



St Petersburg Potato Workshop

9 - 12 October 2011

Infinito – tuberblight control Experiences in the period 2006 - 2010

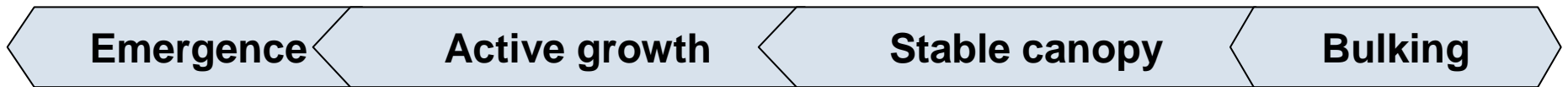
Sylvain Tafforeau, Marie Pascale Latorse, Roel Wanningen, Albert Schirring

Tuber blight

- Yield losses at harvest and during storage
- Tuber protection starts even before the plants initiate tubers in mid-season
- Sporangia and zoospores are washed down from the leaves and from infected stems by rainfall and irrigation
- Sporangia washed down to the soil can remain viable for several months



Tuber susceptibility



Sporangia viability
15 - 77 days in soil



Sporangia /zoospores



Tuberblight



Infinito Features

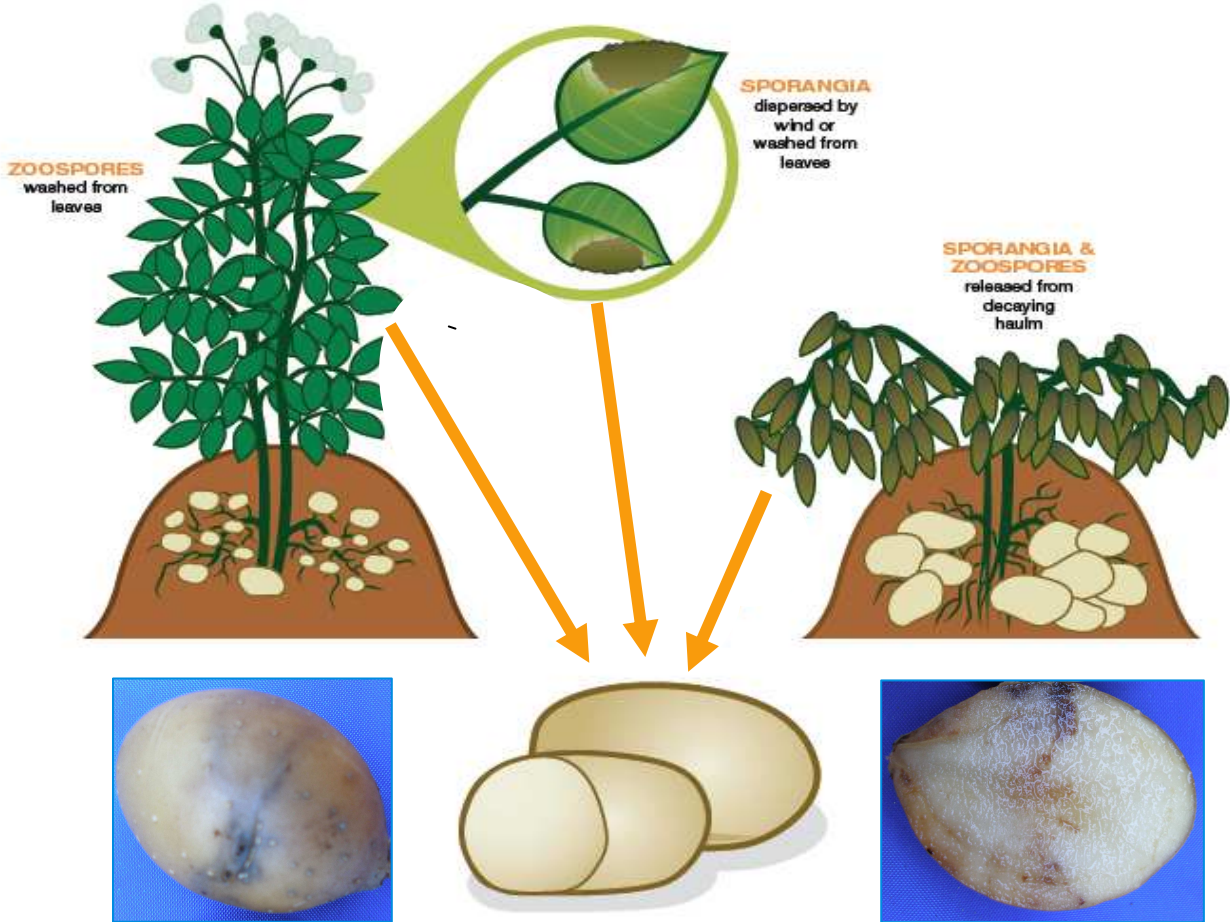
- A new mode of action based on fluopicolide
- Excellent regulatory profile

- Reliable and consistent high level of potato late blight control on stems and leaves
- Protection of new growth
- Long-lasting activity

- **Protection against tuber blight**

- Yield enhancing
- Registered for use in all crops – processing, table and seed potatoes

Tuber Infection



Spore quantity

Spore mobility

Spore viability

How Infinito acts

Spore quantity

Long-lasting and excellent canopy protection
Protection of new shoots and stems
by translaminar and systemic activity
Strong anti-sporulant activity

