Modelling Tuber blight with PLANT-Plus

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Modelling Tuber blight

Dacom Plant Service BV, started in 1987
Emmen, The Netherlands
(May 14)

Leading Provider in
Decision Support Systems
for crop management
with PLANT-Plus.

Our key words:
- High quality of products and services
- Adding value for the grower
- Optimized use of resources
- Motivated team with a knowledge of the crop

G row i n c on f i d e n c e
PLANT-Plus input

local weather data

10 days weather forecast

soil sensor

crop data

scientific knowledge
International experiences in DSS usage: Modelling Tuber blight
Irrigatie Management

- Planning based on ET0 modeling
- Monitoring on bases of sensors
Modelling Tuber blight
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Calculating tuber wetness situation
Tuber blight

Modelling Tuber blight
Modelling Tuber blight

33%
Modelling Tuber blight

20%
Modelling Tuber blight

Spray 1:
- 31-8
- 27-8

Spray 2:
- 6-9
- 5-9

Spray 3:
- 12-9
- 12-9

5% 86%
20% 33%
Summary Tuber Blight Infection:

- Lesion to be present in the field
- Viable spores present
- Sufficient rain to get spores in suspension
- Sufficient rain to wash spores down the stem
- And into the soil near the tuber
- --
- Viable spores in the soil near the tuber
- Sufficient period of tuber wettness.
Modelling Tuber blight

To get no Tuber Blight Infection:
Φ No infections / lesions present in the field
Φ All viable spores killed on lesions
Φ All viable spores killed on the way down the stem
Φ --
Φ Harvest tubers before period of tuber wettness.

(Φ means “OR” )
Conclusions on modelling

• Occurrence can be modelled reasonably accurate
• Quantity of occurrence difficult
• Model proved good research and analysing tool
• Effect fungicide treatment to be modelled
• Model available for use on “Akkernet”
Modelling Tuber blight with PLANT-Plus

A grower should keep his crop clean of Late Blight;

It is the only way to be

Growing in confidence