

The six hypotheses for further productivity in sow herd.

My idea was to write a short essay but I must admit that I can't do that, instead I will write about the critical six components.

I will write about the things, that I believe are most important to have as high priority, but what the farmers often "overlook" or forget.

These things are;

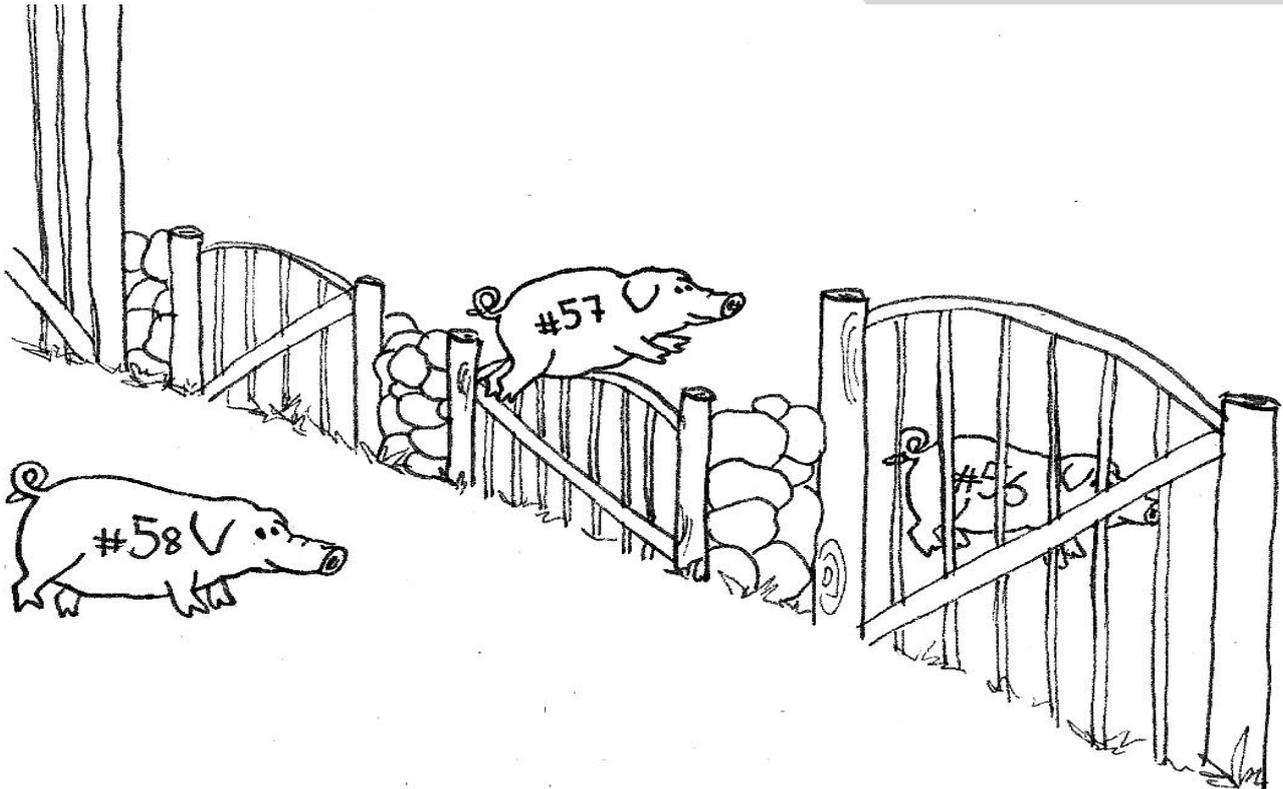
Water, food/ feeding, environment, health, genetic and management/ "the human factor".

I have tried to prioritize them but I know this isn't as simple as it sounds.

First; Some of my hypotheses about food/ feeding

My saying has always been; decrease the human factor.

The reason is that people are born "lazy" and mostly that is why things do not run as planned inside the sow herd.



This drawing says that people, but also pigs, are "lazy" and will always try to jump over the fence where it is lowest.