Spore mobility

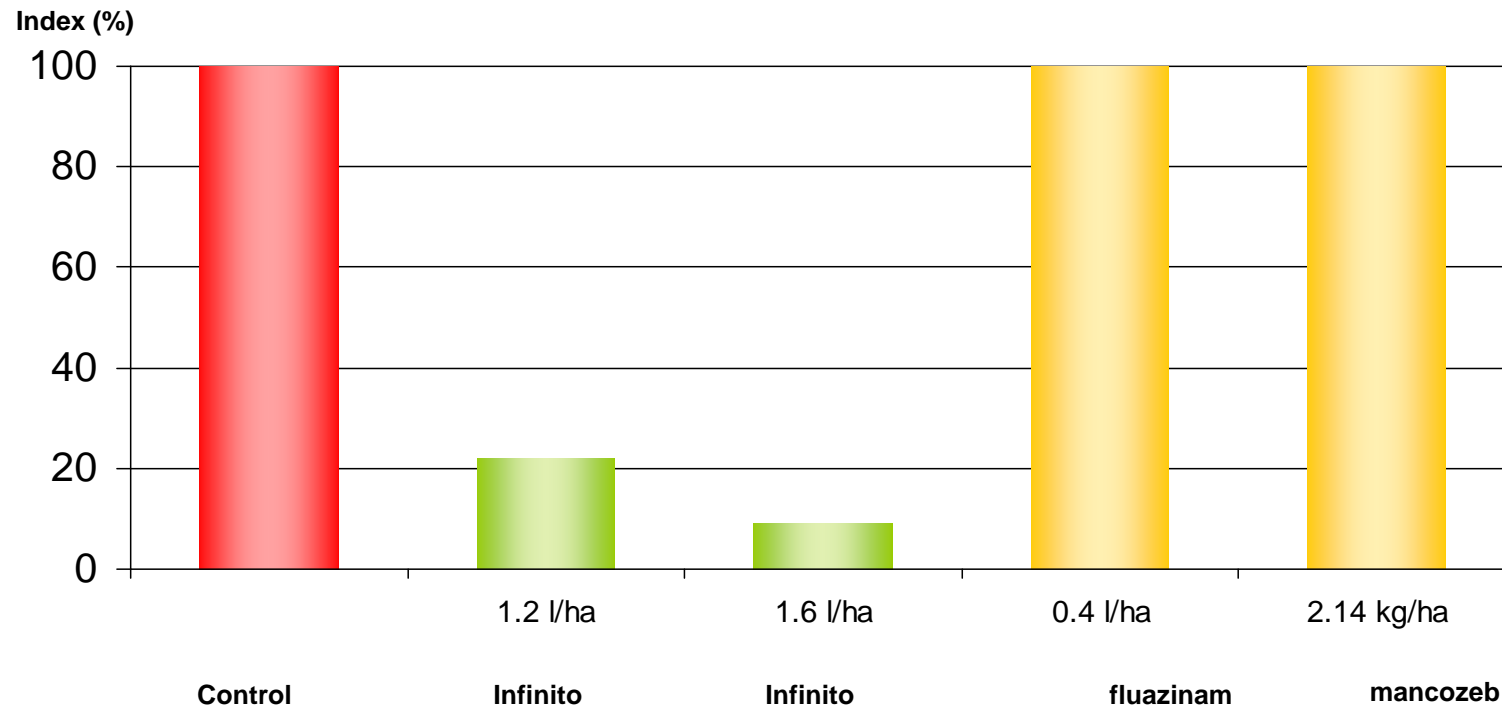
Fast sporicidal activity
Any zoospores released during rainfall or irrigation
are killed by Infinito on leaf surface

Spore viability

Spore viability reduced through preventing the release of
zoospores from sporangia leading to strongly reduced germination

Anti-sporulant Activity Infinito

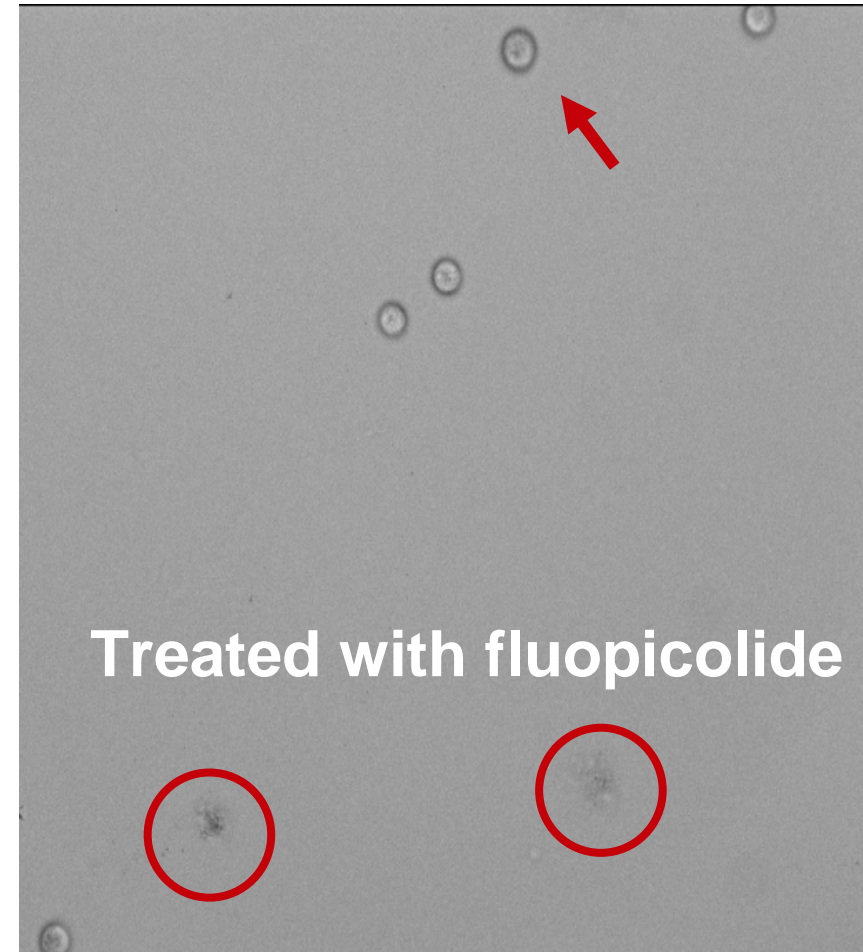
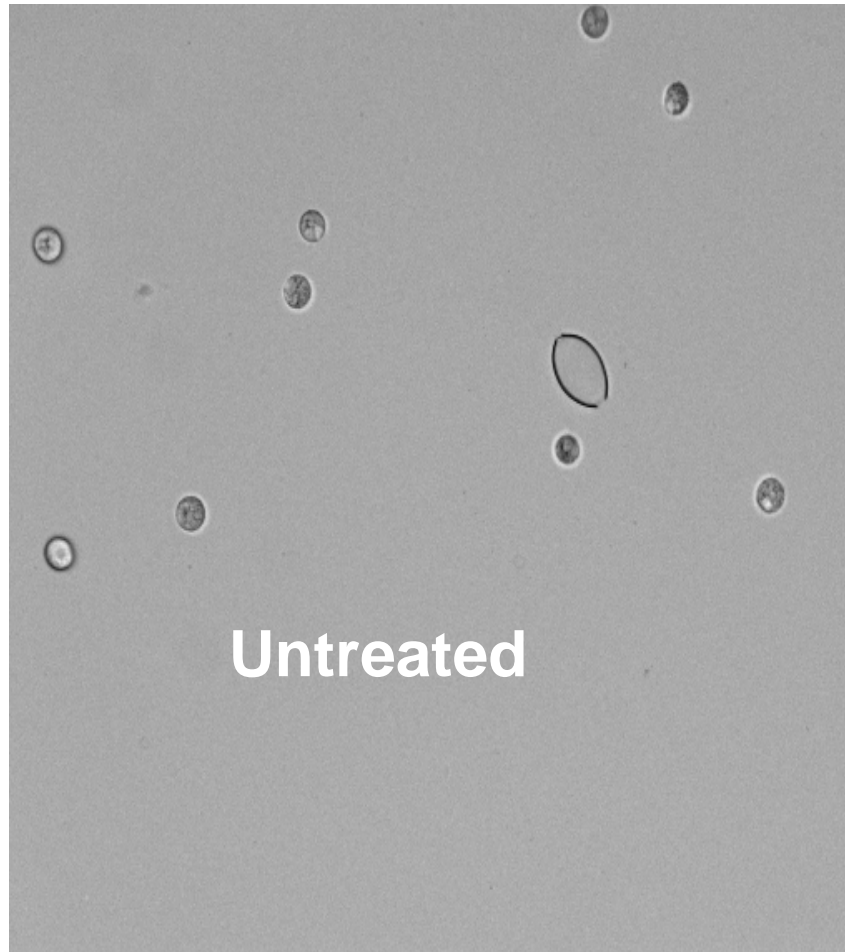
Sporulation index relative to untreated after curative application



