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Consulting Oy

Farrowing

A photograph of a sow pig lying on a bed of straw. Several piglets are clustered around her belly, nursing. The image is slightly dimmed to allow text to be overlaid.

What is important in this moment,
where we have to focus mainly ?

- Hygiene
- Climate
- Right feed amount and feeding time
- Hormones medicine
- When sows does need help
- Colostrum
- Dead Piglets
- Fostering piglets
- Is farrowing went well and when sows need extra help
- Piglets feeding

Hygiene

- Washing with high pressure every time before new group is coming
- Try to wash 100 percent clean, even small girthy place can cause the diarrhea problems
- Disinfection



Climate

- Room temperature
- Floor heating
- Heating lamps
- Ventilation adjustment (before, during and after)
- Ammonium level



Room temperature

- Mainly its depended of piglets nest constructions
- Sows prefer 18-20 Celsius
- Piglets need 32-34 when they are born, why ?
 1. are born wet
 2. have a large surface area to body mass
 3. have limited energy reserves (brown fat) to produce body heat
 4. do not have hair to insulate them.



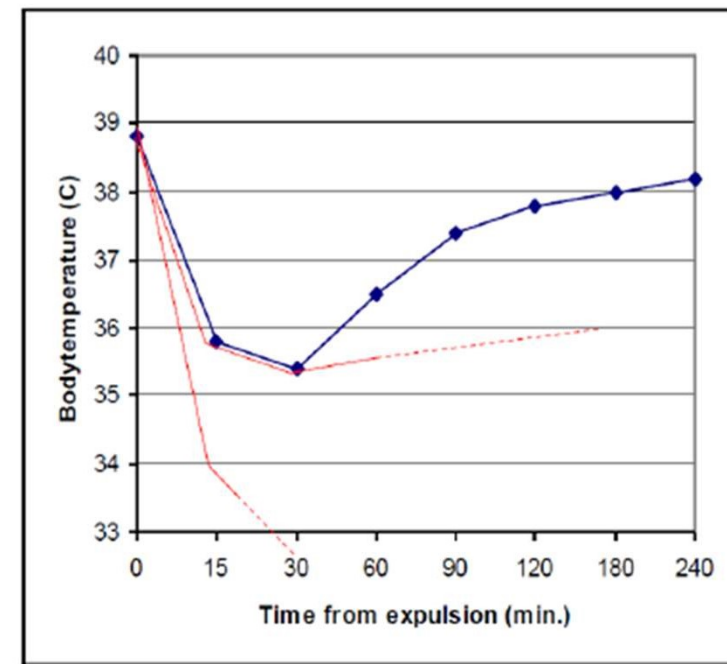
Floor heating



Heating lamps

Postnatal hypothermia

- Body temperature drops after birth – also seen in other species.
- Fast and efficient recovery from drop – essential for survival. Can lower piglet mortality 2-3 %.
- Piglets in 34 C use 50 % more energy than piglet piglets in 38 C.





Good environment shortly after farrowing



Environment towards the end of lactation

Check the environment in the creep area before 8:30. The environment is optimum if

1. The piglets lie together, in one layer, and fill the creep area from the back.
2. It is dry.
3. It is draught-free.
4. There is room for all the piglets in the creep area.
5. The below temperature strategy is applied to optimise the environment of the piglets.

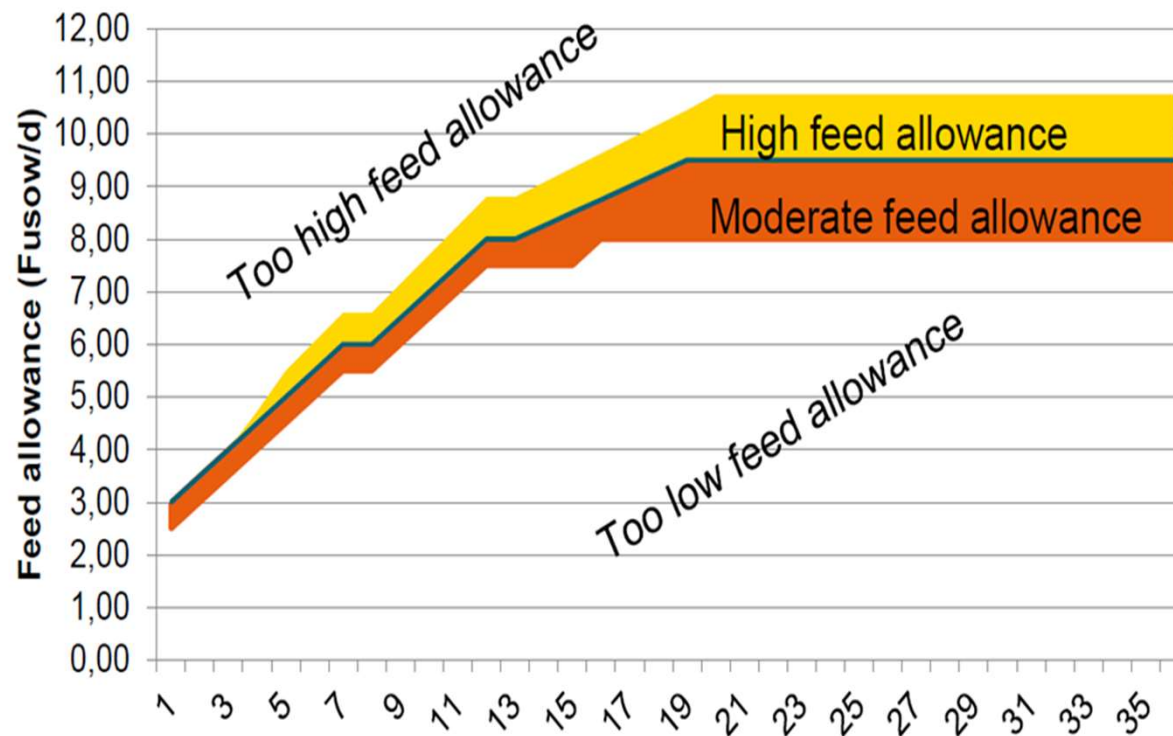
Day	0 - 4	4 - 14	14 - wea.
Temperature on the floor in creep, °C	34 - 36	32 - 34	30
Inlet temp. in floor heat, °C	40 - 42	Approx. 40	30 - 35
Heat lamp (100 Watt-bulb)	+	Turn off day 3 - 5	÷

