

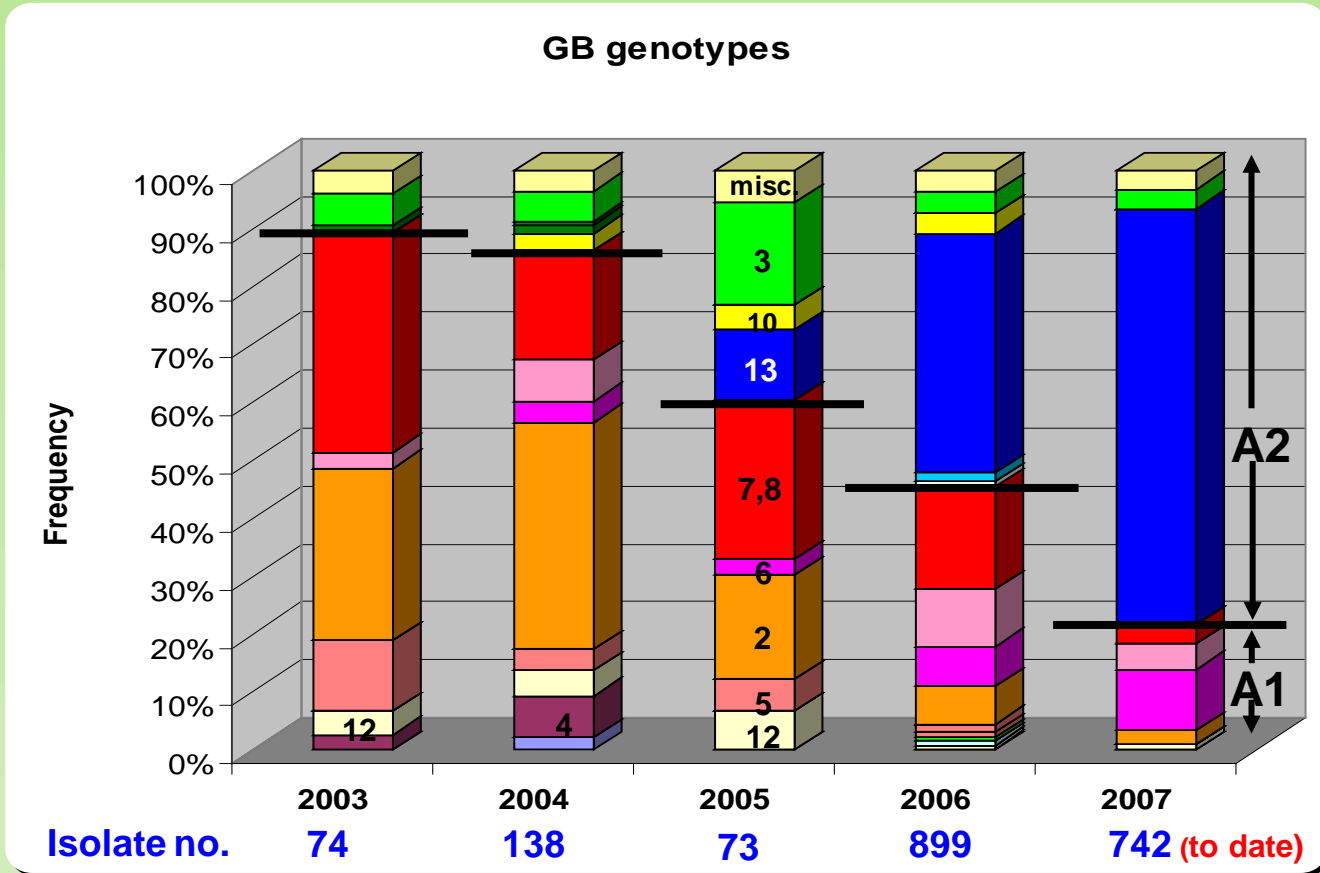


New experiences on the control of late blight 2008

Sylvain Tafforeau, Oluf Juhl, Marie Pascale Latorse

Recent experiences

- n **A2 established in all important European potato areas:**
 - **More aggressive *Phytophthora infestans***
 - **Earlier first infections**
 - **“Blue 13”**
- n **Increased levels of metalaxyl resistance**
- n **Rainy conditions during potato season 2007&2008**
- n **Alternaria moving North (climate change)**



Source:
David Cooke (2008)

Genotyping findings UK 2003 – 2007
Dominance change A1/A2: Blue 13: metalaxyl resistant A2

Activity on indirect germination



Sporangia

Zoospore release

Zoospore mobility

Encystment

Cyst germination

Germ tube growth

**Mycelial growth
& Sporulation**



Consento in the Active Growing Phase

n **Fundament for Early Blight control**

- **Early Blight inoculum develops early season**
- **Best overall control starts with early season control**
- **Consento is a Late + Early Blight fungicide**
 - è **Early positioning is basis for successful Early Blight control**
 - è **Cost effective prevention (built-in Early Blight control)**
 - **No need for a specific Early Blight fungicide in tank mix**
 - **Avoids expensive late season corrections**

Fenamidone efficacy on A1 and A2 mating type

Fenamidone: EC 50 value for A1 and A2 mating type
(1995 – 2008)

Type	EC 50 (ppm)
A 1	5.8 – 12
A 2	3.4 – 9.4
A 2 Blue 13	3.3

Conclusion:

- Ø There is no difference in EC 50 values for A1 and A2
- Ø Fenamidone is effective on both A1- A2 mating type of *P. infestans*
- Ø Fenamidone is effective on A2 strain blue 13