▶ **Infinito has strong anti-sporulant properties (Source Euroblight - Estonia 2005)**

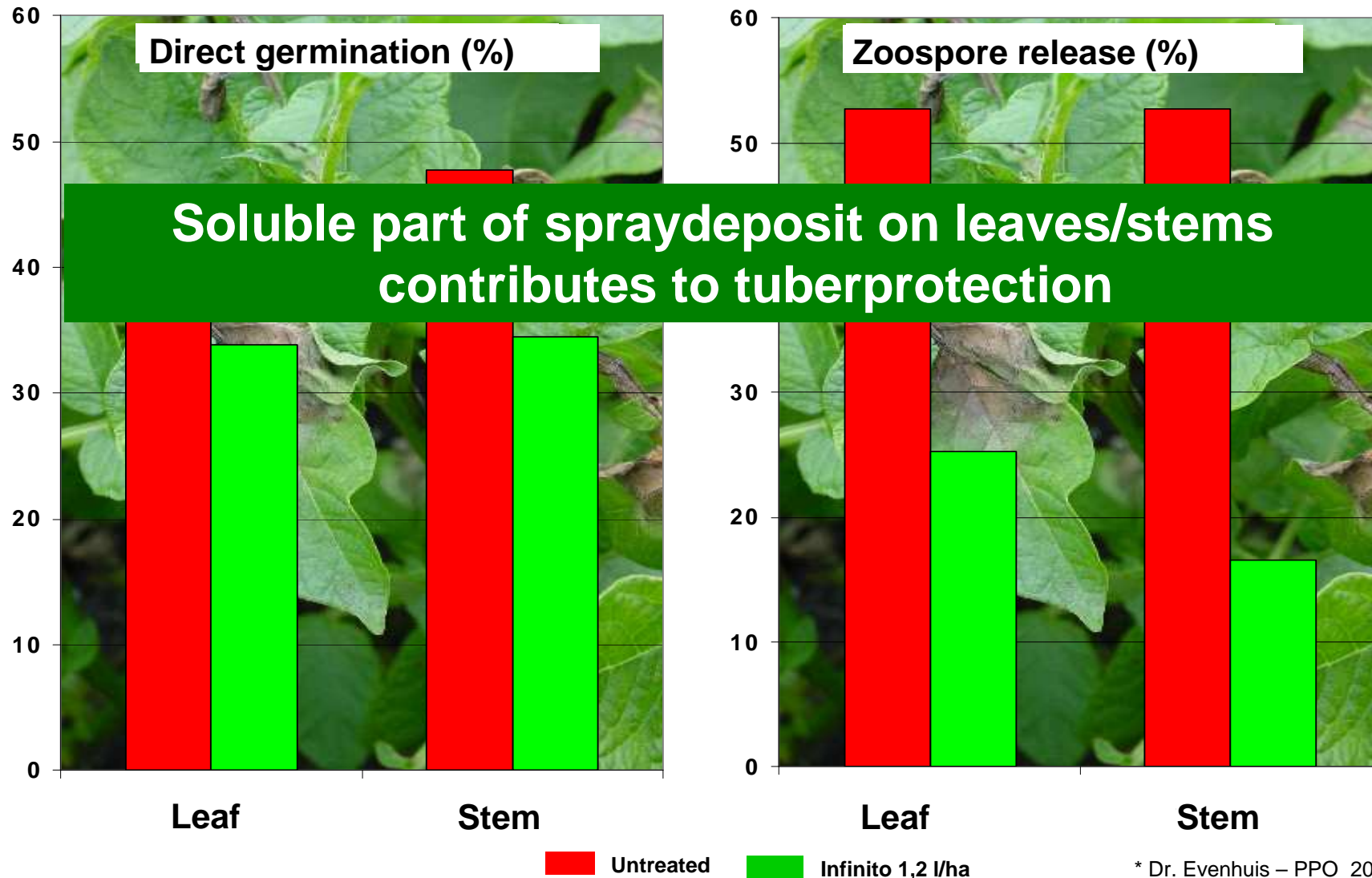
Sporicidal activity Infinito in vitro

Fast-action of fluopicolide on zoospores

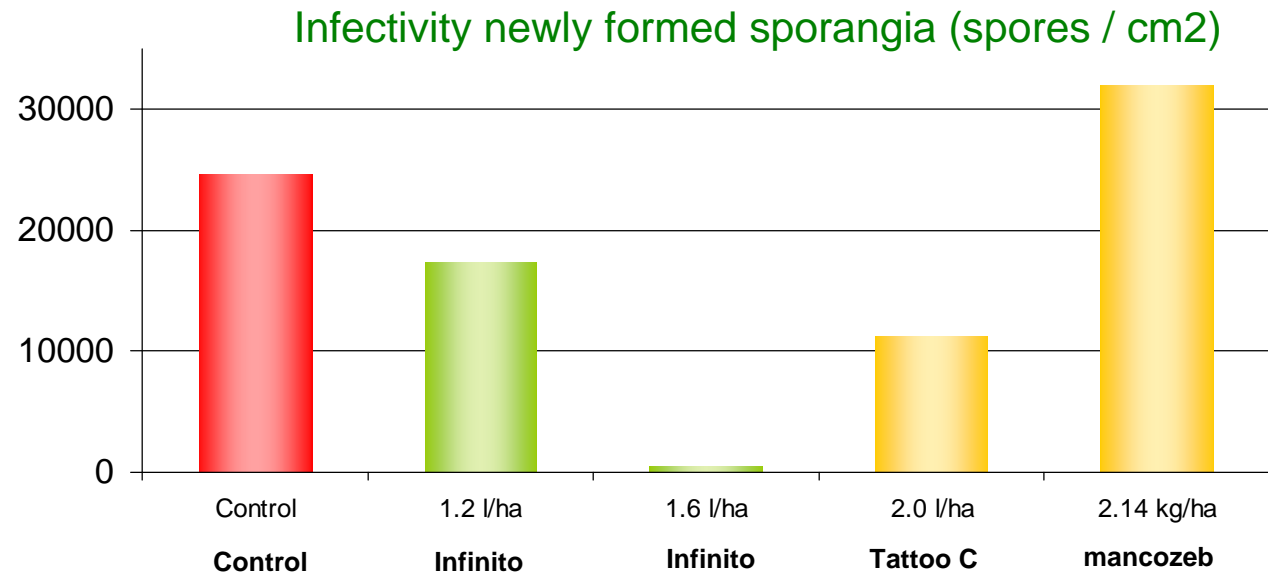
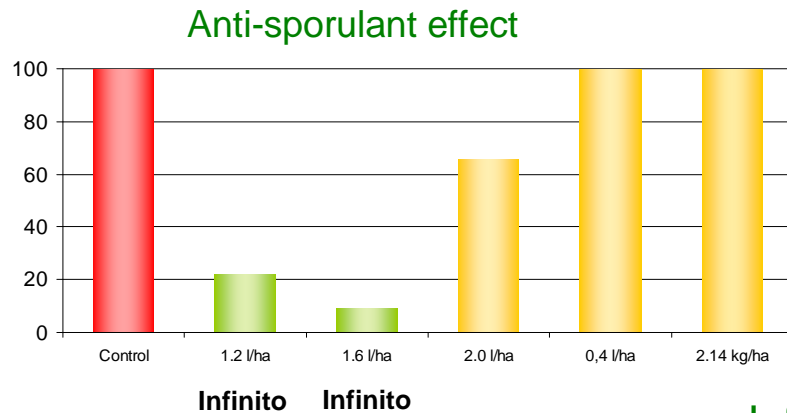


