CERCOSPORA LEAF SPOT IN SUGAR BEET
Summary

• Sugar beet areas and productions in France

• Cercospora Leaf spot :
  ➢ Spread, critical periods
  ➢ Productive and economical losses

• Crop protection strategies

• Resistances to fungicides :
  ➢ monitoring and prevention strategies
  ➢ management of the efficacies of the fungicides.
Sugar Beet areas and production in FR

- 26,000 growers
- ≈ 400,000 ha

Sugarbeet Yield (2015)
- 17.7°
- 93 t/ha
- 13.3 t/ha

25 sugar factories
- TEREOS (9)
- CRISTAL UNION (10)
- ST LOUIS SUCRE (4)
- LESAFFRE FRERES (1)
- OUVRE et FILS SA (1)
Successful protection

- Foliage diseases may present a risk of loss of yield and quality varies according to climate factors, agronomic and varietal factors.

- ITB confirms the relevance of a reasoned approach to treatment thanks to tools developed in recent years.

Evaluate the risks

Choose a variety adapted to these risks

Optimize the use of an effective product
This foliar diseases monitoring network consists of observing representative plots since 2007. It provides:

- **Risk mapping**
- Drafting of **Vegetal Health newsletter** in 2015
- Accurate **information**
- Advice for **sending information notes by region**
- Optimal protection adapted to **annual needs**

Du 15 juin au 15 septembre : [www.itbfr.org](http://www.itbfr.org)
Cercospora Leaf spot in France (Spread)

Regional risk

Climatic risk (Regional climat)

Disease risk (Quantities of inoculum)

Alsace (East France)

5% of the French Sugar beet area is classified high risk

Southern Champagne and Paris

Limagne (Centre France)
The risk is different according to the year

Dates of appearance of cercospora in the network

RESOBET-FONGI

% of fields treatment thresholds

1-5 juil 6-12 juil 13-19 juil 20-27 juil 28-2 aout 3-9 aout 10-17 aout 18-24 aout 25-31 aout 1-7 sept

2007 2010 2012 2013
Respect of treatment thresholds

Ensure the proper timing of application

If too early
- Loss of product efficiency
- Risk of further treatment
- Unnecessary treatment because no disease

If too late
- Loss of product efficiency
- Lost productivity
- Faster spread of fungus
Varietal choice

Resistant variety

Only one treatment

Sensitive variety

4 treatments
Varietal choice

Resistant variety vs Sensitive variety
Varietal choice

- T1 LE 23/07 PRIORI XTRA 1 L
- T1 LE 17/07 PRIORI XTRA 1 L
- T2 LE 31/07 SPYRALE 1L

Resistant variety  Sensitive variety
Varietal choice

- T1 LE 23/07 PRIORI XTRA 1 L
- T1 LE 17/07 PRIORI XTRA 1 L
- T2 LE 31/07 SPYRALE 1L
- T3 LE 16/08 ARMURE 0.6 L

Resistant variety  Sensitive variety
Varietal choice

- T1 LE 23/07 PRIORI XTRA 1 L

- T1 LE 17/07 PRIORI XTRA 1 L
- T2 LE 31/07 SPYRALE 1L
- T3 LE 16/08 ARMURE 0.6 L
- T4 LE 03/09 ARMURE 0.6 L

Final Yield **120.3 t/ha**
One treatment

Final Yield **116.6 t/ha**
4 treatments
Another example of a variety choice

Without treatment
Choose a good variety

Good practice in the control of foliage diseases is not an obstacle to increased productivity

Productivity 2014

ITB results
Adapt the right fungicide and the right dose

Fungicide Product use in France (2014):

- 60% Triazoles associated (ex: morpholine)
- 38% Triazoles + Strobillurines
- 2% Sulphur

- Depending on the year 1 or 2 treatments are used
- In each application, the active substance used are alternated to prevent the development of resistance
Performance of fungicides

Each year, ITB sets up an experiment in its monitoring network on the evaluation of fungicides.

This is to advise on the best product to apply to the disease.
ITB has developed many tools to manage foliage diseases better and to give advice.

Fungicide protection strategy is:

- The choice of variety is an essential tool in fungicide protection
- An effective monitoring network (RESOBET FONGI) recognized by the sugarbeet sector
- The respect of treatment thresholds and proper timing ensures successful fungicide protection
- Choosing the right product at the right dose is essential for successful interventions