

# New Biopesticides for Controlling Plant Pests

**Field of use**  
Crop protection

**Current state  
of technology**  
Laboratory tested

**Intellectual property**  
International patent  
application  
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## Background

Colorado potato beetle (CPB; *Leptinotarsa decemlineata*) and Western root cornworm (WCR; *Diabrotica virgifera virgifera*) have the biggest economic impact and cause enormous damage to potatoes and maize crops. Current methods for controlling CPB and WCR mostly include chemical pesticides. WCR is also controlled by genetically modified maize that expresses Cry toxins from *Bacillus thuringiensis* (Bt-maize), or by agronomic practices, such as crop rotation. All these practices are currently facing serious problems, due to constant evolution of resistance. The search for alternative biopesticides is therefore of the utmost importance.

## Description of the Invention

The invention relates to the use of cytolytic bi-component protein complexes deriving from the fungal genus *Pleurotus* for controlling CPB and WCR. These complexes have been shown to be selectively toxic for the aforementioned, agricultural pest insects.

## Main Advantages

- can be used when currently available biopesticides are no longer active,
- the chances of evolving resistance should be minute,
- human and environmentally friendly.