic microbial infection, or vaginal examination disinfection, dystocia, placenta, uterine prolapse and After the birth canal injury, bacteria (bacteria, staphylococci, Streptococcus and Escherichia coli) caused by inflammation, after the body temperature, physical discomfort, loss of appetite.

2.3. Nutritional factors

Pregnancy and lactating sow feed lack of protein, minerals and vitamins, resulting in malnutrition. This case is longer course, the early performance of loss of appetite, growing weight loss. Conjunctiva pale, rough hairless, fecal dry and less, normal temperature, but also some body temperature decreased slightly, serious lying down.

Dietary calcium deficiency or calcium and phosphorus inappropriate, lack of sunshine or lack of exercise, vitamin D cannot be converted into vitamin D, so that calcium concentration decreased, slow gastrointestinal motility. If the course of a long time, there will be movement disorders. Vitamin B1 can be excited gastrointestinal, gastrointestinal motility and secretion to strengthen, when the lack of vitamin B1, can cause gastrointestinal motility weakened, decreased secretion of gastric juice, resulting in decreased appetite and digestive disorders.

Hypoglycemic calcium deficiency: due to a large number of postpartum lactation litter size, blood glucose, calcium concentration decreased, the central nervous system damage, secretion performance disorders, lactation reduction, lack of piglets and disturbed, Interfere with sow rest, resulting in sow digestive system disorders. Sows are mentally disturbed, feeling abnormal, excited and depressed alternately, often lying and unwilling to stand. Some muscle tremor, loss of appetite, slow action, and even cause limping or paralysis.

2.4. Seasonal factors

The sow's feed intake is also changing due to seasonal changes. In the summer because of hot weather, the temperature rises, sow postpartum overwork, the body has not fully recovered, loss of appetite or even do not eat.

3. Sow postpartum not eating countermeasure

Commonly used drugs are:

Drug name	Dosage	Specification	Approval number
Streptomycin sulfate for injection	4-12ml	1g (1 million units) 50 bottles / box	Veterinary word (2007) 030011515
Penicillin sodium for injection	2 million -3 million units	0.48g (800,000 units) 50 bottles / box	Veterinary word (2007) 030011246
Houttuynia injection	5-10ml	10ml equivalent to the original drug 20g	Veterinaryword (2008) 040105211
Dexamethasone sodium phosphate	4-12ml	5ml:5g	Veterinaryword (2008) 030012530
Glucose Sodium chloride injection	250-500ml	500ml: glucose 25g + sodium chloride 4.5g	Veterinarywor(201)270071538
	5-10ml	10ml: aminopyrine 0.5g, antipyrene 0.2g, barbiturate 90mg	Veterinaryword(2010)140121160
Vitamin B1 injection	2.5 - 5.0 mg (1 - 2ml)	10ml:0.25g	Veterinaryword(2009)040101389
Vitamin D2 gelatinous calcium injection	2-4ml	2ml: Vitamin D2 (1 million units)	Veterinaryword(2008)160044526
Bupleurum injection	5-10ml	10ml equivalent to 10ml of the original drug	Veterinaryword(2007)040195137
Oxytocin injection	10-50unit	2ml/10unit	Veterinary word(2008)110042778

3.1. Prevention and control measures of feeding and management factors

The feeding and management should be enhanced with a reasonable feed, feeding sows easy to digest more nutritious and green juicy feed (ryegrass, bitter wheat and elephant grass).

To strengthen the management of pregnant sows, constipation, limb pain and paralysis of the disease should give appropriate sports pigs, and strengthen the care.

Timely treatment of various primary sow disease, such as vaginitis, uterineitis and urethritis. Pigs with similar and diseases should be careful to observe the sow's mental state, the test body temperature.

To keep the dry, clean the environment, to create a suitable environment, and pay attention to heatstroke.

Sows prenatal and postnatal feed add Soda (3 kg per ton). But also in sows prenatal and postnatal use of 'pig health + baking soda' spices, the incidence of sow postpartum disease can be greatly reduced or postpartum feeding 'Motherwort brown sugar water' or 'biochemical soup', blood stasis, purification of the uterus.

