

# What is biocontrol

Biocontrol technologies originate from nature – directly or identical to nature if synthetized. They are used to manage pests, weeds and diseases in agriculture as well as home, garden and forestry. Our Biocontrol solutions achieve the sustainability goals that consumers urgently demand for food safety, human health and protection of the environment.

### Microbials

Microbials are based on microorganisms, including but not limited to bacteria, fungi, protozoans, viruses, viroids, peptides, mycoplasmas, and may include entire microorganisms, living and dead cells, any associated microbial metabolites, fermentation materials and cell-fragments.

## Semiochemicals

Semiochemicals are substances emitted by plants, animals and other organisms used for intraspecies and/or inter-species communication and have a target-specific and non-toxic mode of action.

### **Natural Substances**

Natural substances consist of one or more components that originate from nature, including but not limited to: plants, algae/microalgae, animals, minerals, bacteria, fungi, protozoans, peptides, proteins (e.g. enzymes, antibodies), viruses, viroids, and mycoplasmas. They can either be sourced from nature or are nature identical if synthetized. This definition excludes semiochemicals and microbials, which have their own definition.

Among natural substances, IBMA considers that peptides and proteins containing sequence modifications of a peptide/protein sourced from nature are deemed nature identical provided all of the following conditions are met (1) they contain only naturally occurring amino-acids (2) such modifications do not change the 3-dimensional structure (3) such modifications do not change the biological function and (4) the biological breakdown occurs in a predicted way according to a natural pathway.

## Invertebrate Biocontrol Agents (Macrobials)

Invertebrate Biocontrol Agents (also called macrobials) are natural enemies such as insect, mite and nematode species providing control of pest populations through predation or parasitism.