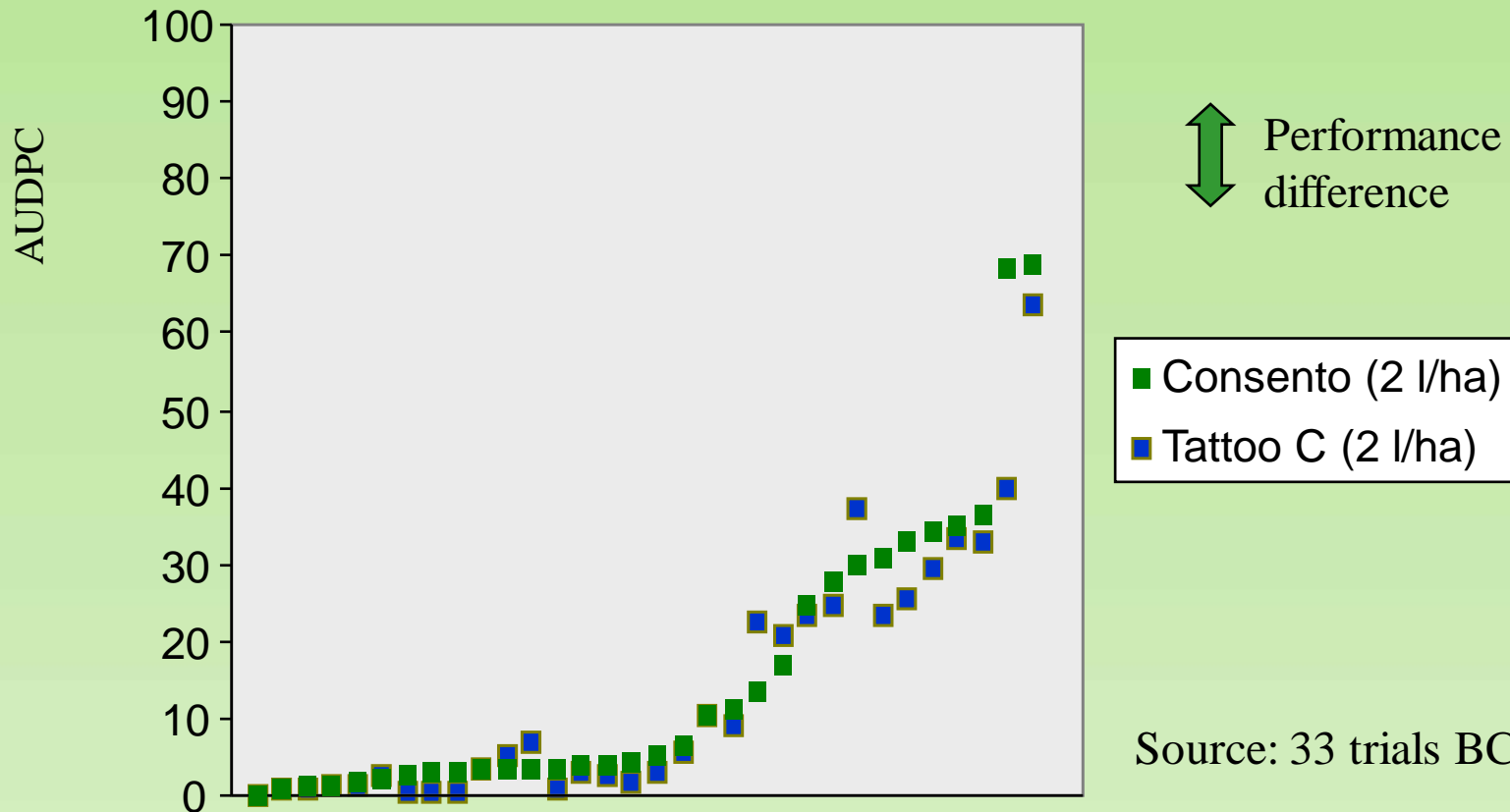
Fenamidone efficacy on metalaxyl resistant isolates

Fenamidone: IC 90 value for metalaxyl sensitive and resistant strains

Strain <i>P. infestans</i>	characteristic	Fenamidone	Metalaxyl
F 19	metalaxyl resistant	IC ₉₀ 20 ppm	IC ₉₀ 100 ppm
F 495	metalaxyl sensitive	IC ₉₀ 15/20 ppm	IC ₉₀ 1 ppm

- Ø No cross resistance between fenamidone and metalaxyl
- Ø Fenamidone is effective on metalaxyl resistant *P. infestans*

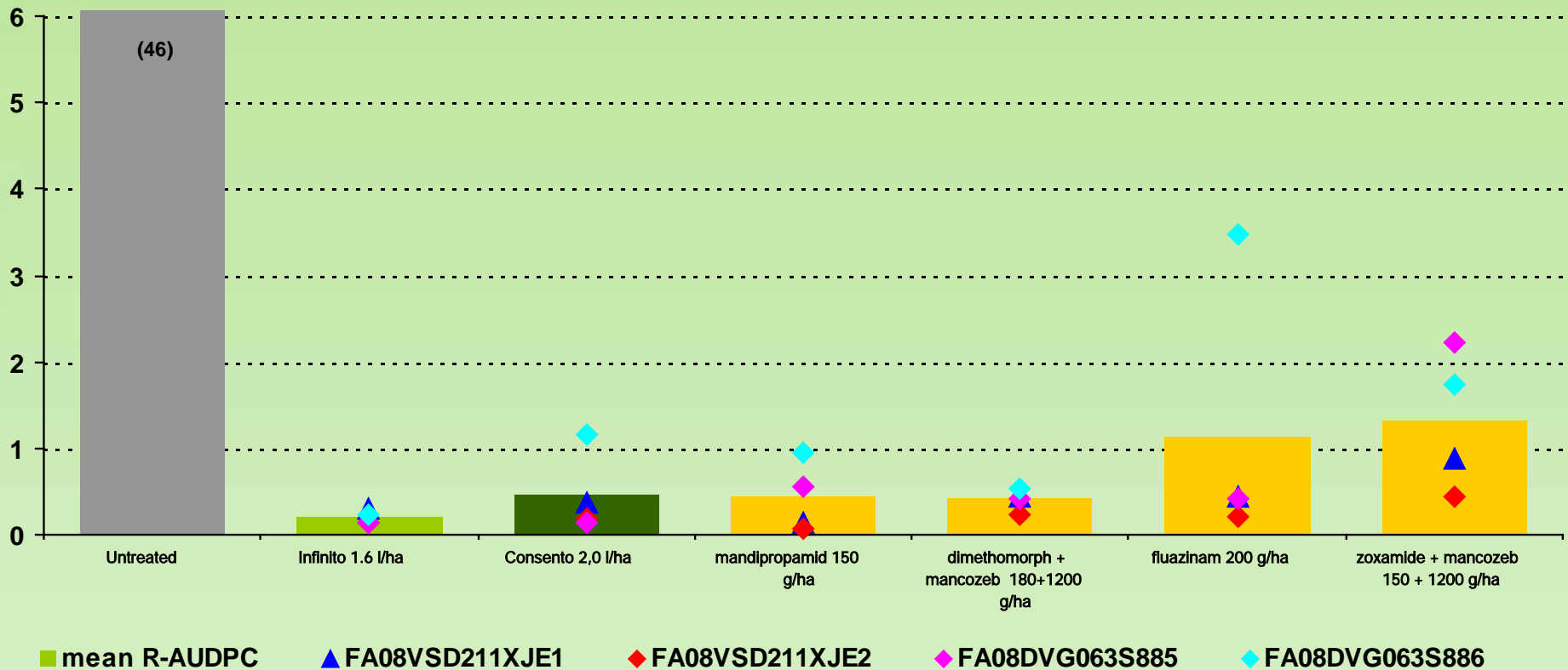
Consento efficacy comparison with Tattoo C at 2 l/ha