Recommended temperature strategy in farrowing facilities

Design and management	Farrowing to d 4	D 4 - 14	D 14 to wean.
Sectioned Diffuse ventilation Partially slatted floor Floor heat in creep areas	20 - 22°C	Reduce by approx. 0.3°C a day	17 - 18°C
Ventilation with air inlets	20 - 22°C ¹	18 - 20°C ¹	18 - 20°C ¹
Continuous operation (not sectioned)	19 - 20°C		
Fully slatted floor (sectioned farrowing facilities)	22 - 23°C	20 - 22°C	20°C

¹⁾ Depends on ventilation rate, outdoor temperature and the environment in the pens. Piglets must always be kept in a draught-free environment.

RECOMMENDED FEEDING CURVES



Right feed amount and feeding time



Main Points



Different curve
for sow and gilt

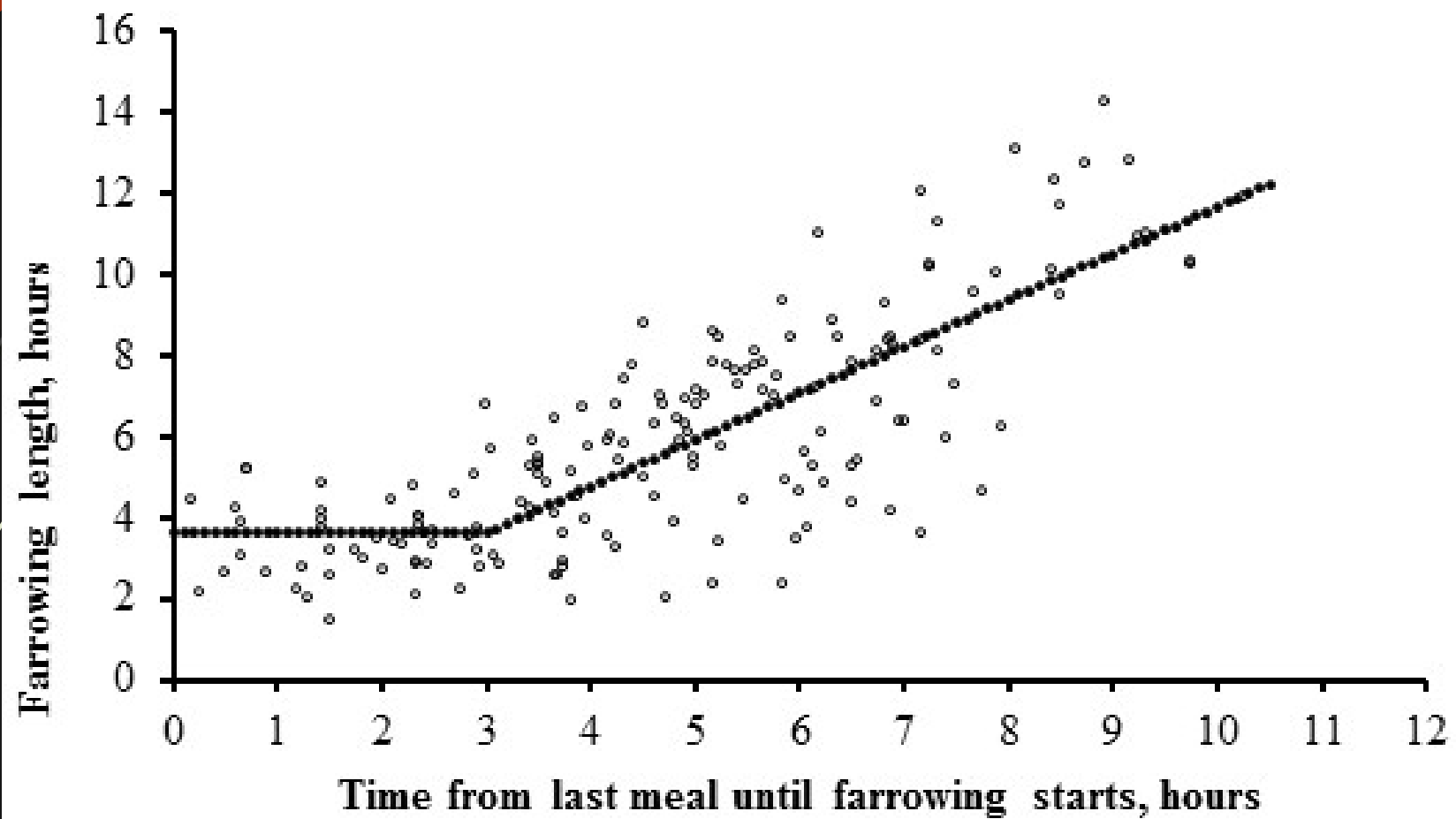
3.0 feed units
per sow per day
until farrowing

