# Biological crop protection for potato

Koppert

Partners with Nature

# Who we are?

To make our world more sustainable, we need ways of growing that are both safe and healthy. We believe the answers to these agricultural challenges lie in nature itself. So we partner with nature. And help our planet to find its balance. Using natural enemies to combat pests, bumblebees for pollination, microbials, and biostimulants that support, protect, and strengthen crops. Improving plant health both above and underground.

We were founded in 1967 by Jan Koppert, a Dutch grower with a clear vision; the world needed an alternative for chemical pesticides. He was the first to find a natural solution to combat the pest in his crop. Setting in motion a major transformation towards sustainable agriculture.

For over 50 years, we have been pushing agricultural innovation, and these efforts have impact. Growers worldwide use our products and knowledge to restore the natural balance in their crops. Improving crop health, resilience, and yield.

Together we are meeting the highest food safety demands on our way to our ultimate goal: 100% sustainable agriculture.

A clear goal we can't complete on our own. That's why we team up with growers, partners, universities, research stations, and governmental bodies worldwide. Together we contribute to the better health of people and the planet. So let's continue to move forward and Partner with Nature.

# Why choose our solutions

IPM strategy — **Easy to integrate in your IPM* strategy**

**No residue solutions**

**Effective, high-quality natural products**

Easy to use — **Easy to use**

**Safe for the environment**

**Safe for users**

Together with growers we strive for 100% sustainable agriculture

* Integrated Pest Management (IPM) is a sustainable and broad-based approach that integrates practices for the economic prevention and control of pests and diseases in crops. Natural enemies can be effective, and pesticides (chemical substances for controlling pests) are only used when alternative options do not produce the required result.

# Trianum

### When to apply
Trianum-P and Trianum-G: Sowing.

### Targets
- Fusarium and others soil born diseases (f.e. Rhizoctonia, Sclerotinia, Phytium)
- Promotes plant growth and uniformity

### Product description
Trianum is a biofungicide, based upon the unique fungus *Trichoderma harzianum T-22*. Trianum is offering many positive characteristics that are beneficial for growersas it controls soil borne diseases, improves growth and results in a stronger and more resilient crop.

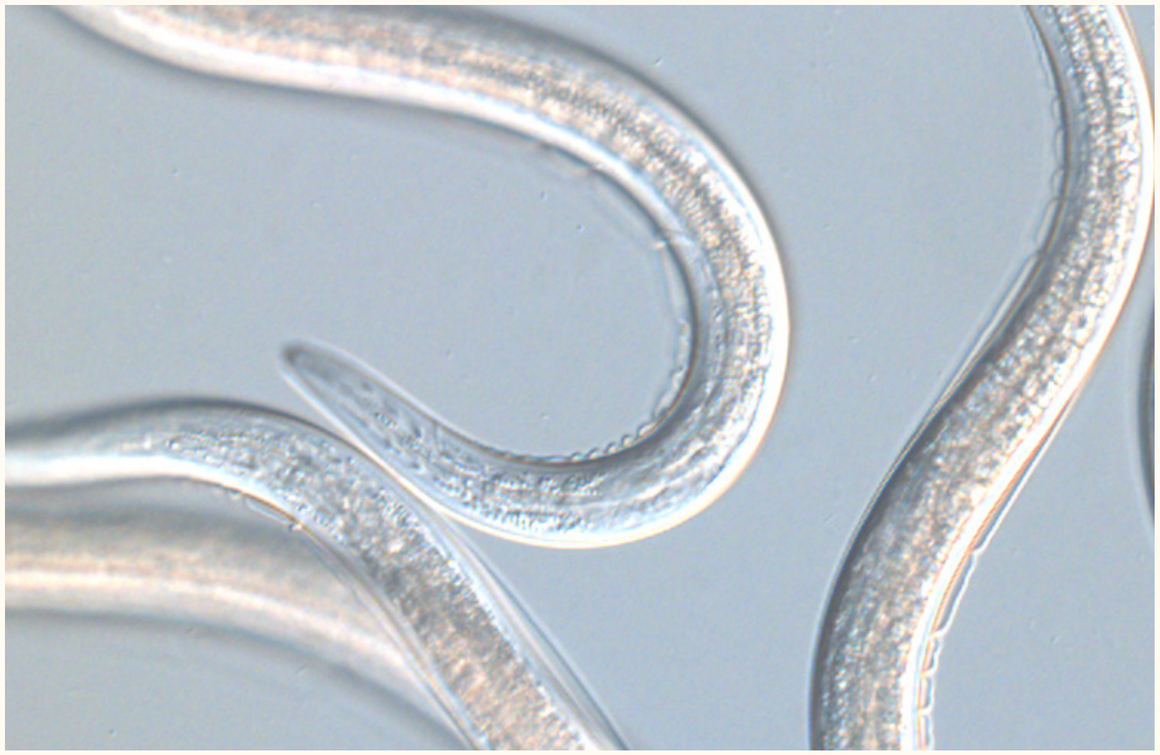
Once Trianum is applied, the fungus starts to develop around the roots of the crop competing with other pathogens for food and space. As the beneficial fungus is growing it produces substances (enzymes) that break down the cell walls of pathogens inhibiting their development, and produces antifungal substances making it difficult for fungal pathogens to develop.

When Trianum is growing on the roots, it triggers the crop to activate its natural defence mechanisms against pathogens, making the plant more resilient to stressful situations.

