

Press release

nova-Institut GmbH (www.nova-institute.eu)
Hürth, 2 August 2018



Small but powerful: Microorganisms for sustainable agriculture

Worldwide, the interest in the development of microorganisms as biostimulants, biocontrol agents and agricultural probiotics has grown rapidly over the last two decades. At the upcoming conference **Revolution in Food and Biomass Production (REFAB)**, Cologne, 1-2 October 2018 leading scientists and entrepreneurs of this field will present their views and experiences on microorganisms as biostimulants and biopesticides.

Biostimulants complement crop nutrition and crop protection by enhancing a crop's physiological processes. Combined with innovative biopesticides and nitrogen-binding microorganisms, they may help to drastically reduce the overall environmental impact of fertilization and pest management and achieve healthy and productive soils for optimized plant growth and higher crop yields. Or in a nutshell: Naturally improved resource efficiency.

A good example are Mycorrhizae, a form of symbiosis between fungi and plants, where the fungi associate with the fine root system of their host plant. The fungi supply the host plant with nutrients and water while the host plant itself provides carbohydrates formed from photosynthesis to the fungi. This symbiotic system is known since the late 19th century but it was only in the early 2000s that scientific and commercial interest in inoculating crops with mycorrhizae really developed as a technology for sustainable agriculture. At the forefront of the international mycorrhiza research is Dr. Alok Adholeya, Honorary Director of the TERI Deakin Nanobiotechnology Centre, India. At the REFAB Conference, he will speak about the integration of mycorrhizae and nano-biostimulants for precision agriculture and resource efficiency.

While science has made great advances in the understanding of mycorrhizal systems, adoption of mycorrhiza products in agriculture is still lagging behind, largely due to uncertainty about their price/performance ratio. Dr. Wieland Reichelt will present a successful example concerning these issues at the conference. Reichelt is CEO of Evologic Technologies, an Austrian start-up that developed an innovative bioprocess for an economic, scalable production of arbuscular mycorrhizal fungi (AMF) for their use in agriculture.

Mycorrhizal fungi are not the only types of microorganisms that are exploited in the quest for more sustainable agriculture. The French company Biovitis, founded in 2000, is purely dedicated to the production of different fungal and bacterial biomasses and their formulation in biostimulants and biocontrol agents. As a prominent example, Dr. Jonathan Gerbore, Director of Research and Development at Biovitis, will present the potential of an oomycete strain to

fight against the Grapevine Trunk Disease, a destructive disease of vineyards worldwide. Especially in Europe, all vine regions are at risk of this disease and more than 1.1 Billion Euro are invested annually to replace dead plants.

With microorganisms as biostimulants and biopesticides, living organisms are brought out on the field. One major challenge is therefore to ensure their survival after delivery, in order to obtain the expected benefits for the crops. For that purpose, the French company Kapsera, represented at the REFAB Conference by CEO Dr. Antoine Drevelle, is developing a promising alternative that allows efficient encapsulation and delivery of live microbes in the field. This technology is based on a microfluidic device producing a new type of alginate capsule which is bio-based and biodegradable.

These and more projects and prominent companies will be presented at the conference “Revolution in Food and Biomass Production (REFAB)”, 1-2 October in Cologne, Germany. A total of 50 speakers and 30 exhibitors will show the future of food and biomass production, 500 participants are expected (www.refab.info). The programme is available online: www.refab.info/programme. Attractive early bird opportunities are available until end of August. Don't miss the chance to experience the future of biostimulant application and agricultural probiotics in agriculture.

Responsible for the content under German press law (V.i.S.d.P.):

Dipl.-Phys. Michael Carus (Managing Director)
nova-Institut GmbH, Chemiepark Knapsack, Industriestraße 300, DE-50354 Hürth (Germany)

Internet: www.nova-institute.eu – all services and studies at www.bio-based.eu

Email: contact@nova-institut.de

Phone: +49 (0) 22 33-48 14 40

nova-Institute is a private and independent research institute, founded in 1994; nova offers research and consultancy with a focus on bio-based and CO₂-based economy in the fields of food and feedstock, techno-economic evaluation, markets, sustainability, dissemination, B2B communication and policy. Every year, nova organises several large conferences on these topics; nova-Institute has 30 employees and an annual turnover of more than 2.5 million €.

Get the latest news from nova-Institute, subscribe at www.bio-based.eu/email