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Infinito – tuberblight control
Experiences in the period 2006 - 2010

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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

90 – 150 days depending on variety
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

Untreated

Treated with fluopicolide

T + 2.5 minutes
Sporicidal activity Infinito ‘in vivo’
PPO* Lelystad research 2007 - 2008

Direct germination (%)
Zoospore release (%)

Soluble part of spraydeposit on leaves/stems
contributes to tuberprotection

Leaf
Stem
Leaf
Stem

Untreated
Infinito 1,2 l/ha

* Dr. Evenhuis – PPO 2008
Infectivity Test (sporangia production)

Infectivity newly formed sporangia (spores / cm²)

Infinito reduces the infectivity of newly formed sporangia, coming from the reduction of sporangia viability (Source: Euroblight Bologna 2007)
How to Control Tuberblight

- Spore quantity
- Spore mobility
- Spore viability

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

Infinite programme: Ridomil Gold/3 x Curzate/ 4 x Infinite 1.5 L / 2 xShirlan 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

(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)

Infinito application provides excellent tuber protection!
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 / InFinito 1.2 / Shirlan 0.4

Product X / Shirlan 0.4

Foliar blight
Tuber blight

Product X = 2.5 Curzate M, 2 Valbon, 0.6 Revus, 1.5 Acrobat DF
Conclusions

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
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Thank you very much for your kind attention