

## A Procedure for the Use of a Chemical Plant Defend Activation for Plant Protection

CSIC has developed an invention relates to the use of Menadione for the control of a new tropical race of *Fusarium odoratissimum* in plants.

Industrial partners from the chemical and agricultural areas are being sought to collaborate through a patent licence agreement.

### An offer for Patent Licensing

#### An effective chemical agent to control the disease caused by T4

This invention is related to the general subject of the control of pathogens in plants, and in particular to the use of compositions which, when applied to plants, make them more resistant to the attack of said pathogens, particularly to *Fusarium odoratissimum* tropical race 4 (TR4).

The procedure allows to the use of Menadione on Banana cv. Cavendish during culture, specifically to control TR4 in Cavendish banana plants.

Resistance to TR4, which is mediated by events after pathogen entry into the xylem, is not present in any commercially acceptable banana cultivar. Also, there is no effective chemical agent that can be used to control the disease.



Cavendish banana

#### Main innovations and advantages

- The invention avoids the problems caused by the use of toxic fungicides, and it is suitable to control *Fusarium* wilt in plants, particularly in Cavendish banana.
- The present invention describes the use of an exo-inducer of resistance to *Fusarium odoratissimum* TR4, which is systemic, biodegradable, non-toxic and safe from the environmental point of view.
- The composition can be administered, in an effective amount to the soil or plant material, including seeds, leaves or fruits, optionally in combination with antifungal agents, and it could be administered by watering, spraying, coating, fumigation, impregnation, or drenching, etc.

#### Patent Status

Priority European patent application filed suitable for international extension

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