



# **Blackcurrant International Conference**

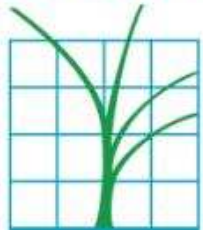
**Beaune 19-20-21 mai 2010**

Marie-Cécile DALSTEIN, Ctifl/La Morinière

Philippe GUIGNEBAULT, La Morinière

Jean-Philippe DUPIN, Les Vergers d'Anjou

Ctifl



La Morinière



La Morinière



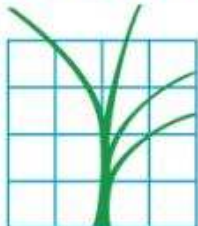
Vergers d'Anjou

# Big bud mite (*Cecidophyopsis ribis*)

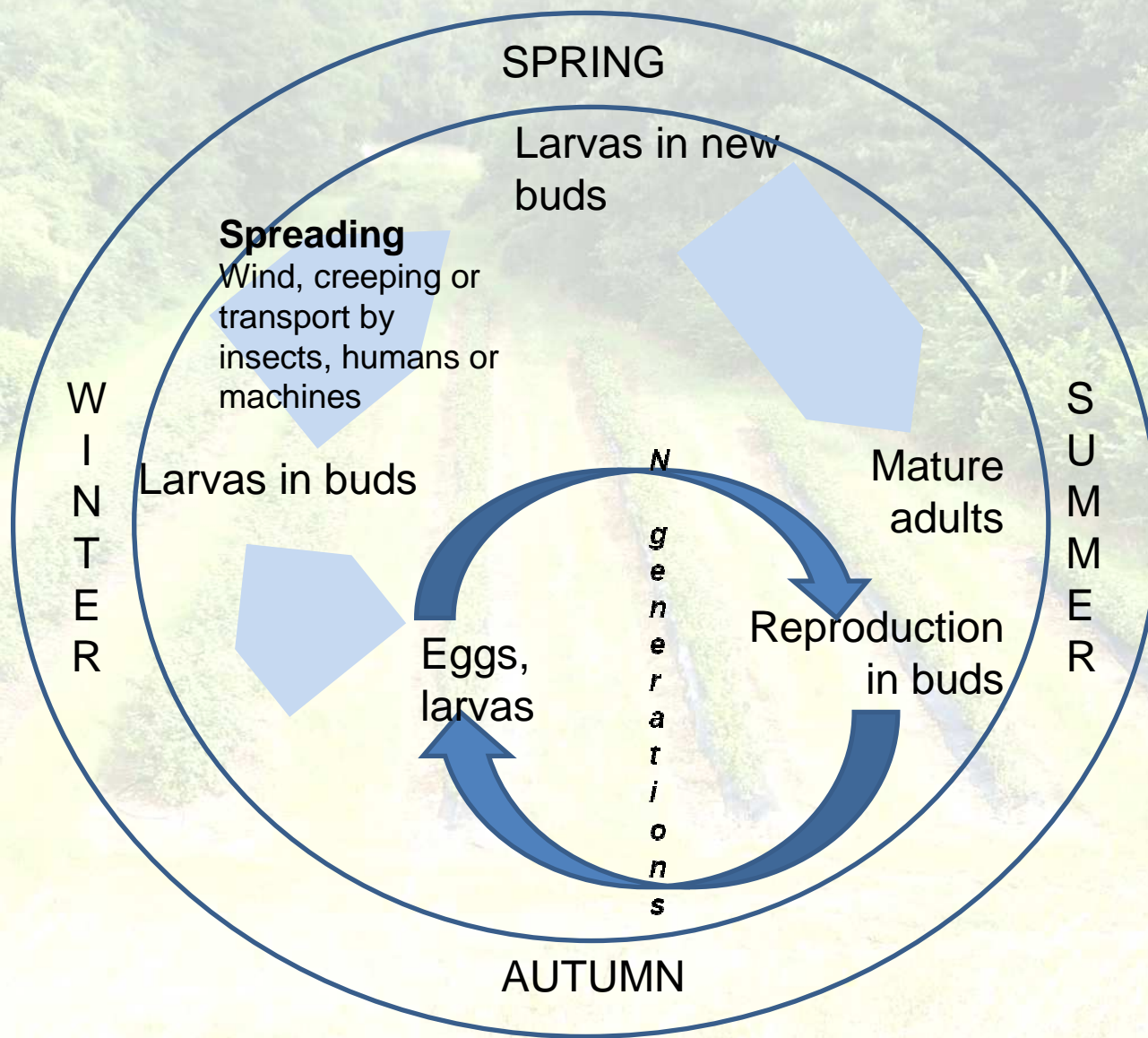
Life cycle

Geographical distribution in France

Control and experimentation



# Life cycle



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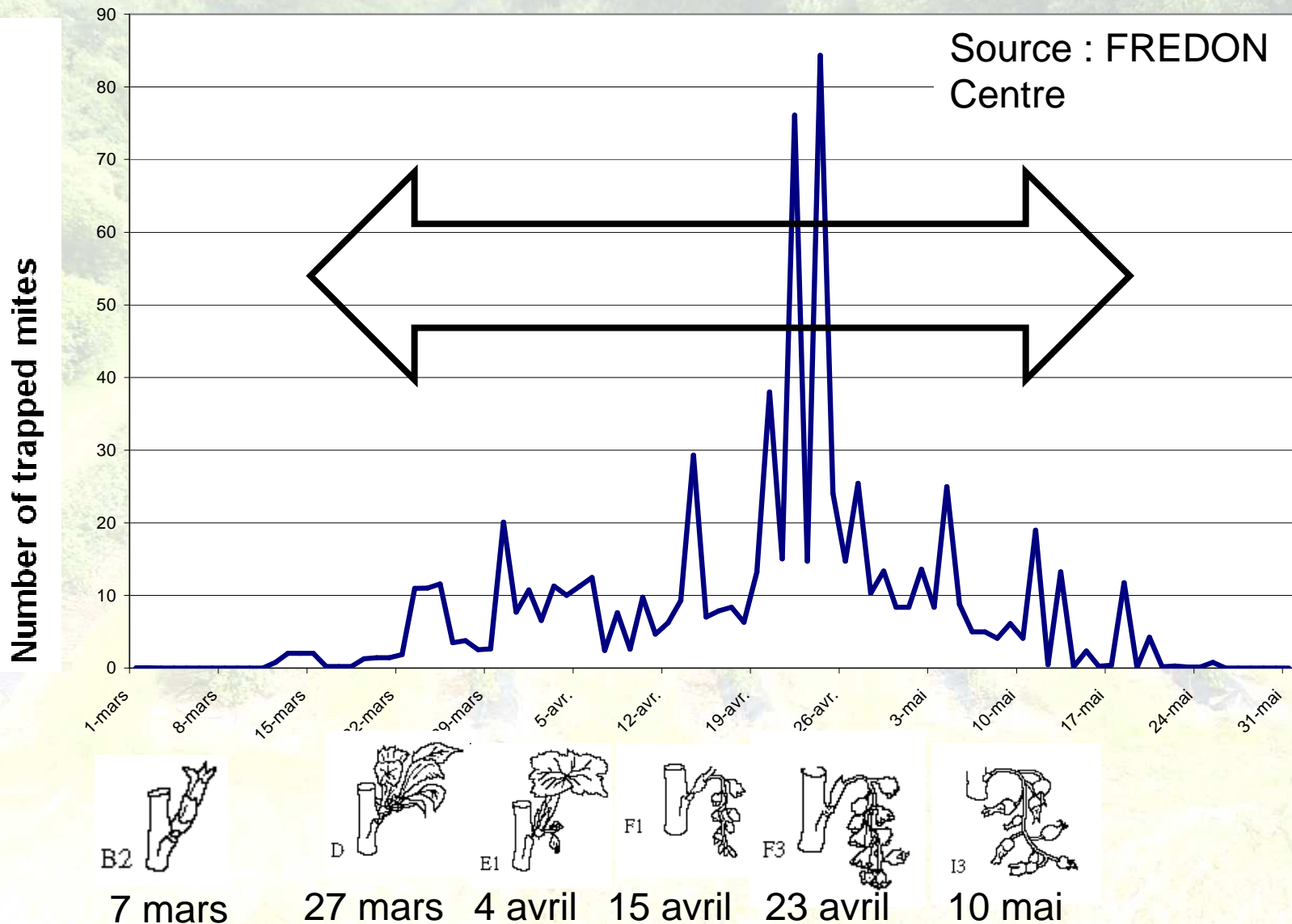


