

The six hypotheses for further productivity in a sow herd.

My idea was to write a short essay but I must admit that I can't do that, instead I am going to write about 6 critical components.

I am going to write about the things, that I believe should have the highest priority, but what the farmers often seem to "overlook" or forget.

The 6 critical components are;

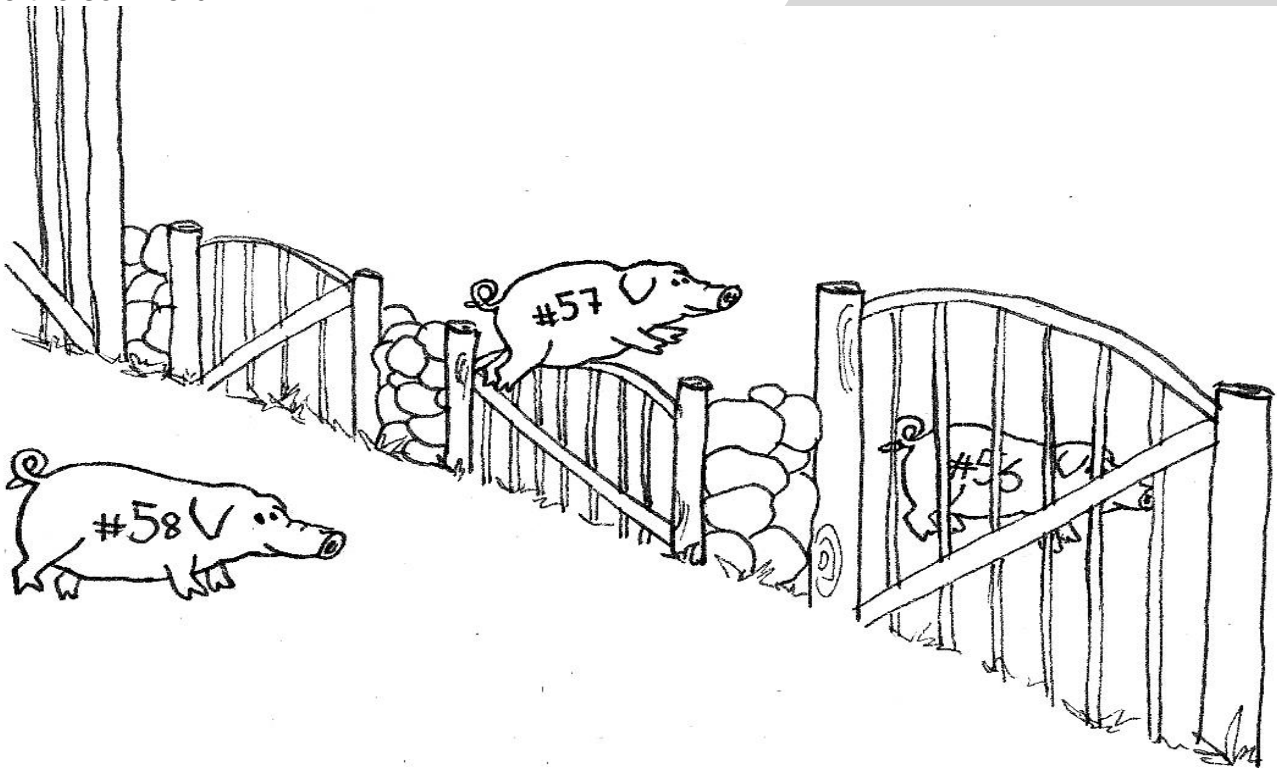
1. **Water**
2. **Food/ feeding**
3. **Environment**
4. **Health**
5. **Genetic**
6. **Management/ "the human factor"**.

I have tried to prioritize them, but I know that this is not as simple as it sounds.

First; Some of my hypotheses about environment and health.

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 third section, I will try to show my ideas, regarding what often goes wrong with environment and health, compared to reproduction and their possible solutions. But also, my ideas regarding how we can provide further productivity through the changing of 'our way of thinking' and our habits.

Environment and Health

“Some thoughts and looking back in history”

This subject, can be “dangerous” to write about, because many will say, that I don't have any education or knowledge about this. But anyway, I will express my ideas and beliefs, as I believe that sometimes good ideas come from “idiots”.

I will start in the world of movies!!

When I think of environment and health, I always think about; Jurassic Park by Steven Spielberg. Reason is: there is a scene, where they find an egg. This shouldn't be possible, because all animals should have the same sex, since they have been produced with gene technology!!