Last feeding is
not more than 3
hours before
farrowing

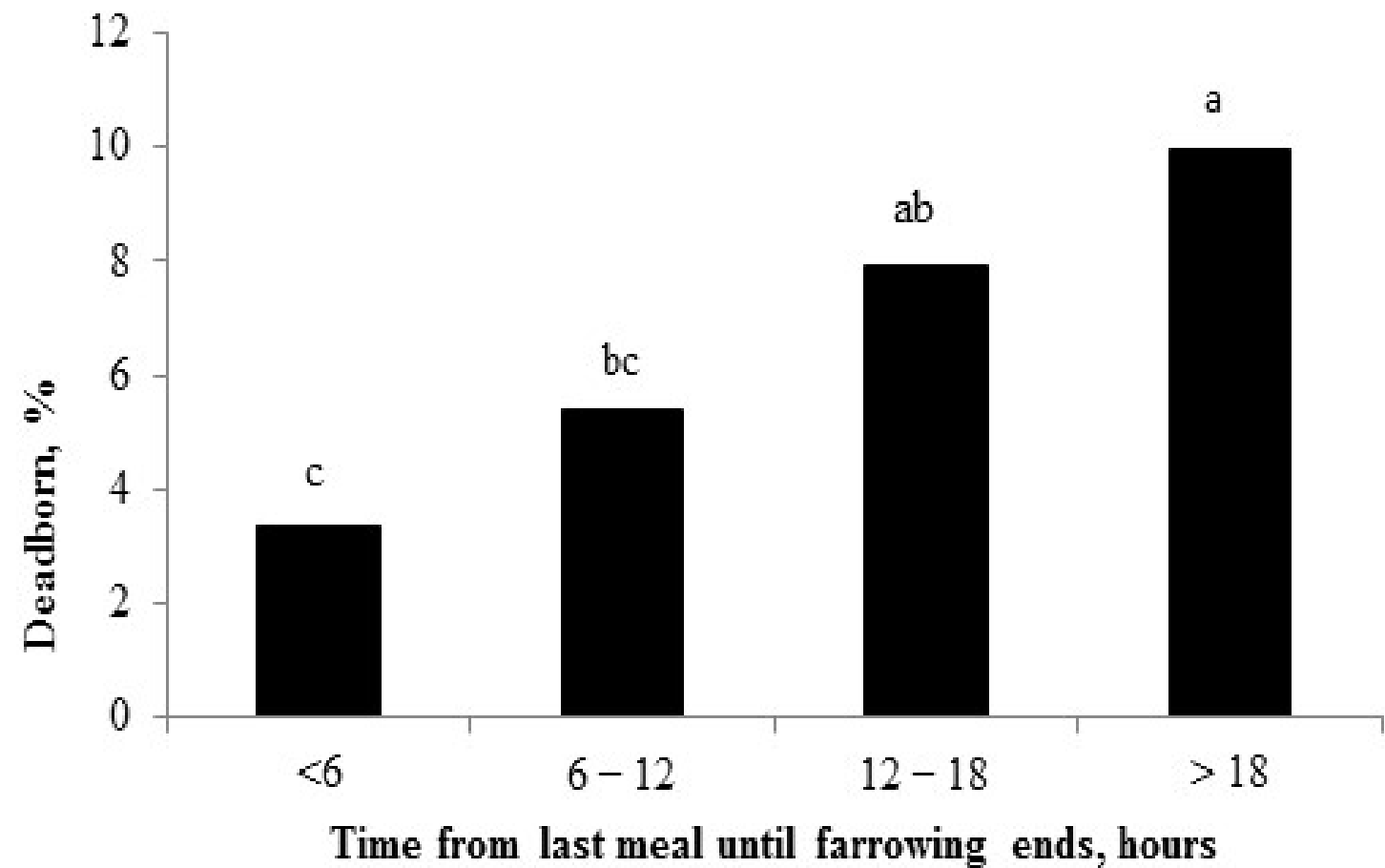
+/- to feed
level, when and
how much

Clean, fresh
water is best
thing what we
can give

Trough hygiene



The number of stillborn piglets increases when the time from the latest feeding to the end of farrowing increases.



Foderjustering

– 30 minutter efter fodring

Videncenter for
Svineproduktion



Opjusteres



OK



Nedjusteres



Syg

Hormones medicine

- Prostaglandin (Estrumat or Lutalyse).Require a veterinary prescription.
- 65-70% farrow between 24-36 hours
- +/- of Prostaglandin using
- Oxytocin
- Recommendation

