O.25 - Identification of 'best parts' of existing decision support systems for unification: late blight in potato

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In the majority of European countries with high potato production there has been conducted a very intensive chemical protection of potato crops against potato late blight. In recent years, up to twenty applications were used to control the disease in some parts of Europe. A number (about 15) of decision support systems for the chemical control of potato l.b. are now in operational use in Europe. The changes in population of *P. infestans* is a threat for late blight control in general, but also for the use of existing warning and forecasting systems, because most models are based on data collected before the new population was established. The importance and role of different inoculum sources for first outbreak is not yet well estimated and DDS models need to be improved in this area.To construct a good DSS for *P.i.*, a set of "construction elements" was identified: biology of pathogen (characteristics of population, qualification of primary inoculum sources), outside elements (variety resistance, weather conditions), protection management (agrotechnology, monitoring of early infestation, forecasting systems, performance of fungicides). The goal of the survey of existing European decision support systems for l.b. control was the identification of their "best parts" and adopting them for construction of future DSS. Some elements of the existing DSSs were identified as valuable and just ready for future systems (monitoring of the first early l.b. attacks, variety and fungicide databases, pathogen population characteristics).