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Technology

Bio-input

Plant Growth-Promoting Fungi for Cotton



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#intensification | #fungi | #fusarium | #cotton | #trichoderma | #pest control

<https://www.argentina.gob.ar/inta/tecnologias/microorganismos-fungicos-promotores-de-crecimiento-en-algodon>

Worldwide food demand increases agricultural intensification. Hence, plant growth-promoting microorganisms become important as non-contaminating alternatives to obtain greater crop yields. Growth-promoting fungi include: *Trichoderma*, *Penicillium*, *Sclerotium* and *Fusarium*. They promote solubilization of soil phosphorous, production of phytohormones, increased availability of micronutrients, and availability of water in the rhizosphere.

The INTA Agricultural Microbiology and Zoology Institute obtained isolates of the genus *Cladorrhinum sp.*, which were tested on cotton seedlings at laboratory scale for five months. Colonized plants featured increased height on observation.

Inoculant companies that wish to include new products in their portfolio, to contribute to productive improvement and environmental sustainability in the cotton crop.

Higher nutrient accessibility.

Biocontrol effectors. Pathogen growth-inhibitors.

Root colonizers and environmental protection agents.

Native isolates of *Cladorrhinum sp.*, identified and characterized as plant growth promoters.
Field tests, production scaling and marketing are required.

Strains qualify for plant breeders' rights.