Modelling Tuber blight with PLANT-Plus

EuroBlight workshop
Bologna
2-5 May 2007
Presented by Jan Hadders

Modelling Tuber blight

Dacom office at "Waanderveld"

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 resourses***
- ***Motivated team with a knowledge of the crop***

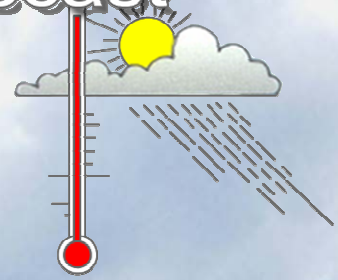
OUR SLOGAN:

Growing in confidence

PLANT-Plus input

local weather data

10 days weather forecast

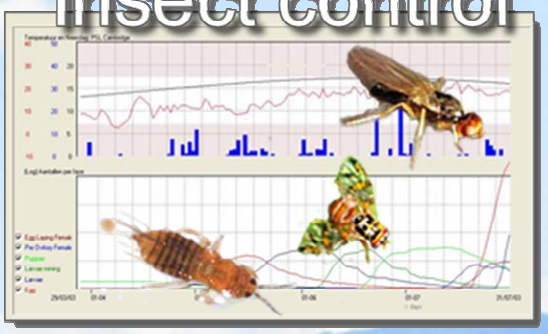


crop data

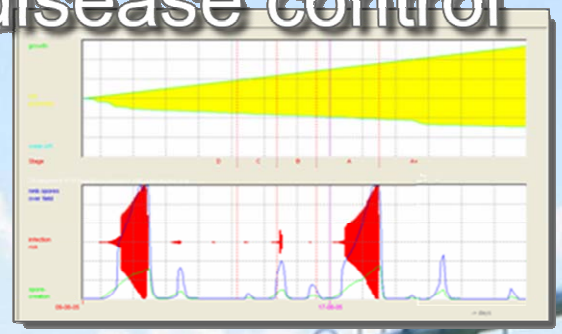
scientific knowledge

PLANT-Plus output

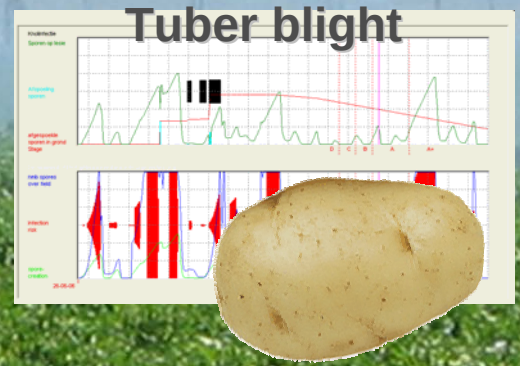
insect control



disease control



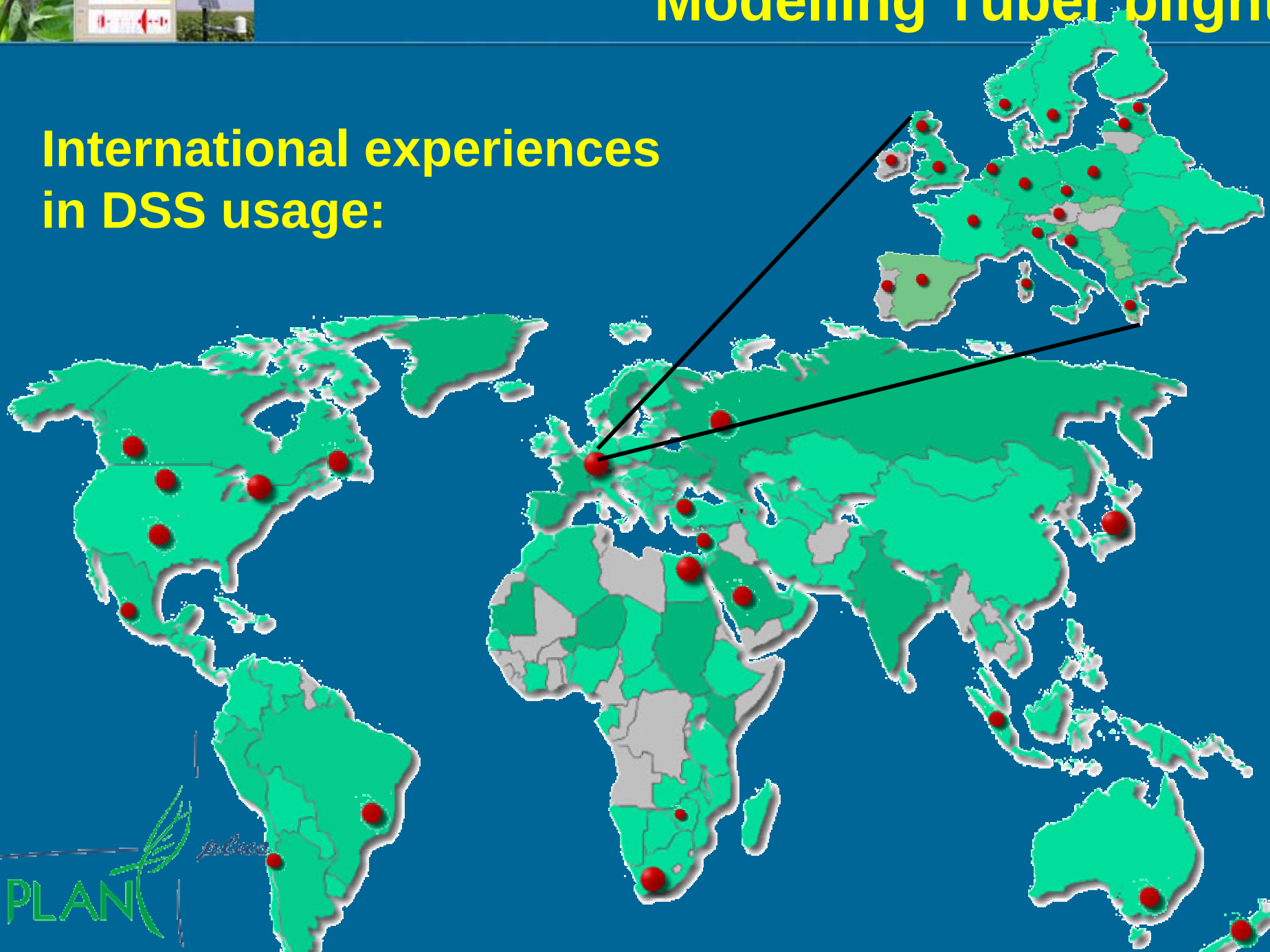
Tuber blight



irrigation management

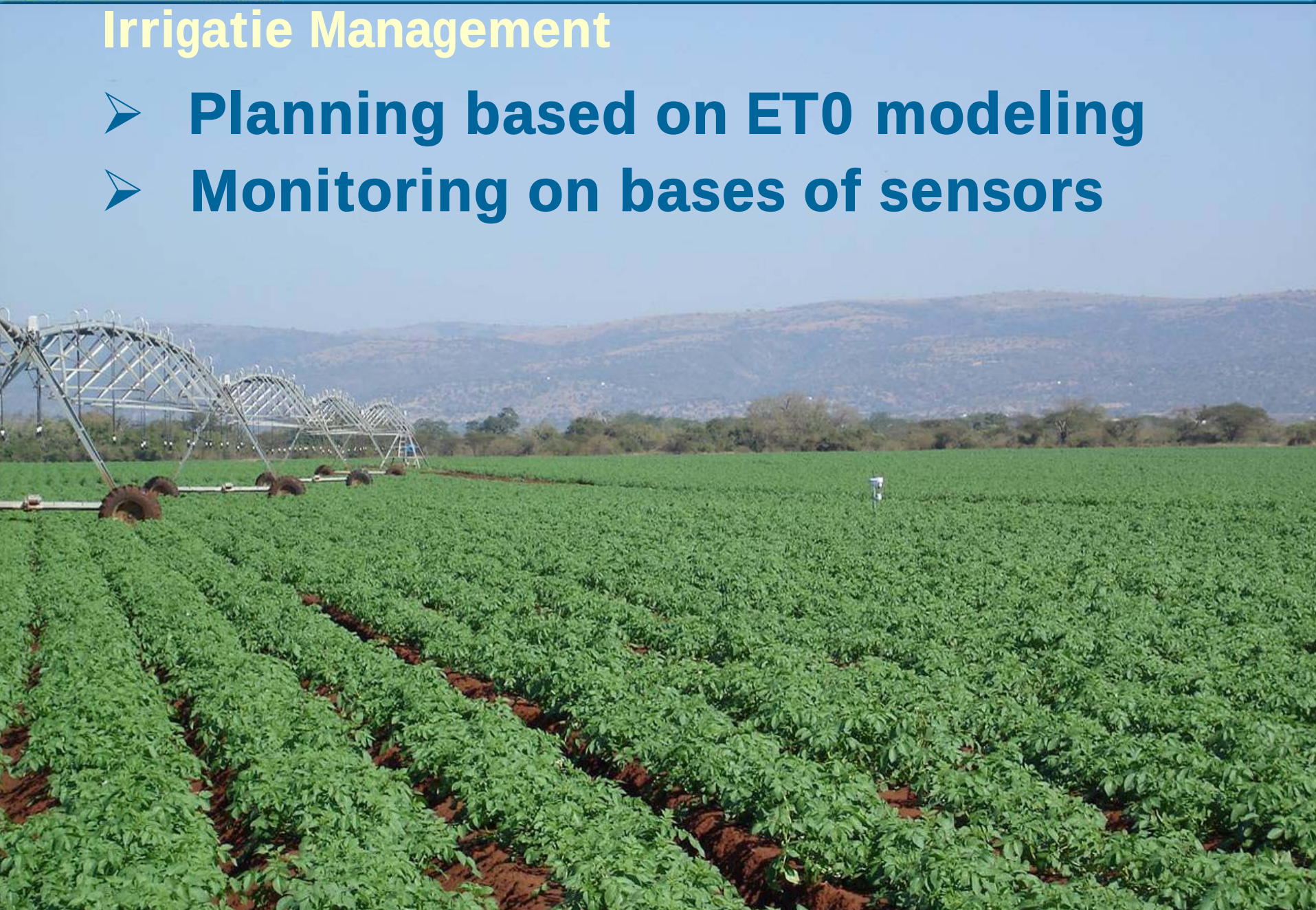
Modelling Tuber blight

International experiences in DSS usage:



