

**FOSS**

# INTERVIEW WITH QNETICS

ANALYTICS BEYOND MEASURE



Date: February 2021  
[fossanalytics.com](http://fossanalytics.com)

**Dr. Daniel Schwarz**, Dairy Farming Senior Specialist, M.Sc. Agriculture, Ph.D. interviewing:



**Dr. Sonja Kleinhans:**  
General Manager of Qnetics GmbH; General Manager of HVL e.V.

**Dr. Gesine Reimann:**  
Head of DHI operations and deputy head of milk-testing laboratory at Qnetics GmbH

### What are the main activities and services of Qnetics?

- Organisation and execution of DHI testing for dairy cows, ewe, and dairy goats
- Analysis of milk for both DHI and payment purposes
- Testing of milk flow analysers
- Testing of milk sample collection devices on milk trucks
- Testing of milking units according to DIN ISO
- Advisory services for herd management, dairy cow nutrition, milk quality challenges
- Herd book keeping services for breeders
- Breeding services: Raising of bulls and sperm production according to IFN standard, artificial insemination services

### How many clients (farmers) do you serve in Germany?

282 farms located in the federal state Thuringia are enrolled to DHI testing. This means that >95% of all dairy farms in Thuringia are using our services. The average herd size of dairy farms in Thuringia is 350 cows/herd.

### What type of milk quality services and analyses do you provide to farmers?

We offer farms assistance in terms of collection of DHI samples, however, the vast majority of farms is taking care of sample collection themselves. All samples collected are transported to our milk-testing laboratory in Jena by us. We analyse milk samples for fat, protein, lactose, urea and SCC. In addition, the parameters acetone and BHB are determined. The parameter DSCC is, so far, only used for dairy farms participating in a pilot project. All data generated goes through our IT system to the data processing centre vit Verden, which is also handling data from several other DHI organisations, and are processed there. Dairy farms do then receive DHI reports directly from the data processing centre. Some farms are using their own herd management software to work with the data provided by vit Verden. Possible errors or misalignments are directly addressed by our field staff.

We do analyse milk payment samples on behalf of four milk processors in Thuringia as well. In this context, the parameters fat, protein, SCC, IBC, freezing point depression, and pH-value are determined. Beyond that, an inhibitor test is applied. All data is being processed and reported back to milk processors through our IT department.

### What has been the incentive to start with using DSCC?

Mastitis is still one of the most frequent reasons for dairy cows being culled. This is not acceptable for dairy farms, neither from an ethic nor economic perspective. Our ambition at Qnetics is to provide proper advice and help to our clients. In this context, DSCC is a parameter that, in addition to SCC, helps farmers to better estimate the udder health situation of their herds. Challenges in terms of udder health can be recognised at an earlier stage and thus it is possible for farmers to react and intervene earlier.

Background for our investment in the new CombiFoss 7 DC technology: Dairy farmers in Thuringia expected to get new management tools that help them to meet societal demands such as healthy dairy cows with high longevity. Reduction of consumption of antibiotics is another hot topic. So, DSCC and possibilities to improve udder health management based on the new information provided were seen to aid addressing these subjects.

### What is your experience working with CombiFoss 7 DC?

Our instruments are running mostly stable and with very few breakdowns. However, we faced some initial challenges, particularly with Fossomatic 7 DC (mainly challenges with valves), after installation in early 2018. A prerequisite for the stable performance of the instruments is to understand how they work and what is special about them, in particular handling of samples with GOSE = 0 results. In this context, a training session of our laboratory staff through FOSS' service has been of great value. Beyond that, some of our staff has been trained to perform the most important repair and maintenance work on the instruments during a 2-days seminar in our local FOSS subsidiary. All this has contributed in understanding the technology of the instruments.

As already stated, we are barely facing hard- or software issues working with these instruments by now. Thus, we can fully utilise the technology in our day-to-day work.

### Is DSCC a standard parameter that you use for all your farmers?

This is planned as a next step. vit Verden is currently finalising the implementation of a new udder health report based on SCC and DSCC results that will become accessible in form of an online tool. Early 2020 we started a pilot phase with 11 dairy farms that received a manually prepared report once per month to develop knowledge on the application of the data. These farms will be the first once to get access to the new online tool, with all of our clients to follow once a trial phase with the pilot farms has been completed.

### Do you find it easy to interpret the DSCC results to practice [advice to farmers]?

Our clients will get trained on what DSCC means and how to work with the parameter or the new udder health report because the interpretation of the report is not (fully)

self-explaining. We will cover this by thorough technical training and advice of the dairy farmers through our field staff. Regular follow-up trainings and regular discussions of the new reports between farmers and our staff are to follow. It is our experience (from the pilot phase) that the farmers become more and more confident in working with the new reports and use them extensively, e.g. to check the success of measures such as improving the management of their cubicles.

### Can you name a practical example of how DSCC results have used a farmer in his daily work or decision making?

Selective-dry cow therapy. Cows that have been in udder health groups A (or a few times in B) during the course of lactation and then are consistently in group A towards the end of the lactation period do not need to be dried-off using antibiotics. The application of teat-sealants is sufficient in such cases because there are no indications for intramammary infection/mastitis. Here, the DSCC parameter clearly offers valuable additional information for decision-making in day-to-day work on the farms.

### Can you explain why DSCC is a valuable addition next to SCC?

We already touched upon the application of DSCC providing additional information over SCC in day-to-day decision-making processes on farm in previous questions. Beyond that, the application of DSCC as an early warning system is highly valuable. While SCC is low and unsuspecting, DSCC results can already be elevated thus indicating upcoming udder health issues. We have observed that on both individual cow and herd level (e.g. rising proportion of cows in udder health group B). Evaluations of udder health where DSCC is included can further be used to estimate the success of measures taken related to udder health. Thus, modifications in the management of cubicles, application of teat dipping, proper function of disinfection of milking clusters between milkings of individual cows, etc. and their impact on udder health can be evaluated better than just based on SCC alone. More specifically, DSCC provides detailed information on udder health at a very early stage whereas SCC rather just shows the reaction, e.g. increase of SCC as a result of certain measures.

How will the use of DSCC change the way farmer can manage / prevent udder infections? The dairy farmers get access to additional valuable information that they can include in their day-to-day decision-making processes. Possible measures that could be taken were already described above.

### How will the use of DSCC change / increase milk quality in general?

DSCC opens up the possibility to react much earlier on udder health challenges (compared to working with SCC alone). Udder health is expected to improve and, as a result, SCC in the milk delivered to milk processors is expected to decrease. A cow without udder health problems produces more milk because she has more energy available for milk production than a cow having udder health challenges and thus an immune system consuming energy for fighting mastitis pathogens. It can further be expected that the amount of milk actually delivered to milk processor will increase, because herds with little udder health problems

use less antibiotics and hence can reduce the amount of wasted milk to a minimum. This way, low SCC inhibitor free or in other words milk of highest quality can be produced and delivered to the milk processors.

### What are the future plans of using DSCC parameter in your services to farmers

As soon as vit Verden has finalised their new online tool of the new udder health report we will be testing this with the dairy farms involved in the pilot phase so far. Subsequently, all of our clients will get access to the online tool and be trained to work with it by our field staff, as described above. We already started communication of the topic through our own magazine "QZeit" and will continue to describe the topic there (e.g. best practise cases) on a regular basis and also report about it in our annual report ("QControl").

FOSS  
Nils Foss Allé 1  
DK-3400 Hilleroed  
Denmark

Tel.: +45 7010 3370  
Fax: +45 7010 3371

info@foss.dk  
www.fossanalytics.com