"VitiMeteo Monitoring“
a key element for integrated production

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Overview

• Introduction
• VitiMeteo - Monitoring 2015
• Conclusions and outlook
National Action Plan on Sustainable Use of Plant Protection Products

- Reduction of risks to humans, animals and environment
- Restriction of pesticides to necessary levels
- Optimization and development of good practices in integrated and organic plant protection
- Forecasting models, expert systems and decision aids are important

http://www.nap-pflanzenschutz.de/en/
Forecasting system “VitiMeteo” 2015

Data sources
- Weather stations
  - Lufft
  - Campbell
  - Adcon
  - Hoffmann
- Weather forecast
  - MOS
  - Meteoblue

Database
- AGROMETEO

Expert software Models
- VM Plasmodora
- VM Oidiare
- VM Black Rot
- VM Growth
- VM Insects
- VM Hyalesthes
- VM Rust mite
- VM Datagraph

Internet Presentation
- Browser
  - VM Downy mildew
  - VM Grape Berry Moth
  - VM Bois noir
- Models
  - VM Grape Berry Moth
  - VM Bois noir
- Weather data
- Rainfall radar
- Meteograms
- Weather forecast MOS
- Meteoblue

VM = VitiMeteo

VM Edit
VM Transfer
Replikat Agrometeo
VM Widget
Station overview
VM Mobile

VM Black Rot
VM Rust mite
www.vitimeteo.de
new!
VM Weather forecasts new!
VitiMeteo in Numbers - 2015
VitiMeteo is used on >150,000 ha vineyards in central Europe

GEOsens measurement systems and software development www.geosens.com

Weatherstations

Switzerland: ~ 88
Germany: ~170
Austria: ~ 75
Belgium: 7
Italy: ~ 20
France: 2

See www.vitimeteo.info/stations.shtml
Overview

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Integrated plant protection is necessary for integrated production

National Action Plan on Sustainable Use of Plant Protection Products (NAP Germany)
VitiMeteo Monitoring in Baden-Württemberg

Data input for wine villages/locations by „wine observers“ and researchers via internet

1. Observations/estimations
   • diseases, pests, general observations etc.

2. Trap catches
   • European grapevine berry moth (Lobesisa botrana)
   • European grape berry moth (Eupoecilia ambiguella)
   • Spotted wing drosophila (Drosophila suzukii)

3. Detection of eggs on berries
   • Spotted wing drosophila (Drosophila suzukii)
The german wine-growing regions
Germany 100 000 ha

Baden-Württemberg
26 000ha

http://germanwinelover.com/2012/07/14/german-wine-quick-facts-part-1-the-growing-regions/
VitiMeteo

Monitoring free access since spring 2015

- disease models
- pest models
- weather data

VitiMeteo Monitoring

new observations
new trap catches
new eggs: spotted wing drosophila

map observations
map trap catches
map eggs spotted wing d.
situations for downy mildew

Observations of vine diseases and pests, evaluation

July 2015

Legend: degrees of infestation

- No infestation
- Weak infestation
- Medium infestation
- Strong infestation
- Very strong infestation

VitiMeteo Monitoring zeigt Beobachtungen, die von Ratschutzwarten, Weinbauberatern und Miterbietern des WBI Freiburg sowie der LVWO Weinsberg gemacht wurden.
Observations of vine diseases and pests, evaluation

Legend:
degrees of infestation

- No infestation
- Weak infestation
- Medium infestation
- Strong infestation
- Very strong infestation

Suggested actions:

- Improve weather data
- Further improve data collection
- Evaluate current monitoring strategies

July 2015
Trap catches, European grape berry moth (Eupoecilia ambiguella) situation for European grape berry moth July 2015
Trap catches, European grape berry moth (Eupoecilia ambiguella)

Situation for European grape berry moth

July 2015
Trap catches, spotted wing drosophila (Drosophila suzukii)

situation for spotted wing drosophila

July 2015
Trap catches, spotted wing drosophila (Drosophila suzukii)

Sasbach: Kirschessigfliege

July 2015

Situation for spotted wing drosophila

G. Bleyer; IOBC-WPRS WG Meeting “Integrated Protection and Production in Viticulture”
Vienna (Austria), 20 - 22 October 2015
Detection of eggs, spotted wing drosophila (Drosophila suzukii)
Detection of eggs, spotted wing drosophila (Drosophila suzukii) in September 2015.
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Conclusions and Outlook - VitiMeteo Monitoring

- Wine-observers and research institutes – report observations, trap catches etc. via internet
- Early warning system for advisors and growers
- Validation and improvement of VitiMeteo - models (keyword: climate change) possible
- Important source of information for advisors, growers, researchers
- Promotion of sustainable plant protection!
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Wine observers

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Thank you for your attention

www.wbi-freiburg.de
www.vitimeteo.de
www.vitimeteo.info