



Bayer Potato Conference 2020

Bayer Potato Range Update



Edward Hagues





Emesto Prime:
penflufen based
tuber treatment





Emesto Prime DS

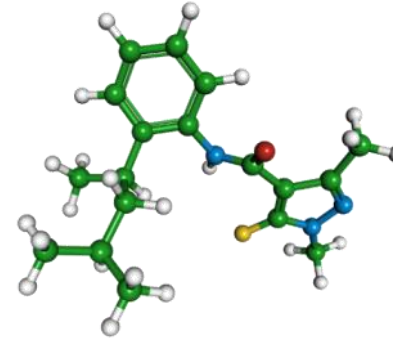
Potato tuber treatment



Active ingredient:

Penflufen (2% w/w)

Structural formula:



Mode of Action:

SDHI

Maximum dose rate:

1 kg/T of seed tubers

Other restrictions:

Sowing of treated seed must not exceed a maximum planting density of 5 tonne per hectare



Technical Strengths at Full Rate Application

Crop Issue	Top Performer	2 nd Place	3 rd Place
Black Scurf		Monceren	Rhino
Early crop emergence		Monceren	Rhino
Final crop emergence		Monceren	Rhino
Silver Scurf		Rhino	Monceren
Total Yield		Monceren / Rhino	
Marketable Yield		Monceren	Rhino

