

 **O.17 - Potato case study**

Schepers, H.T.A.M.

Applied Plant Research, Wageningen University Research, P.O. Box 430, 8200 AK Lelystad, The Netherlands

Contact: huub.schepers@wur.nl

Late blight (caused by the pseudo-fungus *Phytophthora infestans*) is the most serious potato disease. A conservative minimum estimate of combined losses and costs of control (mainly fungicides) of potato late blight worldwide is 4 billion Euros per annum; half of this figure is for Europe alone. More fungicide is applied to control blight than is used in any other crop. Integrated management of potato late blight requires a combination of management techniques in order to keep disease levels low and at the same time maintain the quality of the environment. In this case study the control strategies for late and early blight in potatoes are surveyed for Denmark, France, Italy, The Netherlands and Poland. In these countries the importance of potatoes and the occurrence of early and late blight is described. Estimations are provided of the input of fungicides. Important control measures (best practices) that could potentially contribute to reduction of the environmental input of fungicides are described. The following elements are presented as best practices in one or more countries: reduction of primary inoculum sources; use of resistant varieties; optimal fertilization; decision support systems; targeted use of fungicides including environmental profile of fungicides; optimal spraying technique including reduction of spray drift. The registered fungicides for control of late and early blight are presented in an overview table as well as the most important (resistant) seed, ware and starch varieties. National plans to reduce pesticide impact in Denmark, France, Italy and The Netherlands are described. The importance of all best practices will be analysed and their contribution to a reduction of the environmental impact of fungicides is discussed. In leaflets recommendations are given for the use of best practices in other European potato growing regions.