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D'ANJOU

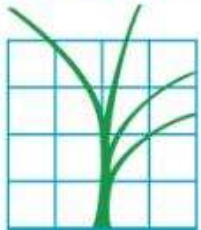


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# Mite flight during spreading - strategy



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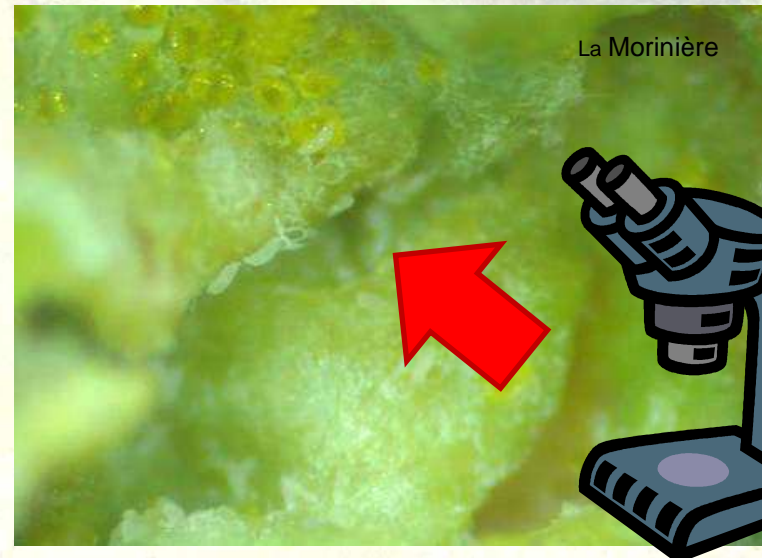


## Symptoms, damages

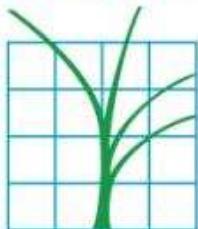
- Big buds decay
- Bushes weaken



- Yield losses
- Death of bushes
- Reversion



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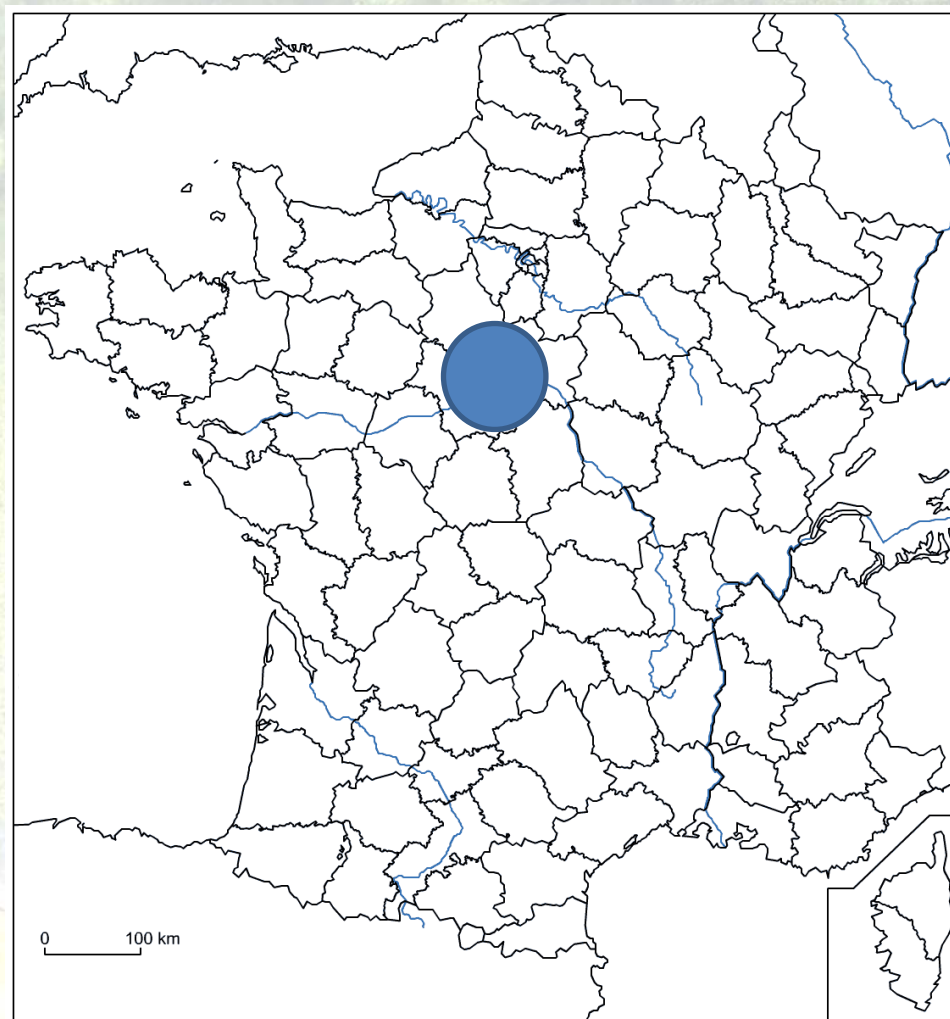
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Station d'expérimentation