Irrigatie Management

- Planning based on ET0 modeling
- Monitoring on bases of sensors



Modelling Tuber blight

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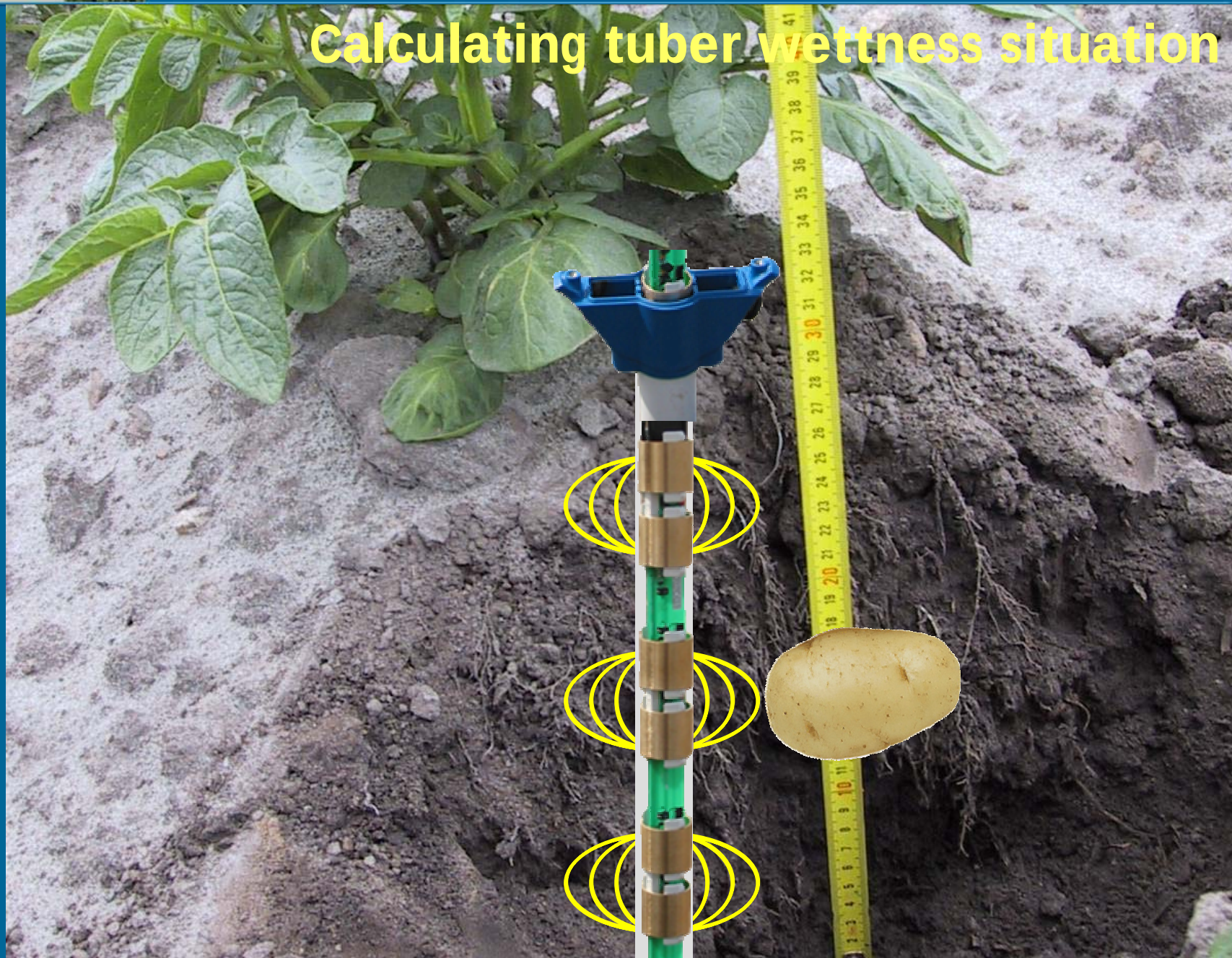