Emesto →



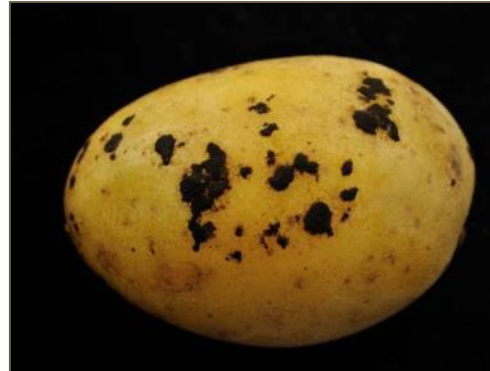
← Untreated

Rhizoctonia solani symptoms – Black Scurf

Black scurf symptoms on tubers



Misshapen tuber and skin netting



Black scurf (sclerotia) on potato skin



“Dry core”: lesion with deep hole



Surface pitting

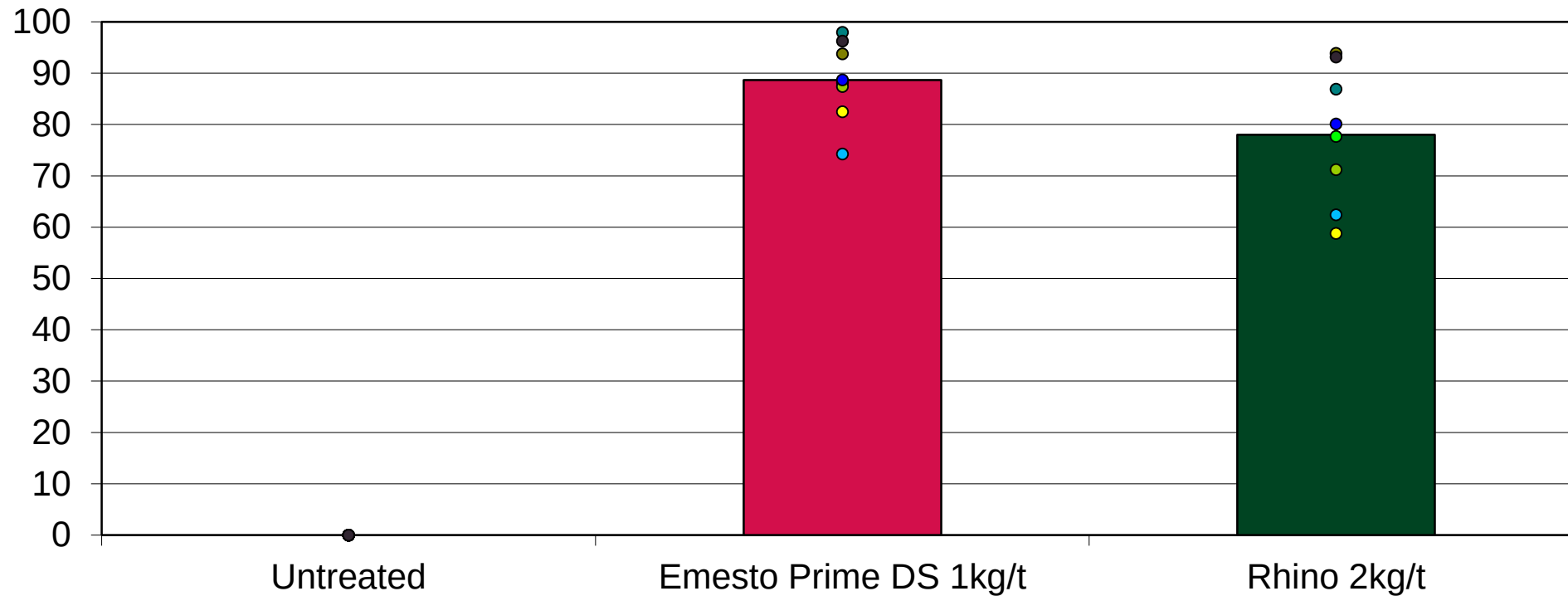


Emesto Prime DS gives strong Black Scurf reduction

Efficacy, RHIZSO infected seed



% Incidence Reduction

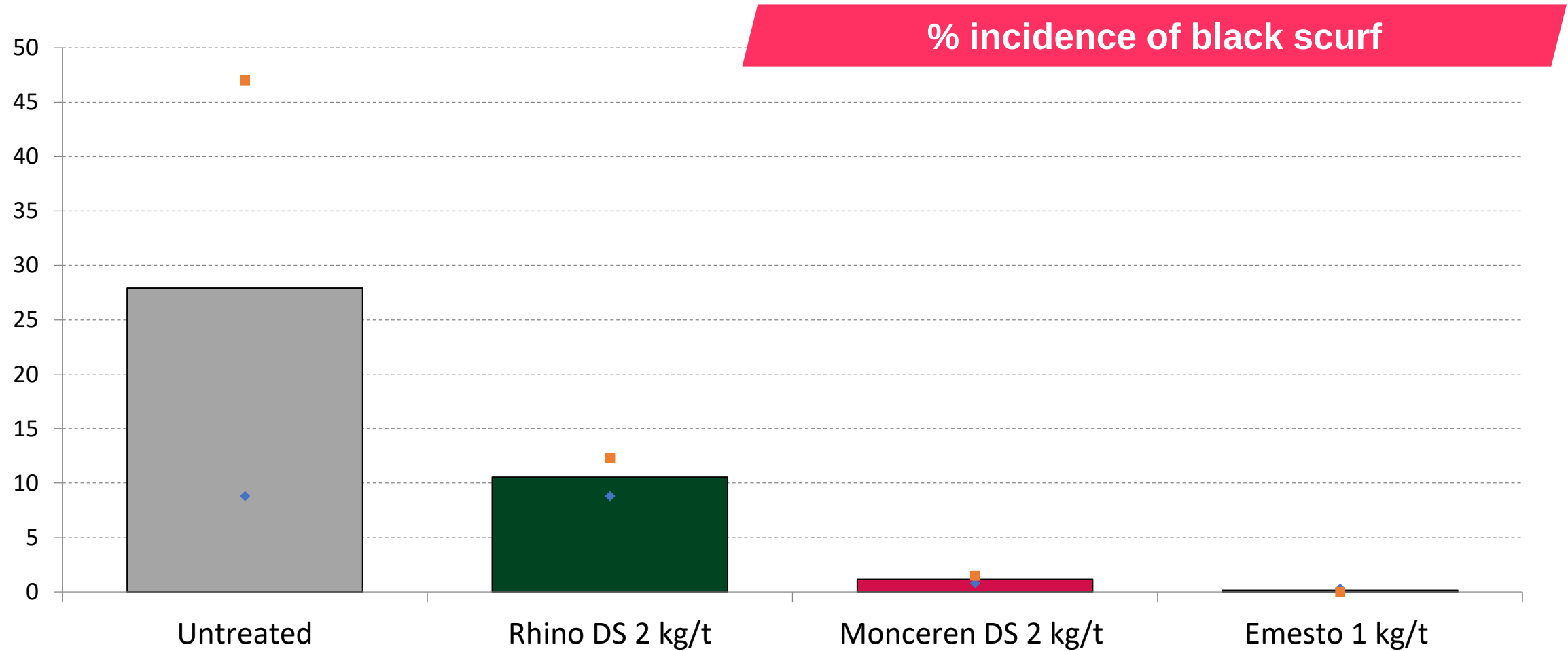
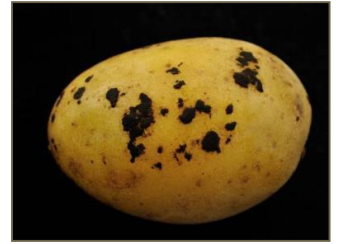


