EWRN Workshop 2026: European Experts Unite in Oulu to Shape the Future of Wireworm Management

On 5 July 2026, researchers, advisors, technical institutes and industry representatives from across Europe gathered in Oulu, Finland, for the 3rd European Wireworm Research Network (EWRN) Workshop. The event provided an opportunity to review the latest scientific advances in wireworm management and identify priorities for future collaborative research.

Across 13 scientific presentations and posters, participants highlighted major progress in risk prediction, monitoring technologies, biological control, varietal resistance and integrated pest management (IPM). Discussions confirmed that, as conventional insecticide options continue to decline across Europe, future wireworm management will increasingly rely on combining agronomic, biological and technological approaches rather than a single control measure.

The workshop concluded with interactive group discussions that helped define a shared research agenda for the coming years and reinforced the importance of European collaboration to address this persistent pest challenge.

New Predictive Tools Offer Hope for Better Wireworm Risk Assessment

One of the strongest themes emerging from the EWRN Workshop 2026 was the growing potential of predictive modelling to support decision making in the field. Researchers presented projects using statistical models, artificial intelligence and machine learning to forecast wireworm damage risk at field level.

These tools combine information from cropping history, soil characteristics, climate conditions, surrounding landscapes and pheromone trap data to identify situations where damage is most likely to occur. Participants agreed that connecting and standardising existing datasets across Europe will be essential to further improve model performance and support practical adoption by growers and advisers.

Workshop discussions also highlighted the need to design future advisory tools with end users in mind, ensuring predictions are timely, accessible and easy to apply within real farming systems.

Integrated Pest Management Moves Centre Stage in Wireworm Research

A clear message from the Oulu workshop was that there is no single solution to wireworm control. Experts agreed that successful management will depend on integrated pest management strategies combining monitoring, prevention, varietal selection, agronomic practices and targeted interventions.

Researchers reviewed evidence on crop rotation, soil cultivation, bioactive cover crops, trap crops and biological control approaches, including "Attract & Kill" systems based on attractants combined with entomopathogenic fungi or nematodes. While some approaches show promise, their effectiveness remains influenced by wireworm species, soil conditions and climate, emphasising the need for integrated solutions adapted to local circumstances.

Participants also identified grower engagement, advisory support and knowledge transfer as critical factors for increasing IPM adoption across Europe.

Understanding Species Differences Remains a Research Priority

Many discussions during the workshop highlighted a common challenge: wireworm populations in the field often consist of multiple species and life stages occurring simultaneously. This complexity affects damage levels, control efficacy and the accuracy of predictive models.

To address this challenge, researchers are developing molecular identification tools, DNA barcoding methods and rapid diagnostic techniques capable of distinguishing wireworm species more accurately. Improved species identification is expected to strengthen biological research, support predictive modelling and allow growers to make better-informed management decisions.

Workshop participants agreed that better understanding wireworm biology and ecology remains one of the foundations needed for future progress.

EWRN Defines Six Priority Actions for the Next Three Years

The interactive workshop sessions concluded with the identification of six priority actions that will guide EWRN activities and collaborative research efforts over the coming years.

The priorities include:

- Developing a European data-sharing strategy.
- Harmonising protocols for varietal resistance screening and predictive modelling.
- Strengthening wireworm species identification capabilities.
- Improving the use and validation of existing predictive models.
- Accelerating knowledge transfer to growers and advisers.
- Building a coordinated message for policy makers and regulatory authorities.

These actions reflect a shared commitment to improving collaboration, increasing research efficiency and delivering practical solutions for growers facing wireworm challenges across Europe.

Varietal Resistance Research Gains Momentum

Research into varietal susceptibility and resistance featured prominently during the Oulu workshop. Recent studies have demonstrated differences in potato varietal responses to wireworm damage, opening new opportunities for breeding and selection.

Scientists are working to identify the biological and genetic factors associated with reduced susceptibility, including plant metabolites and other resistance mechanisms. Participants emphasised the need for standardised screening protocols that can be used across breeding programmes and countries, helping accelerate the development of varieties better adapted to wireworm pressure.

The topic was identified as one of the most promising long-term avenues for reducing crop losses while supporting sustainable production systems.