Sporicidal activity Infinito 'in vivo'

PPO* Lelystad research 2007 - 2008

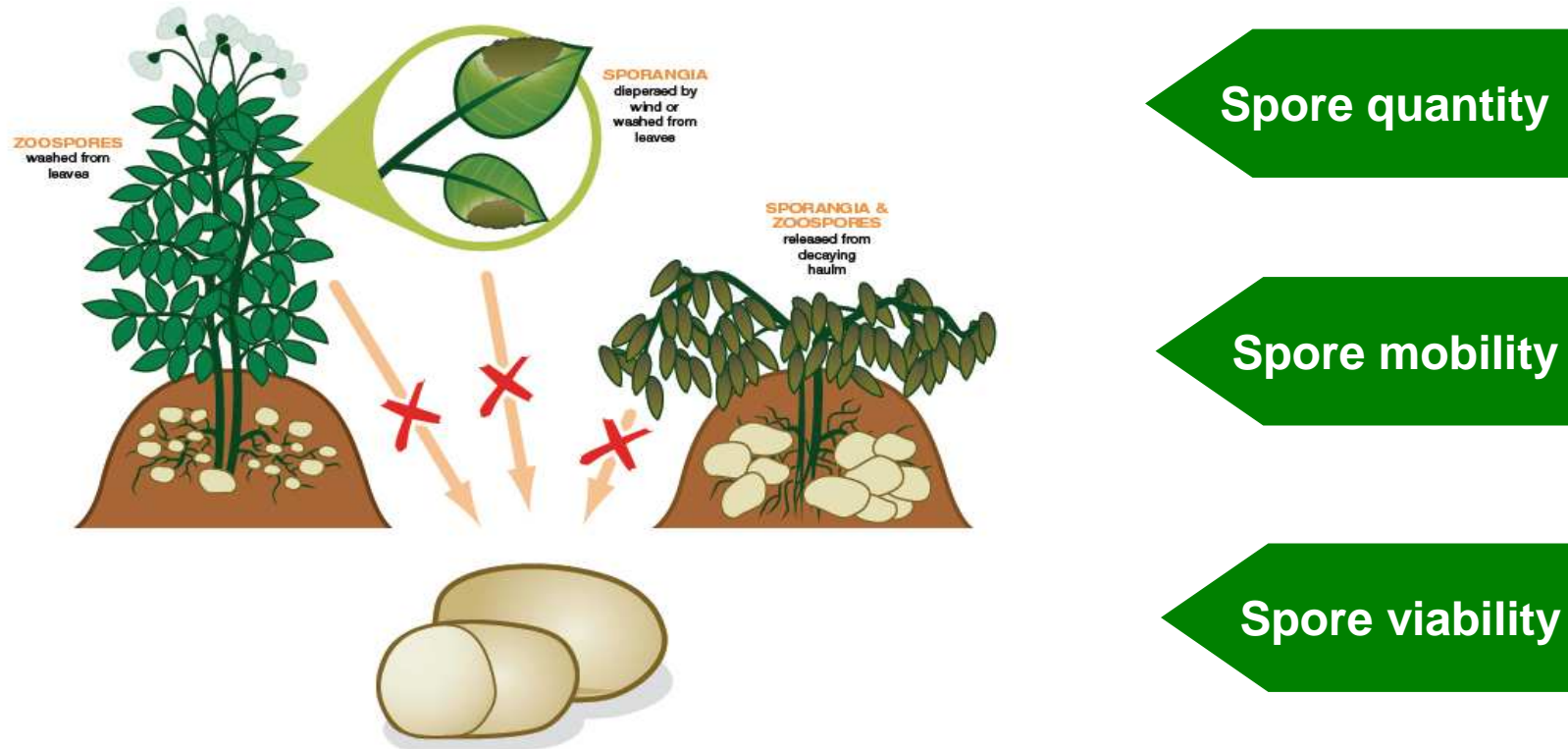


Infectivity Test (sporangia production)



Infito reduces the infectivity of newly formed sporangia, coming from the reduction of sporangia viability (Source: Euroblight Bologna 2007)

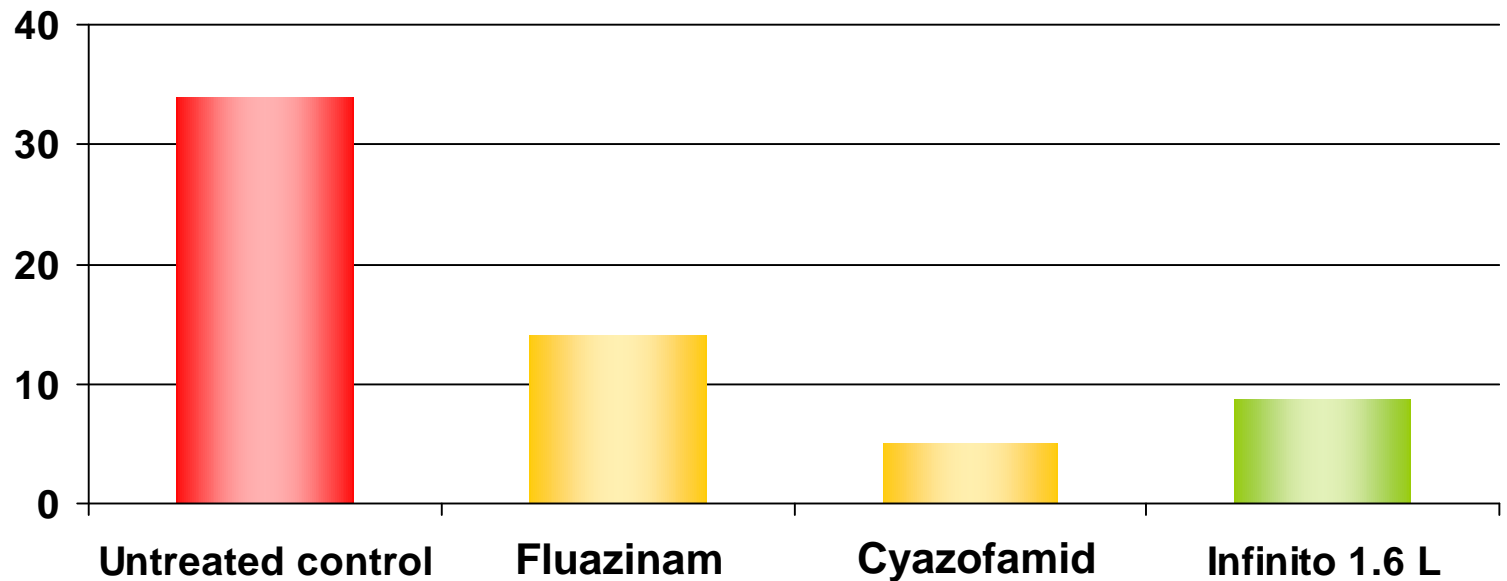
How to Control Tuberblight



Tuberblight control of Infinito based on multiple action (Hamar 2008)