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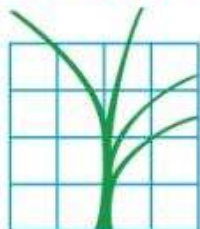


# Geographical distribution in France

- Only Loire Valley area
- 1992-1993: only one department and spreading

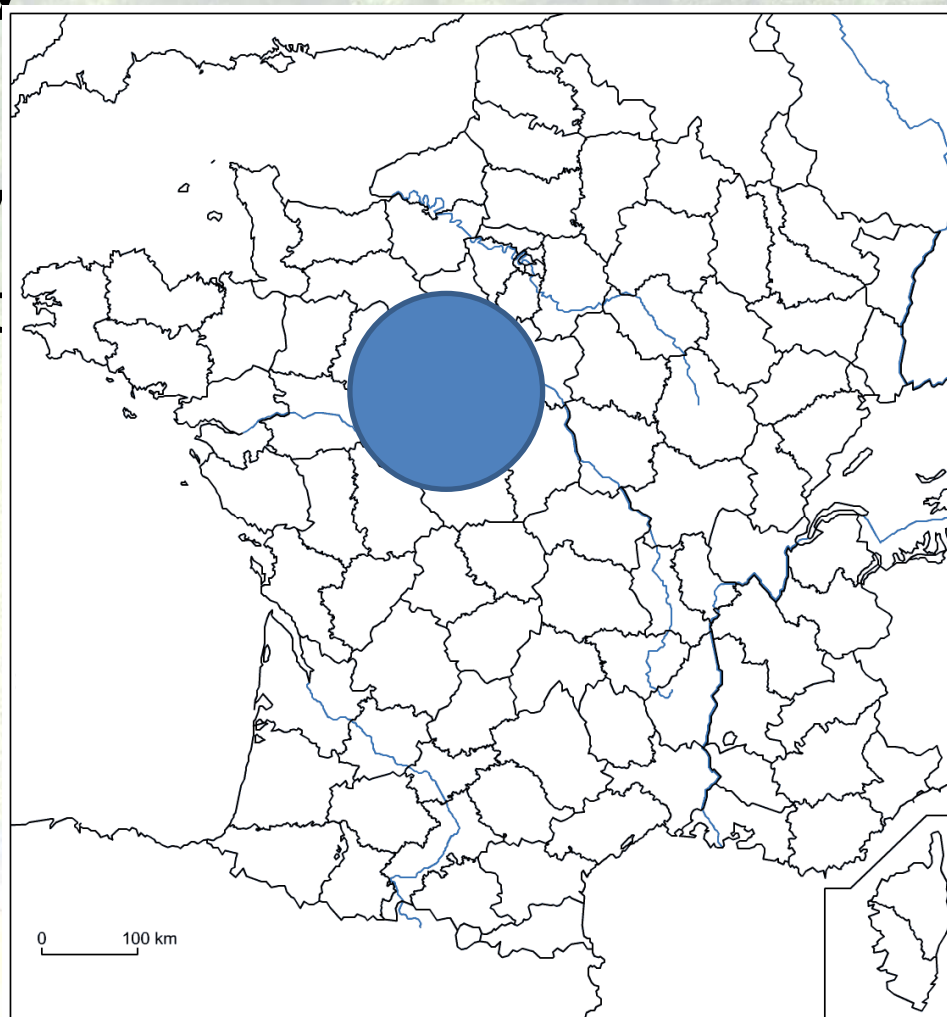


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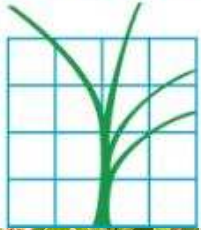


# Geographical distribution in France

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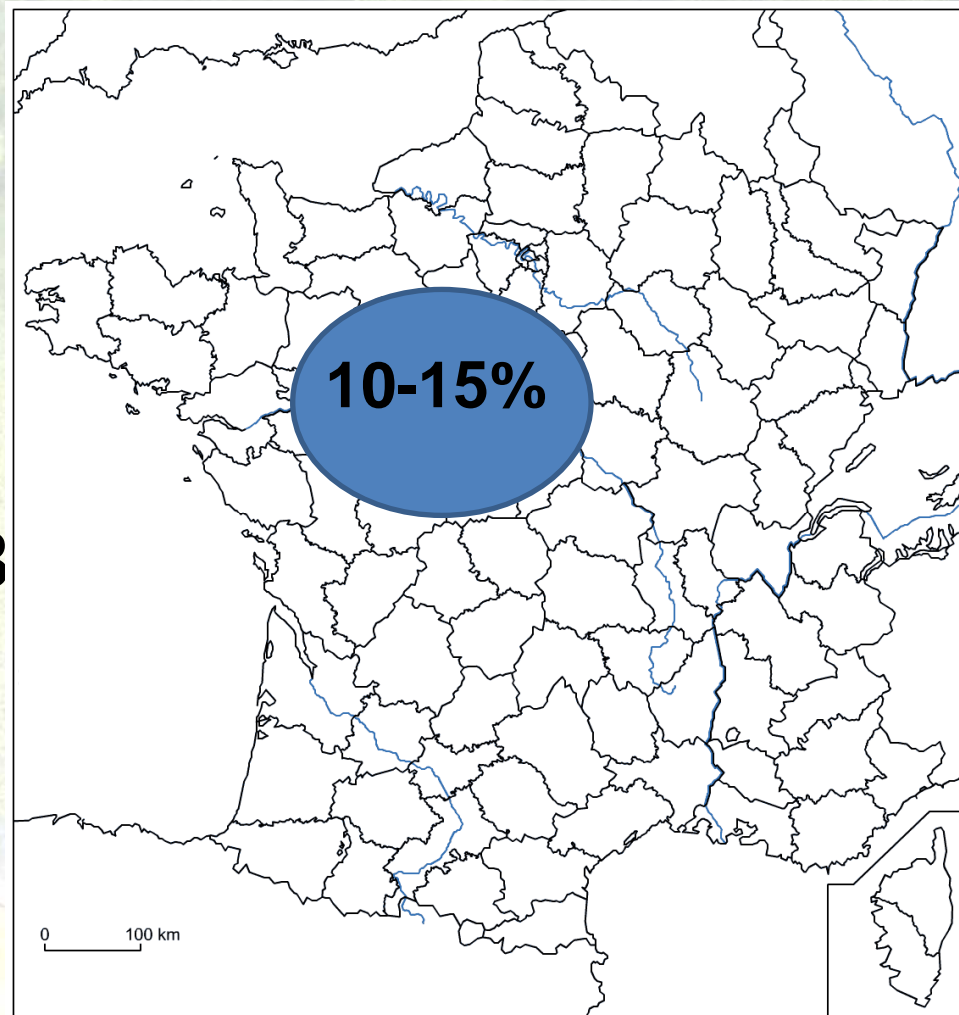


