BENEFICIAL NEMATODES TO CONTROL ROOTWORMS IN EUROPEAN MAIZE PRODUCTION

**Locations**  
Germany, Hungary, Switzerland

**Dates**  
01-01-2011 - 31-12-2018

**Summary**  
The western corn rootworm is a major invasive maize pest in North America and Europe. Control options become more and more limited as problematic pesticides are being phased out. 10 years of joint efforts in research and development by academic, legislative and commercial partners have led to a nematode-based biological control solution for this destructive maize pest. Mass-produced beneficial nematodes – *Heterorhabditis bacteriophora* – are now available as a commercial product.
Results so far

10 years of joint research and development efforts have led to a nematode-based biological control solution for this destructive maize pest. During this period CABI collaborated with partners that including universities (eg of Neuchâtel, and of Kiel), research institutes (the Cereal Research Station in Szeged, Agroscope Switzerland, Landwirtschaftliches Technologiezentrum Augustenber, Bavarian State Research Centre for Agriculture in Freising), government institutions (the Plant Protection Directorate in Hodmezovasarhely and the Austrian Agency for Health and Food Safety), farmer associations (fenaco – UFA in Aesch), nematode producers (e-nema in Schwentinental and Andermatt Biocontrol in Grossdietwil), nematode application manufacturers (Cult-tec in Freiburg) and many others.

Previous results revealed that both nematodes and pesticides achieve varying levels of control. Nematodes however, can usually achieve sufficient reductions in pest levels to prevent severe root damage. Our latest results show that nematode strains that are specifically selected for better drought resistance and thus are better able to survive shipment, may lead to better control of rootworm larvae in the field.

Donors

e-nema, Schwentinental in Germany, Ministry for Rural Affairs and Consumer Protection of the State of Baden-Württemberg, Germany, through LTZ, Augustenber in Germany, Bavarian State Ministry of Food, Agriculture and Forestry through LfL in Germany

Partners

Cereal Research Station GK, Szeged in Hungary, e-nema, Schwentinental in Germany, AGES Vienna in Austria, Fenaco, Beneficials, Aesch in Switzerland, Szent Istvan University, Godollo, Hungary, Plant Protection and Soil Conservation Directorate, NEBIH, Hodmezovasarhely, Hungary, LTZ Augustenber in Germany, Bavarian State Research Centre for Agriculture Freising LfL, Germany

CABI Project Manager

Stefan Toepfer

https://site.cabi.org/what-we-do/projects