Mean 8 trials 2008 - 2009: Untreated 71% disease incidence



Emesto Prime DS gives strong Black Scurf Reduction

Efficacy, RHIZSO infected seed



Incidence = number affected/100 tubers sampled

2 Scottish Agronomy trials 2018 and 2019

Rhizoctonia canker

Stem, stolon and root canker

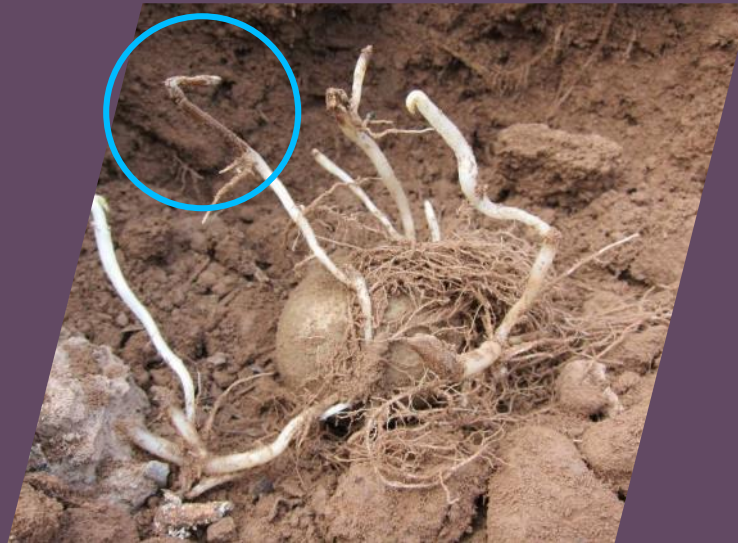


Rhizoctonia solani present on tuber or in the soil infects growing plants generating stem, stolon and/or root canker.



Emesto Prime DS: Efficacy, RHIZSO infected seed

- Stem infection (11GBR2)



↑
Untreated

Untreated
↓



Emesto Prime DS: Efficacy, RHIZSO infected seed - Early crop emergence (11GBR2)



