

Biofertiliser: The new star of the fertiliser industry

By Ursula Human

The 58th Annual Fertasa Congress and annual general meeting (AGM), where a new board and chairman were selected, were held in April this year. Dr Erik Adriaanse, manager of product and technical development at Sasol Chemicals, was elected as the new chairman of Fertasa.

Adriaan de Lange, managing director of Omnia Fertilizer and outgoing chairman, kicked off the congress with his chairman's report after an opening by the CEO of Fertasa, Dr Pieter Haumann.

According to De Lange, membership and member code of conduct compliance certification show consistent growth. Fertasa will also pay more attention to biofertilisers this year due to its growing influence on the fertiliser industry. De Lange said this could already be seen in the emphasis placed on the biological aspects of plant nutrition, which allows for a more targeted approach to fertiliser.

High intensity horticulture

Dr John Purchase, CEO of Agbiz, gave an overview of the major trends driving the future of agriculture. One of the trends highlighted was the increased demand for horticultural products such as fruit and

vegetables, which is fuelled by consumers' increased awareness of a healthy lifestyle.

Theo Aanhané, business unit manager for horticulture at Eurofins Agro in the Netherlands, discussed the significance of the horticulture industry in high intensity food production systems. Greenhouse systems that operate with hydroponics allow for much higher food production with lower risks from environmental factors. Unlike open field horticulture – influenced by temperature, light, rainfall, wind, soil, insects, bacteria and viruses – greenhouse structures enable climate control.

In addition, it allows for efficient water and nutrient control, more effective pest control, more production in less space, and no specific soils are needed since it is unnecessary to grow produce in such a system. Yield in greenhouses is thus higher. Plant nutrition, however, still plays an important role in high intensity systems, which gives the fertiliser industry new opportunities for expansion.

Nanotechnology and fertilisers

Prof Anne Grobler, director of the DST/NWU Preclinical Drug Development Platform at North West University, discussed the role of nanotechnology and fertilisers. Nanotechnology is not new but can be

applied in new ways that could benefit the agricultural industry. It is already used to improve the management of pathogens and to physically track crops and products.

Prof Grobler is involved in the research that utilises the Pheroid® delivery system as a bio-nanotransporter

to enhance the absorption of biological molecules in plant production.

This technology is already used in pharmaceuticals and has now been adapted for the agricultural industry. It improves nutrient uptake for tank-mixed fertiliser by interacting with plants on a cellular level. It is also financially viable with tremendous gains for farmers.

The biofertiliser industry is growing

Biofertilisers were a hot topic at the Fertasa congress, with two speakers focusing on this new star of the fertiliser industry. Barbara Novak, a fertiliser consultant from Italy, gave an overview of how the fertiliser industry in the European Union (EU) is being shaped by strict regulations on traditional fertilisers. Novak said that fertiliser use in the EU is declining – especially the use of nitrogen, which has contaminated surface water.

Alongside regulatory challenges, consumers have shown a preference for food products with fewer inputs. Access to raw materials also has an influence on the industry as the EU relies heavily on phosphate imports. These challenges, though, are driving innovation in the speciality fertiliser industry with new biofertilisers and biostimulants being registered on a regular basis.

Dr Hugo Opperman, head chemist at Microbial Biological Fertiliser International (MBFi), shared a South African perspective. He discussed the most widely used speciality fertilisers in South Africa, such as nutrient speciality fertilisers, biostimulants, and biological fertilisers/stimulants.

According to Dr Opperman, several trials have proved the efficiency of many of these products as well as an increase in yield. He suggested that farmers make use of these products alongside their traditional fertiliser programmes to boost production. 🌱



Speakers at the Fertasa congress. From the left are Dr John Purchase, Dr Hugo Opperman, Adriaan de Lange, Barbara Novak, and Theo Aanhané.

For enquiries, contact Fertasa on 012 349 1450 or visit www.fertasa.co.za.