3.2. Prevention and treatment of disease factors

Puerperal fever

Prevention and control

In the childbirth before doing the sanitation of the delivery room, pad grass exposed, childbirth midwives must be closely disinfected after the hands of midwifery. And prepare iodine and a pot of disinfectant (Yum or 0.1% potassium permanganate water) at any time to ensure that midwifery sterile, vaginal non-invasive, to avoid infection. In the sow output of the last one pig after 36 to 48 hours, intramuscular oxytocin 4-5ml, can drain the uterus residual content, to avoid puerperal fever. Strengthen the pig health work, sow prenatal circle bed should be clean hay, midwifery, strict disinfection, do not damage the uterus, if damaged, it should be promptly treated.

Treatment

Can be washed with 0.1% potassium permanganate water rinse the uterus, rinse the remaining liquid to be discharged, the appropriate choice of sulfonamides or Houttuynia 15ml + penicillin 3, streptomycin 2 intramuscular 3-4 days. Help the uterus to discharge lochia, can be used oxalin 2-4ml injection, or motherwort 100g Jianshui. Chinese herbal medicine: one with angel tail, fried Chuanxiong, big peach each 15g, gun ginger charcoal, Achyranthes bidentata, wood safflower 10g, Motherwort 20g, decoction, even served 2 to 3 times. Two with black beans shell 200g, peach kernel 40g, raw leek 100 - 200g, Jianshui 1 times orally.

Constipation

Sow Constipation is sometimes the result of several factors that are more likely to occur due to the combined effects of stress and other factors in some poorly managed herds, so precaution should be made in prevention:

First of all: to improve the herd feeding and management, sows are the core of a pig farm, raising sows should be carefully managed, in particular, should supply adequate water to the sow, feed should be evenly. Conditional pig farmers in feeding sows, such as to give sows a day to provide 5-6 pounds of high quality green feed to prevent sow constipation the best.

Second: the pig farm to do scientific drug prevention. It is recommended to prevent the infection of *Toxoplasma gondii* in the feed can be added in the feed sulfamethoxine pyrimidine original powder 400 g / t, TMP80 g / t, baking soda 400 g / t, once every 7 days, the pig farm environment good (In June, October). The pigs are poor in environmental conditions, especially in cats and dogs. Dogs are more likely to enter the market. They can be fed twice a year (June and October). For the prevention of Eperythrozia infection, chlamydia infection, just add the material in the acid 120 g / t, oxytetracycline 600 g / t, once every 7 days; good environmental conditions of the pig farm every year in July can be fed once, The poor environmental conditions of the field once a year in the first half, the second half can be fed once.

Finally: a pig farm from the long-term consideration, the choice of some drug-free premix products to feed sows, which for the relief of sows constipation, has a very good effect.

For sows in constipation, the following methods can be treated:

One is to add 2% -3% molasses in the feed, can play lungs, Jigan, laxative effect, and have to improve the effect of sow feed intake. For prenatal and postpartum constipation symptoms of sows, some can be used, such as 'lactation',

rhubarb soda, citric acid spices; the other is in the sow feed to add 3 kg / ton of magnesium sulfate, for the relief Sow constipation also has a certain role; for constipation caused by eating sows should stop feeding concentrate, fed green feed, can be injected with broad-spectrum antibiotics and injection to promote the digestion of some drugs such as vitamin B1 injection, compound vitamin B injection Liquid and so on. Or Houuttuynia 50ml + lincomycin 40ml + dexamethasone 20ml + glucose sodium chloride injection 500ml intravenous injection.

Sow cold, high fever

Gentamicin 5ml × 5, Bupleurum 20ml, vitamin C 20ml, Ansett 10ml × 2, glucose sodium chloride injection 500ml intravenous injection, 2 times a day.

Vitamin B1 10ml × 1 intramuscular injection, tenella 15ml intramuscular injection. On the increase in body temperature, with penicillin 3, 3 Bupleurum 10ml × 1 intramuscular injection, or analgin 10ml × 2, penicillin 3 intramuscularly, 2 times a day.

Bupleurum 1 box and glucose sodium chloride injection 500ml intravenous injection.

Foot and foot disease

Prevention

Strengthen the breeding and management: to strengthen the movement, more sun, enhance the support of the limbs, can reduce the incidence of the disease; at the same time to ensure that the balance of amino acids in the diet, rich in vitamins and mineral elements, the appropriate calcium and phosphorus ratio ; Pay attention to add zinc, selenium preparations, and pay attention to the level of premixing to ensure uniform mixing, should strictly control the addition of arsenic preparations; do a good job of pig farm design and construction; to observe, careful care, often check the pig's hoof shell.

