

## State of the art and important research questions: Report from the EuroBlight Alternaria group

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### 1. OBJECTIVE

The discussion in the EuroBlight Alternaria group started with the discussion of objective of the subgroup. The group decided that the objective is to **increase the knowledge** of early blight. This is the basis for an IPM system to control EB and it provides information to support national development. The group agreed that there is more information necessary concerning:

- Monitoring of fungicide sensitivity
- Fungicide trials (→ rating of fungicides)
- Phenotypic characterization of the pathogens
- Decision Support System
- Host resistance

### 2. ACTIVITIES

The EuroBlight Alternaria group summarized the different protocols for isolation, spore production, artificial inoculation (greenhouse and field) and molecular detection of different Alternaria species. On the website there are 18 different “detailed lab protocols” listed dealing with:

- + qPCR
- + Artificial inoculation
- + Long-Term Storage
- + Growth and conidia production
- + Isolation of Alternaria species
- + Characterization of Cyt B mutations  
(F 129 L Mutation in *A. solani*, G143A Mutation in *A. alternata*)

The results of the diagnostic ring test 2014 were discussed. The group decided not to prolong this project.

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### **3. PROTOCOL FOR FUNGICIDE TRIALS TO PROVIDE RATINGS FOR ALTERNARIA FUNGICIDES**

Together with the fungicide rating group the protocol for fungicide trials to provide ratings for *Alternaria* fungicides was discussed. In comparison to the previous protocol the spray interval is now 7 or 14 days.

The main points are:

- Susceptible variety
- Weekly applications of Revus or Ranman Top to prevent late blight
- Two to five applications of *Alternaria* fungicides
- Test fungicides to commence before the start of the epidemic (approximately 7 to 8 weeks after emergence)
- *Alternaria* test fungicides to be applied at intervals of 7 or 14 days and at the highest label dose rate in Europe
- Two or more reference fungicides, i.e. mancozeb (1500 g a.i. per ha), Signum (0.25 kg/ha) and Ortiva (0.5 L/ha)

Fungicide rating trials according to the protocol will be conducted 2015 in Germany, the Netherlands and Denmark.

### **4. HOMEPAGE**

All relevant publications (*Alternaria* on potato and tomato) as well as general remarks concerning "control of early blight" will be uploaded and updated on the EUROBLIGHT homepage.

### **5. NEW INITIATIVES**

The members of the subgroup decided to initiate a cooperating project dealing with the widespread of the QoI fungicide resistance of *A. solani* in European potato growing areas. The project calls "Monitoring of sensitivity to fungicides (QoI) of *A. solani* isolates in Europe". The project starts in 2015 with a limited number of *Alternaria solani* isolates and locations.