

# Blackcurrant Leaf spot or Anthracnose





# Facts about the disease

➔ IN FRANCE

SECOND PRIORITY BEHIND POWDERY MILDEW FOR THE GROWERS

RAIN QUANTITY IN BC PRODUCTION AREAS : 600-800MM/YEAR

LOCAL CULTIVARS ARE ALL SENSITIVE

APPROVALS PESTICIDES : MANCOZEB, DITHIANON,  
BOSCALID+PYRACLOSTROBIN

AVERAGE NUMBER OF TREATMENTS PER YEAR : 0 to 4  
DEPENDING ON YEAR – CAN BE BETWEEN 3 OPEN LEAVES  
STAGE AND MID-FLOWER (IN SENSIBLE AREAS) THEN  
POWDERY MILDEW PRODUCTS RELIEVE



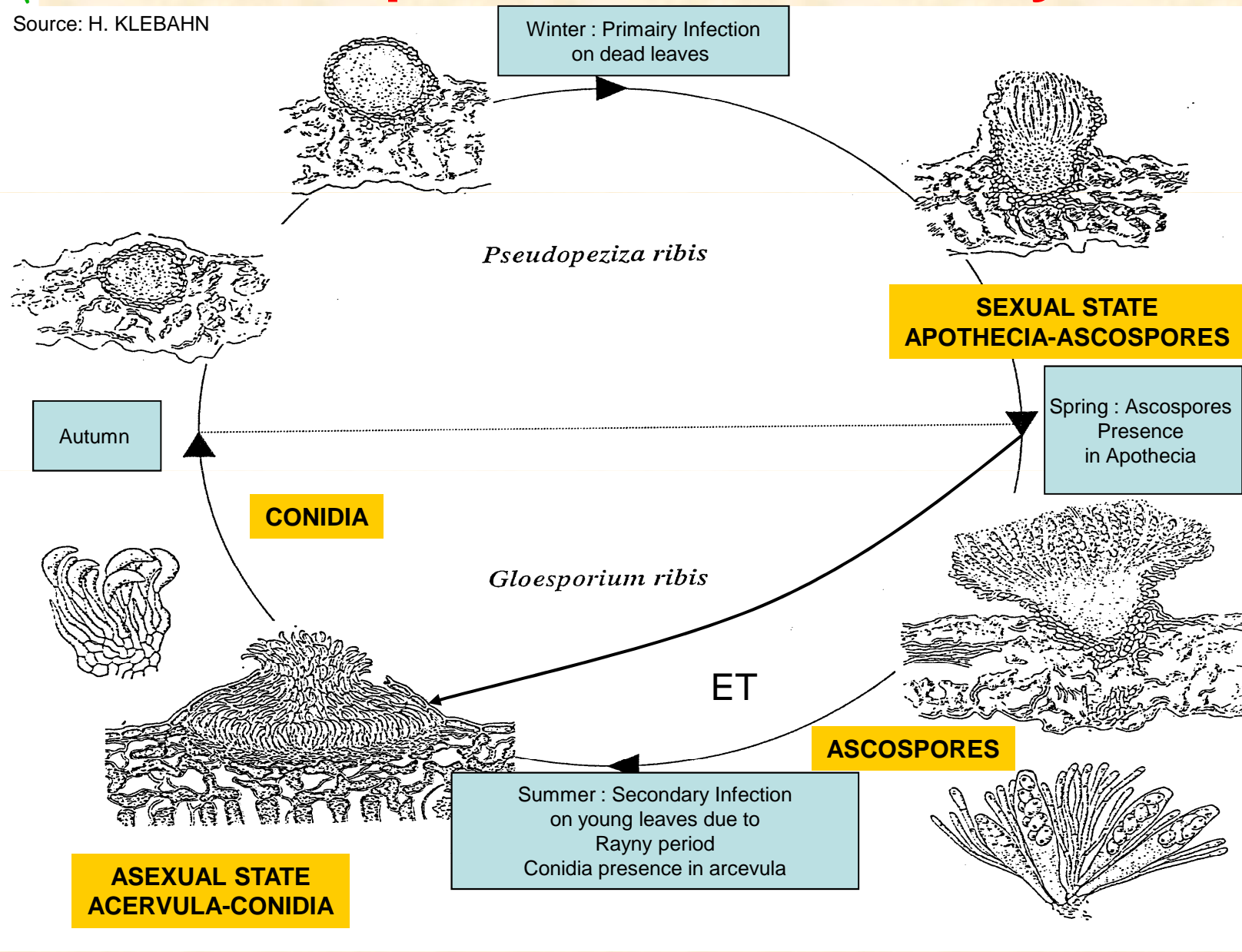
# Study Main Objectives

**OBJECTIVE : BETTER UNDERSTANDING OF THE DISEASE  
IN ITS DIFFERENTS PHASIS OF MATURATION,  