Tuber Blight Control, Germany 2006

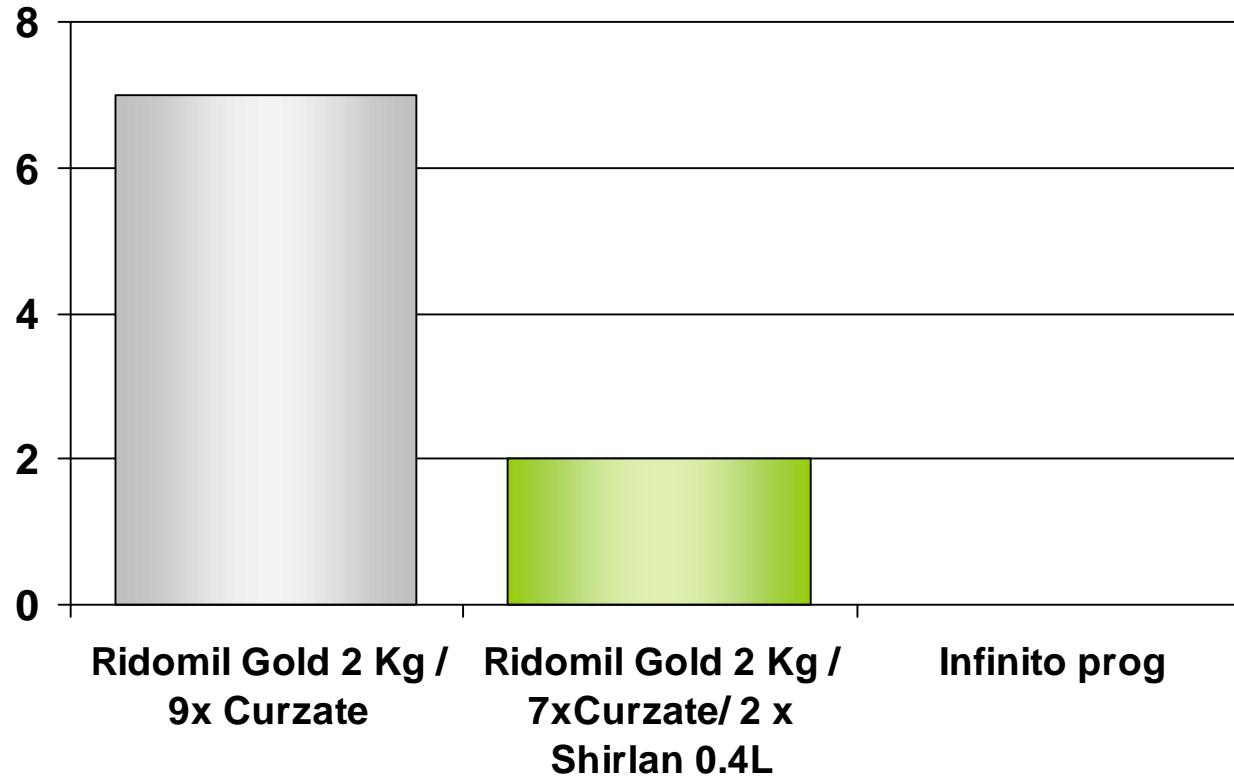
% tuber infection



Source: mean of 2 trials Amtlicher Dienst NRW, Brentler, Germany

Tuber Blight Control, Germany 2008

% tuber infection

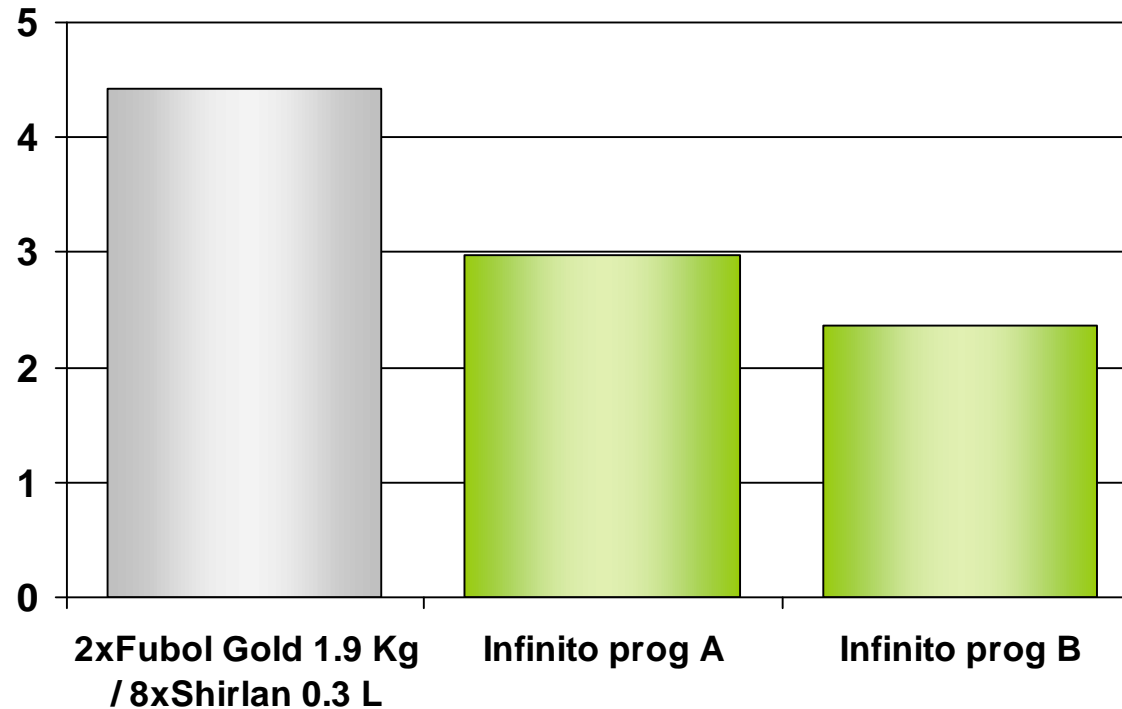


Infinito programme: Ridomil Gold/3 x Curzate/ 4 x Infinito 1.5 L / 2 x Shirlan 0.4 L

