

• **BASF Maize 2016**



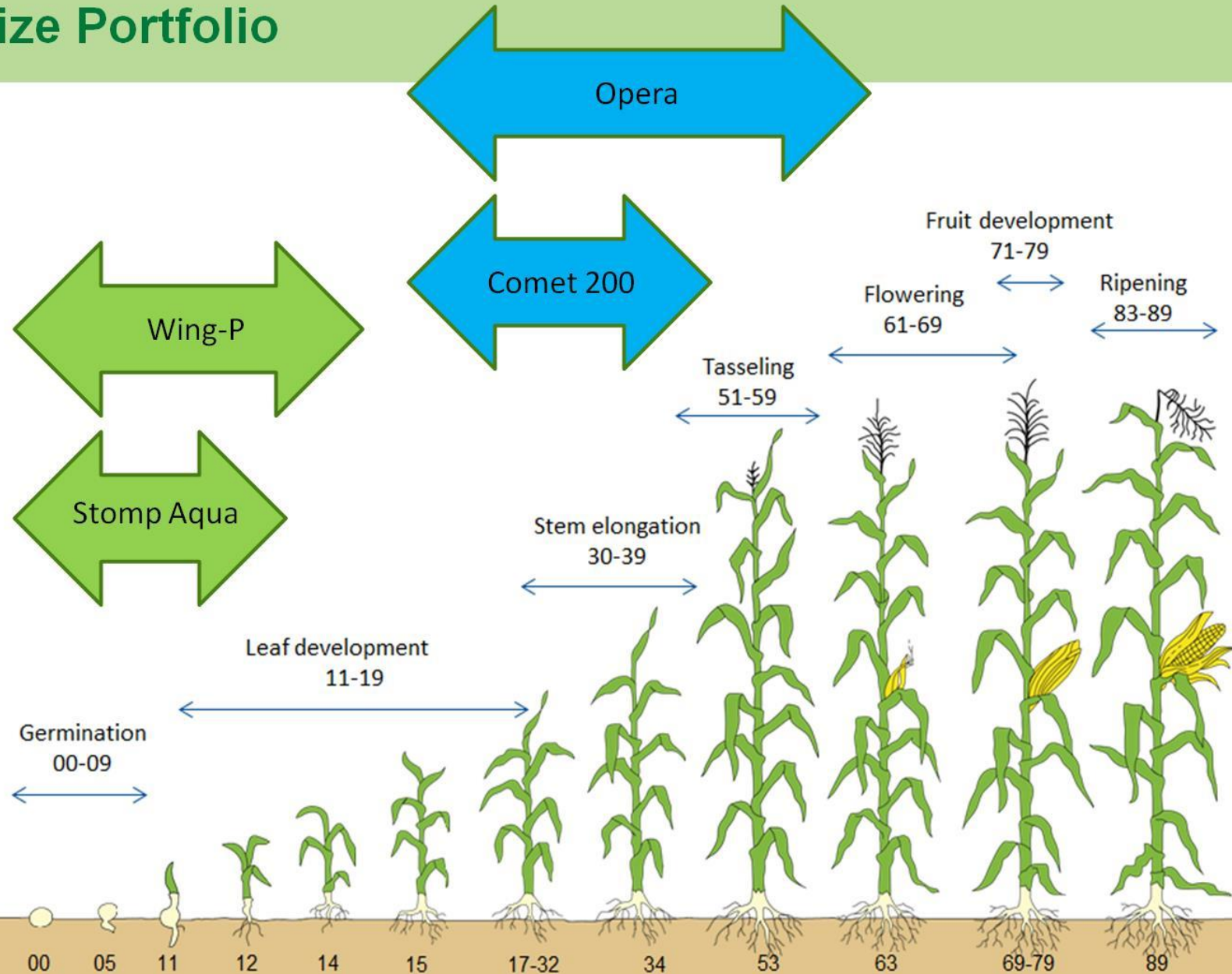
## AgCelence benefits

Plant stress normally results in premature senescence  
In addition to disease control Pyraclostrobin (as in Opera and Comet 200) can

