DSS as a tool to control Botrytis and powdery mildew

Reduce residues on fruit

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Outline

Introduction

- Activities 2011
- Results
 - Field trial
 - DSS development powdery mildew
- Conclusions
- Support
 - Productschap tuinbouw
 - 7 th frame work EU





Uw sector investeert in dit project via het Productschap W Tu

Maximum Residue Limits

- MRL demands require different disease control
- Retailers have different demands
 - No more than 5 active ingredients
 - No more than 33% of the MRL
 - No more than 70% of the MRL in total





Practise out door strawberry

- The % demand of the MRL is usually no problem
- Especially no more than 5 active ingredients is difficult to achieve
 - Thrips control (1)
 - Weed control (~1)
 - Phytophthora (~1)
 - Botrytis (3)
 - Powdery mildew (1)



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How to deal with the situation

- Spray strategies are adjusted
 - Use of he same fungicide several times
 - Avoid fungicides with 2 active ingredients

- Organic culitivation is very limited in NL
- Use of less susceptible cultivars is discouraged by retail



Adjust control strategies

Use DSS

- Grey mould validated
- Powdery mildew in development
- Alter cultivation technique to change infection risk
 - Measure temperature and relative humidity





Demonstration of strategies, 2011

Field experiment organized by DLV 6 control strategies • UTC 2 private companies • DLV • 2 WUR Demonstrated to strawberry farmers in September





Infection risk powdery mildew





Powdery mildew severity (1-10 scale)



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Precipitation (mm)



- August was wet
- High Botrytis infection risk
- Hardly any powdery mildew infection risks in August





Infection risk Botrytis





Yield and quality



WAGENINGEN UR

Residues (% MRL)



PLANT & OMGEVING

WAGENINGEN UR

Residues (#)





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Strat. 1 & 2; 1 a.i. n.d.

Conclusions

Low powdery mildew infection risk

Timing of spray application different from practise

Number of spray application WUR less than practise

DSS needs improvement





Conclusions

High Bc infection risk

Continuous Botrytis infection risks

 DSS advice similar to every day practise (#)
Timing is adjusted

Yield same as practise

% rotten fruit same as practise





Conclusions residues

- UTC no residues
- UTC 30 % rot
- UTC low class 1 fruits
- Residues Practise & WUR comparable
- Within the demands of the retailer





Future outlook

2011 combine weather data with sporulation density

Further development of DSS powdery mildew

Further improvement timing of spray application

Re-adjusting growing system



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Thank you for your attention

Questions?