Source: Bayer CropScience trial, Germany

Tuber Blight Control, N - Ireland 2007

% infected tubers



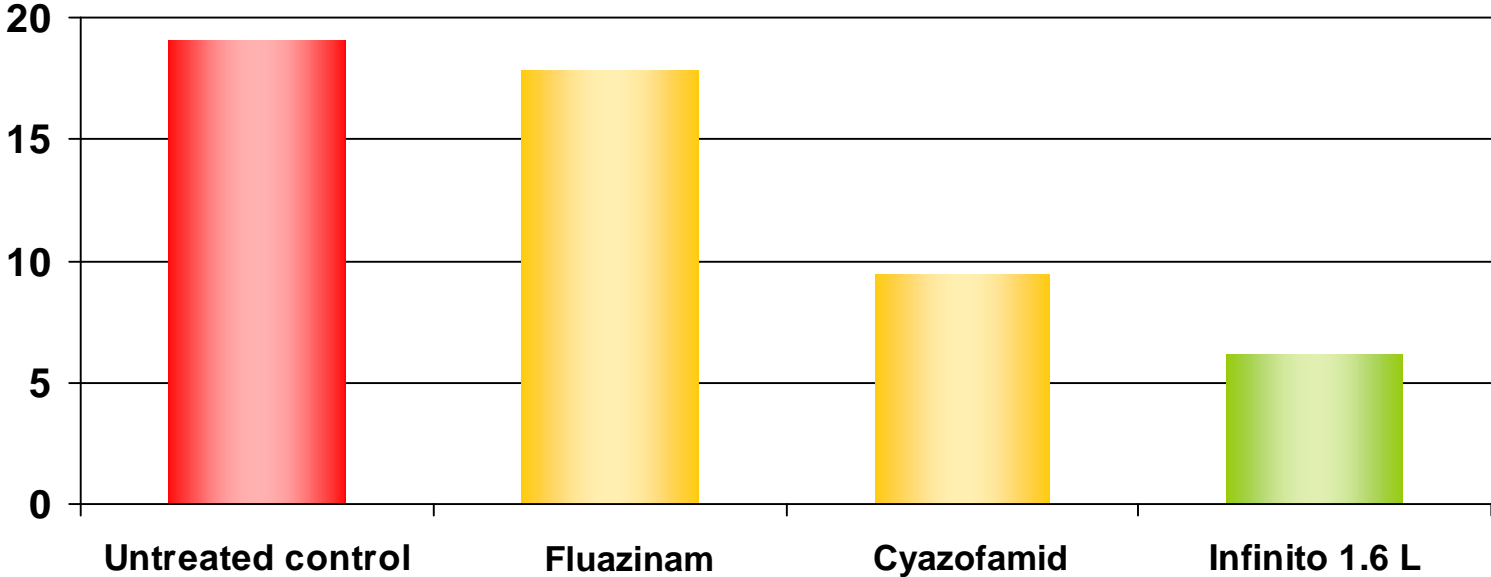
Infinito programme A = 2 x Fubol Gold / Shirlan alternating with Infinito 1.6 L/ha

Infinito programme B = 2 x Fubol Gold / 1x Shirlan, 4 x Infinito 1.6 L/ha, 3 x Shirlan