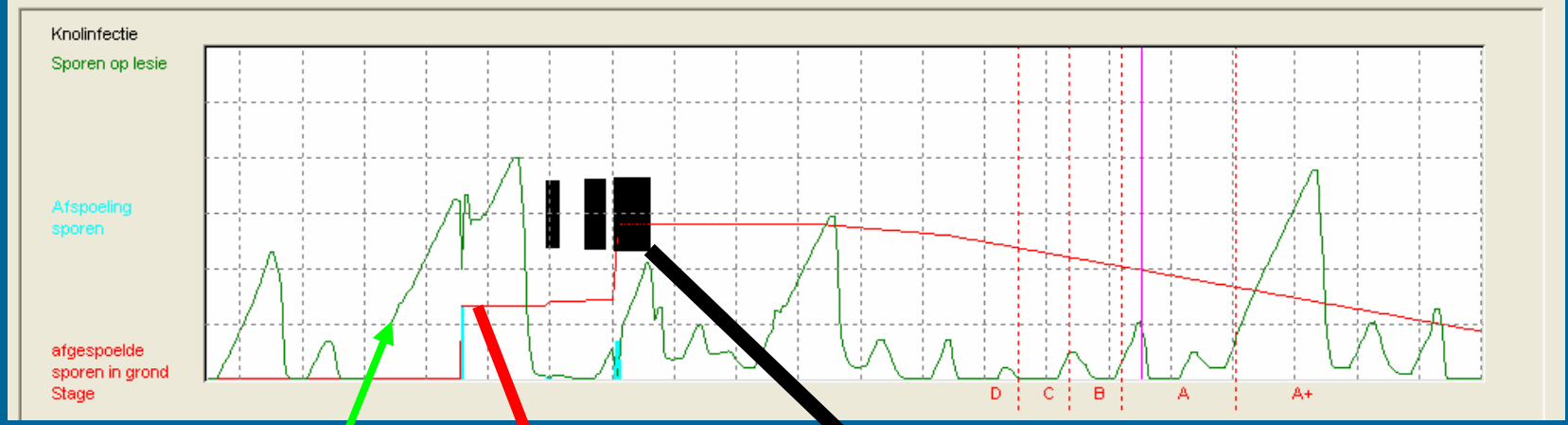
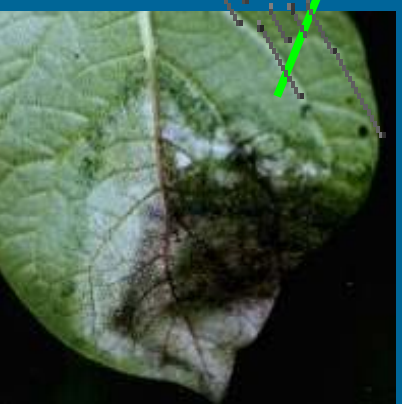
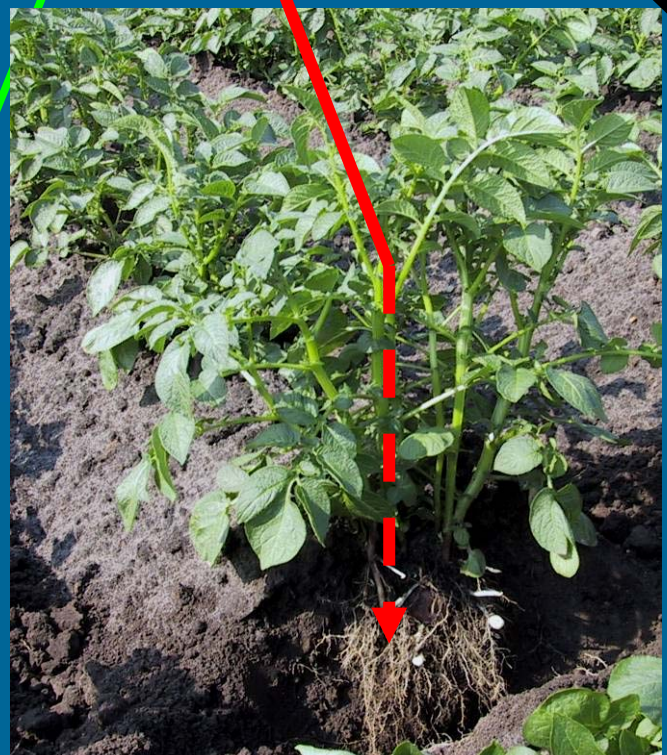
Calculating tuber wettness situation