Source: 33 trials BCS Europe

∅ Tattoo C and Consento are equivalent in performance at 2.0 l/ha

Consento efficacy level compared to common standards for Late Blight control

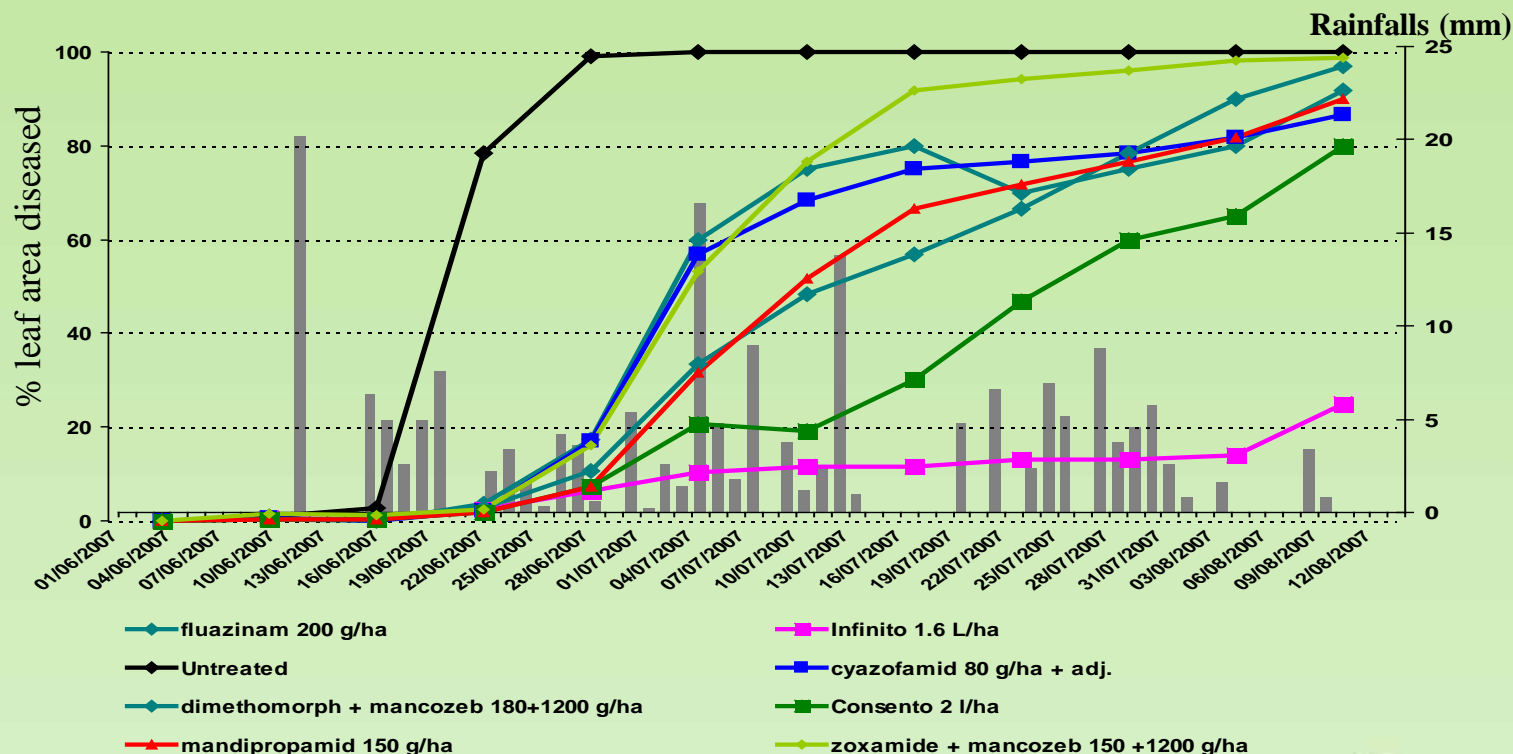


Source: mean of 4 trials BCS France and Germany 2008



Consento Rainfastness field performance

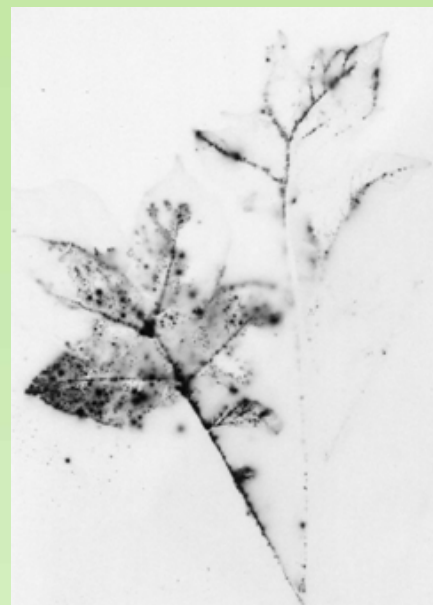
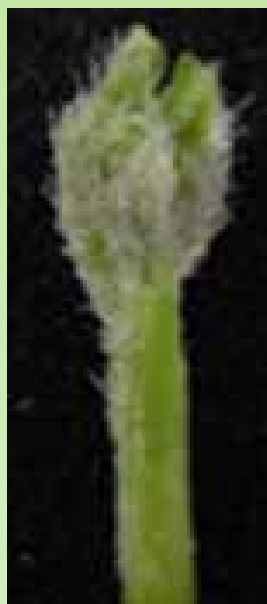
Good control under rainy conditions (daily rain-mid July 2007)