Source: Agri-Food & Biosciences Institute, Belfast, N Ireland

Tuber Blight Control, France 2006

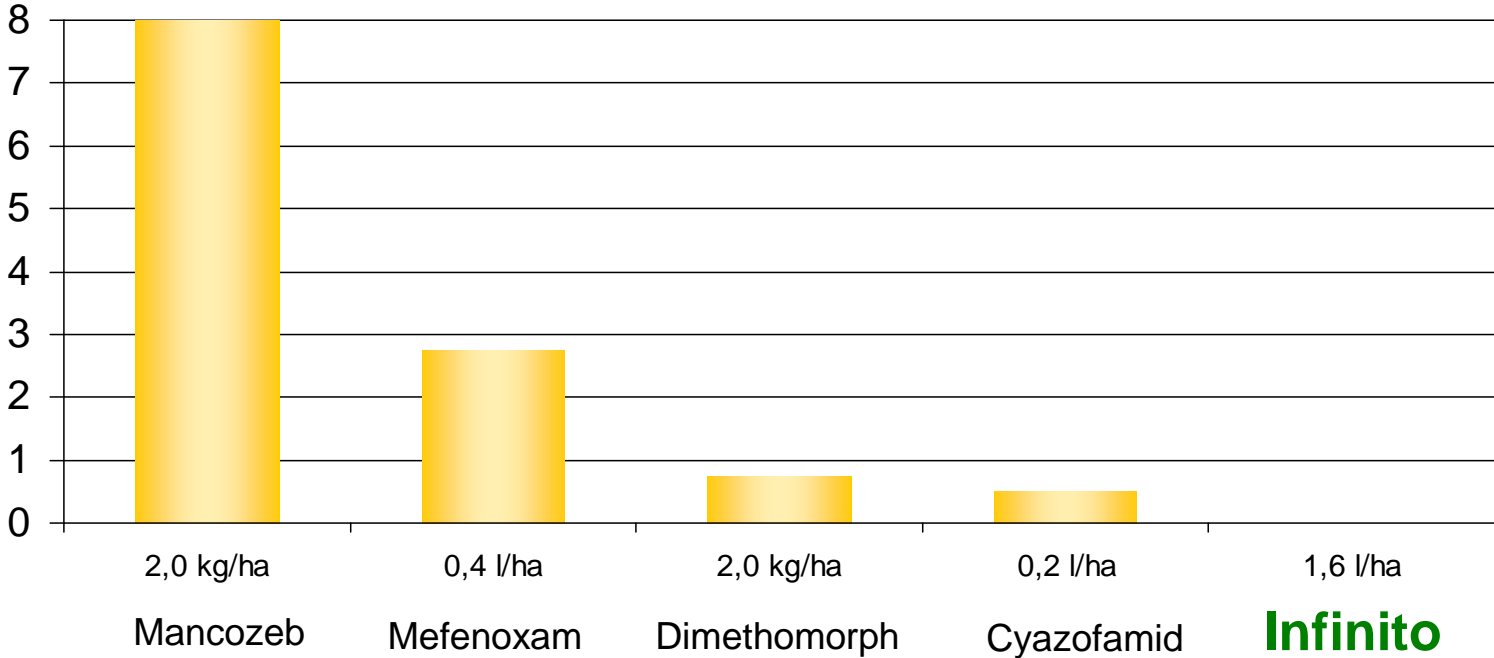
% tuber infection



Source: mean of 2 trials, Bayer CropScience France

Tuber Blight Control, France 2007

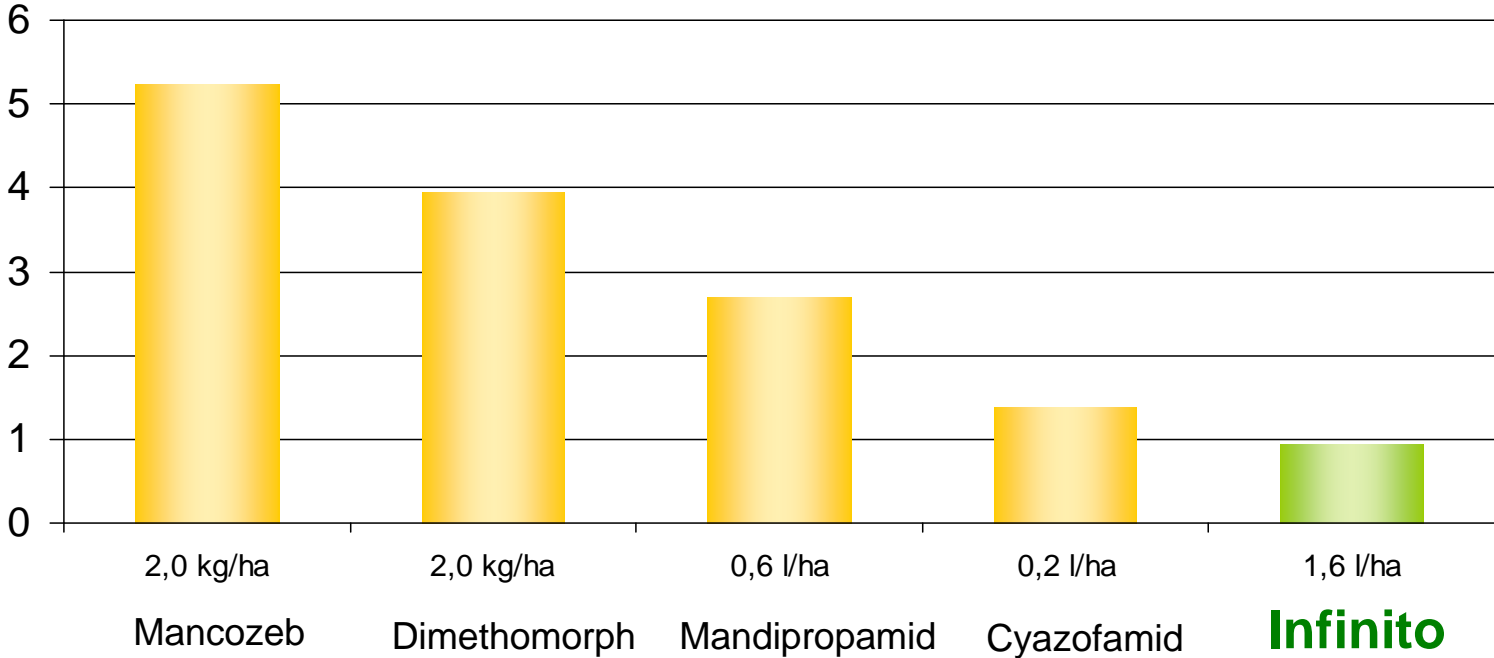
% tuber infection



(Source: Convention Bretagne Plants France 2007)

Tuber Blight Control mid season block France 2009

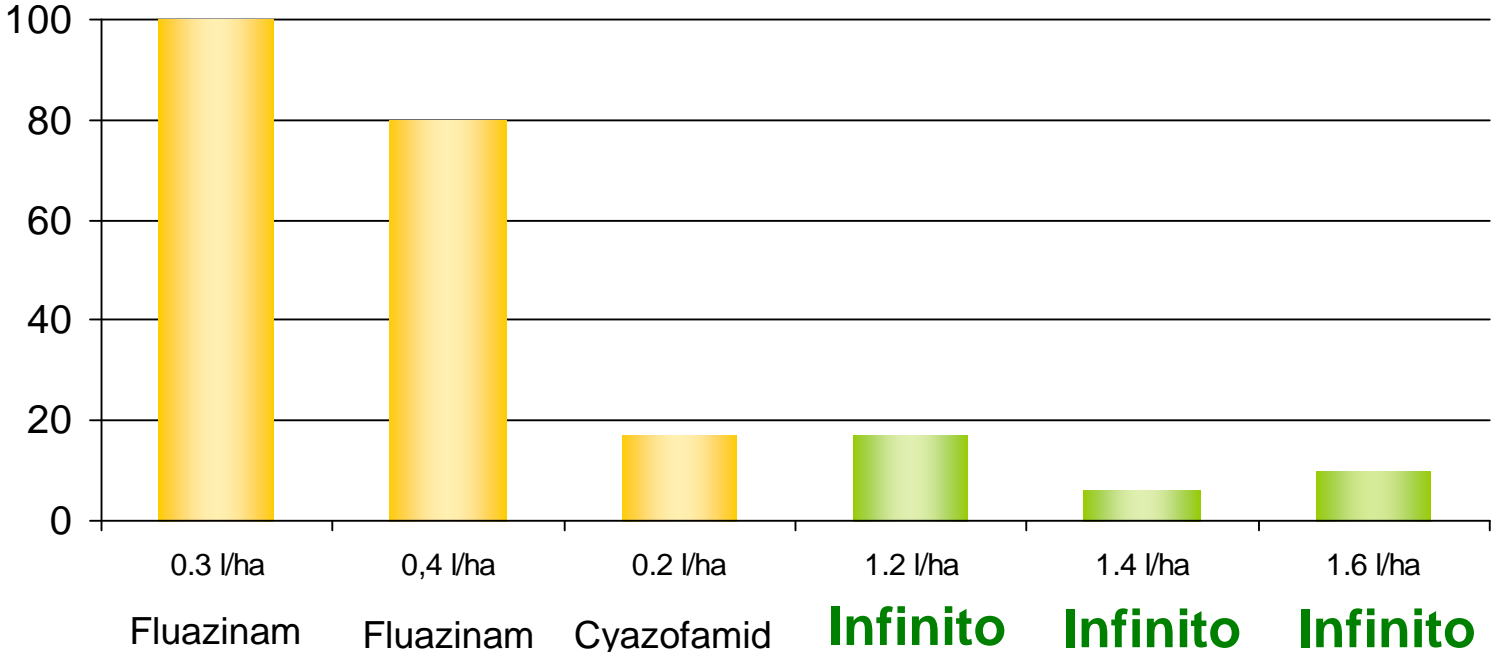
% tuber infection



(Source: average of 3 trials BCS France 2009)