Reason I always think on this scene is that; **nature always finds a way to survive.**

That is also why the struggle between environment and health will keep being “the never-ending story”

Therefore, we must accept that bacteria and virus are “normal” but be aware of changing the “normal environment” when using antibiotic, disinfection, cleaning, and other things that can have an impact on the environment.

All these changes can affect the production and there for we need to optimize use of antibiotic, optimize management and prevention.

Later in this article I will share some ideas and a possible way of controlling the environment and health.

Bio- security:

If we look back in history, over the last 2000 years, we find that diseases are coming from our productions of animals and affect both other production's animals but also the human population. That is one of the reasons that I will start with bio-security. This means both internal and external bio-security.

If we start with external bio-security, one of the reasons is to protect the animal from diseases from other animals. The awareness of this kind of bio-security is quite high. We have quarantine rules for people that must enter the herd, we have strict rules for trucks, equipment and so on. Nearly everyone has rules for new incoming animals to the herd, and how they should be introduced in the herd.

But still, these two entries; new animals and people, are the most common reasons, when herds are infected.

So, please always have full focus on these 2 important things.

'The Flu' is getting increasingly common inside the herds. I think, that many of the infections happen, because of transmission between people to the animals. Therefore, I do not understand why the farm manager/ owner, does not tell people that they must be vaccinated, if they must enter the herd. Especially, when we know, that the flu has many variants and is the virus that mutates most.

So, my advice would be, with external bio-security, that you recently have had a discussion with your vet, if all things have been done to prevent new diseases/ infection. Of course, there must be a manual for this and a regularly control, that everybody is doing the things that have been decided.

External bio-security is also something about how not to pollute and minimize the environments surrounding the pig production.

An example could be: how you get rid of the waste. If you do not have good a clear manual for this, it can attract animals that can transfer diseases.

It is also very important, that the various farmers work together is the common understanding that they help themselves by helping each other keeping the animals healthy.

Flies, mosquitos, rats, mouse, birds, wild boars, foxes, and other pests should also be considered, as to how we handle this, because also here there is also huge risk of infections.

Something in external bio-security what is difficult is the inlet/ ventilator that is needed, if we should have the best environment for the different animals of different age we have in the stable. It is different, how fare bacteria and virus can spread in the air. Therefore, it is good to make an analyse of how the farm is located, compared to other farms. That way, we can calculate the risk of infections both on what they are in the area and then better prevent that together with the vet.

Internal bio- security.

One of the biggest problem, when the herds start getting bigger, we put the different groups of animals in different rooms. That is a good idea, when we want to optimize management (feeding, temperature and so) but problematic when looking on the natural bacteria flora. That means that we can have a group of pregnant sows going in one room and another group going somewhere else. The problem occurs, when mixing these two groups. Then the natural bacteria flora will change and can create some problems.

The use of "all in- all out" (AI-AO) system is not only the best, if we haven't the same numbers of animals in each group. But also, when introducing new gilts to the sow farm, we very often see/hear some "noise", with more returners, more floats and things that does not go "normal".

One of the problem with AI-AO system is that we clean and wash and therefore minimize the normal bacteria and virus. That is not all good, because then we also effect the normal bacteria and virus flora. That can cause some new problems, for example, with the flu this will act "not normal" with some non- specific symptoms that we can have problems to identify.

Of course, we vaccinate as much as we can to prevent the normal diseases that we have, but also to decrease the use of antibiotic (as written earlier in the article).

No doubt, that we must be better to prevent the diseases that we can have inside the herd with vaccination. One of the reasons are, that an outbreak will often cost more than controlling the disease by vaccination.

So, what are my conclusions?

No doubt, that we should take environment and health issues more serious in the future, so that we will have more stable production results, but also to decrease the use of antibiotic.

- We need report systems, where we can see how the production goes compared to the environment and health. It is not the level of antibody's that are interesting compare to production report, but the changes in the antibody's.
- This can be done by making regularly autopsies. What the autopsies should be is something the Vet should decide. This could be on lungs, stomach, haemoglobin level on piglets and so on.
- Also, to be much better to register what our animals die of. Also, important to write the different stable down where the dead ore treatment was, so we can compare with other stable or dead animals.
- I think that many bacteria and virus that we don't think are "dangerous" can have influence on the production. That why, I think that we need to look on other bacteria/ virus, because they maybe conjunction play a role with the known bacteria/ virus.

With these tools, we can see where we have a problem, but most importantly, to see where our environment and health status is and then adjust the treatment accordingly.

The most important is, that we must get all the employees and people around our production to understand the importance of knowing what is going on with the environment and health = The human factor

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