← Untreated

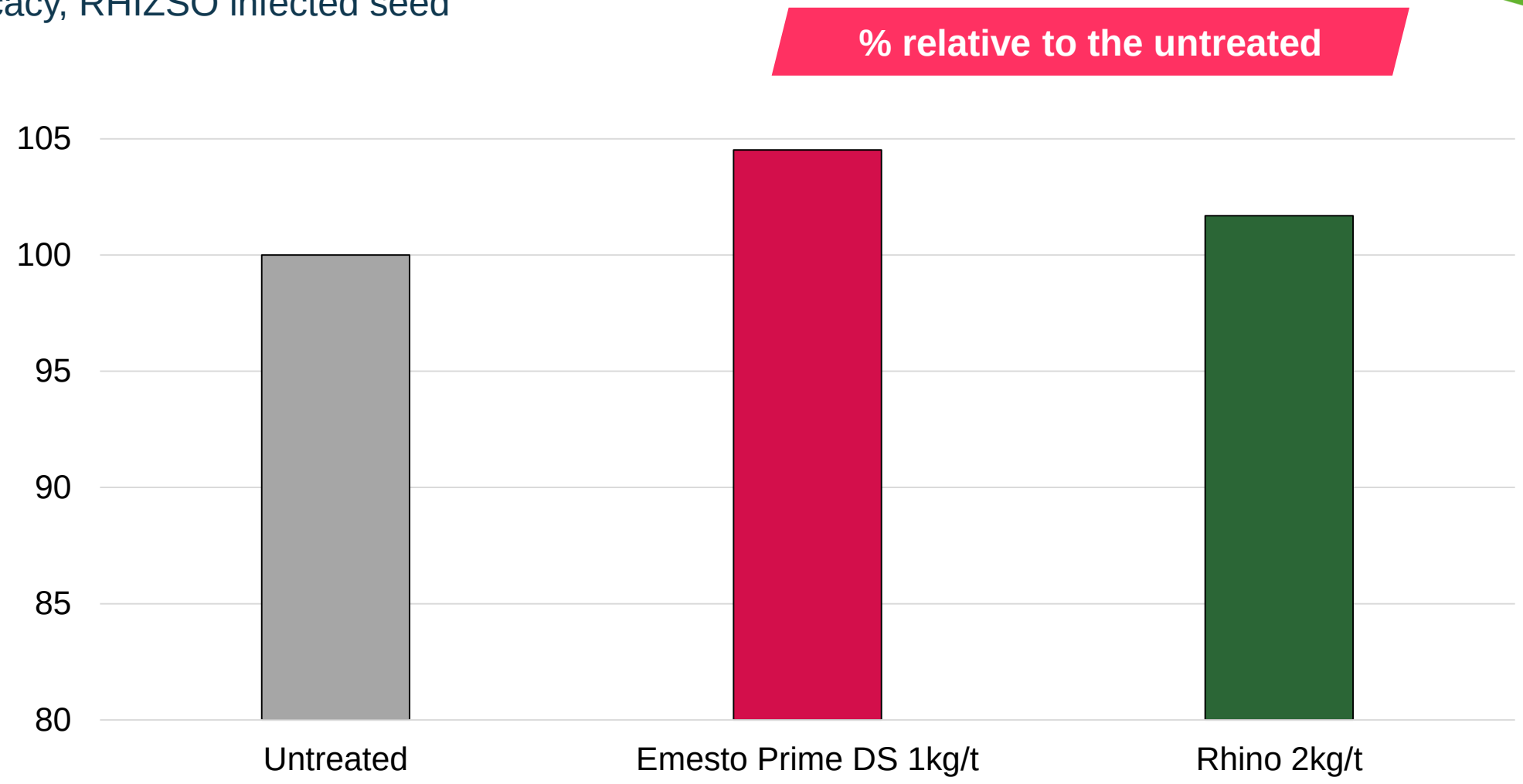
Emesto Prime DS





Emesto Prime DS: Final Crop Stand (Relative)

Efficacy, RHIZSO infected seed



Mean 4 trials: 31-47 days after planting; mean 4.4 plants/ row-m

Silver scurf *Helminthosporium solani*

Silver scurf symptoms on tubers



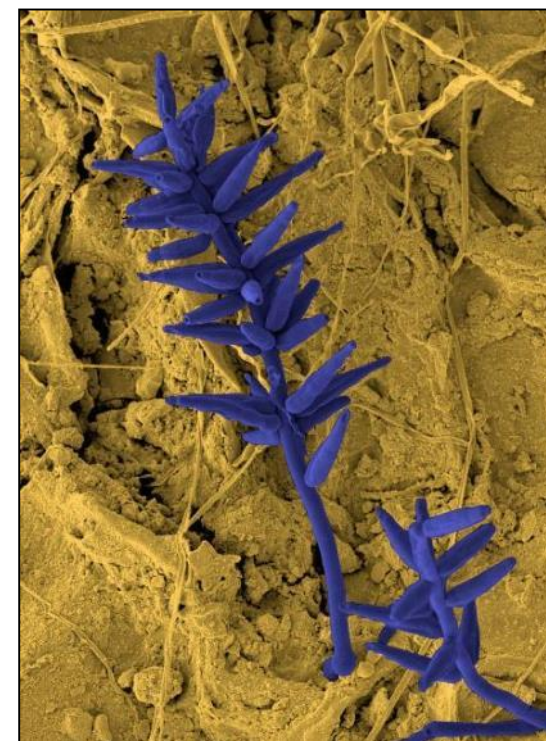
Silver scurf



Wrinkle tuber due to water loss



Silver grey patches



Christmas tree-like
conidiophores (spore carrier)
present on silver scurf lesions