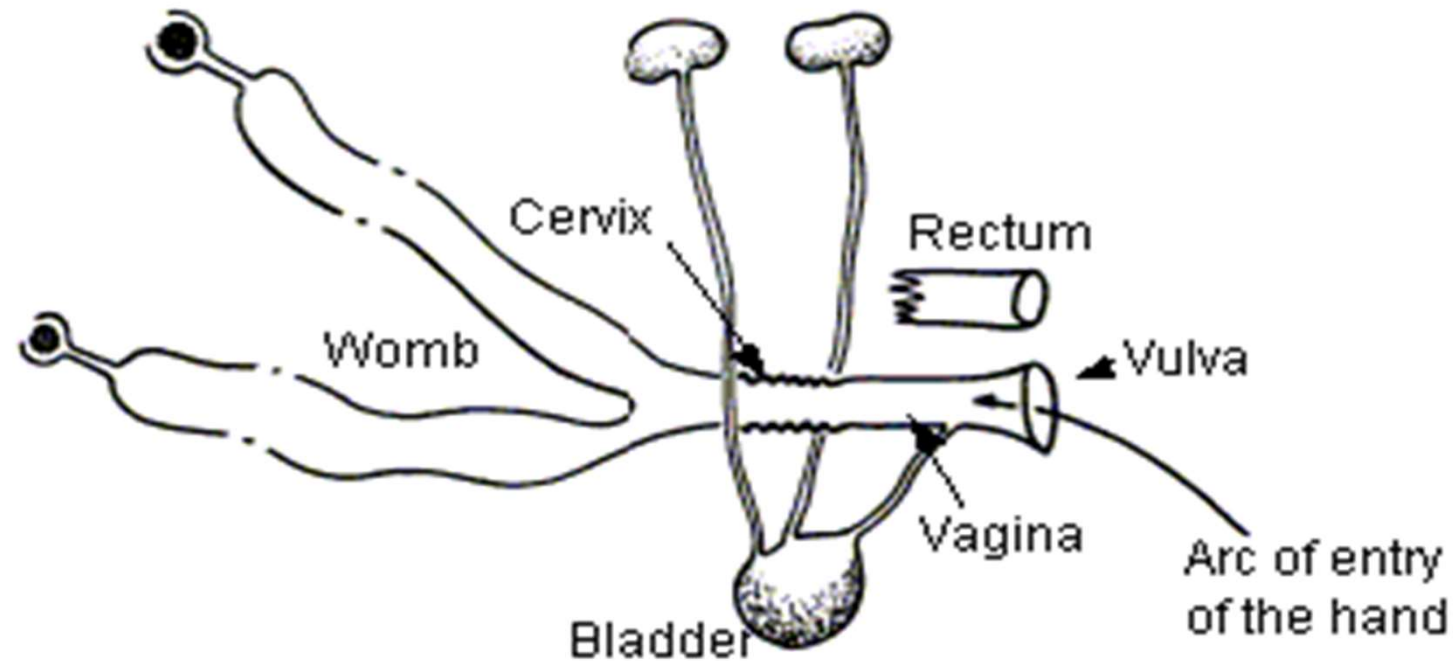


Recommendation

- Administer oxytocin only after the cervix is fully dilated
- Limit usage in gilt litters
- For a normally farrowing sow, do not use oxytocin until a minimum of 6 pigs have been born
- Use oxytocin when a sow has not had a piglet for over 40 minutes, and
- Only use a maximum of two doses per sow.
- Oxytocin should not be used as a substitute for obstetrical assistance. Indicators of need for obstetrical assistance are bloody discharge from the vulva, no piglets have been born in at least 40 minutes, obvious pain or straining, or a history of stillbirths.

ANATOMY OF THE REPRODUCTIVE TRACT

(shows also the bladder and kidneys)



(Fig.8-10)



What conditions are associated with a difficult farrowing?

Long labor (taking too long to deliver a piglet)

Over conditioned female (fat sow or gilt)

Interruptions in the process of giving birth

Piglet not in the correct position

Piglet stuck in the birth canal

Examination gloves

- ▶ Do not touch nowhere with hand where is clean glove!!!
- ▶ one hand is clean + glove, with other hand you open gel and do everything else...





When sows does need help

No new piglets over 40 minutes

Breathes hardly and try to push, but not started yet

Relaxed, but not finished yet

Angry and try to kill all her piglets

Check sows and piglets, who have problems ?



CHECK FOR MILK IN THE UDDER, SWOLLEN LABIA AND MUCUS FROM THE VAGINA AS INDICATIONS OF IMPENDING FARROWING.



INSPECT THE SOW EVERY HOUR DURING FARROWING AS A MINIMUM.



NOTE THE NUMBER OF PIGLETS BORN AT THE TIME OF INSPECTION.



THERE SHOULD BE MAX. 2 HOURS BETWEEN THE FIRST 4 PIGLETS. NEXT PIGLETS SHOULD COME MAX. 1 HOUR BETWEEN THE NEXT PIGLETS. PERFORM OBSTETRIC AID IF ALL PIGLETS IN THE LITTER ARE DRY AND THE SOW SEEMS TO BE EXPECTING MORE PIGLETS.



HELP SMALL OR WEAK PIGLETS GET TO THE UDDER AND ENSURE THEY START TAKING IN COLOSTRUM. IF NECESSARY, PLACE THEM UNDER THE HEAT LAMP TO WARM THEM.



ASSESS WHETHER THE FARROWING PROCESS IS COMPLETE. IF IN DOUBT, EXAMINE THE BIRTH CANAL.



EXAMINE THE HEALTH OF THE SOW. FEEL FOR HARD MAMMARY GLANDS AND OBSERVE HER BEHAVIOR.

Assisting with a difficult farrowing

Step 1

The vulva needs to be properly cleaned with a mild detergent and water

Decide if the your arm will fit into the birth canal and not do damage to the sow or gilt, in particular

Use a shoulder length sleeve and generous amounts of lubricant

Cup your fingers together to form a cone with your hand prior to entering the birth canal

Gently insert your hand into the lips of the vulva into birth canal

Decide if you can continue to insert your hand into the birth canal and see if a piglet is present

Step 2

Determine if the piglet size is normal and can come out the birth canal

Decide if the feet or head belongs to only one piglet

Decide if the feet or head can be grasped by your hand

Decide if you will need to use a device (snare) to assist in delivering the piglet

Step 3

Grasp the piglet's feet with your fingers above the knees or hocks

Grasp the piglet's head with your index and middle finger (behind the ears)

Gently pull the piglet towards you through the birth canal and out the vulva lips

Break the umbilical cord by pulling the piglet away from the sow and trying to leave it at least 3 inches long

Clean the membranes off of the nose and mouth so that the piglet can breathe easily

Examples of problematic farrowing:

Farrowing does not progress:

- give obstetric aid
- take out so many piglets as possible
- check the sow again after 30 minutes

Piglets has stacked on birth canal:

- give obstetric aid
- pull out the piglet
- give an hour-long break to the sow

Piglet is coming in the wrong position:

- give obstetric aid
- push piglet inwards
- take hold of the pig head or hind legs and pull out
- give an hour-long break to the sow

Sows which might have problems

- Look sow cards before farrowing
- Sows with high Dearborn under supervision
- Mark on card the risk sows
- Marking on farrowing time
- Why should to mark ?