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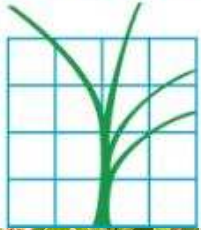


# Geographical distribution in France

- Only Loire Valley area
- 1992-1993: only one department and spreading
- Decrease in 2003 during warm summer, increase since



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## Registered products

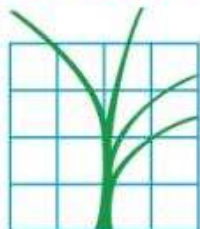
- Until 2007: endosulfan
- Since: pyridabene

*(<http://e-phy.agriculture.gouv.fr>)*

– Pyridabene: possibility of revocation

- Experimentation for « orphan uses » (cf. next presentation)
  - Trials by La Moriniere station to prove efficiency of new products and to lead to a registration

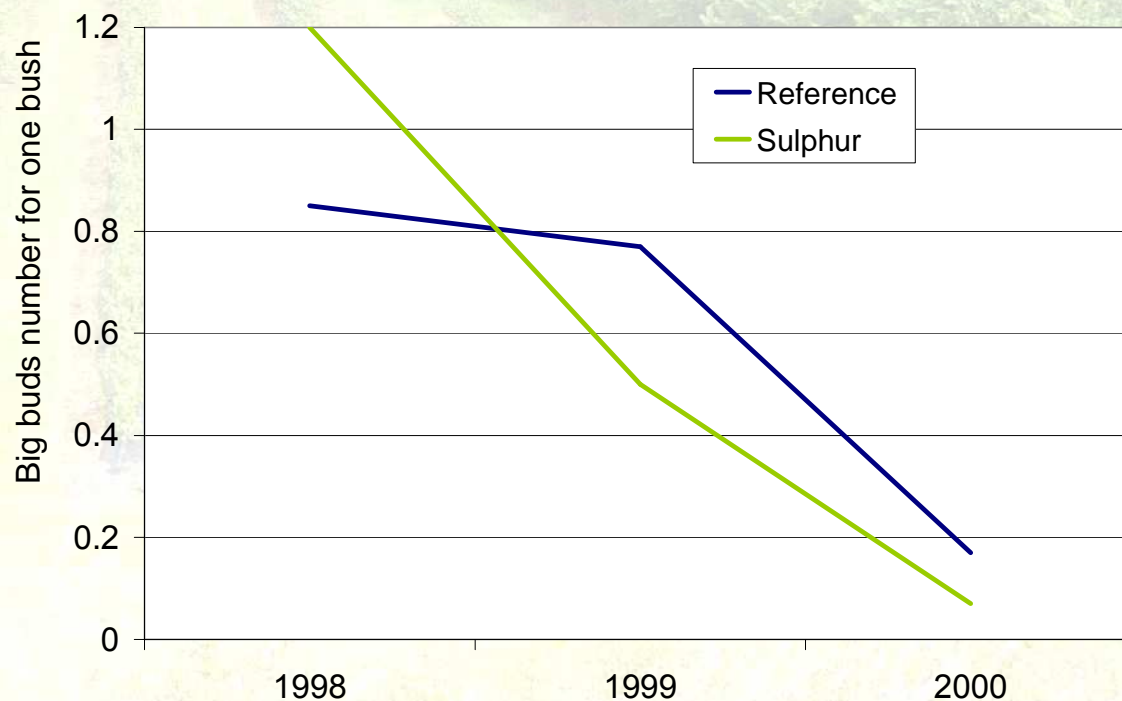
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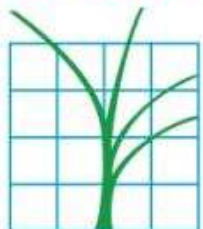


# 1998-1999 trials

- Reference product: endosulfan, 4 applications from 01/04 to 26/05
  - Sulphur: 5 applications from 27/03 to 25/05
- F1 stage: 20/04 (1998 and 1999)

Evolution of big buds number after two years of experimentation



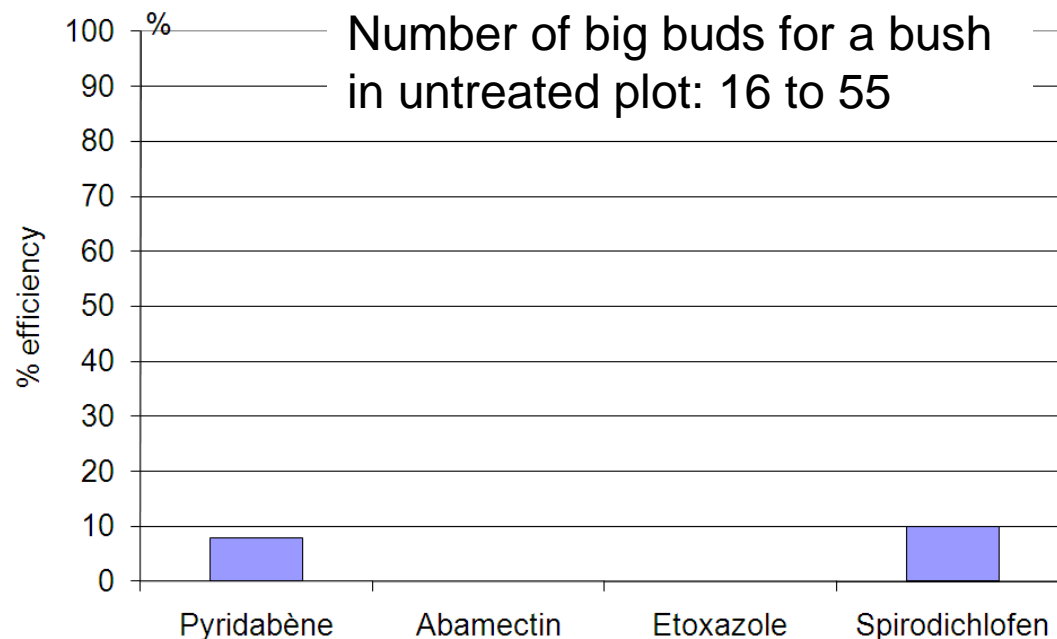


# 2008 trial

- Untreated plot
- Pyridabene (ref)
- Abamectin
- Etoxazole
- Spirodichlofen

4 applications from  
16/04 to 28/05

F1 stage: 17/04



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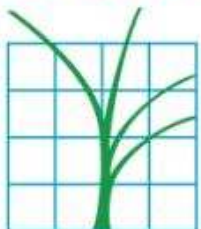


