



*Just for pigs*

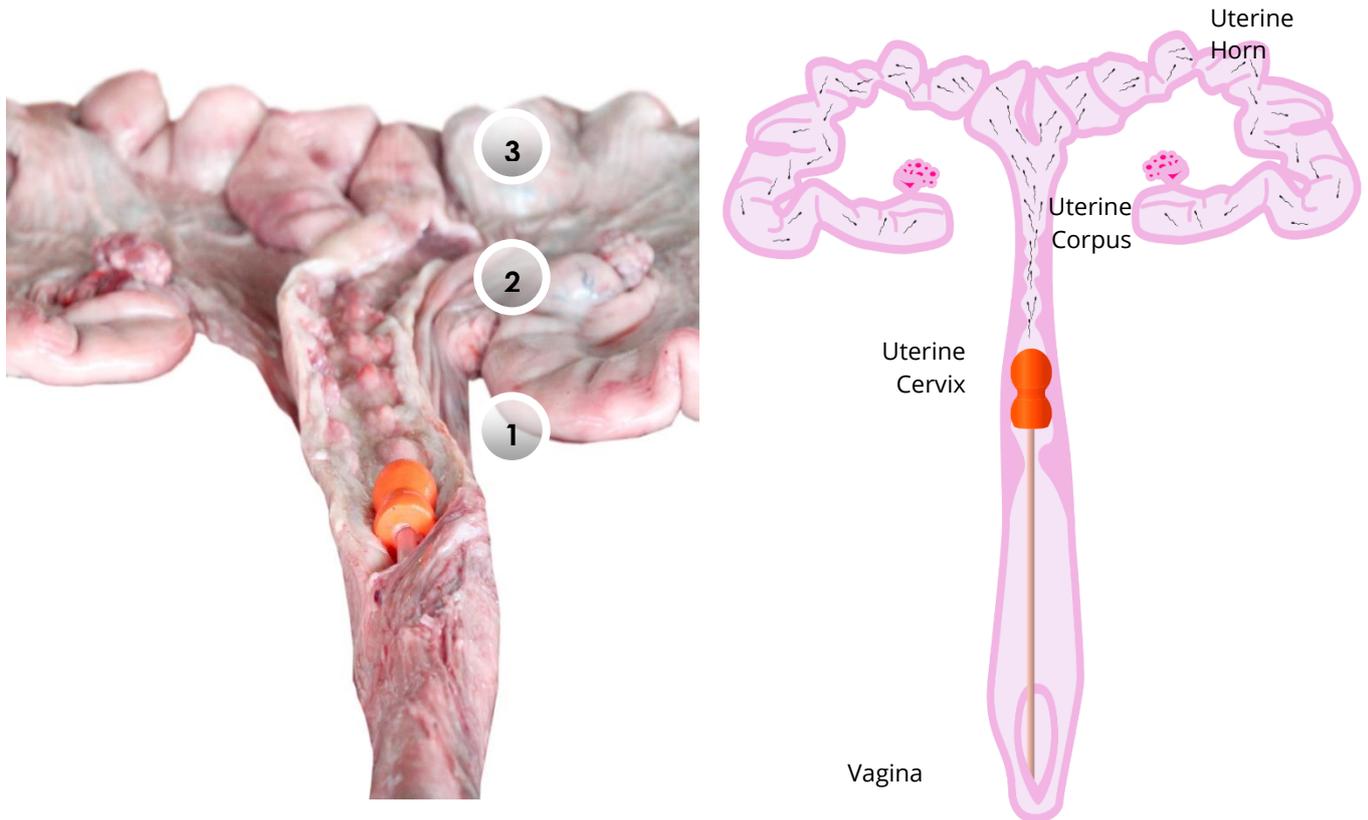


RECOMMENDATIONS FOR  
CARRYING OUT  
**TRADITIONAL  
INSEMINATION**

Rev. Aug 20

## RECOMMENDATIONS FOR TRADITIONAL INSEMINATION

Artificial insemination is depositing the contents of the semen dose through the cervical region of the female reproductive system, using a simple or composite probe in the cranial portion of the cervix (1:traditional), the body of the uterus (2: post-cervical) or the beginning of the uterine horn (3: deep intrauterine).