Consento protection of new growth

n Redistribution of fenamidone to new leaves

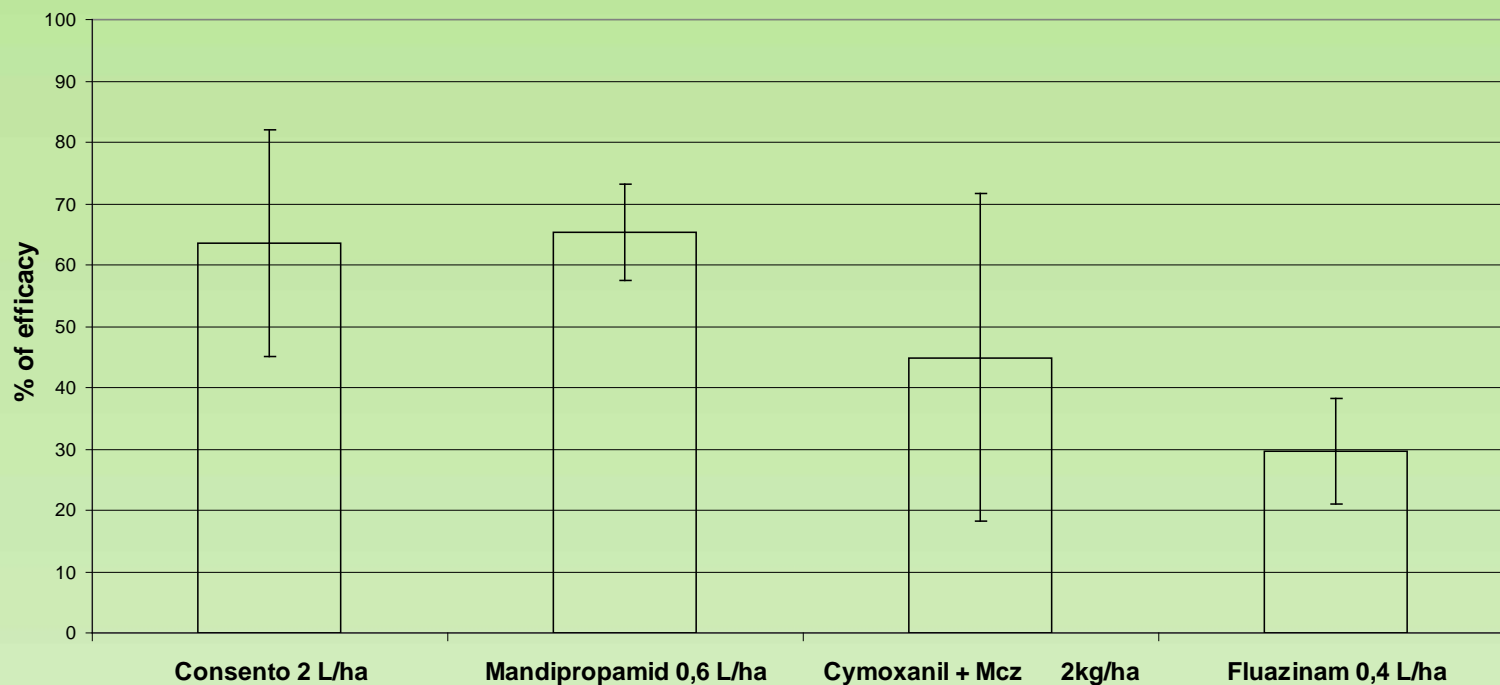


Bud treated with radio-labelled fenamidone

Redistribution of fenamidone into developing leaf

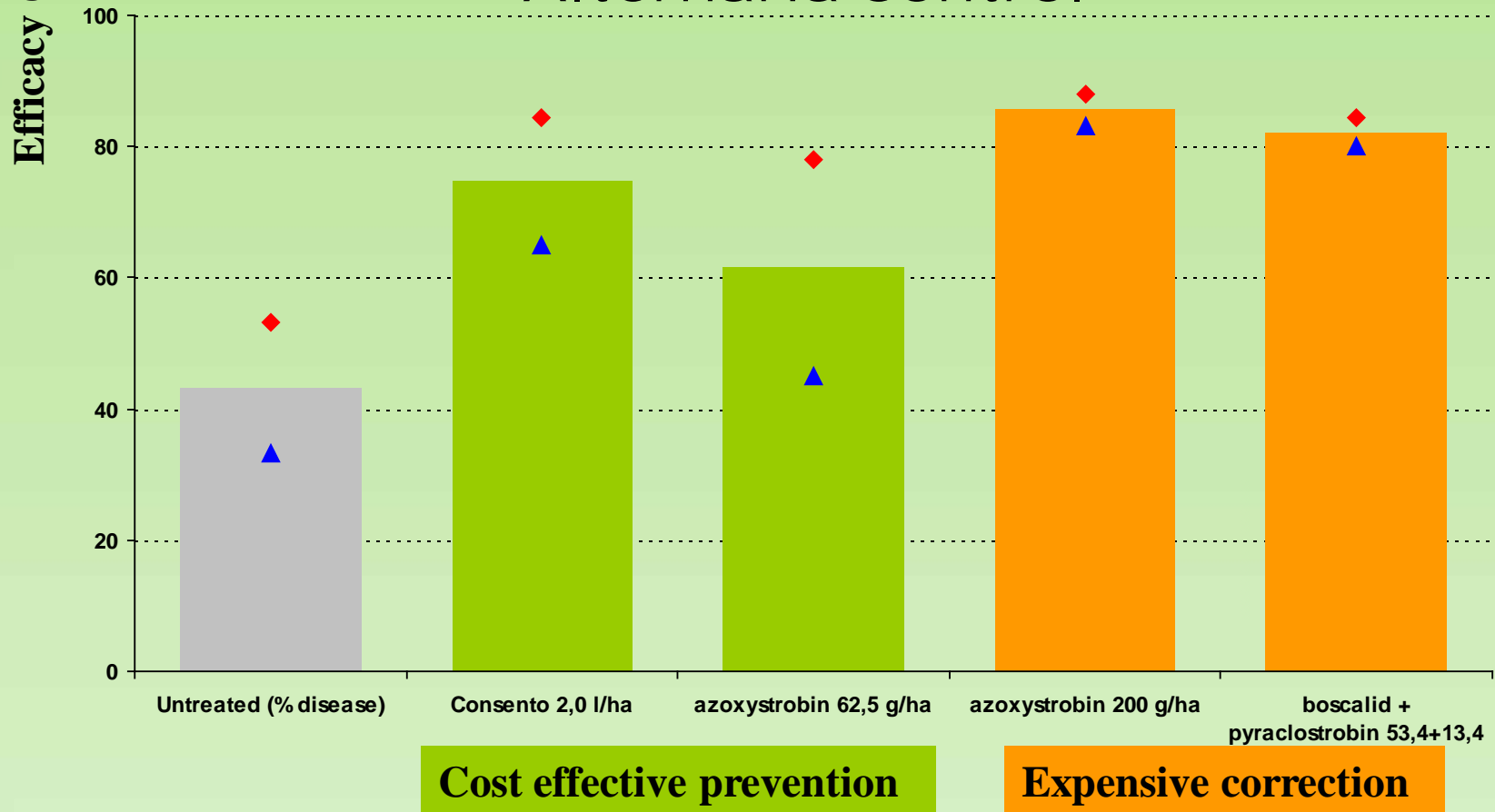


Consento efficacy on new developed leaves



∅ Consento provides good level of late blight control on new developed leaves

Consento early positioning basis for effective Alternaria control



Source: Mean of 2 trials BCS Germany 2006