Tuber blight Modelling Tuber blight







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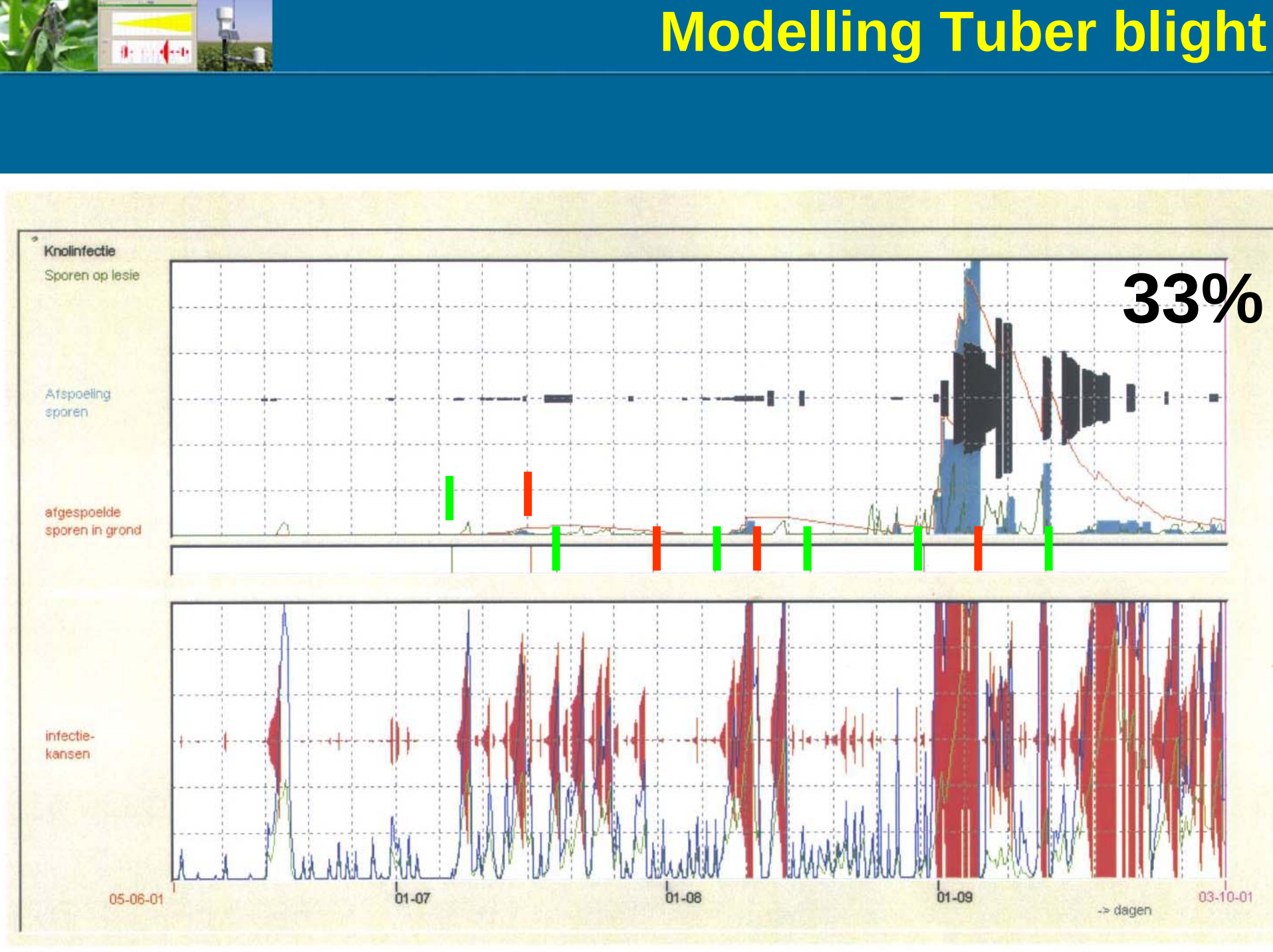

