

WHERE SCIENCE AND STANDARDS MEET

Photographs by Nichelle Steyn.

To ensure that the dairy processing industry in South Africa presents scientific data as accurately as possible, the laboratories across the country, collecting the data, should all ascribe to standardised procedures, otherwise, they could paint an inaccurate picture of dairy to the consumer and to the dairy community at large.

“The agency established an independent body called DSA Laboratory services in September 2017, with the aim of creating a standardisation system that can be implemented across the board.”

It is for this reason the Dairy Standards Agency (DSA) held a laboratory workshop with industry role players. They wanted to create a platform where issues pertaining specifically to laboratory testing could be clarified. “The DSA wants to promote the improvement of the laboratory services across the country, affecting research and data, that the industry relies on,” says Jompie Burger, managing director of

the DSA. The agency established an independent body called DSA Laboratory services in September 2017, with the aim of creating a standardisation system that can be implemented across the board. “Our mission is to create more transparency in the industry to ensure they are protected from receiving incorrect data processed in laboratories.”

ISO STANDARDS

Isabelle Desforges, an expert on standards developed by the International Organization for Standardization (ISO), explained the diverse



DSA developed a laboratory filled with different equipment in order to show industry how it can be done.

processes followed to write ISO standards for various industries. Desforges develops ISO standards in the food industry, following a multi-stakeholder process where representatives from several countries give their input. She says it is important to have the input of experts across the globe, as circumstances that will have an impact on the development of standards differ from country to country.



Isabelle Desforges, an expert on ISO standards, explained the various processes followed to write such standards for various industries.



Jompie Burger managing director of DSA introduced all the speakers.

Niek van Waarde, one of the international speakers at the DSA Laboratory workshop.

“We are in close contact with numerous representatives, and although South Africa is represented, we would like to see other representatives participate more actively in these processes.” Furthermore, Desforges says it is especially important for laboratory personnel in the dairy industry to follow strict protocols as milk provides favourable conditions for the growth of various micro-organisms. “ISO standards are inexpensive and easy to implement; these standards are also regularly updated. Appropriate regulation and approved (proven) methods contribute to a superior consumer protection level, to ensure that safe, good-quality products are sold to the consumer.”

MICROBIOME

Professor Elna Buys, head of the department of food science at the University of Pretoria, says every factory has a unique microbiome of microbes that changes daily and reacts to various elements in the environment. “It is, therefore, of the utmost importance to follow a standardised process when investigating or

tracking certain micro-organisms in the factory. If your data is corrupted in any way, you will never know what is really going on.”

Prof. Buys says tracking these organisms and understanding the microbiome of a factory will enable the processor to relate more accurate data to the consumer as these organisms have a direct impact on the shelf life and sell-by date of a product. “Being more accurate and even printing a quick response (QR) code of a product on the label that, when scanned, indicates to the consumer how fresh the product is, can help to save the consumer money and to decrease food wastage; all important issues for the consumer these days.” She says these technologies will only work if the laboratories are well equipped to understand how a microbiome in a factory works and then act accordingly.

GET THE BASICS RIGHT

Niek van Waarde from Qlip gave an in-depth talk on the basic standards and procedures that should already be in place in laboratories. He said a standardised system should serve the dairy industry best, as it will help clear any research or data disputes in the industry. “This will make it easier for everyone in the industry.”

Van Waarde says a lot of things can go wrong if the basics in a laboratory are not done right. “It can ruin an industry when wrong data leads to inaccurate research and incorrect conclusions. This is especially important when pathogens causing *Listeria* can contaminate dairy products. “We must be ready to protect the health of our customers and ensure that the data we use to draw conclusions are accurate.”



Dr Heinz Meissner, Prof. Piet Jooste, and Prof. Elna Buys.

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