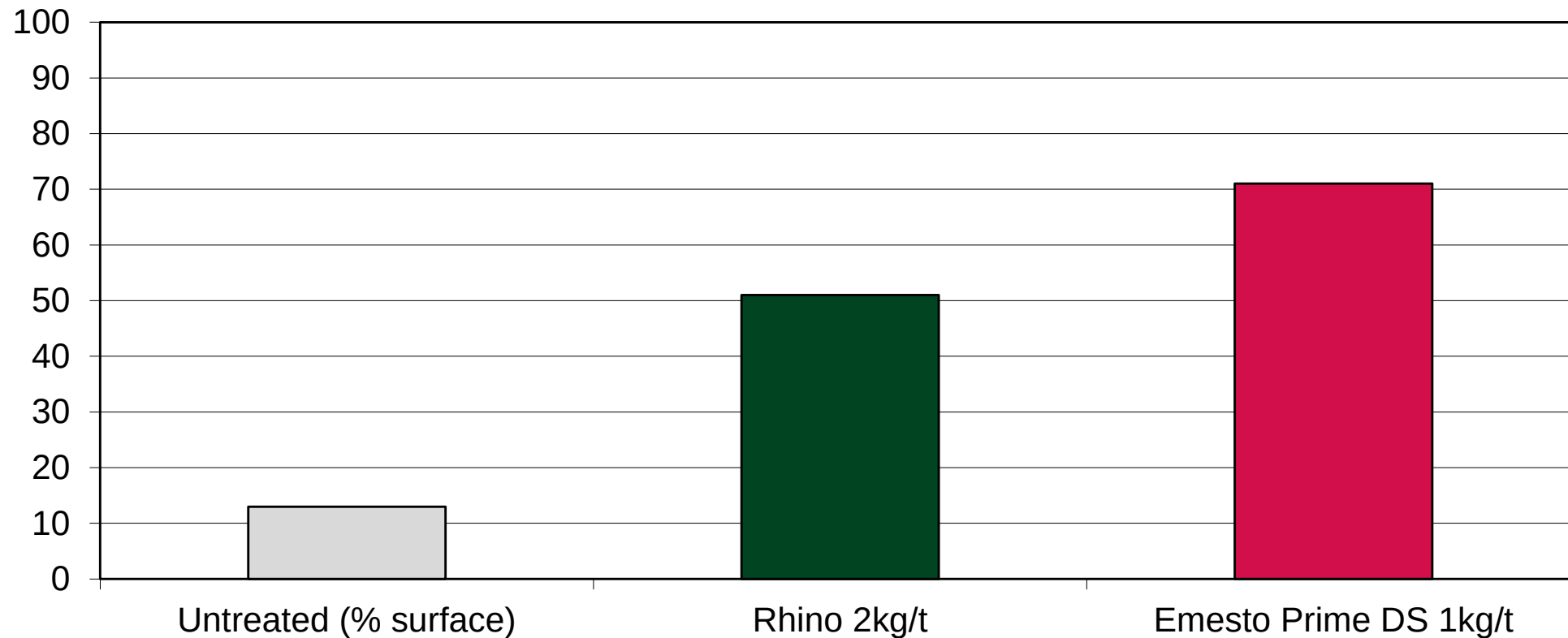


Emesto Prime DS activity against Silver Scurf

Efficacy, RHIZSO infected seed



% Reduction – early assessment



Mean 4 trials NL 08

It's ultimately about Marketable Yield



Untreated



Emesto Prime DS

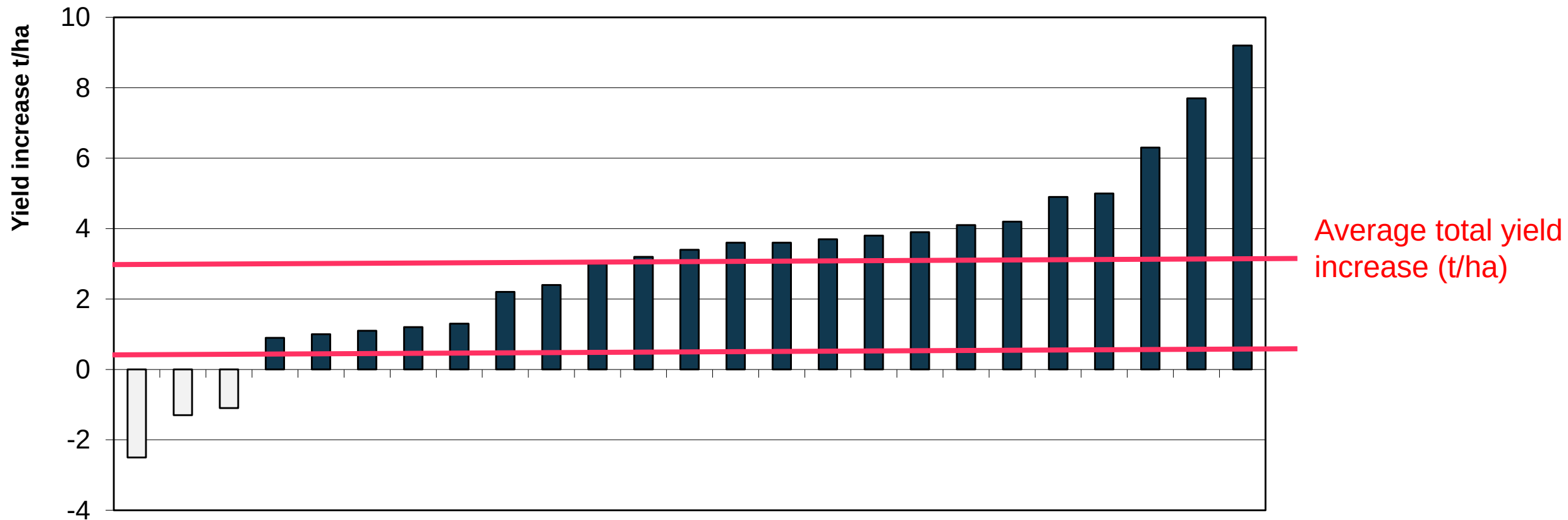