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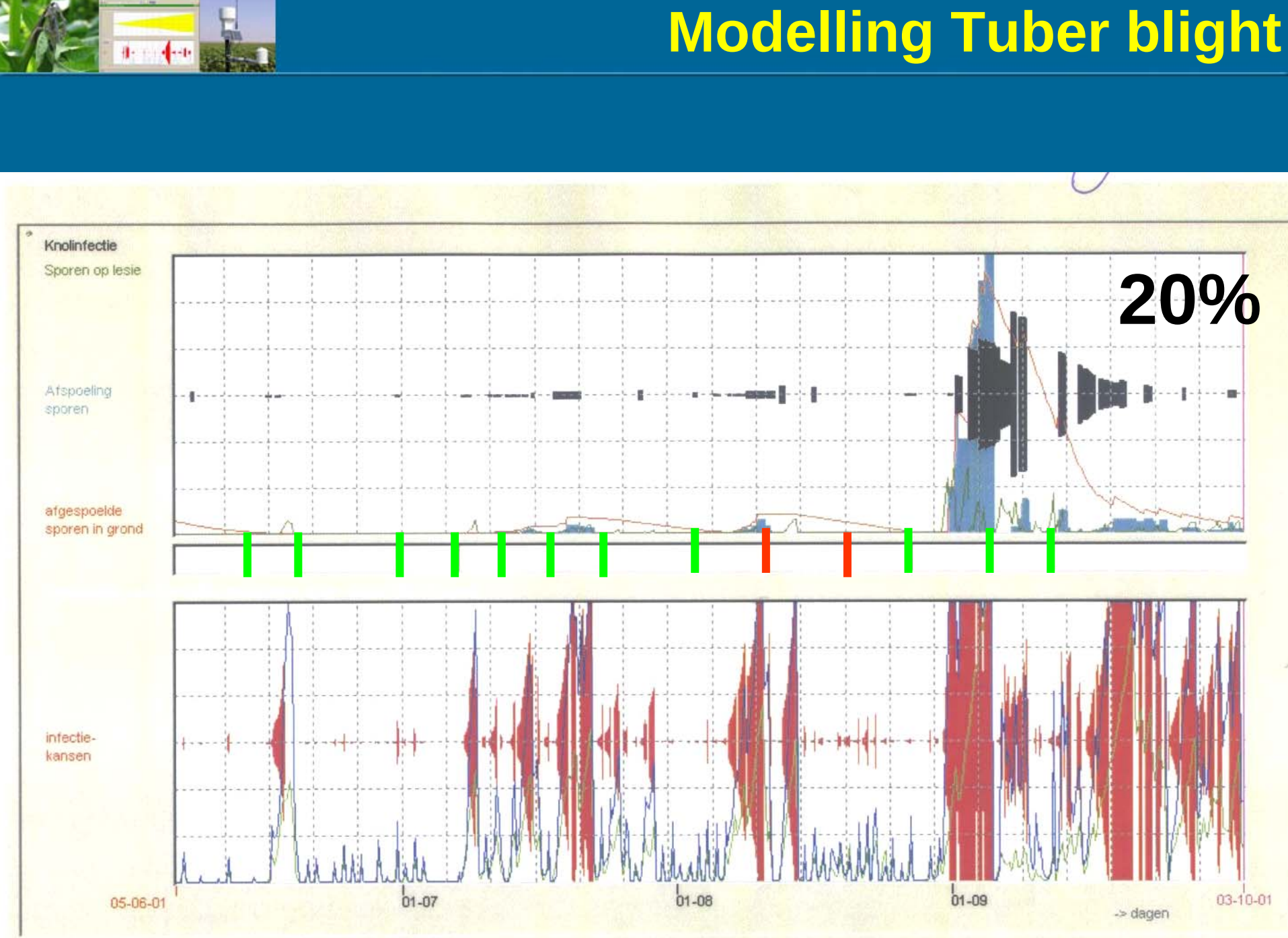