Types of catheters used in traditional insemination:



**SPIRAL:** The tip of the catheter simulates the boar glans. It has a huge adaptability and stimulation capacity of the genital tract. As the previous one it requires a rotational movement during its placement and insertion.

**FOAM:** A very simple use catheter because it does not require any turn to place it. It is a very soft catheter with a huge adaptability which works very well in case of backflow problems. Its thickness and shape makes it a very stimulating cannula for the female genital tract.

**FOAM FOR GILTS:** This catheter does not need any turn to place it. It has been designed specifically for gilts reproductive tract, avoiding backflow.

## PROCEDURE

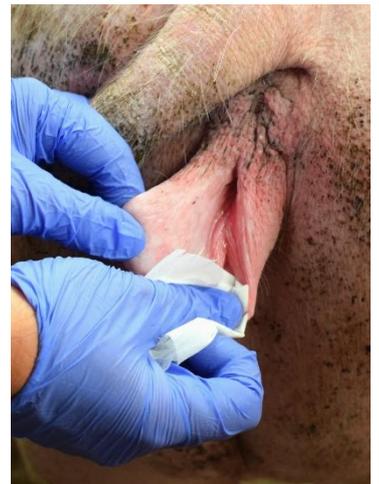
Firstly, one or several boars (if they are twinned boars) have to be taken into the corridor and placed in front of the sows. The boar has a stimulating effect on the sows, which will favor the upward uterine contractions (dose absorption).

Before starting the process, it is advisable to have all the animals located and all materials prepared.

### Insemination with traditional catheter method.

- 1) **Clean the vulva** of the sows to be inseminated using a paper towel, with a disposable paper wipe. Remove any dirt from outside and inside the vulva of each sow, so that it is not pushed farther in the vagina by the catheter. These wipes may be humid, moistened with antiseptic solution, or simply rolls of blotting paper.

Make sure the vulva is dry, as any dissolved dirt can easily be pushed inside the animal.



- 2) **Hold the catheter by the latter part and carefully apply lubricant gel to the tip.**



### 3) Inserting the catheter:

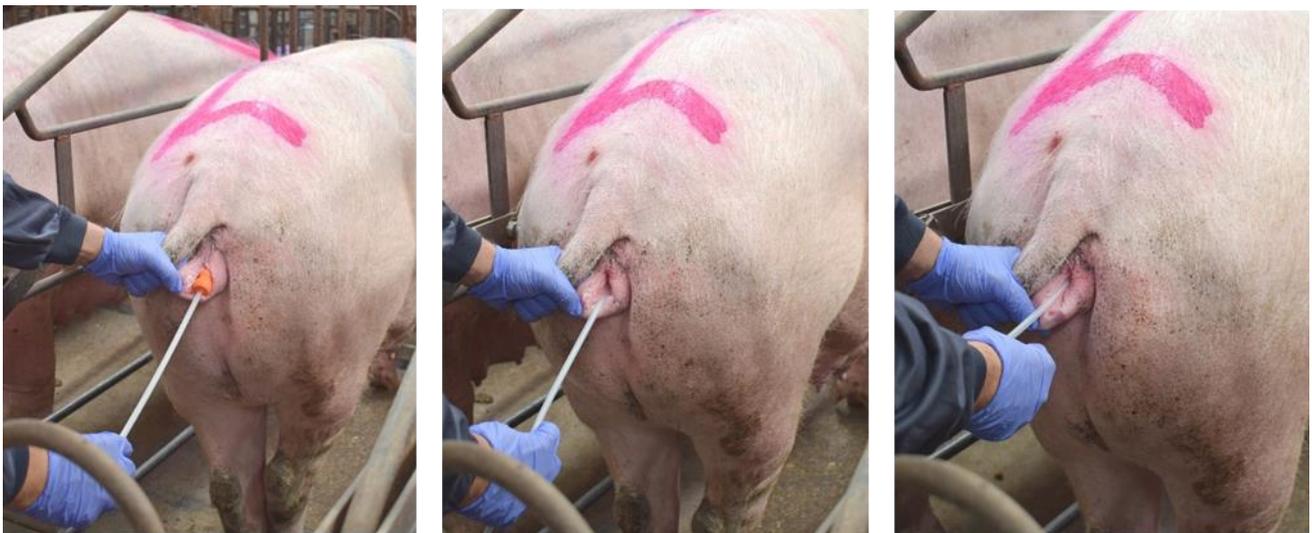
3.1 Open the vulva with one hand and insert the catheter with the other, making sure the catheter only comes into contact with the inside.