CONTAMINATION, INCUBATION, SPORULATION**

**AT THE END : CREATE A BC LEAFSPOT MODEL WHICH  
SHOULD ALLOW TO HAVE A BETTER TREATMENTS  
TARGETING AND TO PROVIDE PESTICIDES INPUTS  
REDUCTION**

**CONTEXT : KNOWLEDGES COMING FROM BIBLIOGRAPHY  
AND STUDIES LEADED IN BURGUNDY SINCE 2001 BUT A  
LOT OF QUESTIONS STILL REMAINS**

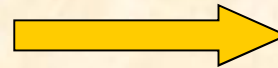
# Leaf Spot's Common Life cycle



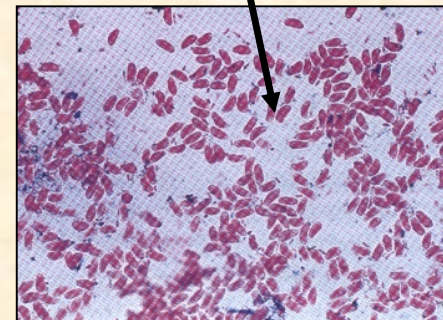
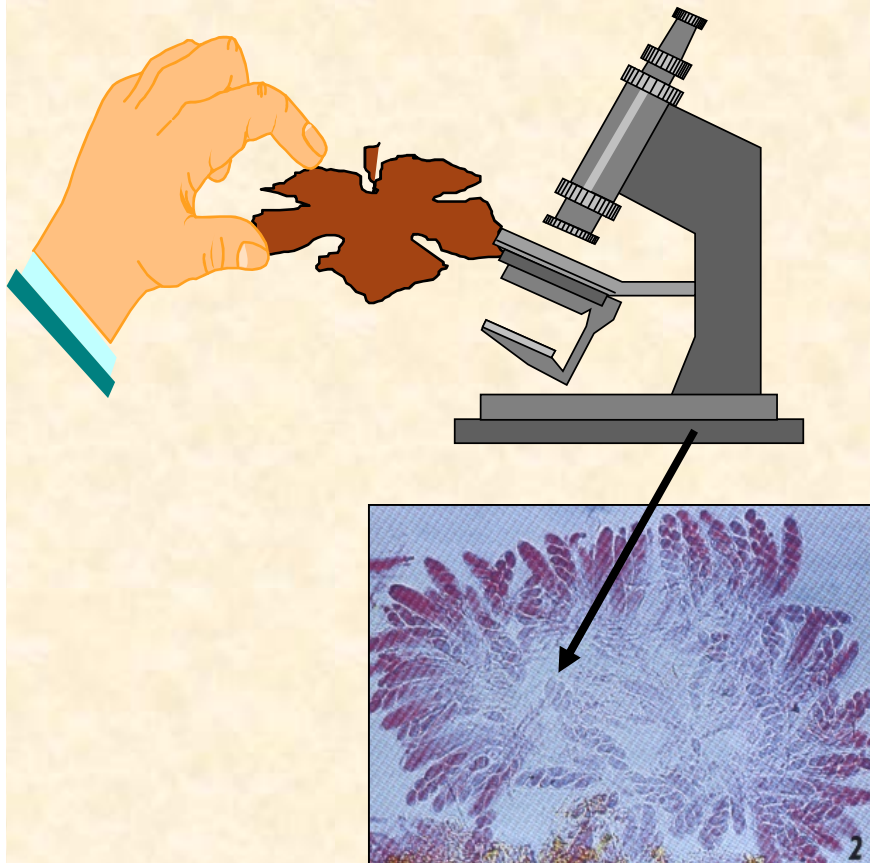
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2 follow-up methods in Burgundy

