



Establishing a Platform for Integrated Pest Management in Irish Crops

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As part of the Sustainable Use of Pesticides Directive (2009/128/EC) EU member states are obliged to develop National Action Plans (NAP) to reduce the impact pesticides have on human and environmental health. Within each NAP the encouragement and introduction of Integrated Pest Management (IPM) as means of reducing the dependency of different cropping systems on such pesticides is essential. However the capacity of each cropping system to reduce pesticide input through the adoption of IPM is dependent on the specific pest targeted and their interactions with the different crops and their environment. As Irish climatic conditions can exacerbate such pest problems it is strategically important to evaluate IPM strategies adopted in climatically similar regions for their efficacy in Irish cropping situations. The EPIC project, (Establishing a Platform for the Integrated Pest Management in Irish Crops) seeks to address these issues. For IPM strategies to be successfully implemented and adopted at farm level it is essential that they are effective, reliable and do not negatively impact upon yields and profitability. As many IPM approaches have been developed for other geographic regions and climates, testing and evaluation at a local level is warranted. The rationale and approach looks to adopt, adapt and evaluate current climate based support systems used in North Western Europe for a number of major cereal and horticultural pests and diseases. To achieve these goals EPIC is utilising specific case-studies to determine the potential for current forecasting or risk based IPM strategies focusing particularly on eyespot (*Oculimacula yallundae* or *O. acuformis*) in winter wheat, ramularia leaf spot (*Ramularia collo-cygni*) on barley and late blight (*Phytophthora infestans*) on Potatoes. The occurrence of insect pests is also addressed, focusing on the occurrence of the grain aphid, (*Sitobion avenae*), which vectors barley yellow dwarfing virus in cereal crops, as well as refining existing climate based predictive models for horticultural pests such as the cabbage root fly (*Delia radicum*) and carrot root fly (*Psila rosae*). A core function of each case study is to identify the financial impact (positive or negative) of utilising such decision support systems and disseminating these findings through multiple channels to inform practice and adoption, where appropriate, at farm level.

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