

Change in illness problems in Danish sow herd, after change to group-housing of sows.

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Spring 2010

In this paper, I present my experiences from my work as a veterinarian in the eastern part of Denmark.

Introduction

In Denmark the three most used group-housing systems are:

- 50 to 60 sows in each group and electronic transponder feeding
- 20 to 60 sows in each group and feeding in a crate. The sows are free to go in and out of the crate all time.
- 15 to 30 sows in each group and feeding on the floor.

In Denmark approximately 75% of the sows are housed in a group housing system.

Change in illness

No change in illness problems

In Denmark there haven't been seen a big change in controlling illnesses like PRRS and *Mycoplasma hyopneumoniae* in the sows when changing to free-housing systems.

There haven't been observed any big change in illnesses in growers and finishers, from sows housed in different systems.

Change in illness problems

Outbreaks of *Leptospira pomona* (*L. pomona* are widespread in the south part of Denmark, Møn and Lolland-Falster) can be more severe in sow herds with loose sows compared to a system with tethered/ fixed sow.

The reason that an outbreak of *L. pomona* are more severe in a group-housing systems is that the illness can be spread easy from sow to sow in the gestation unit. During an outbreak in a group-housing system it can be necessary to treat all pregnant sows with antibiotics.

In infected herds it is necessary to vaccinate against *L. pomona*.

There might have been a little rise in the levels of worm infections. However it is difficult to say for sure, since there has been a change in how the de-worming medicine was used at the same time as the transition to group-housing systems.

Earlier it were legal for the farmer to buy the worming medicine without prescription, at this time it were normal with systematic treatment against worm.

In practical the change in worm infections haven't given any problems since the treatment of the infections is effective. There hasn't been seen resistance in worms against the normal used de-worming medicine classes.

In all housing systems it is very important to make sure that the gilt does not have a severe worm infection when introduced into the gestations unit.

The biggest change in illnesses, have been the number of sows with leg problems. In group-housing system more arthritis and hoof damages are seen.

Re infection of SPF herds

When SPF (specific pathogen free) herds are infected with a new disease, it is easier to get the entire herd infected in a group-housing system compared to the older tethered system.

Change in management

When sows are housed in a group system, there are some very important differences in management compared to a system with tethered sow.

Selection of gilts before breeding

It is very important that the gilts used in group-housing system have a good body condition. Some of the most important things are:

- Strong and even leg
- Straight back
- Uniform hooves
- Untroubled gait.

Only gilts with good body condition must be used in group-housing system.

If there are used gilts with bad body condition, there are higher risks that the gilts/sows are getting lame later in life. The risk of development of leg problems in gilt/sows with bad body condition is much higher in sows housed in group-housing systems compared to the old gestation crate systems.

Introduction of the gilt in the system

In group-housing systems, especially in electronic sow feeding systems, the introduction of the gilts in the group are central in getting a good functioning housing system.

It is very important, that the gilts are trained to the feeding stations before they are mixed with older sows.

The best way to introduce gilts to electronic sow feeding systems is to house gilts in pens, where the feeding are done in a dummy station. A dummy station is a station where all the electronics systems are replaced with an ad libitum feed dispenser.

The gilts are housed in the pen with a dummy station for some time, after this period, the gilts are moved to a pen with a normal feeding station. The gilts are housed in this station until they have learned to go through and eat in the feeding station. When the gilts are able to use the system they are moved into the gestation unit with the older sows.

Keep the sows in appropriate condition

It is very important that all sows are in appropriate body condition all time.

Normally the sows' body condition is controlled after insemination, 3-4 weeks after insemination, in the middle of pregnancy and 3-4 week before farrowing.

When the body condition are controlled the feed ration are regulated compared to the animals body condition.

Handling lame sows and "looser" sows

In all group-housing systems it is very imported to have enough hospital pens, this means that there should always be space enough for one more sow. It is okay to house 3-4 ill sows in the same hospital pen, however it is important that there are enough space in the pen. There should be at least 3.5 square meters per sow if there is one sow in the pen. There should be at least 2.8 square meters per sow, if there are 2 to 3 sows housed in the pen.

It is very important, that the floor is slip resistant and that the floor is not slippery. It is important that the animal can stand without the risk of skidding.

The best hospital pens are made with a deep layer of soft bedding (straw or rubber mat) or deep litter.

Medical treatment of lame sows:

It depends on the illness. Normally penicillinprocain have an okay effect. The most important treatment of lameness is treatment with nonsteroidal antiinflammatory drugs, since it takes away most of the pain from the animal and makes it possible for the animal to use and exercise the lame leg. When treating a sow with nonsteroidal antiinflammatory drugs, it is very important to remember that the nonsteroidal antiinflammatory drugs have no effect on chronic pain, for instance in a broken leg.

Reproduction control

Reproduction control is very important in all housing system, especially in group-housing systems.

The biggest problems with return to oestrus have been seen in farms that are approved for sale to the United Kingdoms, since the sows have to be loose from weaning to faring. This is especially a problem since the sows has to loose immediately after service. The read of return to oestrus is lower in system where the sows are tethered the first 3 to 4 weeks after service.

In Denmark, it is legal to let the sows stand in a gestation crate for up to 4 week after service.

The higher risk of return to oestrus in group-housing systems is that there are more fighting between the sows in group-housing compared to gestation crate. The fighting can result in abortion. This means that it is important to minimize the mixing of sows from different groups, in order to reduce fighting between sows.

It is important that the layout of the gestation house is made so it is possible for weaker sows to get away from stronger sows.

Normally the sows are scanned to see if they are pregnant 4 and 6 weeks after service. And of course is important to control if the sows go into heat in the gestation unit.

References:

www.infosvin.dk

www.vsp.lf.dk