Treatment

For mechanical damage, exercise restricted and bruised pigs can be coated with 5% iodine tincture and pine oil; for the split hoof pig should be discontinued sulfonamides, should be added zinc and biotin. Such as severe cases can be intramuscular injection of analgesic 10ml + penicillin 2 + streptomycin 1 or 0.25 - 0.5% procaine + penicillin to do the limb ring closed treatment.

Postpartum infection

3.2.5.1 Penicillin 3, Ansett 10ml × 1, vitamin C 10ml × 1, glucose sodium chloride injection 500ml × 1 bottle of intravenous injection, 1 day.

3.2.5.2 Penicillin 3, streptomycin 2, glucose sodium chloride injection or saline dilution, 2 times a day, once every 2-3 days can be cured.

3.2.5.3 Severe infection of the uterus can be used saline or injection of water 30-50ml, penicillin, streptomycin 1 million units diluted into the uterus. Muscle or subcutaneous injection of oxytocin 20-40 units, or sodium chloroprostenate 1ml.

3.3. Nutritional factors prevention and control measures

3.3.1 The sow should not change the composition of diets, adjust the dietary calcium and phosphorus content, so that the proportion of calcium and phosphorus appropriate; to strengthen outdoor sports and receive sunlight, to give digestible, rich in minerals and vitamins feed, can also use vitamin D2 gelatin calcium 4 - 6ml intramuscular injection, 1 to 2 times a day; in the feed plus cod liver oil, stir evenly, after feeding the sick pigs, once every 5 - 7d.

3.3.2 Hypoglycemic calcium deficiency sows should be sugar, calcium, phosphorus-based, pay attention to strengthen nutrition, combined with the regulation of gastric function to nourish the blood, strengthen gastrointestinal motility. Can be used 10% calcium gluconate 100 ml, 10% to 25% glucose 500ml, vitamin C 5 ml × 10 mixed intravenous injection, once every 2 - 3 d or 50% glucose 40ml, Ansett 10ml, vitamin B1 10 ml once static Note or the Codonopsis 10 g, Angelica 10 g, Astragalus 10 g crushed, water washed, to be warm, filling, 1 day, once every 2 to 3 times.

3.4. Seasonal factors of prevention and control measures

In the summer season, the sow mixed with wet feed, or in the feed to add citric acid, animal husbandry and other acidic substances, to stimulate the stomach of the sow, thereby increasing appetite. At the same time to give the appropriate green fodder to improve the pig's environment (such as planting trees, planting green vegetation); increase homes ventilated, good cooling work, to maintain proper humidity.

4. Discussion and Suggestions

Fish Bay pig farm four-line delivery homes 2,3,4 unit to do the experiment, each unit has 40 sows, a total of 120 sows, 120 sows do not eat in the post-mortem record, according to the cause of post-natal food The right medicine, the use of different treatment methods, come to a good solution.

4.1. Sow postpartum to weaning due to the disease did not eat the situation

Sow disease type	First number	Medication	Effect
Puerperal fever	2	2 Houttuynia 15ml + penicillin 3, streptomycin 2 intramuscular	Feeding normal, Short course of treatment, cure
		Fried Chinese medicine	Intake is not good, treatment long, healed
		Houttuynia 50 ml + lincomycin 40 ml + dexamethasone 20ml + glucose sodium chloride injection 500ml intravenous	Feed intake is good, short course of treatment, cure
Constipation	3	With lactation, rhubarb soda, citric acid spices	Feed intake in general, healing
		Feed juicy green feed	Good feed intake, long course of treatment
		Gentamicin 5ml × 5, Bupleurum 20ml, vitamin C20ml, Ansett 10ml × 2, glucose sodium chloride injection 500ml intravenous injection	Good feed intake
Cold, high fever	3	Bupleurum 1 box and glucose sodium chloride injection 500ml intravenous injection	Feed intake in general
		Intramuscular injection of more than 15m	Good feeding, short course of treatment
Limb disease	2	Intramuscular injection of analgesic 10ml + penicillin 2 + streptomycin 1	Feed normal

4.2. Sow postpartum to weaning due to nutritional factors do not eat the situation

Discussion on treatment programs for malnourished sows

Option 1: adjust the dietary calcium and phosphorus ratio, to strengthen outdoor sports and receive sunlight, to give digestible, rich in minerals and vitamins of the feed, while intramuscular vitamin D2 calcium 4 - 6ml, 1 to 2 times a day The

Option 2: in the feed plus cod liver oil, stir evenly, after feeding the sick pigs, once every 5 - 7d.

