

# Phytobac<sup>®</sup>, french experience

1996 to 2011



 Phytobac®

## Phytobac®, french experience

- Phytobac® is
- Phytobac® development
- Phytobac® benefits
- Phytobac® management by Bayer CropScience
- Individual Phytobac®
- Collective Phytobac®



Bayer CropScience



 Phytobac®

## Phytobac® is:

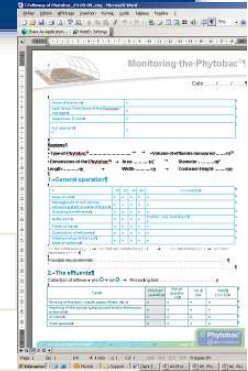
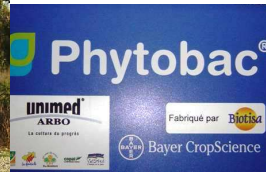
- ✓ The biobed idea was taken up by Bayer CropScience in 1996, because of its simplicity, biological degradation of spill and waste water on the farm
- ✓ The Phytobac® is not only the hardware (container, mixture and washing area). Phytobac® is a concept that covers everything from planning, establishing to auditing
- ✓ Only trained experts can work with Phytobac®



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# It is a concept!

# Phytobac®



Monitoring

Certification

Advisory for use



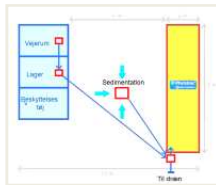
Installation



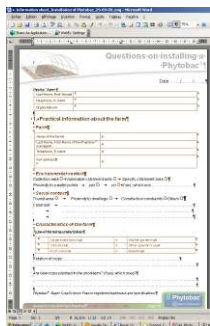
A container with soil/straw



Calculations



Investigation at a farm





 Phytobac®

# Phytobac® differs

The Phytobac® is different to the Original Swedish Biobed by:

- Substrate is contained in water proof container(s) (lined)
- Substrate is only top soil and straw (70%:30%)
- Degradation is similar to what governments approved for PPP
- Substrate can be use more the 12 year
- Substrate overturns ones a year
- Washing water can also be handled.
- All water is evaporated
- Container covered by a roof



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 Phytobac®

# Phytobac®, development

- ✓ Farmers were enthusiastic from the start, in spite of officials reluctance
- ✓ Because this enthusiasm we have carried on with Phytobac:  
- information, - lobbying, - trials, - pilot projects
- ✓ Since 2002, officials have recognized Phytobac® interest
- ✓ A decree, in September of 2006, gave a procedure for recognition of waste water treatment systems
- ✓ More then 2000 Phytobac® are in place at present



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## Phytobac® benefits

- ✓ Safety for environment (water)
- ✓ Easy to use, greater awareness of good agricultural / spraying practices
- ✓ Biological degradation, as in soil
- ✓ Energy need very low
- ✓ Complete management of the effluents
- ✓ Pedagogical plus for pesticide degradation





# Management Phytobac<sup>®</sup>

Bayer CropScience management of Phytobac<sup>®</sup> activity:

- ✓ **Experts** are trained to be capable of arranging, using and supervising a Phytobac<sup>®</sup> (>500 experts)
- ✓ **Two suppliers** of “ready to use” Phytobac<sup>®</sup> kits, Biotisa and Hermex
- ✓ **Online support** for experts:
  - Model for arranging a Phytobac<sup>®</sup>, supervising
  - Conformity certificate
  - Technical and regulation Information



# Individual Phytobac®

- ✓ Self Construction with the help on an expert



**Domaine de  
Gallienne (16)**

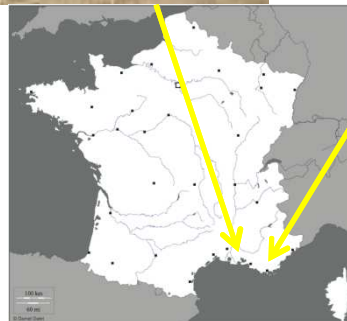


# Individual Phytobac®

✓ Kits Biotisa

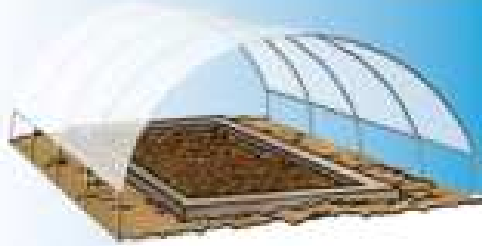


**Lycée agricole  
d'Aix Valabres  
(13)**



**Ville de Roquebrune-Cap  
Martin (06)**





 **Phytobac<sup>®</sup>**

# Individual Phytobac<sup>®</sup>

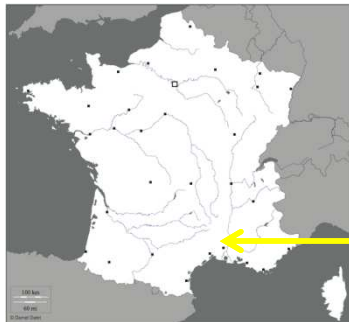


 **Bayer CropScience**



# Individual Phytobac®

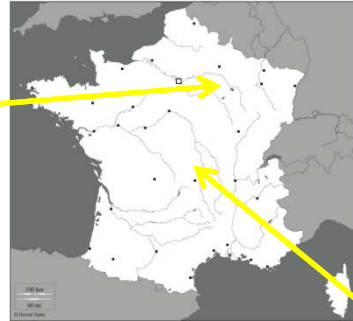
✓ Kit Hermex



Lycée agricole d' Orange  
(84)



# Collective Phytobac®



**CSGV à Avize  
(51)**



**Saint Bonnet près Riom (63)**

# Collective Phytobac®



**Chassagne Montrachet (21,  
Burgundy)**

With Biotisa technology