434

21/04

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2	060916	A			020117	21	3				030217	10			12	12
3	150217	T			150617	20	2				140717	10			5	5
4	190717	T			151117	21	4	1			221217	10			5	5
5	271217	T			2104											
Keskiarvo					119	20,0	2,8				10,8					

Pvm	Kar	Koodi	Kpl	Teksti


Pors/em/v	46,42
Pahn/em/v	2,32
Tehott,pv/pahn	6,50

Pvm	Hoito	Diagnoosi	Mää	Kpl	Nimi	Huomautus	Sarjano.	Kar



Colostrum

- **Colostrum** is secreted from the udder immediately after farrowing and within several hours, its composition changes rapidly to that representing sow milk. **Colostrum** contains essential antibodies (immunoglobulins) for the health of the newborn **piglet**; antibodies are produced by the body to kill bacteria and viruses.



Facts about

- Studies demonstrate that six hours after birth of the individual pig only 70% (2 out of 3) have taken in sufficient amounts of colostrum. 12 hours after birth, this figure has increased to 95 %. It is therefore recommended to let all piglets stay 12 hours with they own mother or with a sow that has just farrowed that produced colostrum.



Facts about



Experience shows that in very large litters (>15-16 liveborn) and among new born piglets of differing sizes, there may be a great deal of stir by the udder. The smallest pigs lose the battle for tits and you can help colostrum intake along by separating the 5-6 largest piglets in the creep area for about 1 hour while the smallest piglets get colostrum.



If farrowing is complete, check whether sows is still letting milk down after moving the largest piglets, as the smallest will otherwise then get neither warmth not milk. Instead, cut off all piglets for 45 minutes and, than let the 8-12 smallest out when milk letdown start. Let the largest piglets out after a further 30-45 minutes.

PIGLETS DIE WITHIN THE FIRST 4 DAYS

Age category	Average birth weight, kg	Mortality
Day 1-4	0.97	59%
Day 5-11	1.20	21%
Day 12 - weaning	1.24	20%

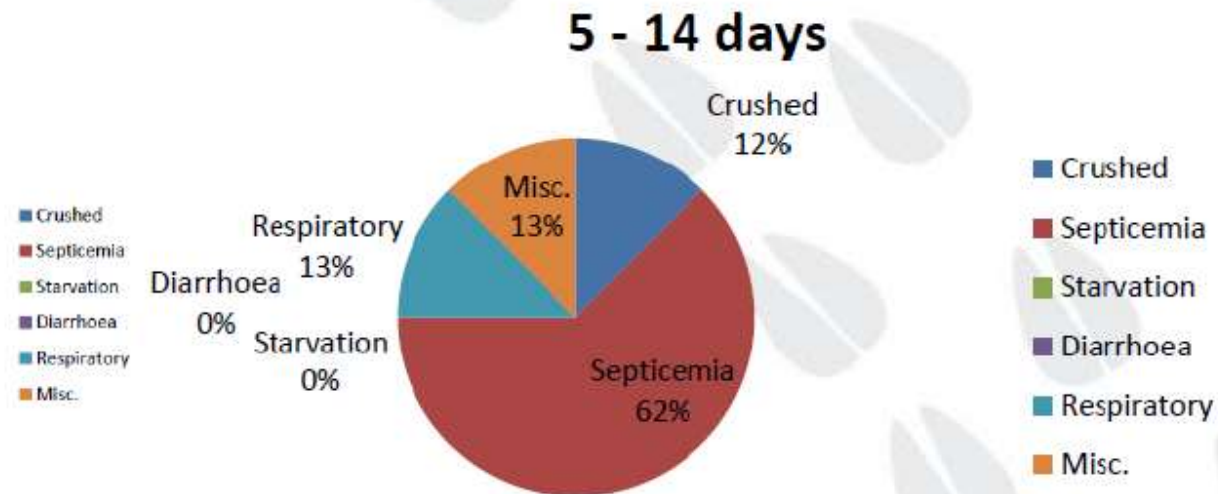
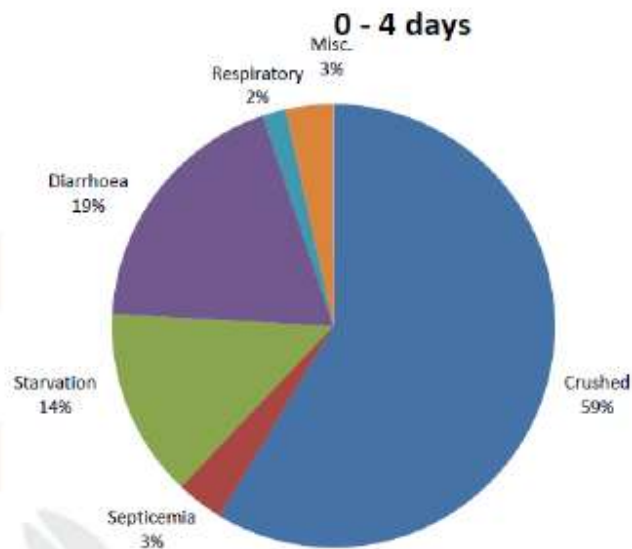


