

Blackcurrant Leaf spot or Anthracnose



International Blackcurrant Congress 19-21 may 2010-Beaune

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

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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

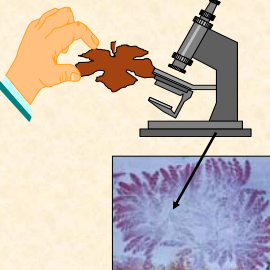
CONTEXT : KNOWLEDGES COMING FROM BIBLIOGRAPHY AND STUDIES LEADED IN BURGUNDY SINCE 2001 BUT A LOT OF QUESTIONS STILL REMAINS

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2 follow-up methods in Burgundy

APOTHECIA MATURITY FOLLOW-UP



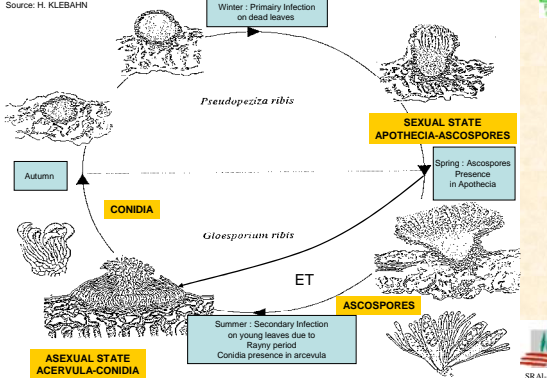
ASCOSPORES/CONIDIA PROJECTION FOLLOW-UP



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Leaf Spot's Common Life cycle

Source: H. KLEBAHN

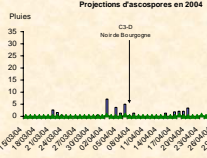


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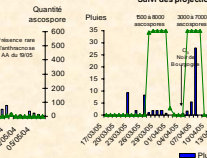
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PROJECTIONS FOLLOW-UP SINCE 2001

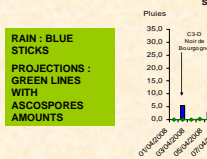
Projections d'ascospores en 2004



Suivi des projections d'ascospores en 2005



Suivi des projections d'ascospores en 2008



Quantité ascospore

Pluies : BLUE STICKS
PROJECTIONS : GREEN LINES WITH ASCOSPORES AMOUNTS

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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 ?

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TRIALS ON BC LEAF SPOT IN 2005-2007

Objectives :

In 2005 : Relevance of 3 open stage for the beginning of the protection

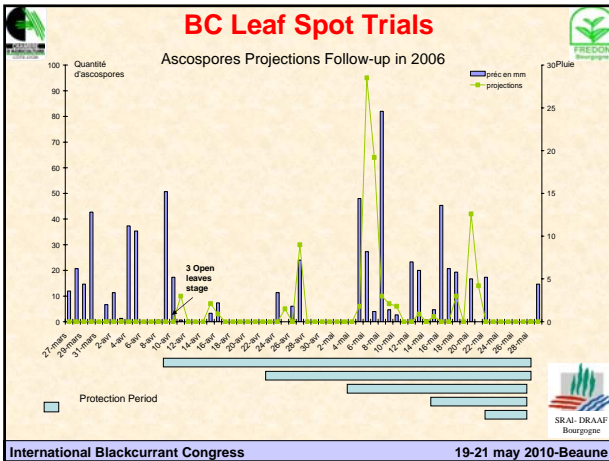
In 2006-2007 : To see if 3 open leaves stage is inescapable in the beginning of protection and

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

Trials based on Mancozeb treatments (DITHANE DG)

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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

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