Tyfon – (Consento)

Use & Experience in the
Nordic Countries

Oluf Juhl

Potato Crop Manager Nordics



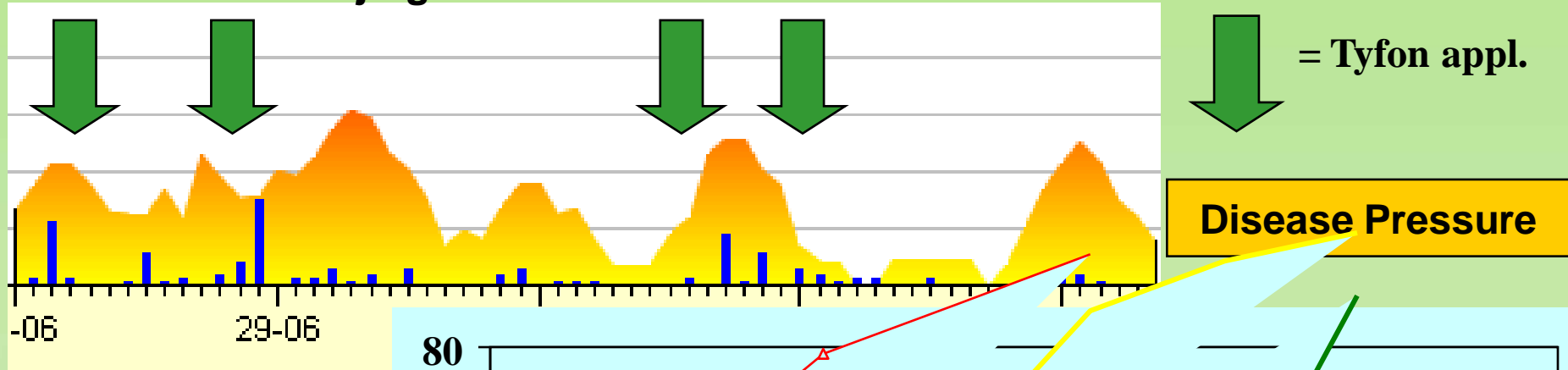
Overall Strategy

- n To use Tyfon during the periods where its systemic / translaminar properties can make a difference
- n To utilize the systemicity of Tyfon to protect new growth in the rapid growth phase
- n To utilize the translaminar properties of Tyfon to protect the undersides of leaves
- n To utilize the efficacy against *Alternaria*