Dead piglets

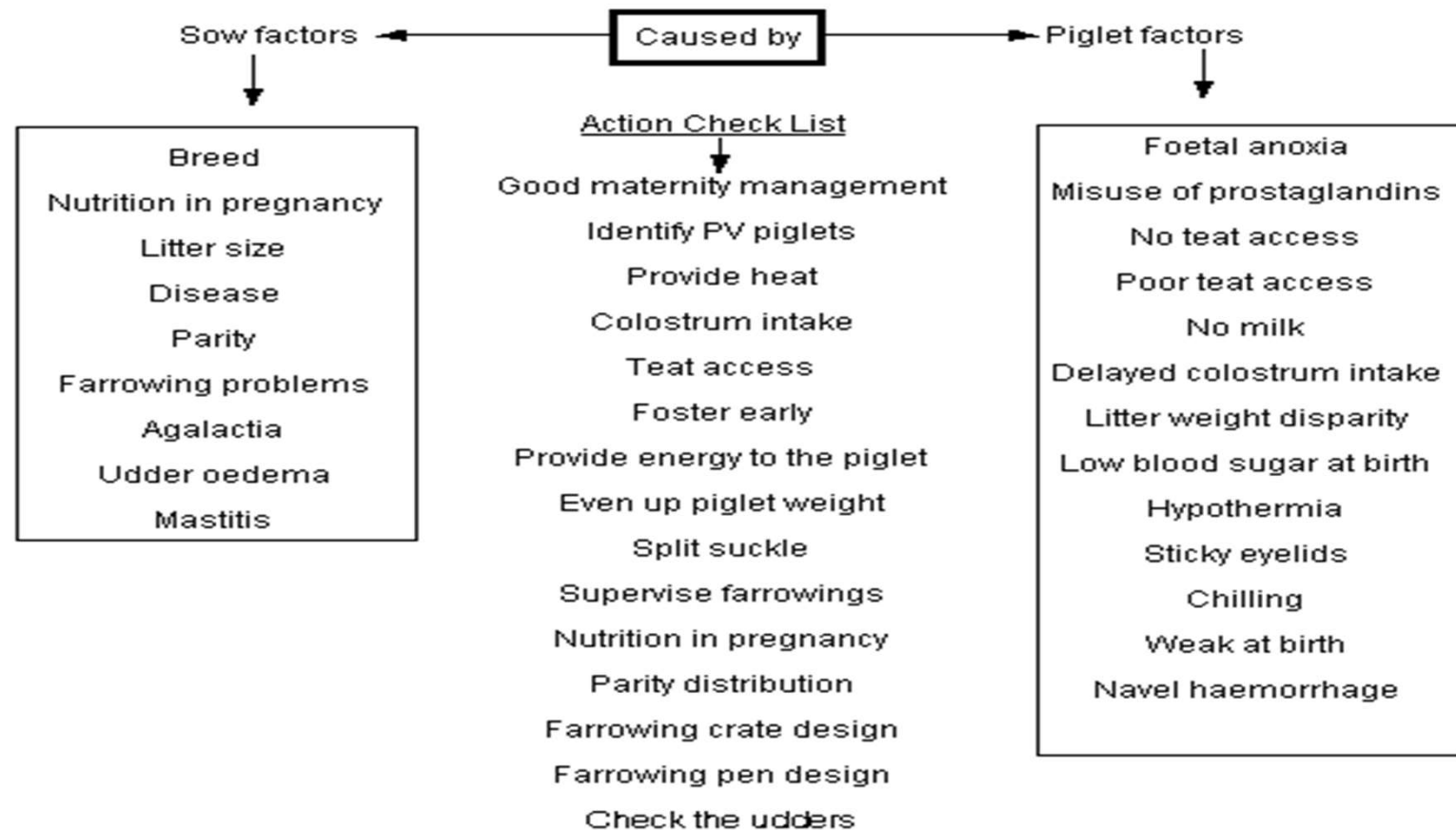
M Johansen, B Svensmark, S Haugegaard, MF Nielsen, H Kongsted, and P Bækbo

Causes of death

- It is very important to have a registration list for each farrowing unit – evaluate every week why they are dying!

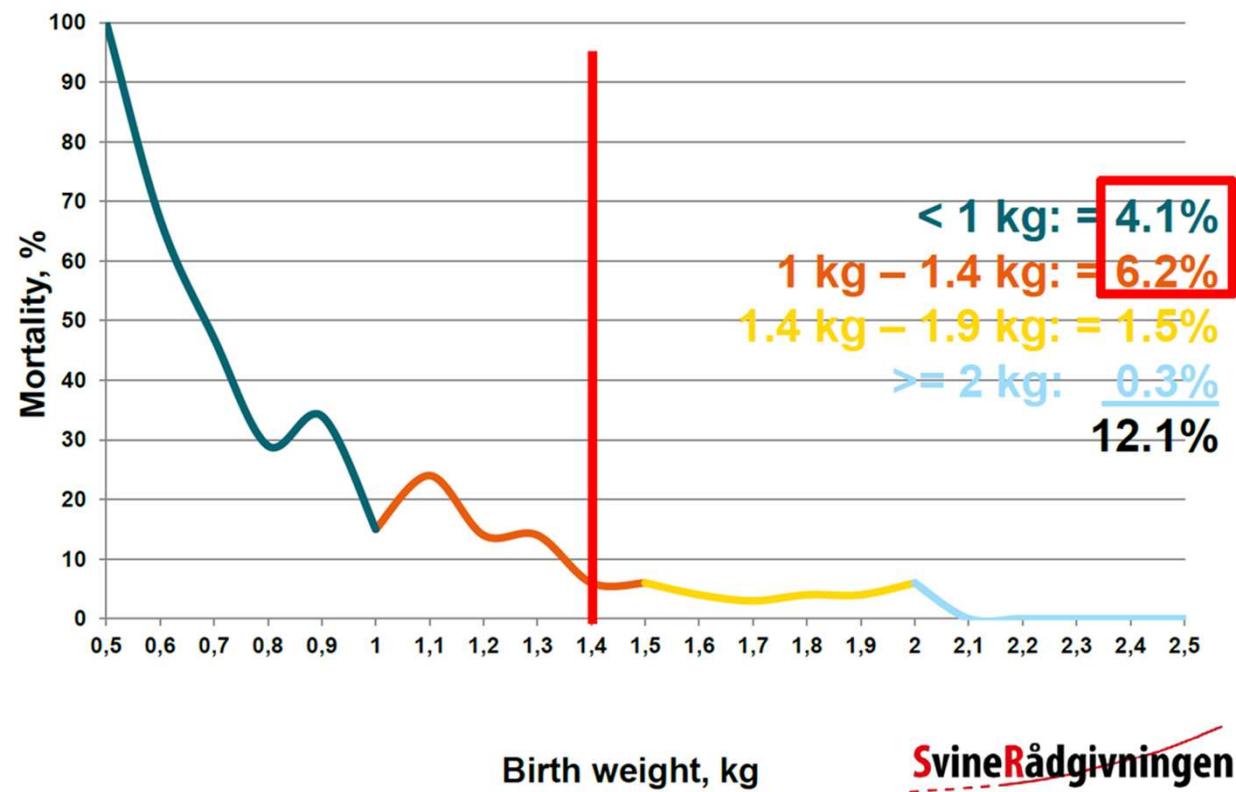


THE PIGLET WITH POOR VIABILITY



(Fig.8-24)