- Improve rooting
  - **Increase drought tolerance**
- Increased nitrate reductase activity
  - **Improves nitrogen use for plant growth**
- Reduce ethylene production
  - **Less Premature Senescence**
- Increase retention of green leaf area
  - **Increases photosynthesis**
- Generate higher crop yield & quality
  - **Increased DM/ha & starch content**

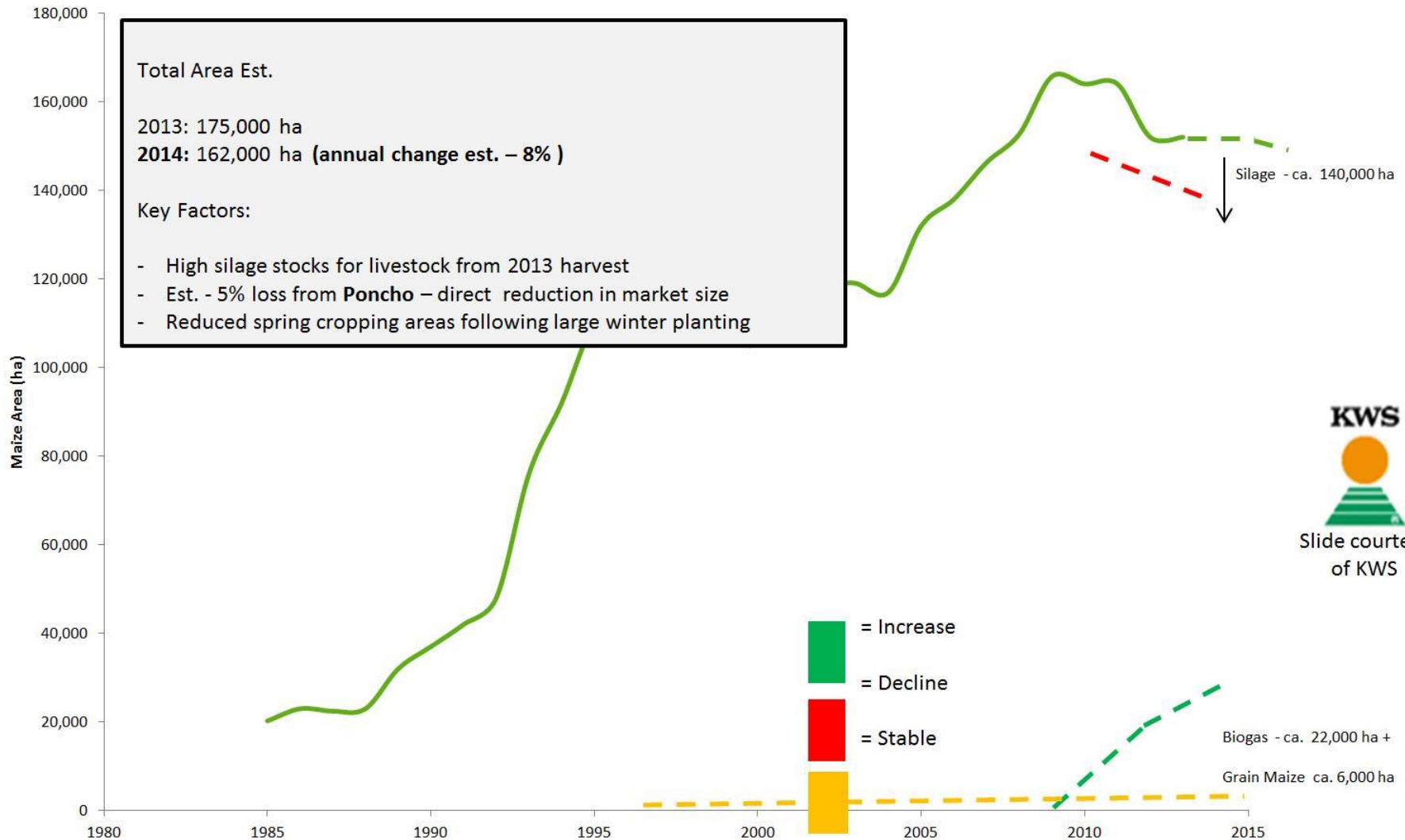


# BASF Maize Portfolio



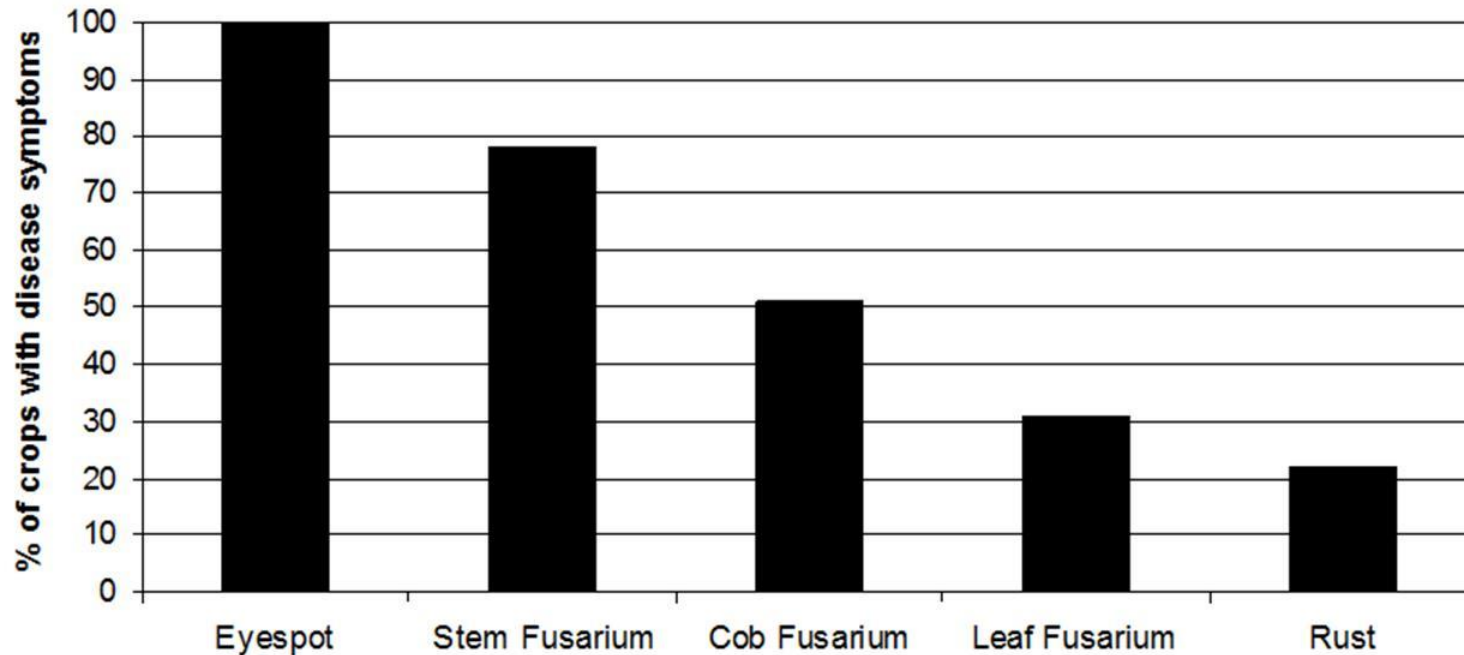
