

METHOD OF DETECTION AND IDENTIFICATION OF BACTERIA FROM P. CAROTOVORUM, P. ATROSEPTICUM AND DICKEYA SPP.

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Commercialization opportunities



- ➔ Licensing agreement
- ➔ Transfer of ownership
- ➔ Spin off

IP Status



The invention was submitted for patenting according to Polish (P.397896) procedures.

Implementation progress



TRL 4
Technology validated in
laboratory conditions

Potato is one of the most important crops in European Union, and its production, processing and export are important branches of agricultural industries of Germany, Poland, Netherlands or France. According to Eurostat data, potato production in EU is declining steadily, from 83 million tonnes in 2000, to 53 million tonnes in 2015, (a decrease of 36%).

One of the reasons for such a dramatic decrease in harvests are Pectobacterium and Dickeya bacteria, responsible for diseases known as "blackleg" and „soft rot”, which contribute to lower potato yields and high financial losses. Early detection of aforementioned bacteria in potato seedlings is particularly important, as it allows for disposal of infected plants prior to planting and vegetation, which leads to significant quantitative and qualitative improvements in crop yields.

Technology developed by scientists at University of Gdańsk provides efficient methods for detection and identification of bacteria *P. carotovorum* subsp. *carotovorum* (Pcc), *P. atrosepticum*, as well as *Dickeya* spp. The method is based on the multiplex PCR reaction using primers specific for each of the bacteria species, selected for easy identification of products by agarose gel electrophoresis.

The invention may provide effective tool for preventing or limiting potato crop losses due to diseases such as "blackleg" and „soft rot".

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Technology Transfer Office



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