

## Sustainability in cornfields: rezemo and fenaco show how organic crop protection works with functional packaging made from wood fibers



Figure 1: forewood® Optikugel with beneficial insects in the corn field

### Filderstadt, 16.04.2024

It is one of the hot topics of our time: how can we ensure a sufficient supply of food for humankind, especially in view of the constantly growing world population, while at the same time protecting the valuable soils on which wheat, corn and co. grow? The Swiss fenaco cooperative bundles products, solutions and services relating to sustainable crop protection solutions under the AGROLINE Bioprotect brand. The wood fiber-based forewood® products from rezemo GmbH open up new possibilities for innovative and environmentally friendly agriculture. The subject of the cooperation is the Optikugel produced by AGROLINE Bioprotect: a hollow sphere about the size of a marble that is filled with *Trichogramma ichneumon* wasps as beneficial insects and then applied to corn fields to control pests. As part of the cooperation, the Optikugel was redesigned by rezemo GmbH and will now be sustainably manufactured from the wood fiber-based forewood® material.

*Trichogramma ichneumon* wasps have been used for 40 years in biological plant protection to control a dangerous corn pest: the European corn borer. The naturally occurring *Trichogramma ichneumon* wasp lays its eggs in the pest's eggs and develops inside them. New beneficial insects hatch from the destroyed pest eggs. This mechanism forms the basis for the effectiveness of parasitic wasps as biological pest control. The beneficial insects are glued into the Optikugel and applied to corn fields in Germany, Switzerland and Austria using a revolutionary drone technology that AGROLINE has been developing in partnership with ZG Raiffeisen-

Genossenschaft and BayWa AG in Germany for ten years. This type of pest control has no harmful effects on users, bees or the environment and is an alternative to chemical crop protection.



*Figure 2: Drone with forewood® Optikugel over corn field*

In a joint project between the Stuttgart-based company rezemo GmbH and the Swiss agricultural cooperative fenaco, an innovative wood fiber biopolymer material has been used to produce the marble-sized ball that serves as a means of transport for *Trichogramma ichneumon* wasps. With the realization of the Optikugel made of forewood® material, the project participants have succeeded in developing a completely bio-based and biodegradable functional packaging for *Trichogramma ichneumon* wasps. The wood fibers used in the wood fiber biopolymer material originate from by-products of the wood processing industry, are PEFC-certified and come from forests in southern Germany. A biopolymer obtained from plant starch serves as a binding agent. After the Optikugel have been spread, they can remain on the field and be ploughed in. "We are particularly pleased to have realized such a sophisticated functional packaging and to have the strong partner AGROLINE at our side," says Julian Reitze, Co-Founder and Managing Director of rezemo GmbH. After a pilot phase lasting several months, the first forewood® Optikugel were tested under real conditions in the summer of 2022. Subsequently multi-million pieces were applied to the fields – with impressive results. "The balls made from forewood® material have withstood all our requirements and tests and we look forward to offering the wood based Optikugel to many more farmers in the coming season," explains Dr. Juliane Preukschas, Product Manager at AGROLINE Bioprotect.

#### **About forewood® (rezemo GmbH)**

The rezemo team pursues the goal of offering the most sustainable alternatives to conventional plastic packaging. Launched in 2018 with the rezemo wooden coffee capsule, the products under the forewood® brand now include a wide range of solutions for the food, cosmetics, and agriculture sectors. At the heart of the innovative business model are completely plant-based wood fiber biopolymer composites that make the use of petroleum-based plastics redundant. With its technology factory, the young company covers the entire value



chain from the initial product idea to design and toolmaking through to series production in its in-house injection molding facility. The team's expertise ranges from material development and the processing of sustainable materials into high-quality products to the market-oriented and reliable communication and marketing of these products. Making sustainability tangible and attractive to make a decisive contribution to climate protection - true to the company's motto: We keep moving forewood.

Further information can be found at [www.forewood.de](http://www.forewood.de)

#### **About AGROLINE (fenaco cooperative)**

With its AGROLINE brand, the Swiss fenaco cooperative is pursuing an ambitious goal: to provide farmers with the best possible support so that they can meet society's requirements for sustainable production. To achieve this, AGROLINE combines expert advice with innovative products and services for sustainable crop protection solutions. The "Service" area supports farmers in implementing the Federal Council's action plan "for risk reduction and sustainable use of plant protection products". The "Bioprotect" division develops the tools required for this. More than 10 years ago, AGROLINE was the first Swiss company to develop a special drone for use in agriculture and patent it in Switzerland and the EU. Today, AGROLINE drones are used, among other things, to distribute *Trichogramma* larvae, cover alpine pastures, combat slugs, sow undersown crops and combat diseases in vineyards. In short: AGROLINE is working hard to combine products and methods for the sustainable production of market-driven, safe, and healthy food in Switzerland.

Further information: [www.agroline.ch](http://www.agroline.ch)

#### **Press contact:**

forewood by rezemo GmbH  
Janina Jarothe  
Echterdingerstr. 57, 70794 Filderstadt  
[janina.jarothe@rezemo.de](mailto:janina.jarothe@rezemo.de)  
+49 7151 9458901