## 2009 trial

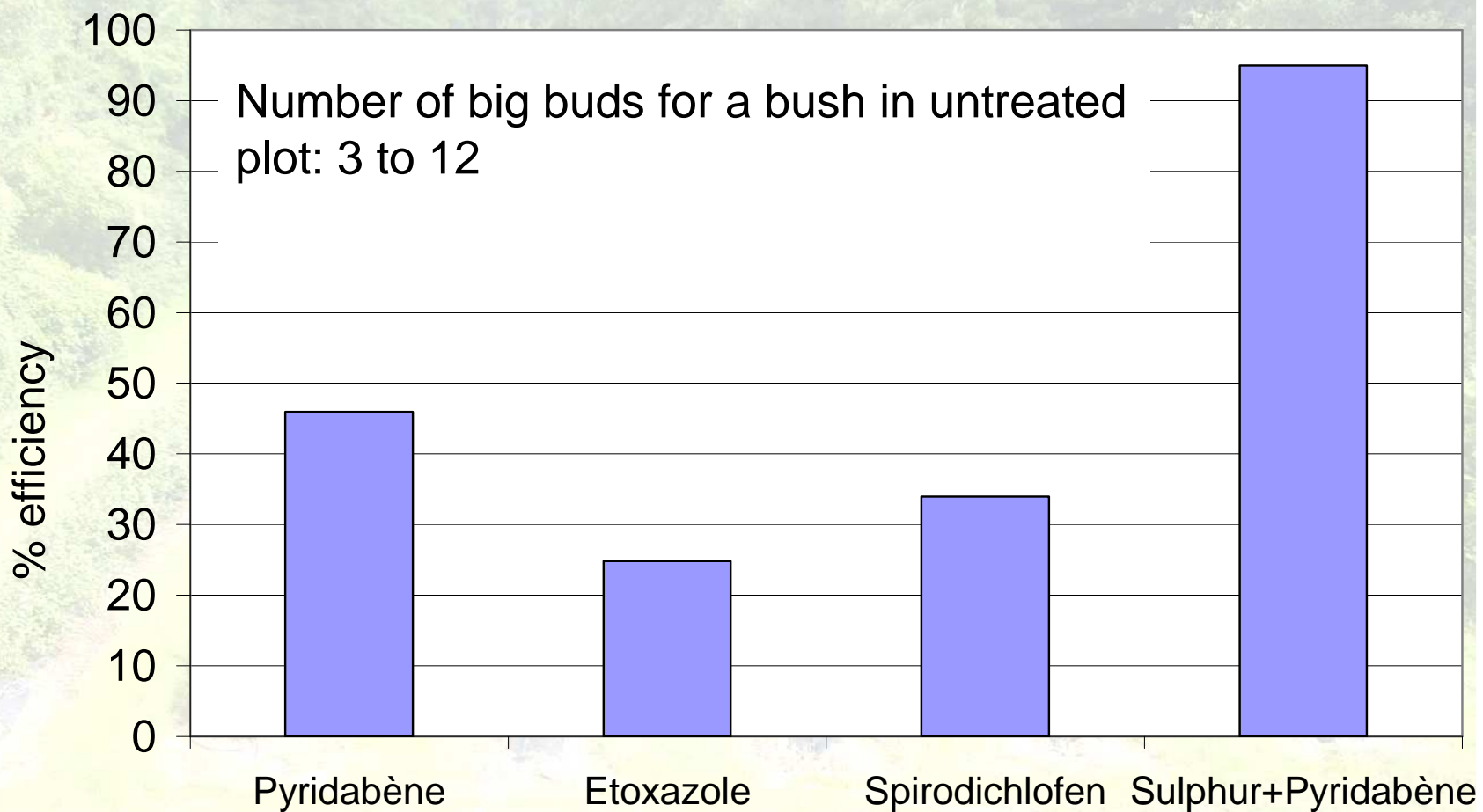
- Untreated plot
  - Pyridabene (ref)
  - Etoxazole
  - Spirodichlofen
  - Sulphur followed by pyridabene application
    - sulphur: 18 and 30/03
    - pyridabene: 4 applications like other treated plots
- 4 applications from 06/04 to 13/05

F1 stage : 17/04

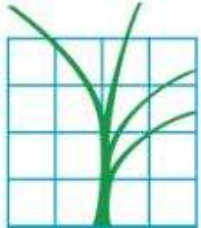
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# 2009 trial



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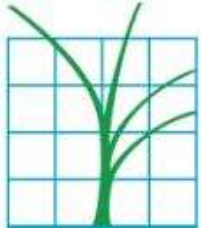


## Conclusion

- Products with sulphur seem to be a way to investigate
- Problem of dose/application stage: phyto-toxicity may occur
- 2010: new experiment with comparisons of sulphur and reference product in spring and post harvest application
  - SEE YOU NEXT YEAR...
- Blackcurrant variety with tolerance to big bud mite



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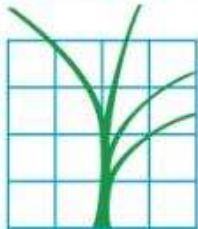
# White peach scale (*Pseudaulacapsis pentagona*)