**APOTHECIA MATURITY  
FOLLOW-UP**



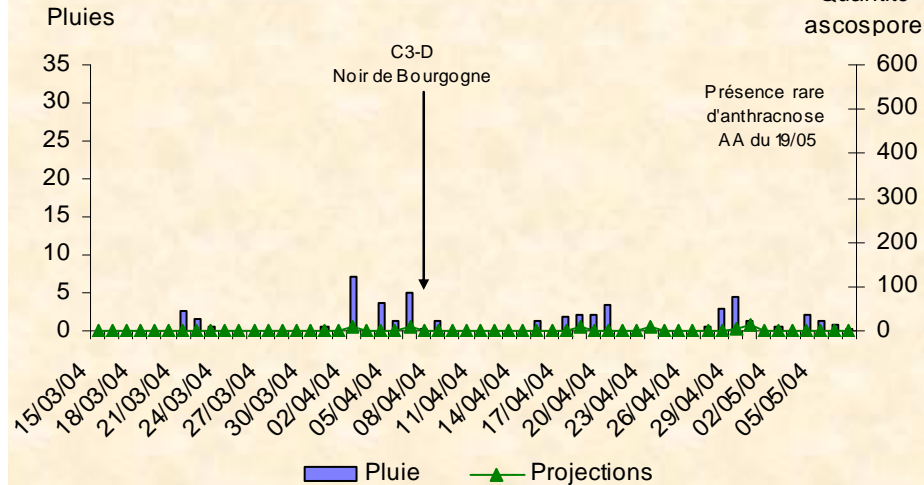
**ASCOSPORES/CONIDIA  
PROJECTION FOLLOW-UP**