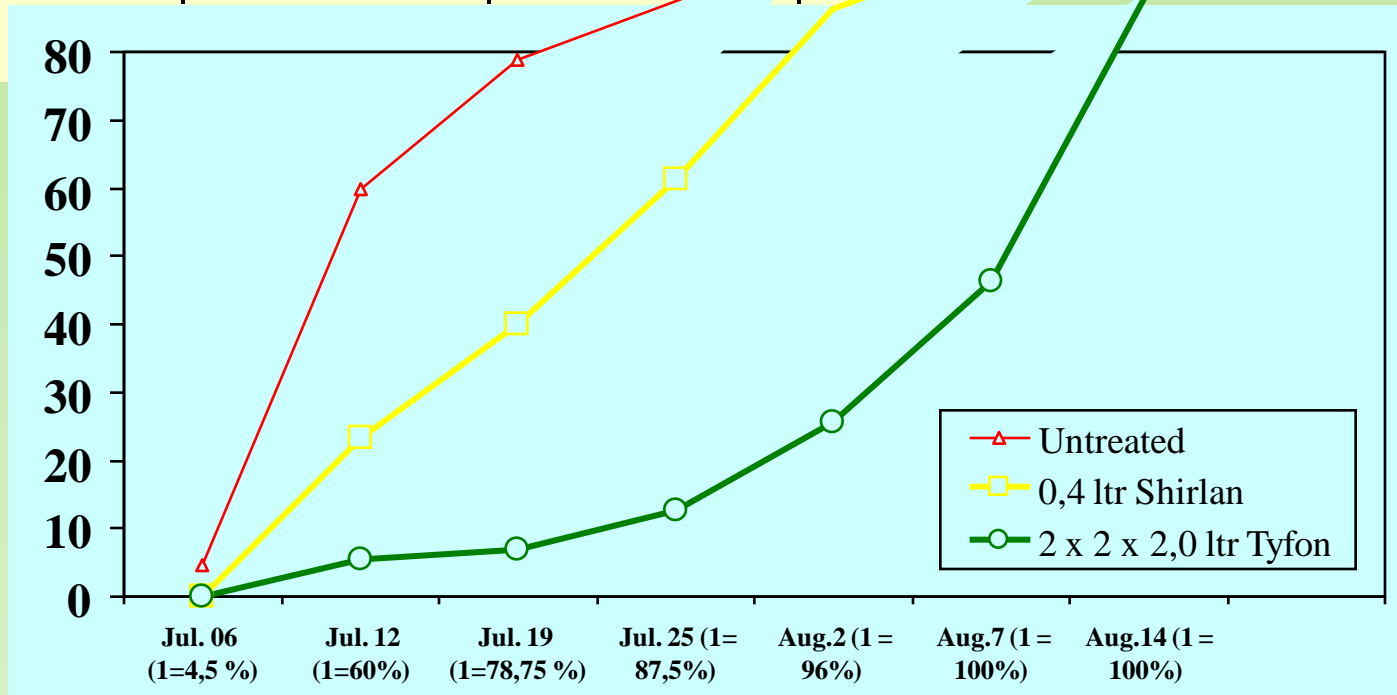


Very High Disease Pressure

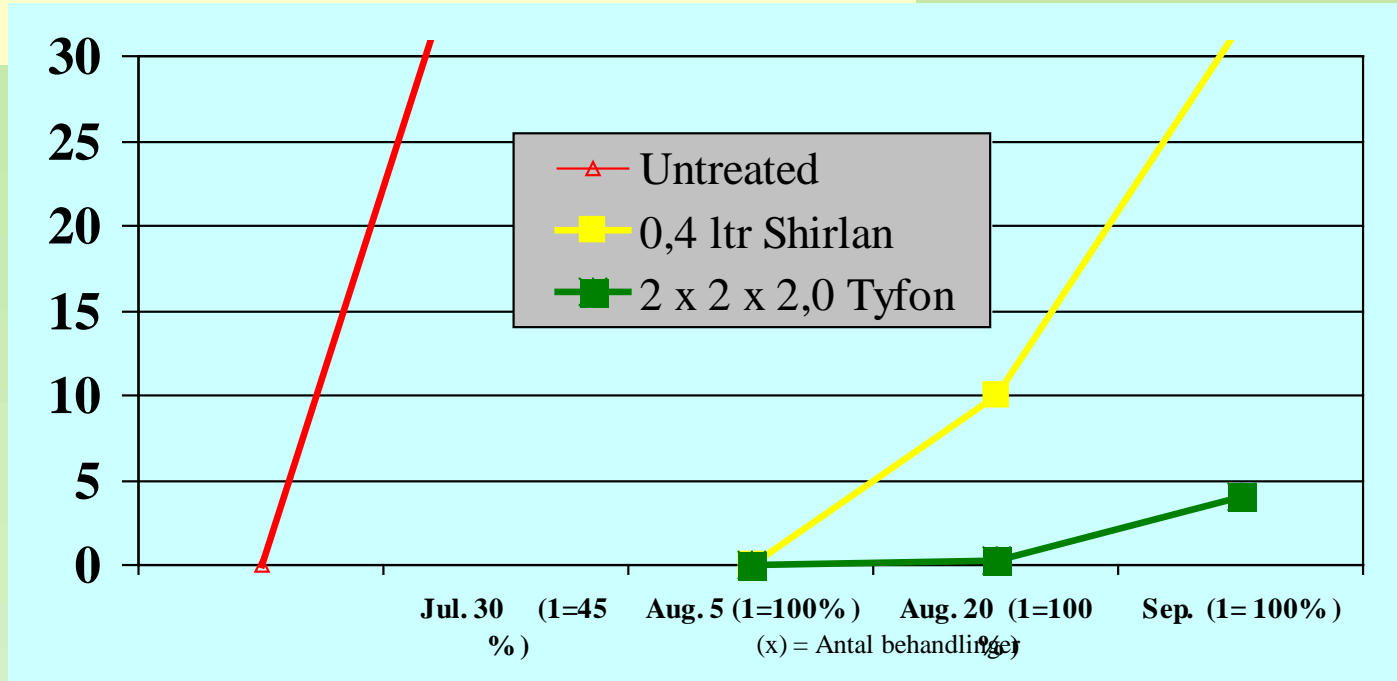
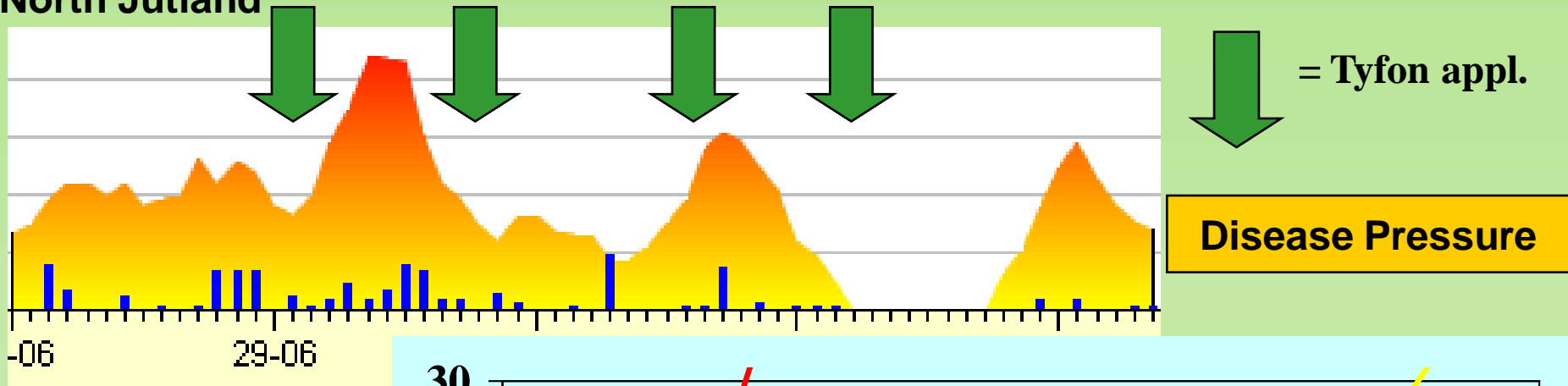
AGRSCI - Flakkebjerg