Life cycle

Geographical distribution in France

Control and experimentation

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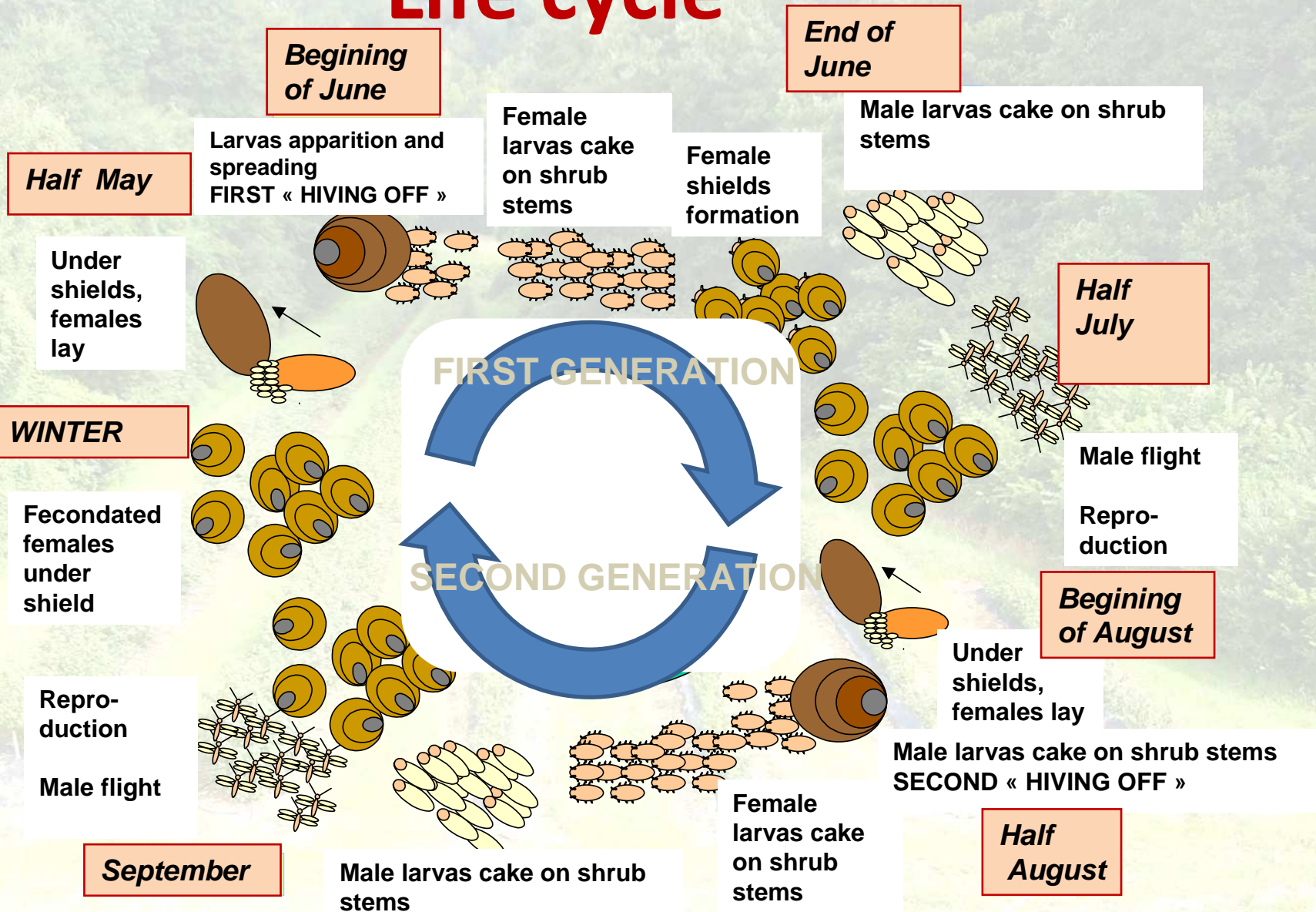
# Life cycle



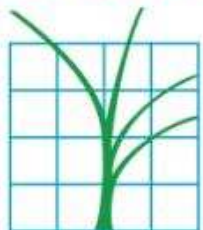
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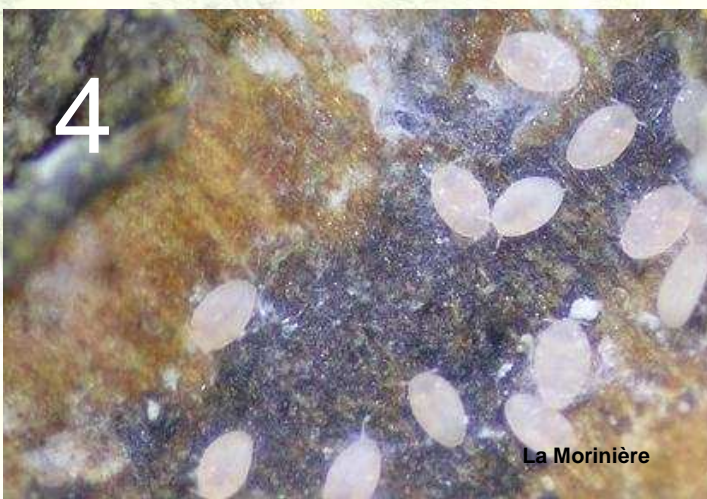
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Station d'expérimentation



