

Prize “Inventor of 2016” for scientists in the field of plant protection

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The Bulgarian innovative product – strain 85, is suitable for biological control of soil-borne phytopathogenic fungi in greenhouse crops. Strain 85 of *Trichoderma konigii* was isolated from soil in the vicinity of strawberry plantations showing external symptoms of root and stem rot.

For the fifth consecutive year, the Patent Office and the Union of Inventors in Bulgaria presented the prestigious awards “Inventor of the Year” and “Innovative Company of the Year”. In the category “Chemistry and Biotechnology”, the “Inventor of 2016” prize was awarded to Assoc. Prof. Dr. Emilia Mirkova and Prof. Dr. Olya Karadjova from the Institute of Soil Science, Agrochemistry and Plant Protection (ISSAPP) in Sofia. They are the discoverers of strain 85 of the phytopathogenic fungus *Trichoderma konigii* Oud. The first detailed information about this

discovery and its effects in organic production of cucumbers and tomatoes in the greenhouses of the company “Gimel” was published in the journal “Plant Protection”, issue 7 of 2016.

The Bulgarian innovative product – strain 85, is suitable for biological control of soil-borne phytopathogenic fungi in greenhouse crops. Strain 85 of *Trichoderma konigii* was isolated from soil in the vicinity of strawberry plantations with external symptoms of root and stem rot in the area of the village of Trastenik, Pleven region. Its identification was carried out in accordance with the systematics of Rifan (1969).

Strain 85 is biologically active and possesses antagonist properties. It parasitizes colonies of the phytopathogenic fungi *Fusarium oxysporum*, *Rhizoctonia solani*, *Botrytis cinerea*, *Pythium* sp., *Phytophthora* sp., lysing their mycelium and forming abundant spores on their colonies. A characteristic feature of the strain is that it degrades cellulose – it develops successfully on moistened filter paper and straw. It is not inhibited by the application of organic fertilizers, bioinsecticides and liquid sulfur, which makes it extremely suitable for the purposes of environmentally friendly production. *Trichoderma konigii* strain 85 grows rapidly on nutrient media of various composition – oat agar, sterilized barley seeds. After drying, the isolate multiplied on barley seeds retains its viability for up to 18 months.

The strain is protected by a valid patent No. BC66504, published in the official bulletin of the Patent Office from 10/2015, and has been deposited in the NBCPCM under number 8508.

The Vice-President of the European Patent Office, Željko Topić, attended the official ceremony. New technologies are changing life extremely rapidly and intensively, Mr. Topić noted. He emphasized that patents are an important economic instrument and that Europe must work actively in this direction in order to preserve its global competitiveness.