**Report Visit Armenia** 

Dates: 23 September – 3 October Location Yerevan and rural Armenia

The purpose of the visit was to see and find out the best possible ways to upgrade pig farming in Armenia.

I had put together a presentation for the veterinarians and AI technicians that we would meet during the visits to 5 local/rural areas.

The visits were organized by CARD and this was done in an excellent way. At all the meetings about 10 to 15 local veterinarian and AI technicians were present. Of course my presentation raised a lot of questions and discussion. Through this I think I have a good idea of how the pig farming is at the moment. I will say that it is close to how I remember it when I was a small boy, about 50 years ago. For this reason it was relative easy to talk to and discuss with the veterinarians. Because what they see in every day live still is what I can remember, making it very easy for me to get an idea of the problems they are facing.

The first half of the presentation was spending of what is behind the scene of producing good quality doses of semen and the doe's and don't s at semen transport. So the vet's and Technicians have something to tell their customers, gaining more confidence. The 2nd half to the presentation has been spend on the techniques of the insemination itself. Think that it is fair to say that 90% of my presentation was a complete eye opener to the visitors. So not only did I get a good idea of the pig farming in Armenia, at the same time I was able to do some teaching as well.

The Weekend was set up to do some touristic sightseeing. I am not a museum freak and so the Saturday was spend to visit 2 farms. The 1st one was very large, holding about 1200 sows and expending to 2500 sows. The construction was going on when we were there. In the beginning of the expansion the equipment was bought from China. Nothing wrong with the equipment but it failed some know how to create the best facility. Everything was put into 1 very large farrowing room. This is to very ideal because now the different age of piglets (0 to 5 weeks of age) are together and this is not good for health reasons. Also this makes it impossible to empty the room from animals and clean and disinfect it. With very little extra investment 5 separate but smaller rooms would have been created. This would have improved the hygiene dramatic but also make the ventilation/heating better suitable for the animals different in age.

The owner has realized this himself to and the later expansion was set up in cooperation with Schaur (Austria). In special farm report I am more detailed about this visit.

Then we visited another smaller farm with about 160 sows. The owner had made the design himself. Very very basic but workable. Still I think the piglets in farrowing need to be on a slotted floor and not on solid concrete floor. However the biggest problem here was the scours (Diarrhea) under the piglets. I think this is for big part due to wrong feed for the piglets. Also at the local visits I noted that the feed mix given to the animals is nothing put together with a lot of science. It is no more than "we give them what we have and then hope for the best".

This brings me to the first suggestion. Urgently a nutritionist is needed to see what is feed sources are available and how does this need to get grind, mixed etc. to get the best feed conversion. The feeding is a very important issue here because of the very high price of corn, grain and protein sources. It have the idea that with the production of feed that is better suitable for the specific animal size/age it might be possible to get a drop in feed conversion of 25 to even 30%. This

without a real increasing cost of production.

Then I noticed that the semen production (doses of commercial semen) is produced in a rather amateurism way. At least nobody was able to answer my question what genetics was used. How long the semen was supposed to be good enough to be used for insemination etc. The answers where simple: we don't know anything about it. Not about the genetic, not how old the semen is, not how long we can use it, nothing at all.

At the same time there is a lot of interest for AI because often a pad-boar (a boar traveling from farm to farm for fertilization of the sows) is used and this is costing around EUR20,- per insemination. Roughly estimated it will be possible to perform AI for about half that price, allowing big savings for the farmers. The pad-boars are never checked for semen quality of fertility results. So with proper produced doses of semen the results will increase too. So there is a lot to gain here.

For a proper dose of semen 2 things are necessary:

- 1. A well equipment commercial AI center with trained staff. This can be private owned or cooperative.
- 2. An organization that monitors production and sales of semen. And making it obligatory for an AI center to participate in this quality monitoring program.

A monitoring program is absolutely necessary because without there is a big chance that commercial operation will produce as cheap as possible just to gain customers and forgetting about quality. For a farmer it is not possible to check the semen quality so it has to rely on other organization to do that for him. Also in the beginning many farmers will be skeptical about AI. If a farmer has achieved poor results with AI in the beginning it will be difficult to gain back his trust. For this it is necessary to start with good semen. Taking away one of possible failures.

How to proceed. Short term.

I think CARD has the potential to set up the monitoring program. Not having to find out the wheel for a 2nd time. I plan to bring Arman Ohanyan in contact with Topigs. A breeding organization with a lot of experience in setting up (small) AI centers and they have the knowledge in house of a quality control program.

Depending how this is going I would like to see CARD contacting the Armenian government trying to make the quality control program mandatory for all semen used for AI.

Then it is time to set up an AI center or maybe 2 because of the distances of the country. CARD can play a role here in supporting the setup of the centers. I don't think CARD should be the operator of the centers. This because of the nature and structure of the CARD organization. In my opinion it will be better if 1 (or more in cooperation) of the local vets or AI technicians do set up the AI center and operate it. This distance between CARD and the AI centers also is necessary to make and keep CARD unbiased in the quality monitoring program.

In November Mr. Arman Ohanyan is visiting the Netherlands and will have time available to contact with a Topigs representative. If all goes well then I think it might be possible for next year (2014) to construct the first AI center already.

## Expectations for the long term.

I don't see a future for this back yard sow keeping. The whey of the cheese making is for big part spends on feeding the sows while it is much more useful when fed to the feeder pig and finishing pigs.

I see a good chance of getting this changed. Already the village people are cooperating by together in large group bringing the cows to the pastures higher up the hills.

I would like to see a village sow farm being built. Not that everybody will have its own sows. A local sow farmer can buy a share in the village farm. To keep it simple; 1 sow represents 1 share. For this share the owner has the right to buy 15 pigs per year at cost price. The rest of the pigs will be sold to the market (non-shareholders) for as high as possible price. With these extra sales the farm will make a profit and some of the profit will be given back to the shareholders as return on their investment,

This plan looks very futuristic but history has proven that it works. Even in the USA where most farmers see cooperation as a sort of communism it works. It worked so well that for instance Pipestone in about 7 years grew from 0 to 80.000 sows. After the start of Pipestone more structures like this has been set up.

I was in Slovakia for a project and we saw something similar happen. A 170 sow farm was set up in a village and within 2 years all the sows in the village and even surrounding villages disappeared because the quality of the pigs from the commercial farm was so much better than that of the pigs produced by themselves that everybody sold (slaughtered) their sows and started to buy feeder pigs and raise them to slaughter weight. Easily I see something like this happening in Armenia.

Best regards, Jan Veltkamp