Conclusion: The experiment proved that the program is more feasible, the effect of medication than the recovery of the two programs faster.

4.2.2 Discussion on the treatment of hypoglycemia and calcium deficiency sows

Option 1: 10% calcium gluconate 100 ml, 10% to 25% glucose 500ml, vitamin C 5 ml × 10 mixed intravenous injection, once every 2 - 3 d.

Option 2: 50% glucose 40ml, Ansett 10ml, vitamin B1 10 ml intravenous injection.

Option 3: the Codonopsis 10 g, Angelica 10 g, Astragalus 10 g grinds the end of the screen, water rinse, to be warm, filling, 1 day, once every 2 to 3 times.

Conclusion: After investigation and analysis of a program and three feasible, the treatment effect is more obvious, the program two is not obvious, but feasible.

4.3. Sow postpartum non-food comprehensive control measures

Scientific feeding and management

Strengthen feeding and management. Feed the sow with full price diets, pay attention to sow Biaoqing, so that it does not see fat, thin and unexplored species with the body condition. Strengthen the feeding sows, especially perinatal sow feeding and management, add enough vitamin B1, vitamin B2 and antibiotic additives.

The diet must be rational and nutritious. Sows should be exercised with appropriate exercise and sun exposure.

Into the pre-production period, the first pair of gestures in pregnant sows can squeeze out the milk, the injection of oxytocin, and promote the discharge of the fetus and uterine lochia exhausted.

Sows Pregnancy One day per day according to the late pregnancy dose of 1/7 reduction, litter day fasting or only fed bran water, and more to feed green juicy feed. 0.5 kg increments of feed per day within one week after delivery. Postpartum 8 d to 3 to 5 days before weaning, in order to ensure a strong appetite on the basis of adequate supply of food. 3 - 5 d before weaning appropriate control material to improve the sow's estrus rate, increase the production cycle.

Drug prevention

In the usual feeding and management, can be added in the sow feed 3% to 6% baking soda, citric acid, cod liver oil; in the prenatal 3 d to 7 days postpartum feed add health, plus energy Supplement, lactation, and high and chlortetracycline, in order to improve sow lactation function, to prevent postpartum sow uterine inflammation, vaginitis, increased sow feed intake.

Produce sows into the delivery room before the flushing, disinfection.

Sow prenatal, postpartum with 0.1% potassium permanganate solution cleaning disinfection of the breast and vulva, hindquarters. Postpartum to be discharged from the fetus, and then according to the situation of intramuscular injection of oxytocin 5ml, or intramuscular injection of Houuttuynia 15ml + penicillin 3 + streptomycin 2.

5. Conclusion

In order to ensure the stability of pig production, strengthen the health of piglets, reduce the economic losses of the pig industry, should be given the phenomenon of sow postpartum do not eat a high degree of attention. The disease causes complex, only to find out the cause, the right medicine, will achieve a good therapeutic effect. In the usual feeding and management, should be carefully observed sow mental state, physical test temperature, sow postpartum once the performance of loss of appetite or waste, should immediately identify the reasons, should be done early detection, early treatment. Implement the principle of 'prevention first, combining prevention and preventing prevention'. So to strengthen the feeding and management, to keep the delivery of clean, dry, and control the temperature, humidity, reduce noise and other exogenous stress stimulation, and do a good job of summer cooling work to create a suitable environment; reasonable with feed, Pork digestible and nutritious and green juicy feed.

References

1. Li L, Zhang Z. Pig and swine disease prevention and control, 2007.3, 4th edition, China Agricultural Publishing House, Beijing
2. Cai C. Livestock and poultry environmental sanitation, China Agricultural Publishing House, Beijing
3. Wu X. Pig feeding and management and disease prevention and control, 2004, Harbin Map Press, Harbin
4. Yi C, Sun F. Porcine disease, 2003, second edition, China Agricultural Science and Technology Press, Beijing
5. Zeng Y, Xu G. Veterinary clinical diagnosis and treatment technology, 2009.2, Chemical Industry Press, Beijing