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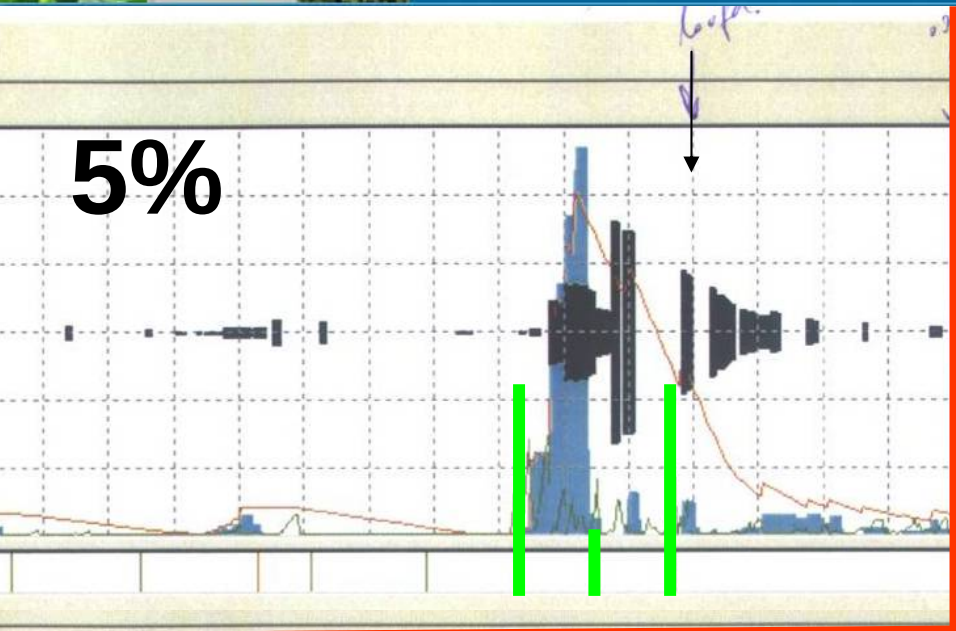