PIGLETS WEIGHING LESS THAN 600 GRAM WILL DIE!





Fostering piglets reasons

Too many
piglets

Variable birth
weight

Weak or poor
viability piglets

Mastitis or
diseases in the
sow

Savaging(
attack own
piglets)

Delayed
weaning


Starved piglets
(skinny in 3-5
days age)

Death of sow
at farrowing

The rules of fostering

The piglets must be assured of colostrum for min. 12 hours before they are moved.

- Cross-foster to 12-15 piglets/litter depending on the number of functioning teats. Start by utilizing excess teats of sows that just farrowed and have fewer piglets than they have functioning teats.
- Make nurse sow for excess piglets.
- In as far as possible place small piglets with second parity sows
- Cross-fostering must be complete max. 36 hours after farrowing
- Primarily move large piglets
- Move as few piglets as possible between litters, but move them before they stop growing
- Do not move piglets between litters after day two post-farrowing. Place piglets older than 2 days with foster sow.
- Sow can't get more new piglets than she has given out
- Accepts the piglets.




Optimum nurse sow for underweight piglets:

- Its either a sow that is just finishing farrowing (the nursing piglets can be placed with her immediately after birth).
- Or its a sow that has farrowed min. 12 hours ago (if the piglets could receive colostrum from their own mother).
- Has small teats that present well to the piglets. It could be a gilt or a second parity sow.
- Its sow what is calm.
- Situated in a pen with an optimum environment for small piglets.
- If necessary, put the heat lamp in the pen and place a thick layer of bedding in the heating corner.
- It is essential that the nurse sow's own piglets get colostrum before they are moved or from the receiving sow!



Exchange failed, because:

- Exchange has done too late and the piglets with reduced growth are too weak to suckle.
 - Sow what has that litter of reduced growth has become sick.
 - Piglets in the litter with reduced growth have become sick.
 - Sow lies on her stomach or stands up all the time, the piglets can't get milk.
 - Piglets are agitated - possibly because the sow refuses to let them nurse.
- 



Don't
move:

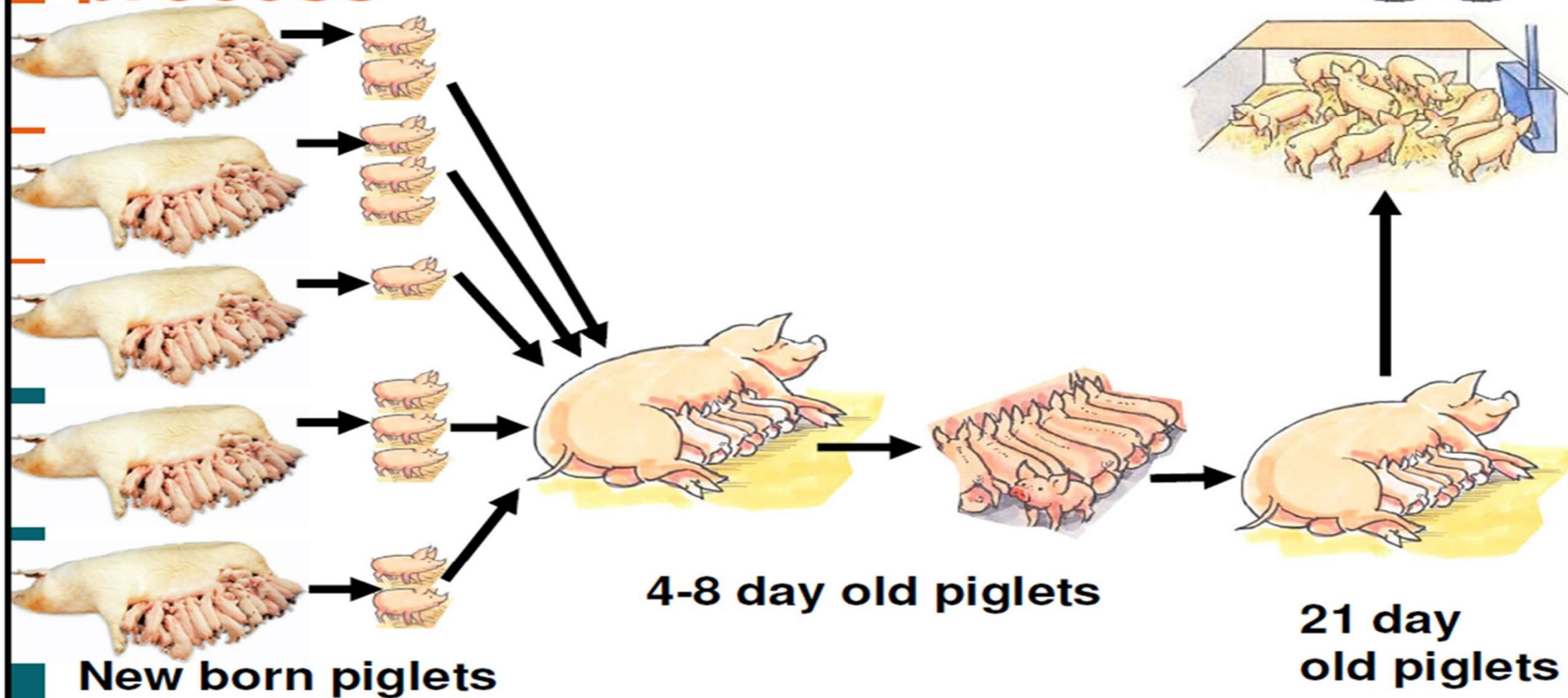
Sick piglet. It will infect other piglets. Instead, treat the piglets and provide colostrum.