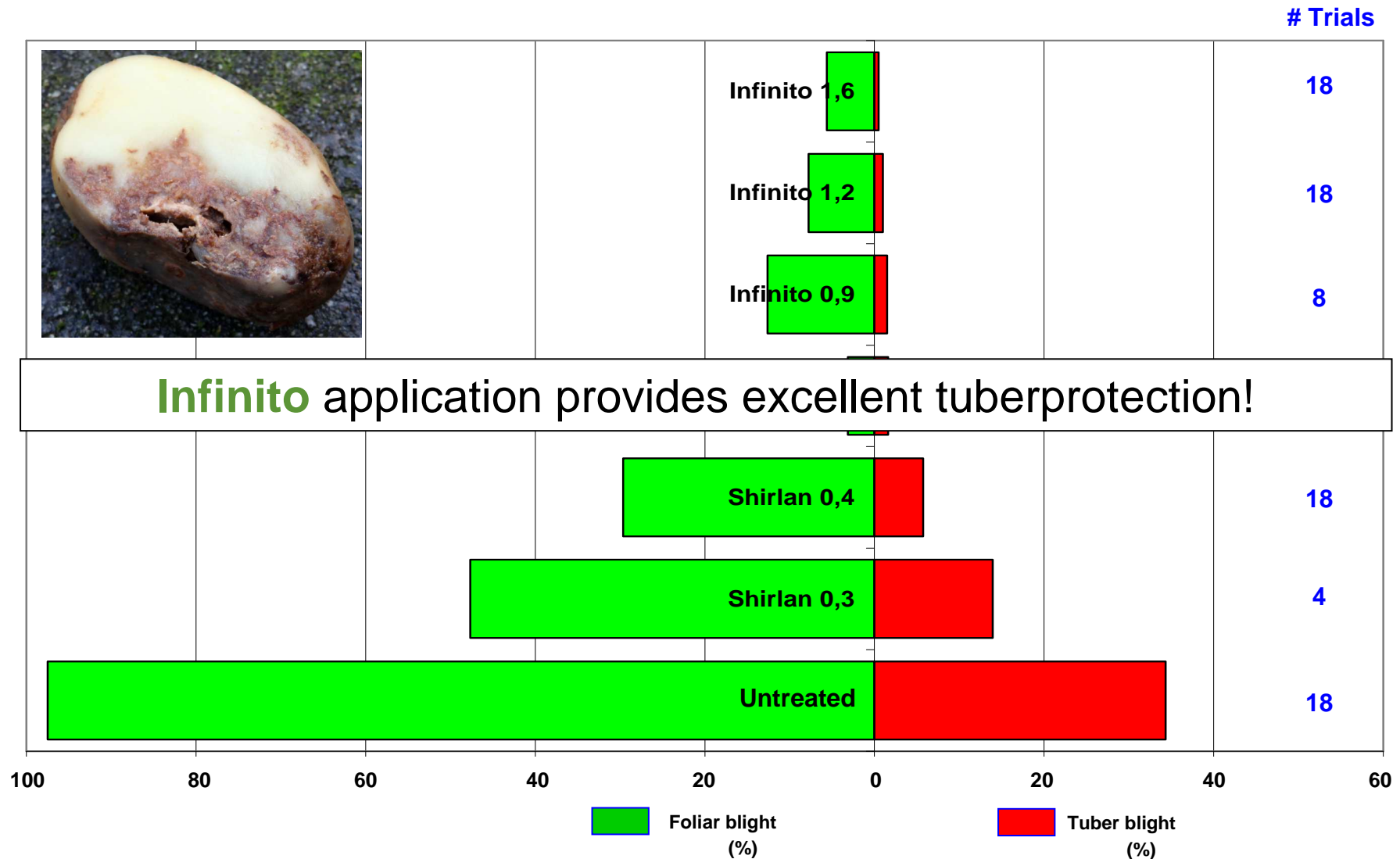
Tuber Blight Control, NL - 2006

Relative tuber blight infection (%)



(Source: average of 2 trials BCS Netherlands 2006)

Tuberblight control NL - full season scheme (2006 – 2009 – 18 trials)



Tuberblight control, NL - 2010

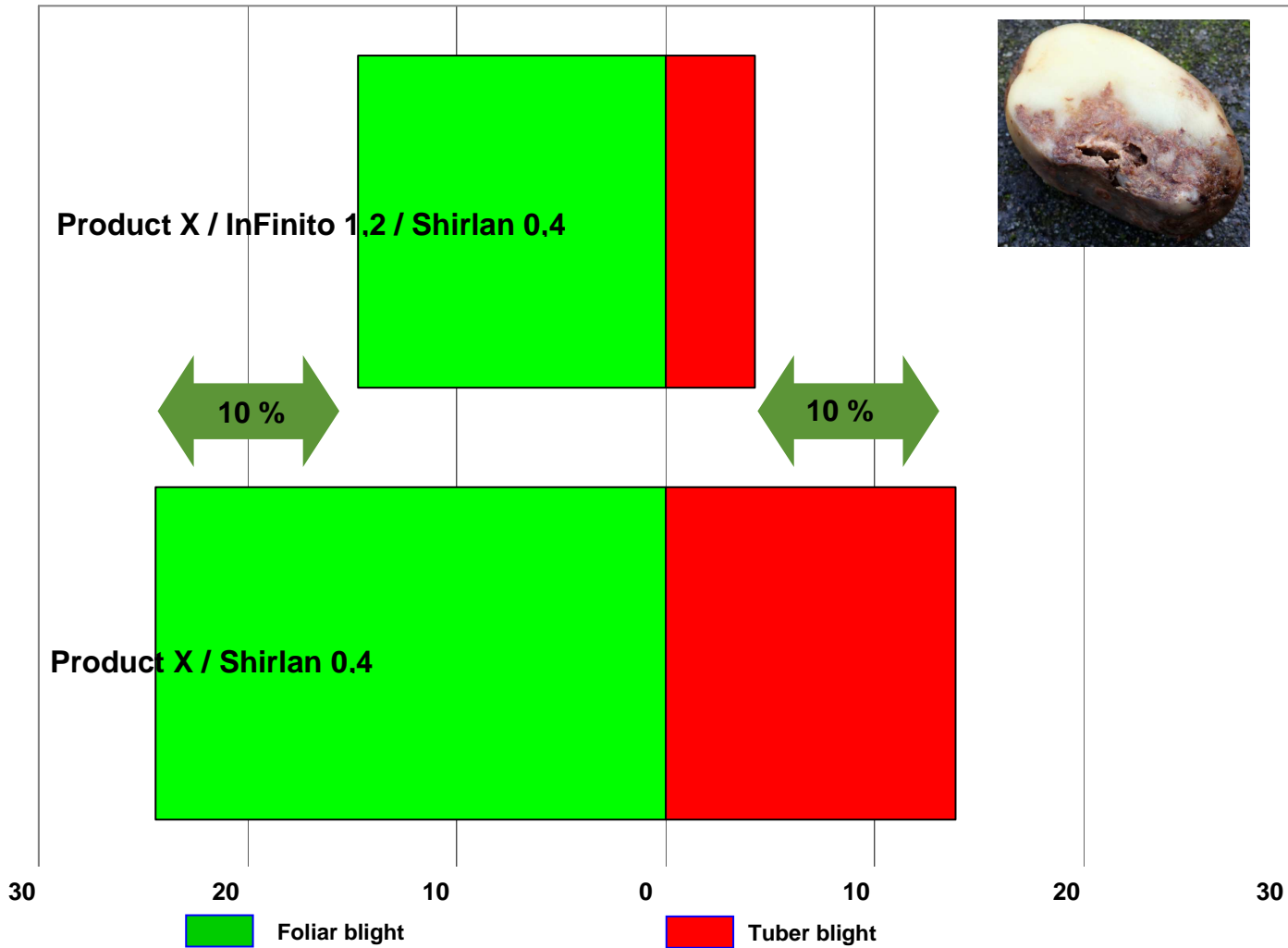
Infinito mid season block treatment

Spreader rows defoliated within 12 days after infection



Tuberblight control NL mid season block

(2006 – 2010 – average of 13 trials)



Product X = 2,5 Curzate M, 2 Valbon, 0,6 Revus, 1,5 Acrobat DF

Unique multiple action of Infinito gives all-round protection

- Long-lasting, high protectant activity on foliage
- Protection of new growth
- Translaminar activity

- Anti-sporulant activity
- Sporicidal activity
- Reduction in spore viability and germination

Multiple action Infinito the basis for robust control of tuber blight

High rating (+++) given at Euroblight 2005 - 2010 confirmed

Acknowledgments

Amtlicher Dienst NRW, Germany

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Convention Bretagne Plants, France

PPO, Lelystad, Netherlands

Redebel, Belgium

SAC, Auchincruive, Scotland

Colleagues in Bayer CropScience



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Thank you very much for your kind attention