



## AMIGA GM potato study – at LEAF Technical Day 9 June 2016, Dundee UK

AMIGA is a multi-disciplinary EU project on the environmental risk assessment of GM crops. It comprises 22 partners in 15 countries and ran for 4.5 years ending May 2016.

The main purpose of AMIGA is to test and improve the European Food Safety Authority's current Environmental Risk Assessment Guidelines through measuring and analysing GM crops and their associated biodiversity in the field. Among topics studied were improved statistical procedures, trial design, methods for assessing non-target invertebrates, soil impacts examined through metagenomics, post-market monitoring and modelling approaches to understand potential long term effects.

The methods were tested on two GM types: blight-resistant potato and insect resistant Bt maize. Results on potato are discussed at the Technical Day on 9 June. The project resulted in a set of practical tools to aid and inform environmental assessment of biotech crops.

The GM potato is a variety having a blight-resistance gene (*vnt1*) taken from wild *Solanum venturii* and inserted into the *Solanum tuberosum* variety *Desiree*. It is therefore termed cis-genic – in this case, a gene from one *Solanum* species transferred to another. It was developed at the University of Wageningen, The Netherlands. The cis-genic potato was compared with a non-transgenic resistant variety *Sarpo Mira* and the non-transgenic *Desiree* control.

Preliminary results: trials in 2013, 2014 and 2015 showed strong performance of the cis-genic line in disease resistance. Initial results to date show no adverse effect on indicators of soil health. When coupled with IPM approaches that include some fungicide treatment against blight, the total number of treatments during the crop's life can be reduced to 20% of the current. This represents a major saving of pesticide in current crop production.

### Sources, links and contacts

The environmental studies and the economic benefits of blight-resistant varieties will be presented and discussed by Ewen Mullins from Teagasc at LEAF Technical Day, 9 June 2016 at Balruddery Farm, The James Hutton Institute, near Dundee UK.

The above synopsis is taken from presentations at a workshop: *EU Research in support of environmental risk assessment for genetically modified plants in Europe: the contribution of AMIGA project* - AMIGA Final Event, held at Fondation Universitaire, Brussels 10-11 May 2016.

Project web site: <http://www.amigaproject.eu/>

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