Here in the second section, I will try to show with my ideas in regards to what often goes wrong with Food/ feeding compared to reproduction and their possible solutions. But also, my ideas regarding how we can provide further productivity but change our way of thinking and our habits.

Food/ feeding

Quality of food:

These should be quite easy; Use healthy raw materials in the correct formula for the right animal group.

Today there a lot of nutritionist that makes good food. The problem, as I see it, is that many of these nutritionist work in private companies that has it as their goal to sell more of their products instead of optimizing the production.

I am not saying that they don't try, but still they have another agenda than the pig producer. On the other hand, these companies produce new knowledge and new additives that "move" (or push) the industry forward.

This is positive.

Another issue is that many of the programs, that are used for optimizing feeding, are with too many delimitations/ limitations. This is, of course, based on price and when solely based on calculate-on-price, people always seem to focus on "short timespan".

I also see many that have some mycotoxins in some of the raw material and again one must consider how much of this "crap" can we use before it goes wrong?!

I am not saying that this kind of optimizing is wrong, but a sow herd is a long-term project and it must be handled as such.

Meaning that if we give "poisoned" feed with mycotoxins we can e.g. damage the young gilts that we need to make a profit on in future and the worst is that we have decreased their potential.

That is the same when we use to many limitations when optimizing.

We need to think: that the gilts productivity count to be around 20- 25 % of the total herd.

This is because we normally change 50- 55 % of the herd every year (50-55 % replacement/ litter per year sow= 20- 25 % gilts that farrow.)

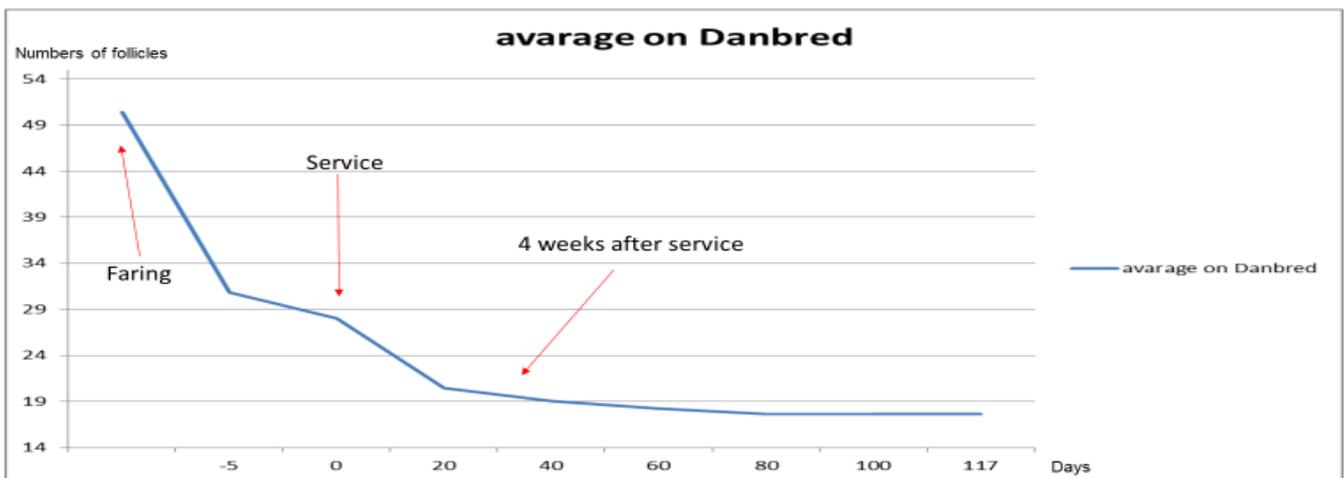
So, my conclusion is simple:

Use healthy raw material,

independent nutritionists that know what they do and are also concerned in regards feed for different health status (*future article will follow) and other problems and think (invest) in healthy food that focus on the potential of the herd, instead of decrease the potential of the herd.



Reproduction versus feeding:



This graph shows the potential of follicles in different stages in a sow cycle's.

This one is shown for the Dan-breed genetic, but the curve/ tendency is the same on other genetic.

