

## **SE01A-6**

### **Pesticide mixture: how to obtain more using less**

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Phytophthora infestans is a common infestant of potato crops. Cymoxanil and mancozeb are fungicides usually used in formulations against this fungus. However, like most fungicides, the mixture is also toxic for non-target species like soil and water invertebrates. Finding the most suitable concentration of the mixture to fight the fungus and reduce the effects in non-target species is a challenge. The work presented here aims to demonstrate how to integrate toxicity information from target and non-target species to identify the most suitable mixtures of pesticides that will cause fewer damages to the environment. Thus it will be demonstrated how an ecologically sound approach, based in mathematical models, can be used to optimize effects of pesticides while reducing negative environmental impacts.