

GENERATION OF A NEW BIOPESTICIDE

PESTNU PROJECT

During the first 18 months of the project, Fertinagro has designed, manufactured and tested a biofungicide with a double action: on the one hand, a broad spectrum fungicide action against foliar phytopathogenic fungi such as Botrytis, powdery mildew and downy mildew, among others, and on the other hand, a nutritional contribution as it is rich in potassium.

The final composition of the foliar biofungicide with a protective and nutritive action is:

- Potassium carbonate.
- Organic biostimulants (hydrolized aminoacids, vegetable polisacarides and concentrated vegetable phospholipids).
- Water.

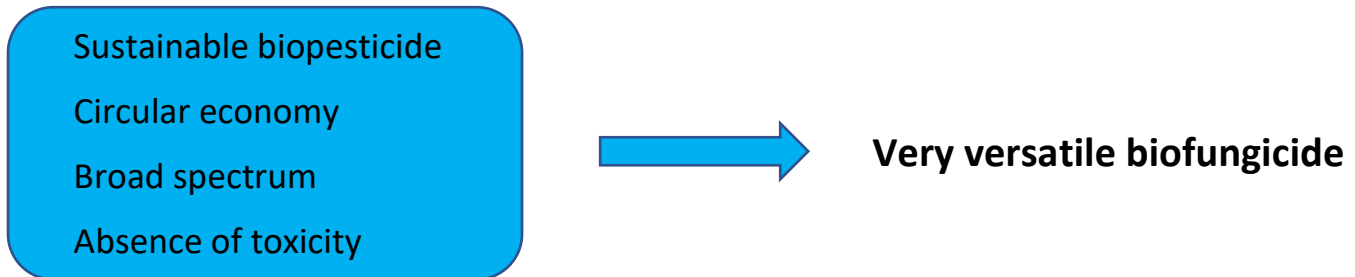
Nutritional composition	%
Total Nitrogen (NT)	3.0
Nitric oxide (NO)	2.5
Ammoniacal Nitrogen (NA)	0.4
Potassium oxide (K ₂ O)	23.0
Organic Carbon (C organic)	6.0
Aminoacids (AA)	12.0

Composition (%) of biofungicide

The biofungicide product presents a good effectiveness due to the combined action of its components:

- **Carbonate:** Inhibition of the development of the hyphae of the fungus (broad spectrum)
- **Potassium:** High potassium levels, in addition to providing nutrition, increase the plant's tolerance to abiotic stress. (Hasanuzzaman et al., 2018)
- **Concentrated vegetable phospholipids:** Antifungal effect enhancer, improves adhesion to leaves.
- **Polysaccharides:** It forms a layer on the leaves that acts as a physical barrier against fungi and increases the time of the product on the leaf.

During field trials, PestNu biofungicide has proven to be at least as effective as chemical pesticides on the market. With crops where it has shown even greater effectiveness in stopping foliar fungal infections.



How is the PestNu biopesticide used?

- Storage instructions: Store at room temperature (5-35°C).
- Mode of application: Foliar spraying application (mixed with water).
- Number and dose of application: 1 preventive application at the beginning of the first risk period of **8 ml/liter** (maximum 10ml/L). And if the symptoms of Botrytis or powdery mildew appear, another application that will be repeated after 7 days. And if another one is needed, also after 7 days.