Source : FREDON Centre



# Winter to end of June

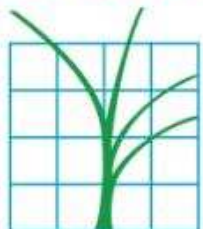


1 Female shields

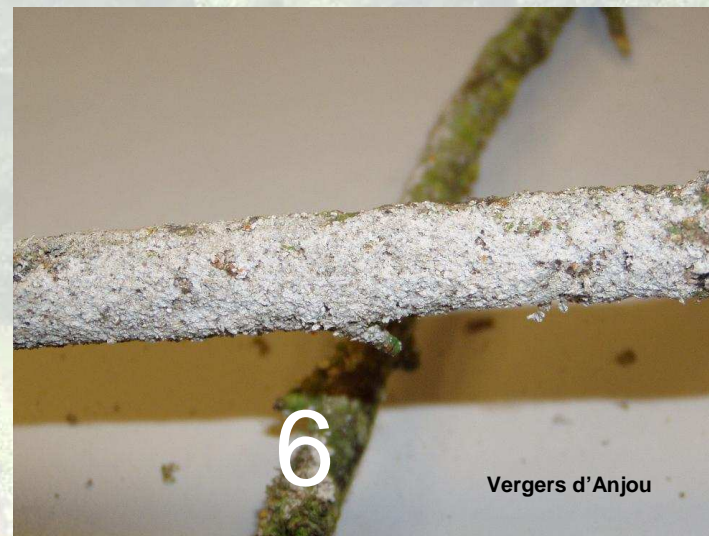
2 Under shield: female + eggs

3 Female larvae crust

4 Male larvae



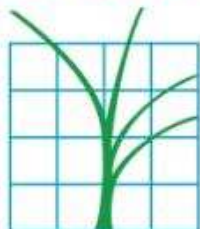
# End of June to end of July



5 Male larvas crust

6 Saturation

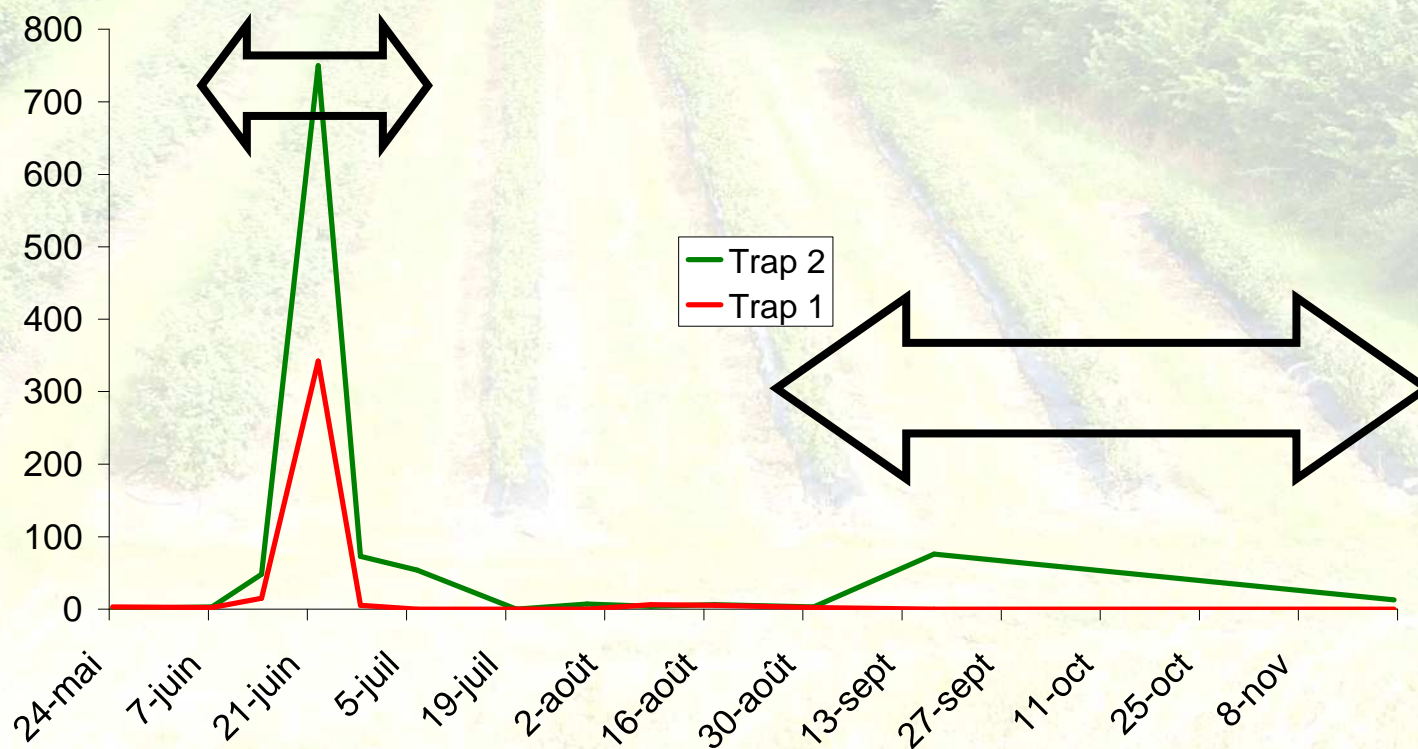
7 Male adults (microscope)



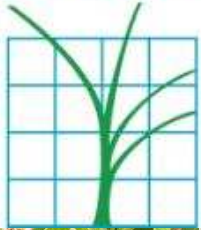
# Life cycle and strategy

- Pheromon traps to follow male flight
- Example during 2007 flights

Scale Number



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## Symptoms, damages

- Female shields on stems (encrusting)
- Bushes weaken quickly
- Yield losses
- Fields contamination

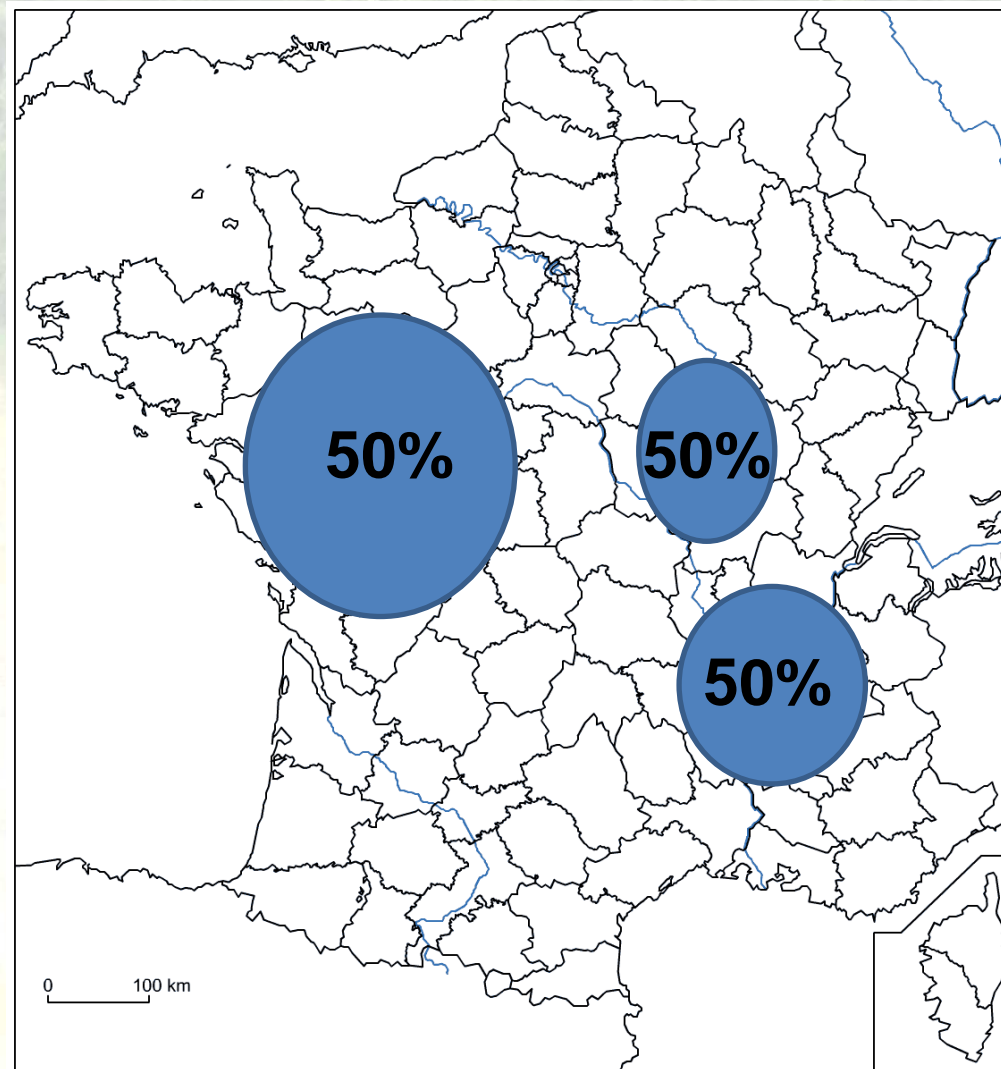


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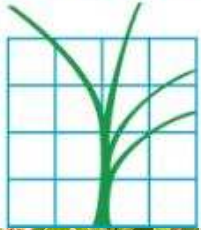


## Geographical distribution in France

- Loire Valley, Burgundy and South East area of France
- Extension = more and more hectares concerned