# Maize Acreage - United Kingdom

## 1985 – 2014 (Est.)



# Percentage of crops with disease symptoms

ADAS survey 2013

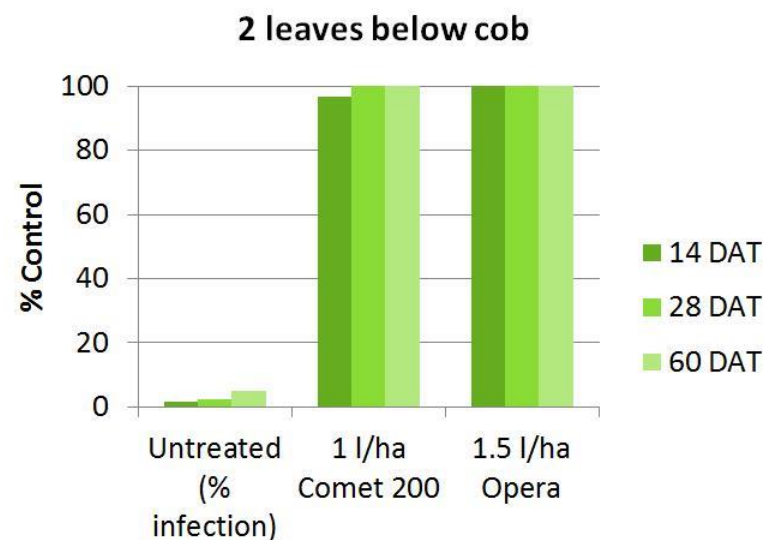
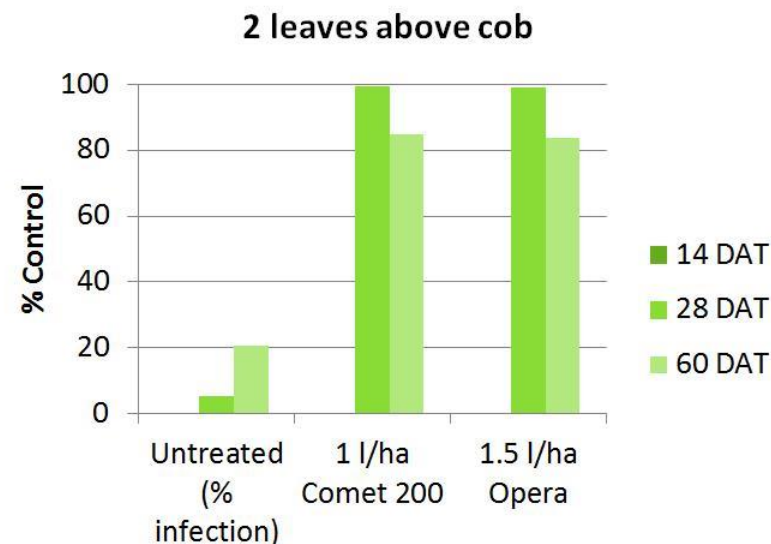
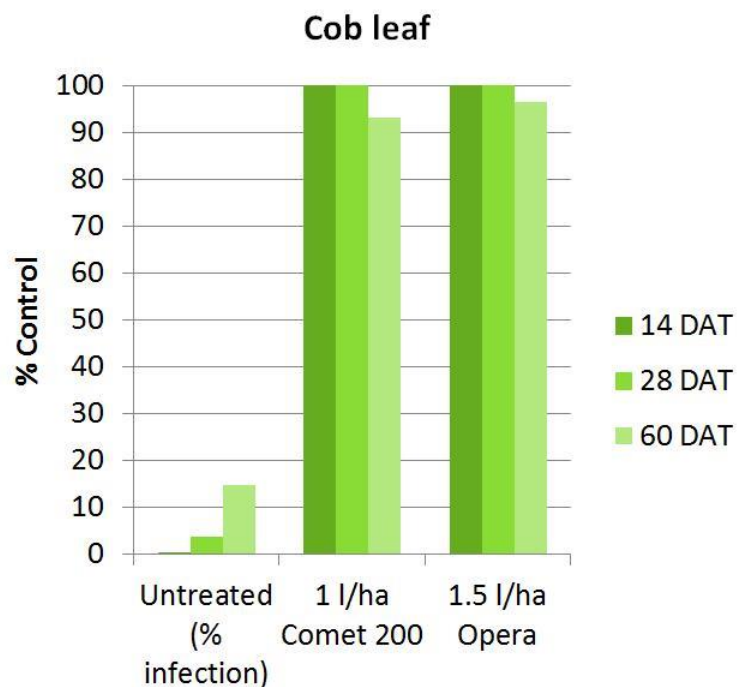