The sow produces around 50 follicles approx. 5-7 days after faring and there is "only" around 31 follicles at weaning and around 29 follicles around service. This is optimum when you feed and have good management in the faring pens.

So; **Decrease with 19 (38 %) follicles from 5-7 days after faring until weaning, drop with 2 (4 %) follicles from weaning until service and drop with 11 (22 %) follicles from service until faring.**

So, what do I mean by this; sometimes people don't focus on the amount and quality of food in the right places. Many times, when people have reproduction problem they focus on the service area. Yes, the service area is important if we look on the pregnant rate, not as important if we look at total born. (total born comes from faring area and pregnant rate comes from service area and 4- 5 weeks later, this is of course an overall consideration).

So, how should we feed/ treat the sows before faring to have these potentials?

- Make sure that the body condition is perfect. Better a little bit too thin, then too fat.
- Make sure that we have perfect back-fat.

So, how should we feed in the lactation period in order not to lose the potential?

- Make sure that the sows condition is as good as possible. Right back-fat and right weight.
- Make sure that the sows health condition is perfect around faring.
- Make sure not to give more feed than maximum 6 kg per day on day 6 after faring.
- Feed the sows adlib from day 6 after faring until weaning.
- Don't "jump over" the last feeding in faring stable before weaning.
- Make sure that the sows maximum loss of back-fat is below 3-4 mm in lactations period.

Low feeding in faring period reduce later reproduction

	Strategy 1	Strategy 2	Strategy 3
Feeding			
0- 21 days period	Ad Libitium	Ad Libitum	80 % of Ad Libitum
21- 28 days period	Ad Libitium	50 % of Ad Libitum	Ad Libitum
Sows lose in weight (kg)	11,0	21,1	24,8
Sows backfat lose (kg)	2,2	4,6	5,4
Ovulation	19,9	15,4	15,4
Embryonic survival	87,5	64,4	86,5
Time from weaning too heat	88,7	122,3	134,7

As you can see in the tables above, they state the same conclusion. The feeding is very important in the lactation period.

So why does it often go wrong and what to do to prevent it:

1. The simple answer is that we are born lazy and don't use any report system (not even the efficiency report, that only tells about the past). That is the important that we make some "trial- pens" where we can follow the tendency in the sows feed intake.
2. Remember to measure weight and find the foods density. This should be done regularly to find out why and change it, if it is necessary.
3. Make regularly analyses of the feed regarding whether it contains the expected nutrients.
4. Make regularly analyses on the most common mycotoxins that are in the area where the farm is located. This analyse should both be on the grain, the protein source, and the finished feed. By doing this, we can find any sources of pollution before the sow tells us.
5. Make sure that we scan the back-fat regularly, then we can also see if there is some "wrong" tendency in the herd.
6. Follicle counting.
This is a method that can be used on sows that are: dying or needs to be slaughtered in the pregnant period, not because of missing pregnancy.
By doing this we can see if the potential is as it should be and where it possibly went wrong (*see the first tables)

So, what will the future bring in regards to food/ feeding?

- I am quite sure that the potential in productivity is huge!
The genetic potential is there and we should all focus more on the long-term quality of the feed, rather than the short-term. Maybe we should pay a little extra in the present, and then maybe we will have an extra return latter.
- We should find some simple efficiency reports that can tell us how the food/ feeding runs now, so we don't have some bad surprises later. Again; what we do about food/ feeding now, can result in surprises that could possibly have been avoided.
- "Push" our nutritionist and feed suppliers to find the best possible potential in our herd compare to the different "challenges" in the herd (Water, food/ feeding, environment, health, genetic and management/ "the human factor)
- We should "decrease the human factor" and we should make some more simple routines to make sure that the second priority for productivity (food/ feeding) are done regularly.

I know I have written about a 'dangerous' issue/subject, but I believe that it is important that we think about these important issues of food/ feeding.

I am aware that I have written mostly about reproduction, which is because of my true interest and it is my profession.

In my next article, I will share some of my thoughts in the matter of health, which in my opinion often set a limit on the productivity.