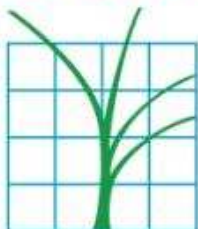
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## Registered products

- No use created = empty use
- Mineral oils in winter (general use for winter stages of pests)
- Experimentation in Burgundy and Loire Valley (la Morinière)      Experimentation for « orphan uses »      (cf. next presentation)

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## 2007-2008 trials

Trial year	2007	2008
<b>Plot 1</b>	Untreated	Untreated
<b>Plot 2</b>	Chlorpyriphos éthyl	Chlorpyriphos méthyl
<b>Plot 3</b>	Pyriproxyfen	Pyriproxyfen
<b>Plot 4</b>	Fenoxycarbe	Fenoxycarbe
<b>Post harvest applications</b>	17/08 31/08	18/08 01/09

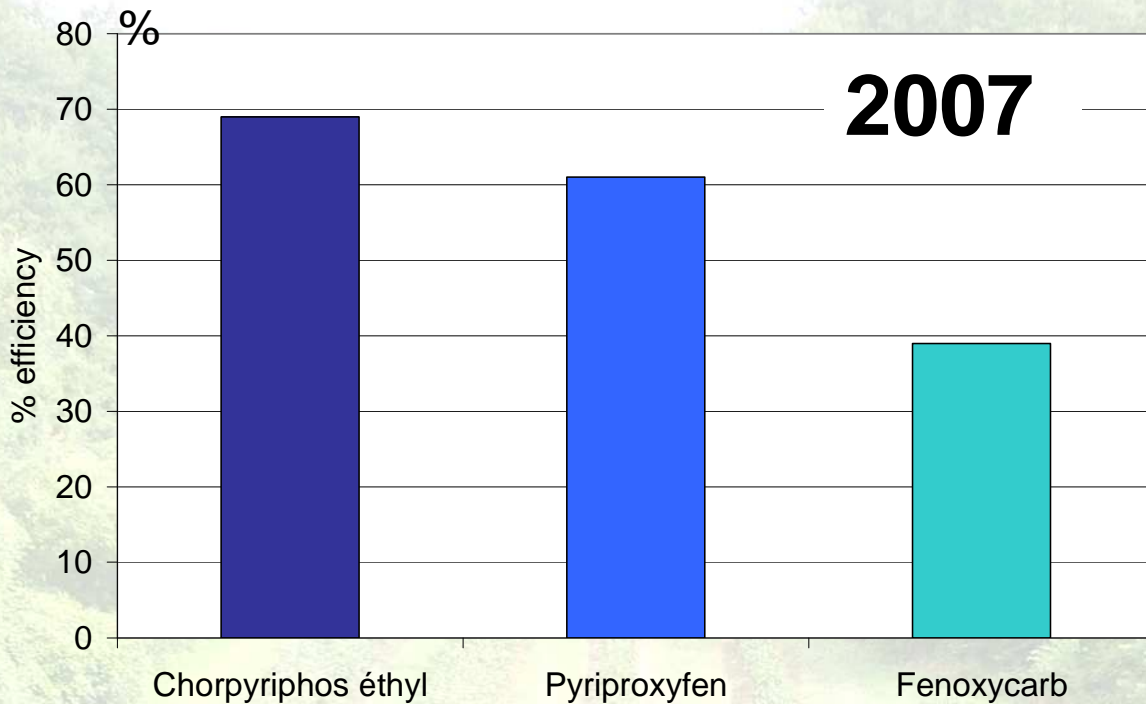
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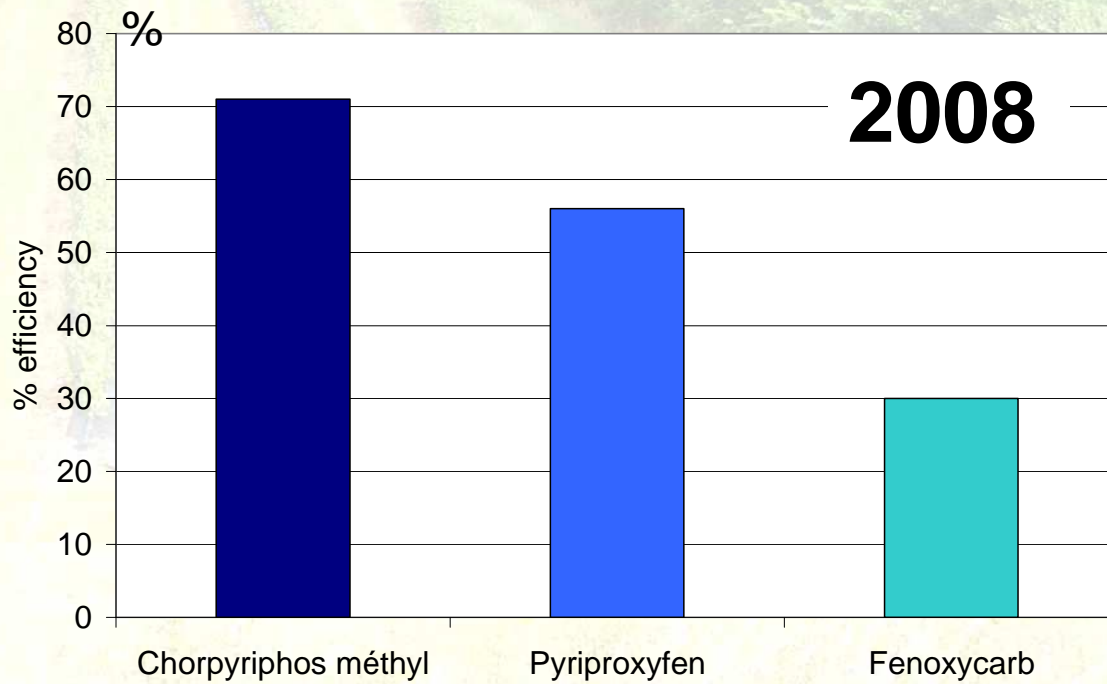


**UNTREATED PLOT**  
Scale number for 5  
samples:  
2007: 92 to 26

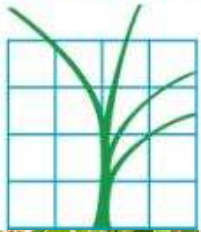
2008: 100 to 227



La Morinière



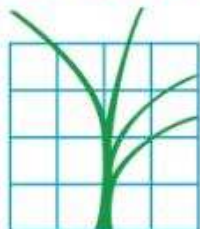
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## Conclusion

- Chlorpyrifos methyl and pyriproxyfen seem to be effective with post harvest applications but efficiency is partial
- Second hiving off may be difficult to define and can be long (more than one month)
- Tolerant or less sensitive blackcurrant varieties

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# THANK YOU FOR YOUR ATTENTION!