Trianum should be applied at the beginning of the crop cycle and is formulated as wettable granules (Trianum-P) and as micro granules (Trianum-G).

*Check local registration before using.*

### For more information on the product:



# Casea

### When to apply
From planting to harvest, covering the risk period - 4 to 8 applications.

### Targets
Wireworms (*Agriotes* spp.).

### Product description
These beneficial nematodes enter the pest and release symbiotic bacteria into the pest's body cavity. These bacteria convert the host tissue into a food source, on which nematodes feed, develop, and reproduce inside the host. This kills the pest within a few hours to days after infection.

Beneficial (entomopathogenic) nematodes are fast acting specific insect killers organisms. Considered as macroorganisms in most countries (like beneficial insects), they have increasingly become a powerful part of IPM solutions; working together to either partly substitute, and sometimes replace the use of conventional pesticides, to manage pests that are extremely difficult to control and where chemicals fail or are simply not available anymore.

### For more information on the product:

# Spical Plus

### When to apply
Preventively at the start of the life cycle of the spider mites.

### Targets
Various species of spider mites.

### Product description
*Neoseiulus californicus* is a predatory mite with an excellent result in combating different kinds of spider mite. The mites multiply in the sachet and disperse into the crop over a period of several weeks. They pierce the prey with their sucking mouthparts and suck out the contents.

### For more information on the product:

# Vidi Terrum

### When to apply
During tuberset en filling.

### Targets
Improve number of tubers in seed potato.

### Product description
Vidi Terrum supports the plant's metabolism leading to better tuberset and size. The Product consists of free amino acids in herbal extract that provides the plant with extra energy for the formation of bulbs. Direct available energy is provided by the free L-amino acids in the product. Plants can take up Vidi Terrum both through their roots and leaves. Vidi Terrum can be sprayed on the plant canopy.

Vidi Terrum can be tank mixed with most soluble fertilizers and pesticides. However, test any mix on a small surface for unexpected effects prior to extensive use.

### For more information on the product:

# Monitoring and traps

### Efficient monitoring is key
The success of integrated or biological pest management depends heavily on knowledge of the pests present and on the correct use of natural enemies. IPM is precision work. You have to adjust your approach to the specific pests present or those expected in the crop, and do this at the right time. A full range of different types of sticky traps, sticky ribbons and pheromone traps is available for these tasks.

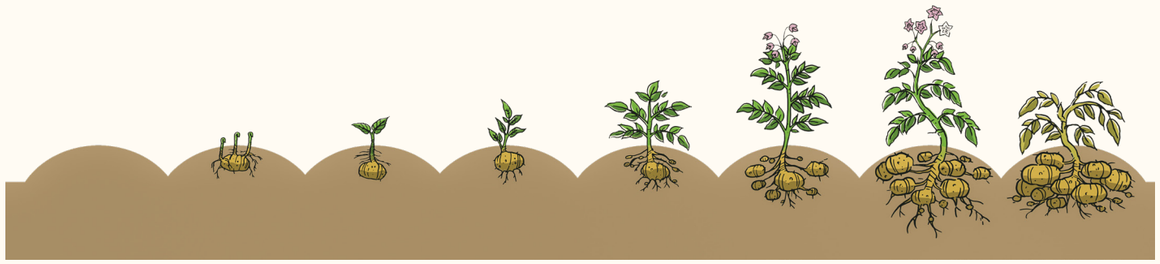
For more information you can always contact your local Koppert contact.

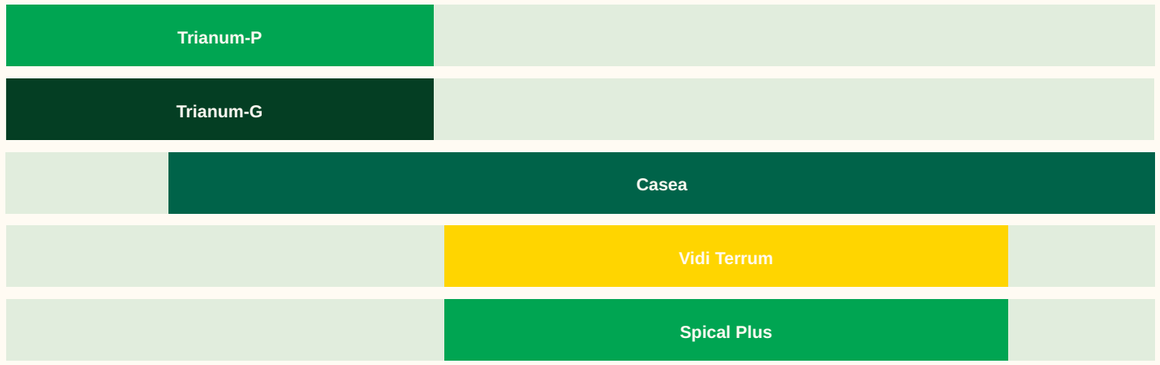
### To explore our product range:

Giving you greater insight into what's happening in your crop and putting you in control of potential pests, requires careful monitoring. And that's something Koppert now aims to take to the next level of innovation and effectiveness.

# Together we strive towards 100% sustainable agriculture

# When to apply?






Pesticides can have (in)direct effects on biological solutions. Find out which pesticides have side effects on the products you would like to use.

**For more information:**

Partners with Nature

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