

Lytic bacteriophages as control agents of *Pseudomonas syringae*

DESCRIPTION

This invention describes new control agents for some important pathogens of the phytopathogenic bacterial species *Pseudomonas syringae*. The active substance of these products corresponds to lytic bacteriophages of high specificity and therefore, harmless to epiphytic microflora, humans, animals and vegetables. The results obtained so far are quite promising, since it reveals high efficacy of bacteriophages at laboratory level and plant protection bioassays are being conducted at greenhouse level with interesting preliminary results of stability of viral particles. The final formulation may contain bacteriophage mixtures to control different pathovars of the bacterium or bacteriophages may also be formulated pure for the control of specific pathogens of *P. syringae*.

MARKET

The agrochemical industry should continue to grow, given the high demand for food and the decrease of arable land. In this scenario, the market for bactericidal products are constantly looking for new effective alternatives to control phytopathogenic bacteria, particularly species of the genus *Pseudomonas* and *Xanthomonas* that have a high economic impact globally. The new requirements in the decrease of chemical controllers in agriculture predict that demands for natural products that control pests and diseases will be increasingly important. This product in laboratory tests has shown to have high efficacy as a bactericide for some important patho of *P. syringae*.

APPLICATIONS

- Preventive control of bacterial cancer in cherry trees caused by *P. syringae* pv. *syringae*
- Preventive control of kiwi bacteriosis, caused by *P. syringae* pv. *Actinidiae*
- Preventive control of bacterial spot or tomato freckle, caused by *P. syringae* pv. *tomato*



▲ Economically important phytopathogenic fungal controller compounds could be identified

ADVANTAGES

1. High efficiency
2. High specificity
3. Product safe for humans, animals and vegetables

INTELLECTUAL PROPERTY

Patent applications are being prepared to be filed at INAPI via PCT.

DEVELOPMENT

The project is still in the research and development stage. Formulations are currently being prepared, determining the stability and efficacy of bacteriophages in the plants at the greenhouse stage. The next step will correspond to the conducting field trials, which will determine the temporary stability and the preventive and/or curative efficacy of viral formulations.

INVENTOR



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FOR MORE INFORMATION



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