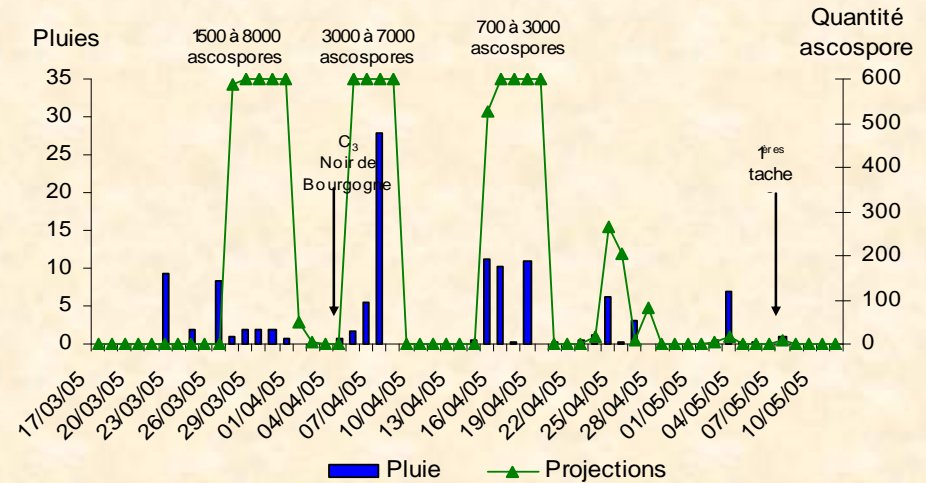
# BC Leaf Spot or Anthracnose

## PROJECTIONS FOLLOW-UP SINCE 2001

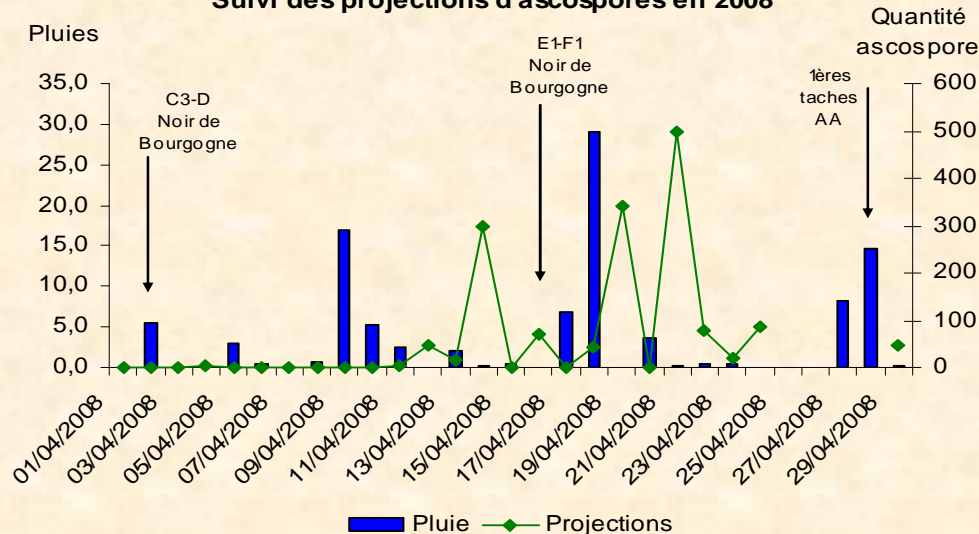
Projections d'ascospores en 2004



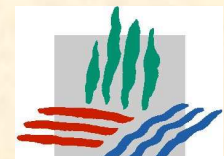
Suivi des projections d'ascospores en 2005



Suivi des projections d'ascospores en 2008



**RAIN : BLUE STICKS**  
**PROJECTIONS : GREEN LINES WITH ASCOSPORES AMOUNTS**



SRAI- DRAAF  
Bourgogne

# BC Leaf Spot or Anthracnose

PROJECTION BEGINNING BEFORE OR AFTER THE 3 OPEN LEAVES  
STAGE DEPENDING ON YEAR

ASCOSPORES PROJECTIONS AFTER RAINY PERIOD (NOT DURING)

**BUT SITUATION IS NOT SO SIMPLE ...**

COEXISTENCE OF 2 SPORES FORMS IN SPRING ?

WHICH ONE IS THE MAIN IN PRIMARY CONTAMINATIONS ?

WHICH CONDITIONS OF CONTAMINATION ?

CONSERVATION ONLY IN THE DEAD LEAVES ?