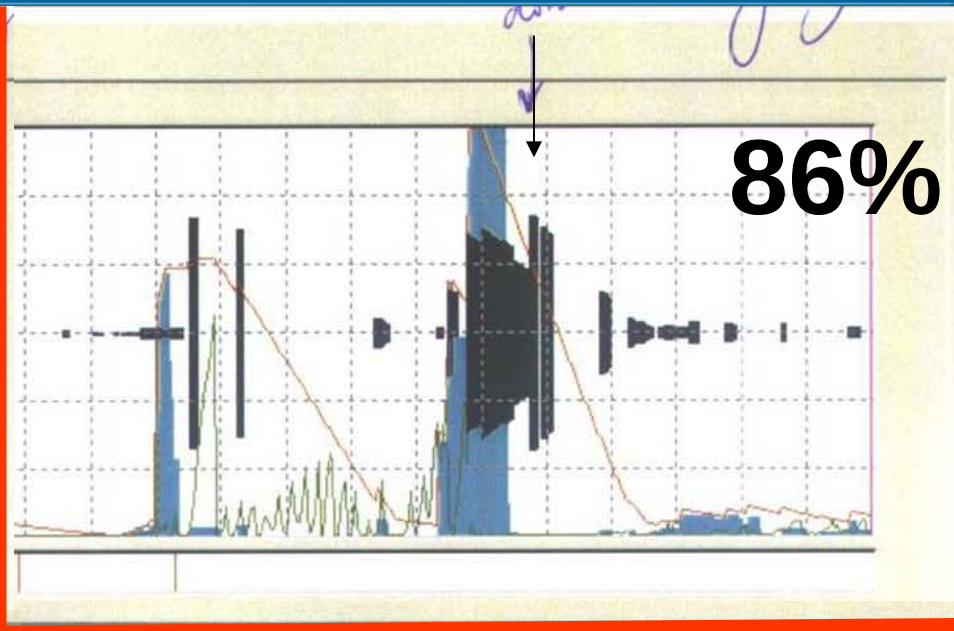

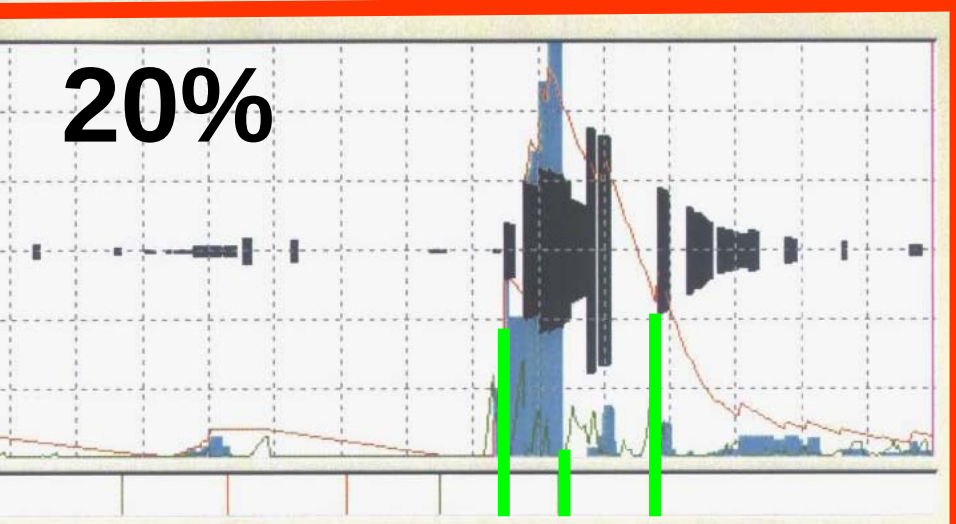

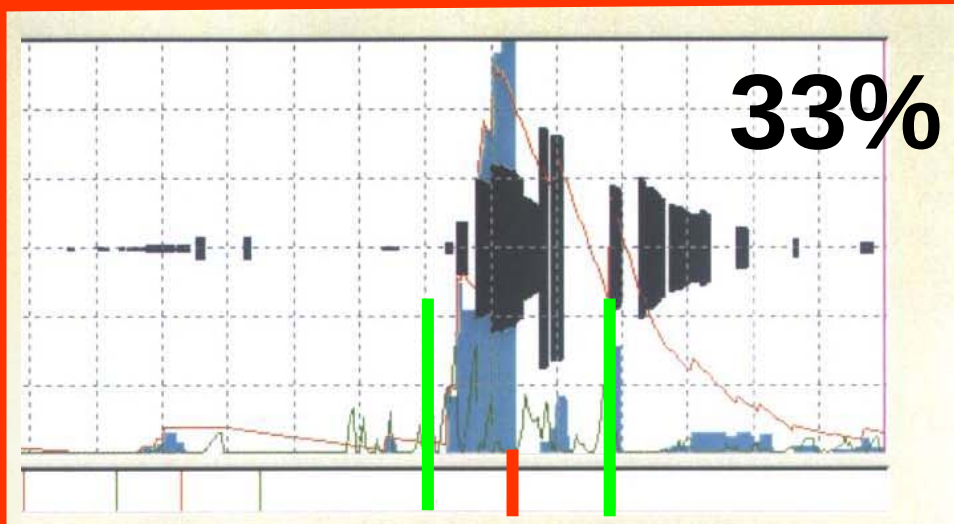

Spray 1:		Spray 2:		Spray 3:	
31-8	----	6-9	----	12-9	----
27-8	30-8	5-9	5-9	12-9	13-9

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.

To get *no* Tuber Blight Infection:

ΦNo infections / lesions present in the field

ΦAll viable spores killed on lesions

ΦAll vialbe spores killed on the way down the stem

Φ--

ΦHarvest tubers before period of tuber wettness.

(Φ means “OR”)

Conclusions on modelling

- Occurrence can be modelled reasonable 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

DACOM PLANT Service
Growing in Confidence

PLANT plus

A grower should keep his crop clean of Late Blight;

It is the only way to be

Growing in confidence