- 2013 was a low disease year
  - Low temperatures in spring and a dry summer
- However, all crops had one or more diseases present



# Eyespot – the importance of preventative control

UK 2012, Ashburton, Devon, application at 8-10 lvs



# Comet<sup>®</sup> 200 and Opera<sup>®</sup> give good eyespot control

Untreated



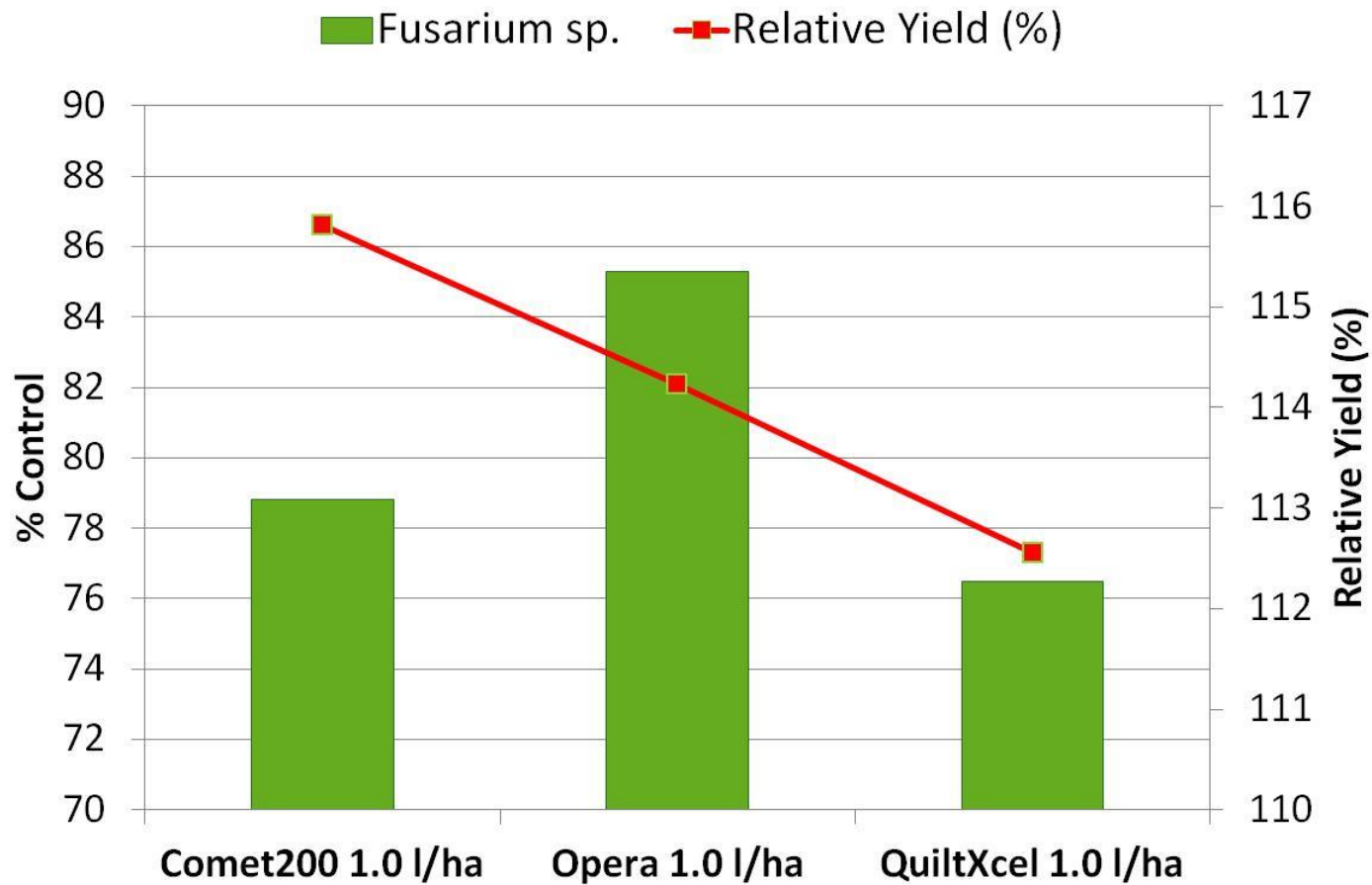
1.0 l/ha Comet 200



1.5 l/ha Opera



# Preventative control of *Fusarium* sp.

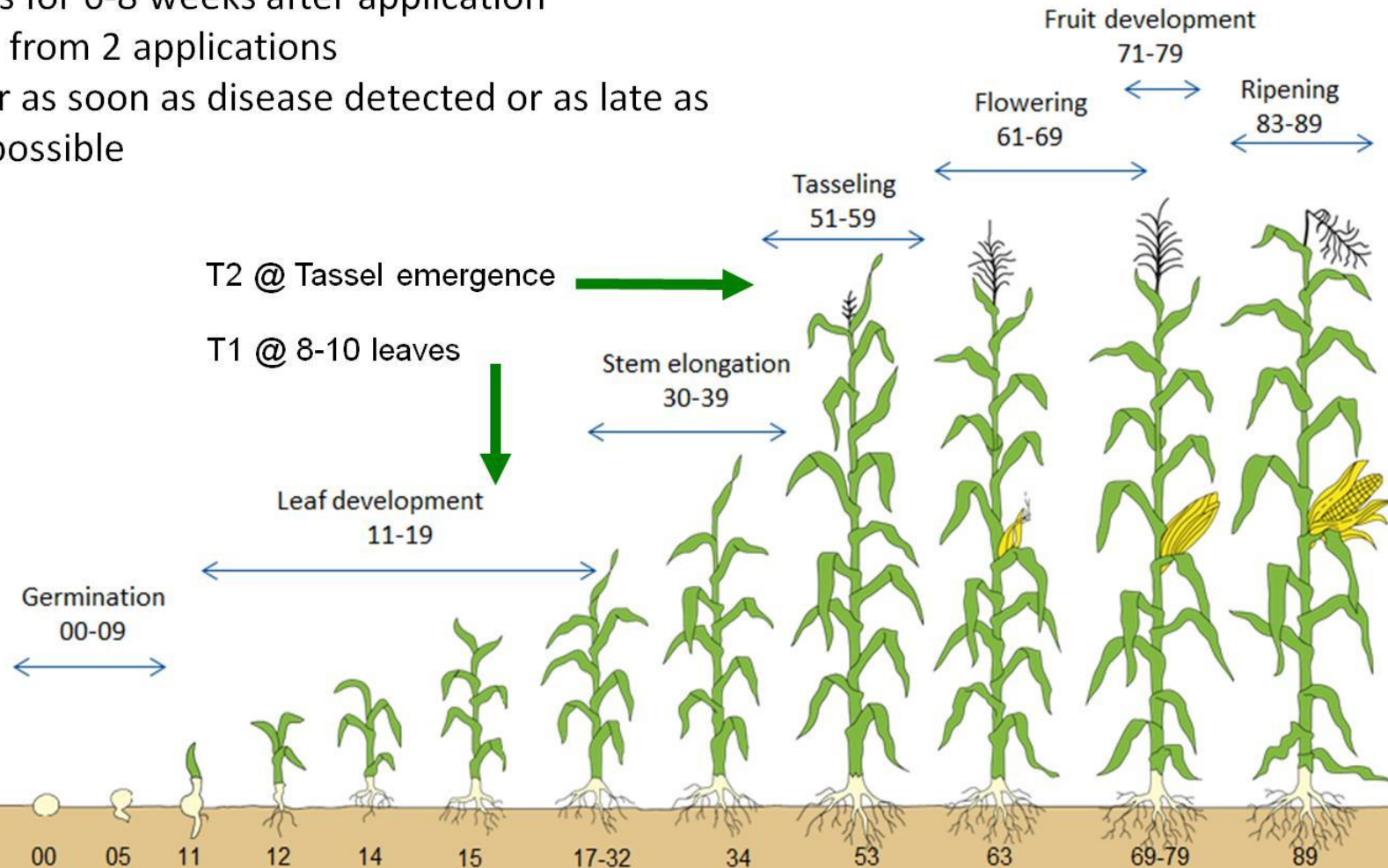


N=1 2014, No disease present at application, untreated 42.5% fusarium infection at last assessment  
 Treatments applied crop GS 65 (mid flowering) on 24<sup>th</sup> July, Stem assessments carried out on 21<sup>st</sup> Sept (59DAT)



# Spray timing

- Fungicides best applied at or before the onset of disease
- Activity lasts for 6-8 weeks after application
- Best results from 2 applications
- Apply either as soon as disease detected or as late as practically possible