3.2 Insert the catheter by pointing the tip upwards (30° angle) to avoid entering the urinary tract. If this is done badly and is inserted through the urinary meatus, a yellowish or bloody fluid (urine or blood). If this happens, it is advisable to discard it and use another one.

3.3 Insert the catheter carefully to avoid hurting the sow and when a resistance is noticed (cervix zone) stop. With foam catheters it is not necessary to rotate the catheter to anchor it.

3.4 It can be inside a couple of minutes before inserting the dose. This helps to stimulate upward uterine contractions and the cervix relaxation. At that time, it is possible to put more catheters avoiding idle times.

3.5 Before inserting the dose, make sure the catheter is well attached making a slight pull in flow direction. In case it is not, repeat point 4.3.



### 4) Inserting the semen dose:

No clear improvement between inseminations with warm (36-37 °C) or cold (15-17°C) semen has been described experimentally or has been noted in the literature, so our recommendation is to use cold semen (15-17°C).

After the proper dose homogenization, simply attach the semen dose to the end of the catheter and let the contents flow into the female's tract.

Then, insert the semen dose in the catheter and let the sow absorb it through the peristaltic contractions.

It is not advisable to press the seminal dose to accelerate the insemination process because in most of cases, the contrary effect is got (important backflow and the majority of the dose content falls down to the ground). In case over 25% of reflux is seen, it is advisable to re-inseminate the animal. This method must not last less than 3-5 minutes (the time the sow absorbs by herself).



Two ways of insemination can be used with traditional insemination:

- Conventional: the operator grabs the dose and the catheter till the sow has finished absorbing it. It requires more time but it offers more control. Each operator could be with two sows at a time.
- Auto-insemination: By using "Breeding buddy" to hold the doses avoiding the operator grabbing them. Furthermore, it gives stimulation to the sow. With this system several sows may be inseminated at a time. Each operator could mate 5-10 sows at the same time.

If the "auto-insemination" technique is used, it must be accompanied with a continuous surveillance. Despite it gives a huge advantage in insemination time, the lack of attention can penalize the reproductive results (check the backflow, avoid the sow lies down or the catheter/dose goes out of its place, etc.). That is why it is advisable to inseminate manually the problematic and the nervous sows to properly introduce the semen.

Once the sow has absorbed the entire dose, the catheter could be inside the animal for a couple of minutes with the adapter cap on to act as a physic barrier (it avoids the expulsion of the genital tract liquid) and keeps stimulating the upward uterine contractions.



When the process is finished, remove the catheters carefully. Sometimes, (especially in nulliparous sows) it may happen that the catheter keeps strongly tighten to the sow cervix and it cannot be removed easily. It is important to keep calm because if a pull is given the animal can be hurt. To remove it, pull with constant force turning it clockwise (in case of "Spiral" catheters).

Once the process is finished, the boar can be left few minutes before taking him back to his place in order to get a bigger stimulation in sows.

Last but not least, it is advisable to "*standardize*" the "*procedures and operations*" which will be taken in the farm through a SOP document so all workers will follow the same guidelines.

Insemination is a team work. If it becomes long and tiring, it can happen that staff get tired with less patient and overlook some important details that can lessen the reproductive results (backflows, animals that lie down, catheters which go out).

Furthermore, the staff must have received a proper and reliable training. It is essential to have more than one person capable to make these kind of tasks in order not to reduce the performance in vacation or in case of sick leaves, shifts, etc....



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