# TRIALS ON BC LEAF SPOT IN 2005-2007

## Objectives :

**In 2005 :**



**protection**

**Relevance of 3 open stage for the beginning of the**

**In 2006-2007**



**beginning of protection and**

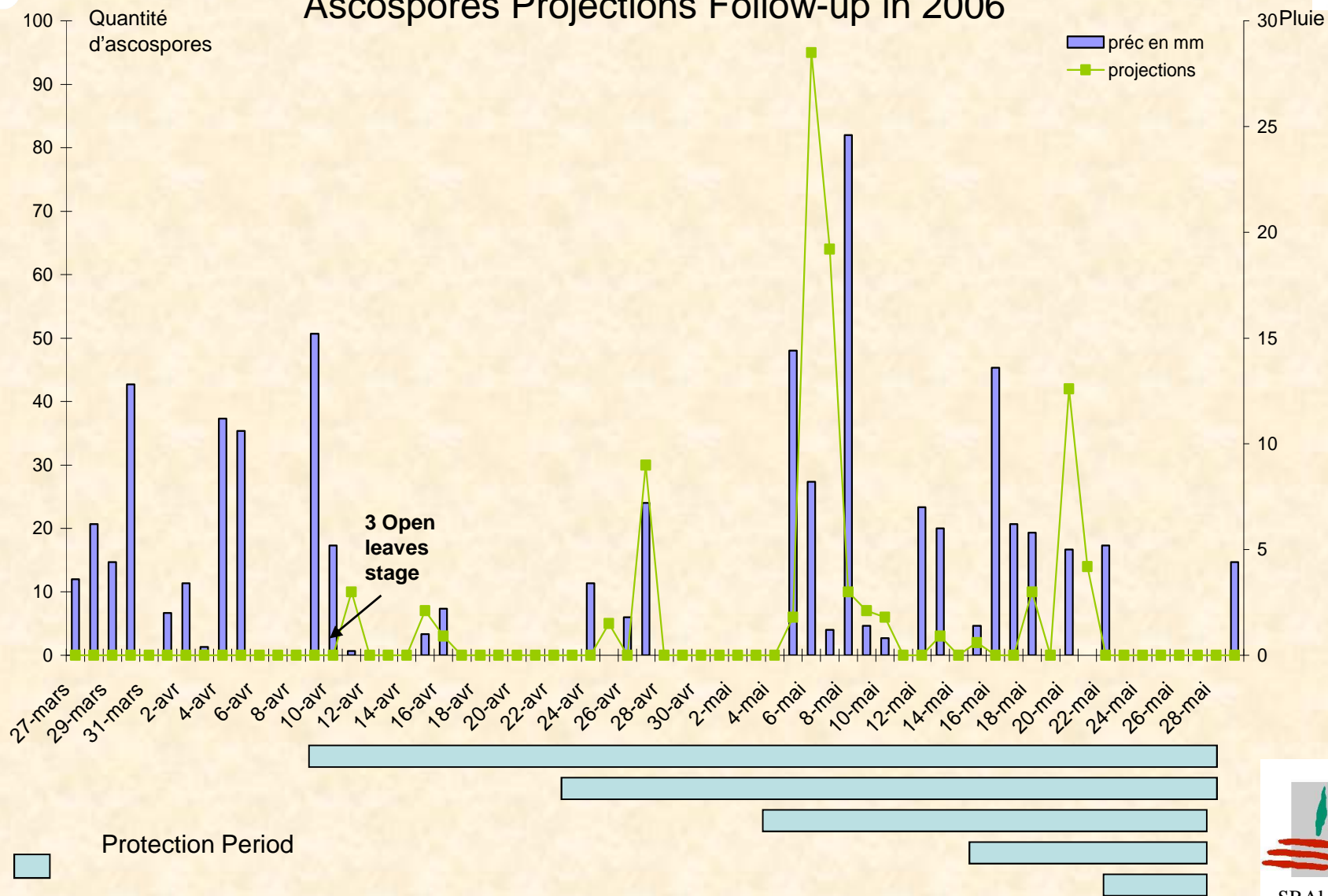
**To see if 3 open leaves stage is inescapable in the**

**Study in Leaf Spot Sensitive Condition, primary  
projections period which can provoke contaminations**

**Trials based on Mancozèb treatments (DITHANE DG)**

# BC Leaf Spot Trials

## Ascospores Projections Follow-up in 2006





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## CONCLUSION – PERSPECTIVES 2011-2013

**PROTECTION BEGINNING AT 3 OPEN LEAVES SENSITIVE STAGE IS NOT SYSTEMATICALLY NEEDED**

**APOTHECIA MATURITY AND PROJECTIONS FOLLOWS-UP ALLOW TO DO LESS TREATMENTS ON THIS DISEASE**

**MAKE NEW STRATEGY TRIALS TO VERIFY LAST HYPOTHESIS**

**BETTER KNOWLEDGE ABOUT MATURITY – PROJECTION – CONTAMINATION – INCUBATION – SPORULATION MODULES SHOULD LEAD TO A LEAF SPOT MODEL BUILDING**

**LOOKING FOR NEW COMPLEMENTARY PRODUCTS (PHOSPHITES, PLANTS EXTRACTS...)**

**STUDY IMPACT OF METHODS SUCH AS UREA OR DMI POST HARVEST LEAVES TREATMENTS TO REDUCE INOCULUM**



SRAI- DRAAF  
Bourgogne