Leave own with foster sow if the piglet is not ready to be weaned at the same time as the other piglets of the foster sow.

Healthy piglets if they are small, but still growing. That disturbs the teat order in the litter where they was and where they are moved to.

Two step fostering process

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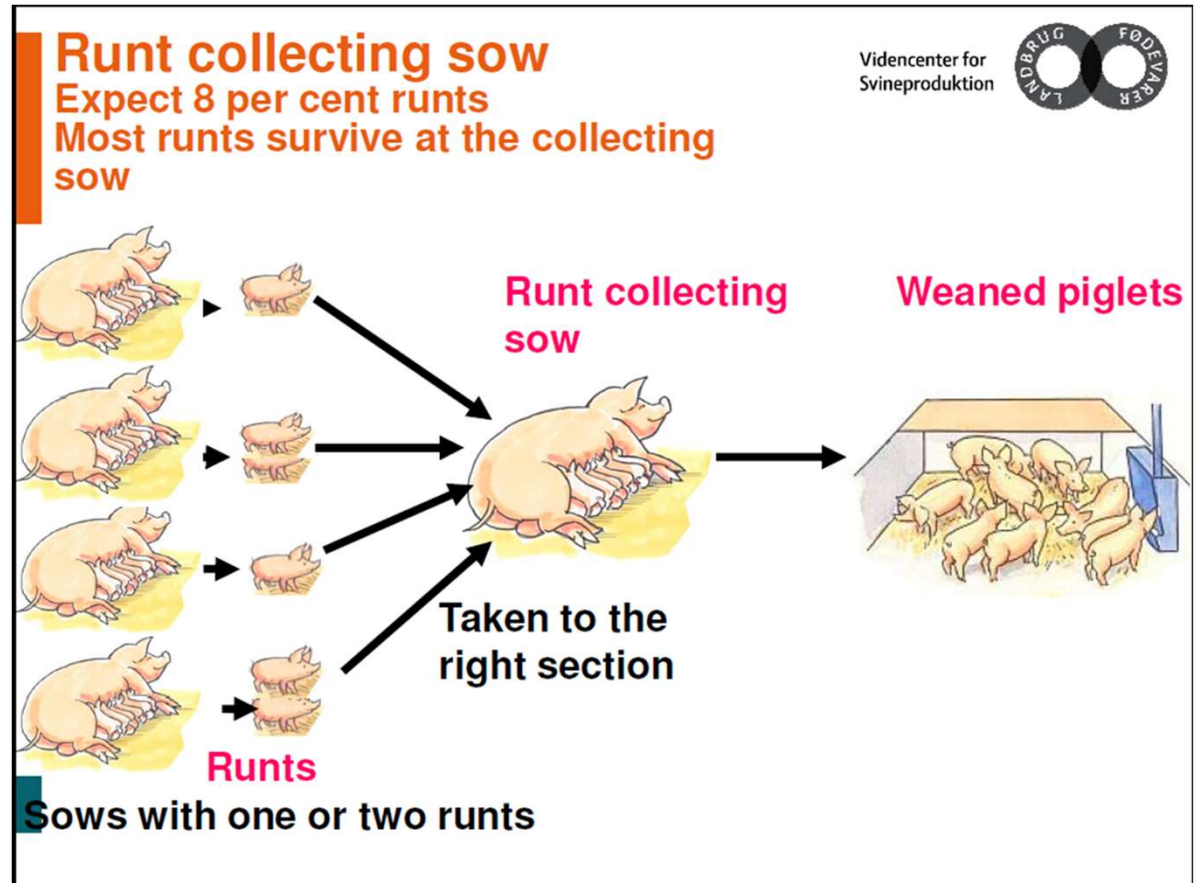


Do not move

- A sick piglet as it will infect other piglets. Instead, treat the piglets and provide colostrum.
- Healthy piglets if they are small, but still growing. That disturbs the teat order in the litter they are moved from and in the litter they are moved to.

If you cross-foster too late

- The teat order is disrupted in the litters to which the piglets are transferred.
- It has been too long since the sow has farrowed and her teats may have dried up.





Is farrowing went well and when sows need extra help

01

Sow look
fresh and
active

02

No fever

03


Good feed
and water
intake

04

Any infection
is leaking
from vulva

05

Lies on the
side and
give milk for
piglets



Piglets feeding

- | | |
|----|---|
| 2. | <p>Feed intake varies greatly from litter to litter; a litter of 24-day-old piglets may eat from 100 g to 1 kg dry feed a day.</p> <p>With 2-5 daily feedings it is easy to increase the supply of feed according to the need of the piglets.</p> <ul style="list-style-type: none">• In the second week, feed the piglets 2 times a day.• In the third week, feed the piglets 3 times a day.• In the fourth week, feed the piglets 4 times a day.• In the fifth week, feed the piglets 5 times a day. <p>Feed the piglets according to appetite from week 3 to reach optimum feed intake.</p> |
| 3. | <p>The trough must be clean and empty before feeding. It is important that the trough is emptied at least once a day due to</p> <ul style="list-style-type: none">• Hygiene• Feed loses taste and aroma if it stays in the trough too long.• You activate the piglets' curiosity when you pour feed into an empty trough. |



Questions and proposals



The End