

Luke's customer services concerning **Plant bioprotection**



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The Global and European biopesticides market has been growing steadily in recent years. With increasing restrictions regarding chemical pesticides and a growing demand for sustainable production practices, biopesticides, biostimulants and other plant bioprotection methods are expected to keep growing and become essential tools in agriculture and horticulture. There is an urgent need to develop novel products and methods to not only “fill the gaps” in the market due to chemical pesticide removal, but also to combat resistance to currently used pesticides. We at Natural Resources Institute Finland (Luke) want to take part in the development and testing of the whole selection of new plant bioprotection tools.

Efficacy testing of biopesticides

Luke has tested the efficacy of pesticides according to Good Experimental Practice (GEP) already since 1998 for major international pesticide companies. Our customers have been very pleased to our expertise and our good possibilities to do field trials in most European field crops to control most common pests. Biopesticides are sensitive to weather conditions, and we provide the most Northern agricultural conditions in Europe with short and intense growing seasons with a lot of daylight. In the data management of GEP trials, we use the latest version of Agricultural Research Manager (ARM) and its company customizations.

Product development studies

Luke's expertise can be utilized also in various other stages of biopesticide development process. We can make susceptibility and dose-response tests of the target organisms and study substances' adverse effects on non-target organisms like earthworms, nematodes and microarthropods. Also the degradation of substances in soil can be studied in our modern laboratories and greenhouses. We can also study the usability and efficacy of other biocontrol agents, e.g. pest predators and parasitoids, both in field and in greenhouse conditions. We also have the necessary expertise of studying various types of biostimulants in plants and in soil.





Cropping systems and IPM

Luke has deep and wide expertise of agri- and horticultural cropping systems and Integrated Pest Management. We can make studies and set up experiments, where many kinds of cropping and pest management practices can be combined and demonstrated. We can locate our field trials in Jokioinen in Luke's own 800 ha field area or in the fields of our wide network of farmers.

Consulting services

We know the European registration processes and requirements of pesticides and biopesticides and can consult our customers in these questions. We can also make literature studies of various subjects and expert evaluations of R & D data.

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