# AgCelence benefits in a low disease year



No Fungicide

18%  
increase  
in cob  
weight



One application  
of Comet 200 @  
1.0 l/ha

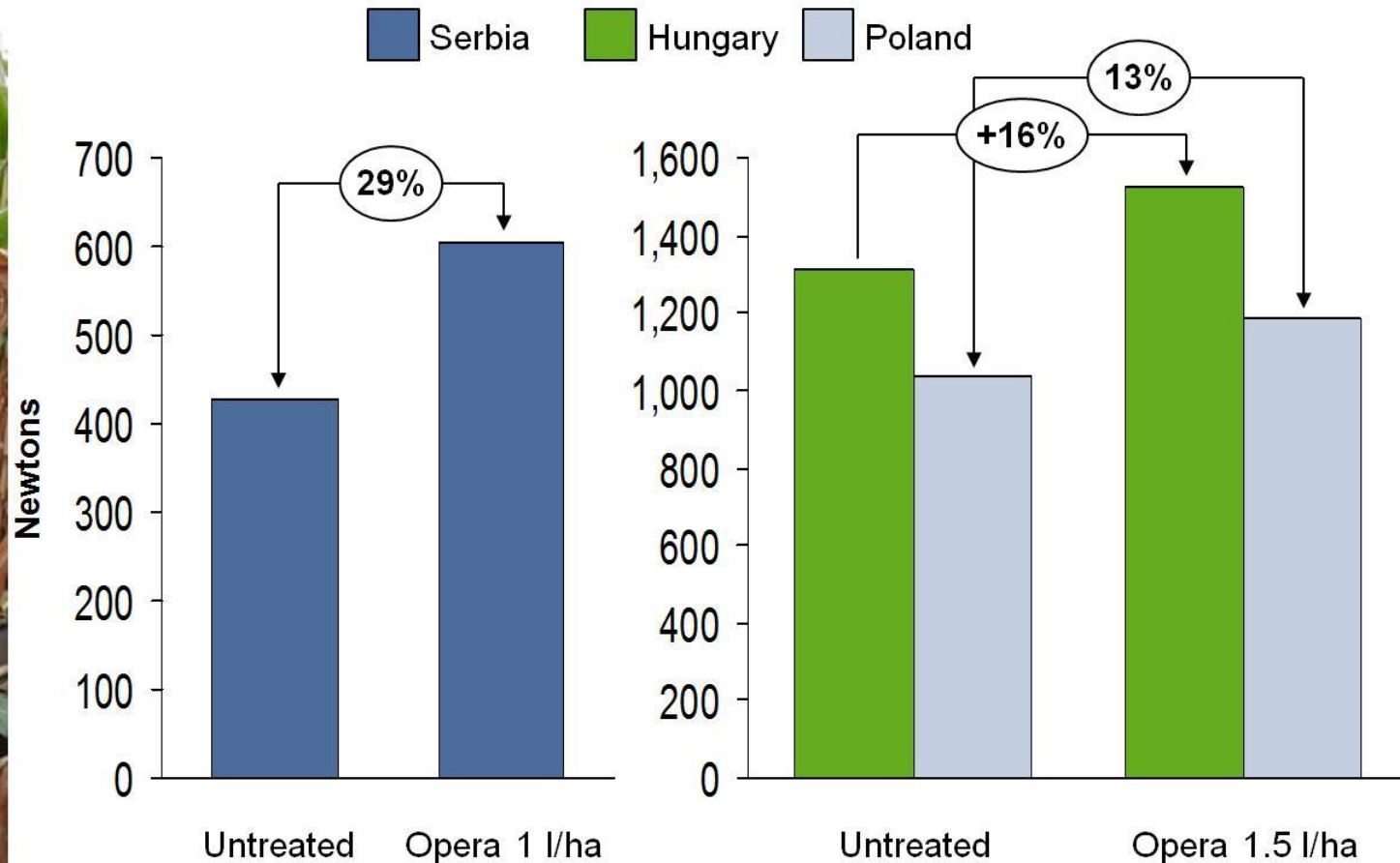
748g



909g



# Increased root strength = Larger root system



Serbia (n=1) ; Opera applied 7<sup>th</sup> June (GS31), root strength measured 26<sup>th</sup> July  
 Hungary (n=1) ; Opera applied GS61, root strength measured 27<sup>th</sup> Aug  
 Poland (n=2) ; Opera applied 10<sup>th</sup> June (GS30), root strength measured 10<sup>th</sup> September



# Increased root weight = larger root system

Untreated