Source Trialserie 07562
(DJF Flakkebjerg)
Variety: Oleva
12 treatments:
11 June - 5 September
(1x per week)

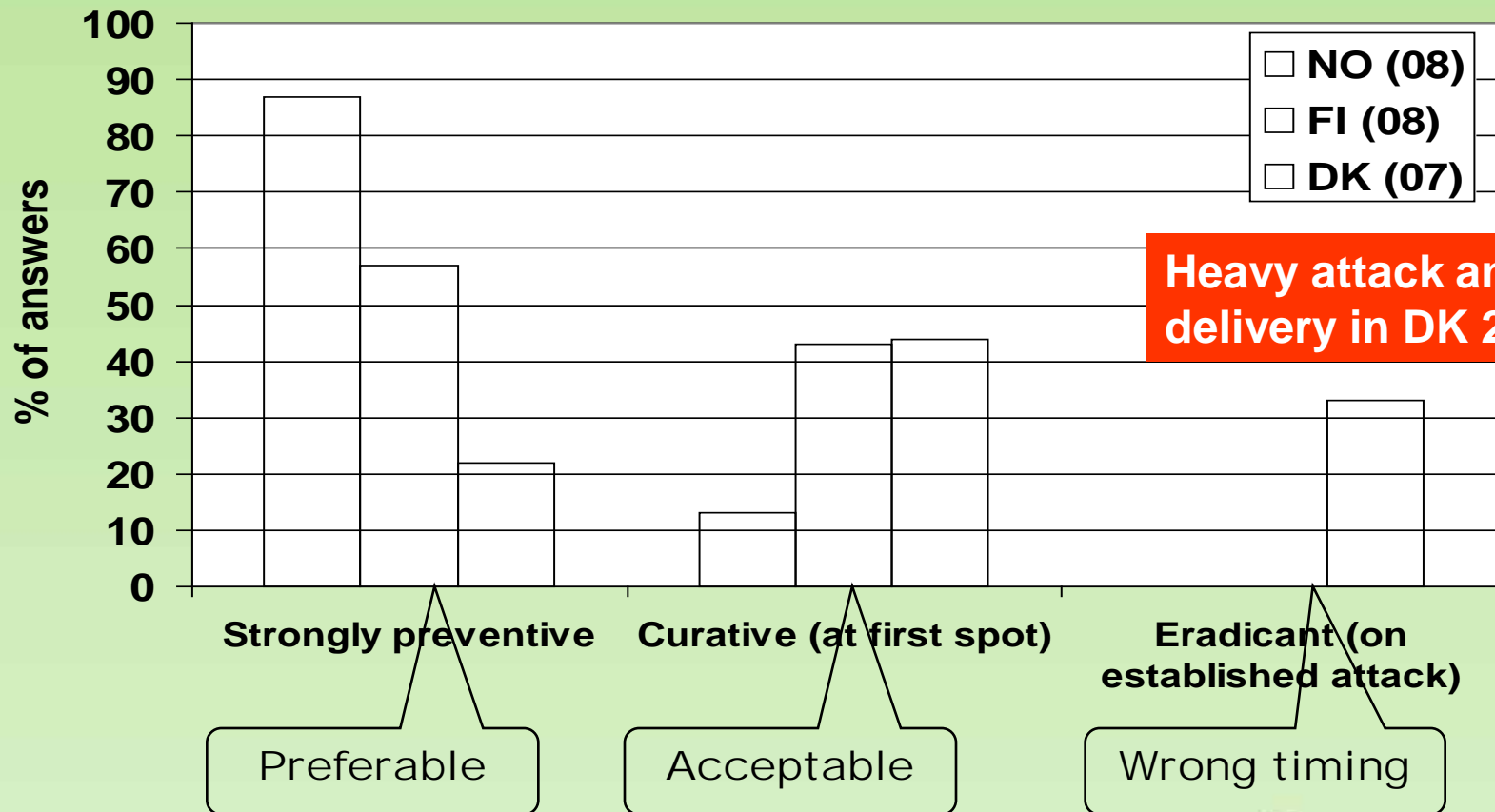


North Jutland



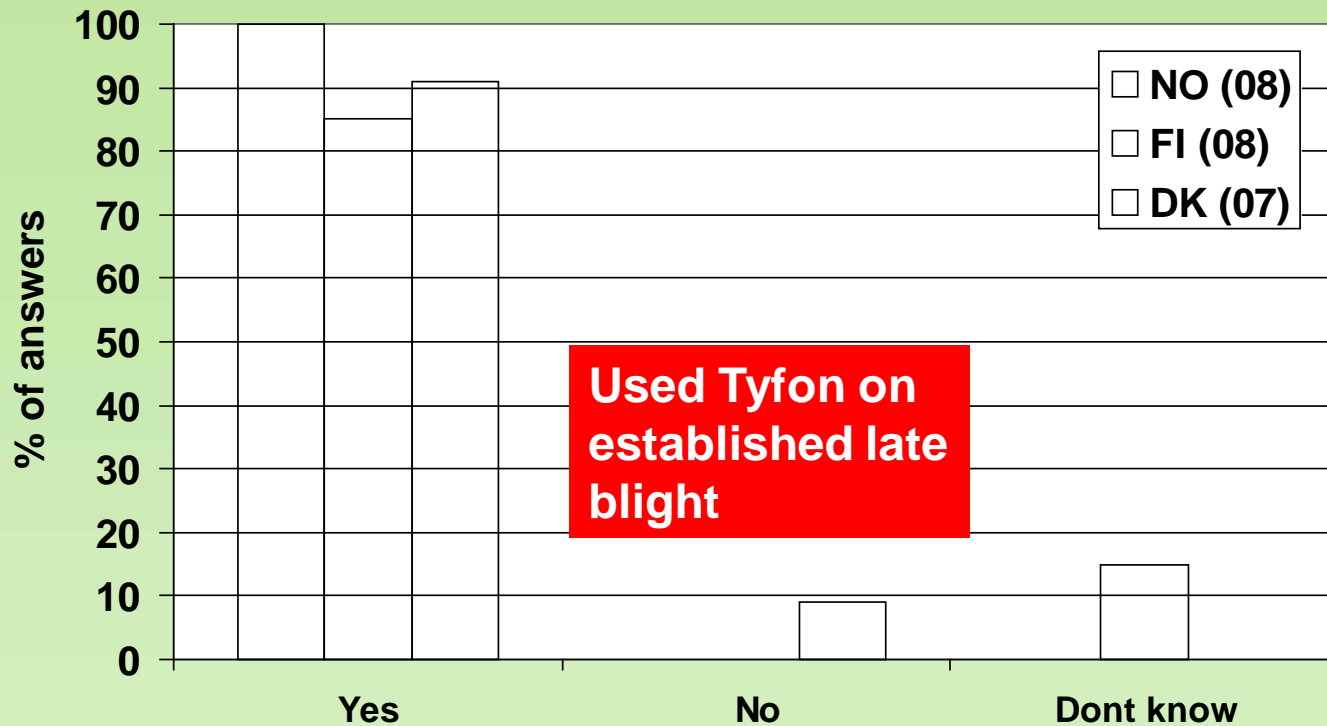
Source triaserie 07562
 (North Jutland)
 Variety: Kuras
 14 treatments:
 18 June - 11 September
 (1x per week)

When did you use Tyfon in your potato field....?





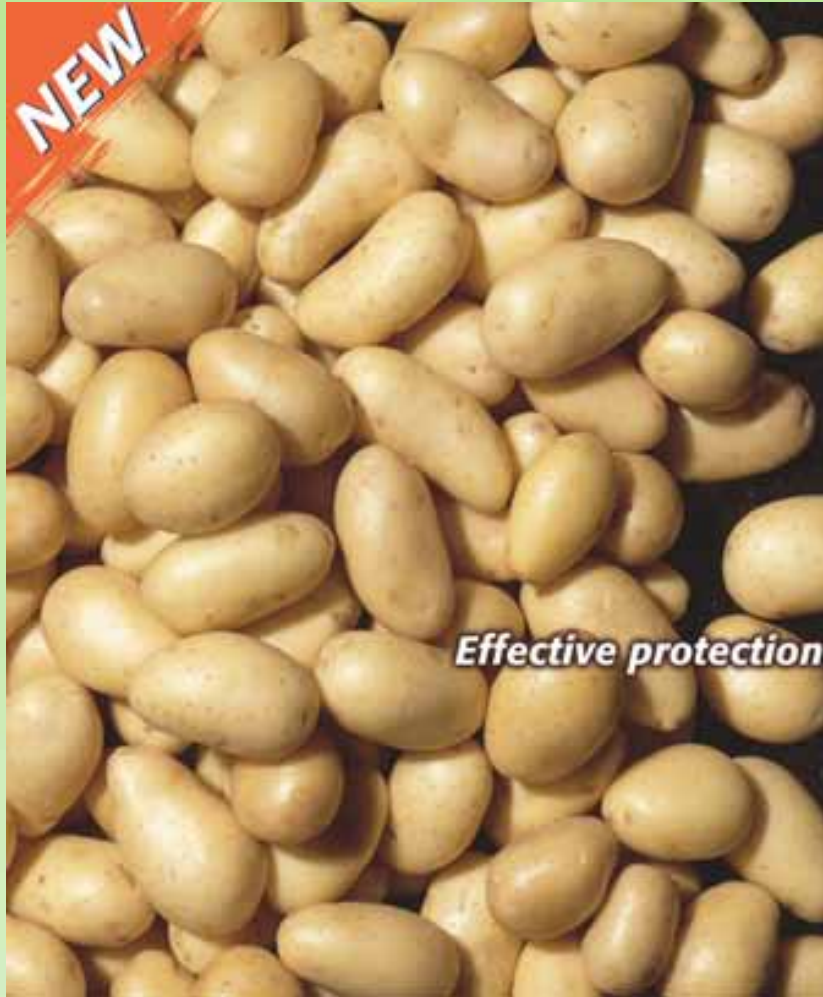
Did you get a satisfactory effect....?





Summary: Consento in the Active Growing Phase

- n **Consistent Late Blight control**
 - Meets efficacy level of common standards
 - Protects new growth
 - Controls Direct & Indirect germination
 - Evenly effective on A1 & A2 mating type
 - Rainfast
- n **Fundament for Early Blight control**
- n **Sustainability**
 - The perfect partner for resistance management



Effective protection meets quality requirements.