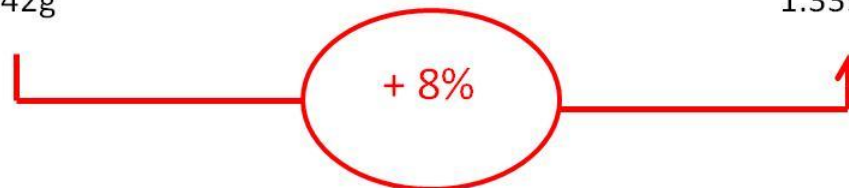


Opera 1.5 l/ha



Average root weight 1.242g

1.339g



# Increased rooting = Increased drought tolerance

Stress of Drought, disease free, Sachsen-Anhalt, Sept. 2011



**+15%**

Untreated

10.84 t/ha DM

**+15%**

**Opera**

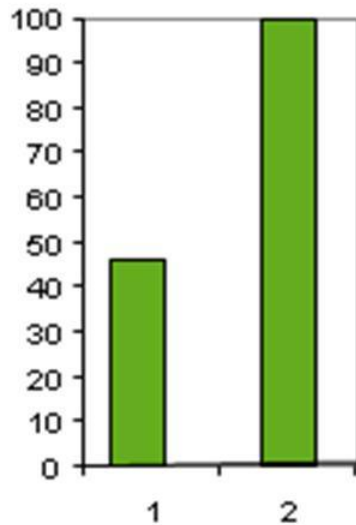
12.43 t/ha DM



# Activation of Nitrate reductase leads to increased Nitrogen uptake and higher yields

laboratory

Relative Nitrate Reductase Activity  
(1 day after application)



1. Control 90 kg/ha N
2. Comet 200 0.5 l/ha

Application at 8 leaves

field trial

Grain yield (t/ha)