Emesto Prime DS protects your potato crop and increases yield

RHIZSO infected seed



Increase in Total Yield over Untreated

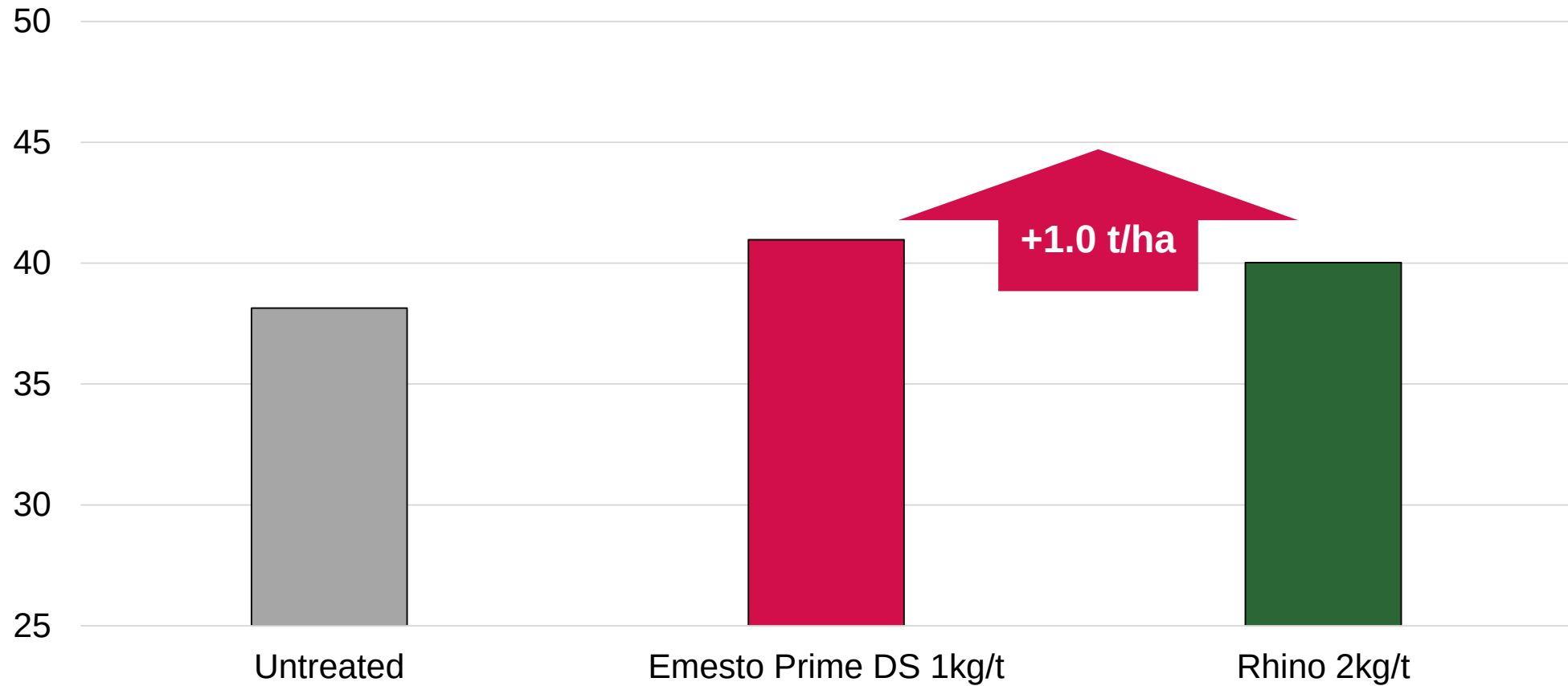


25 trials North Europe 08-11



Emesto Prime DS: Total Yield (t/ha)

Efficacy, RHIZSO infected seed

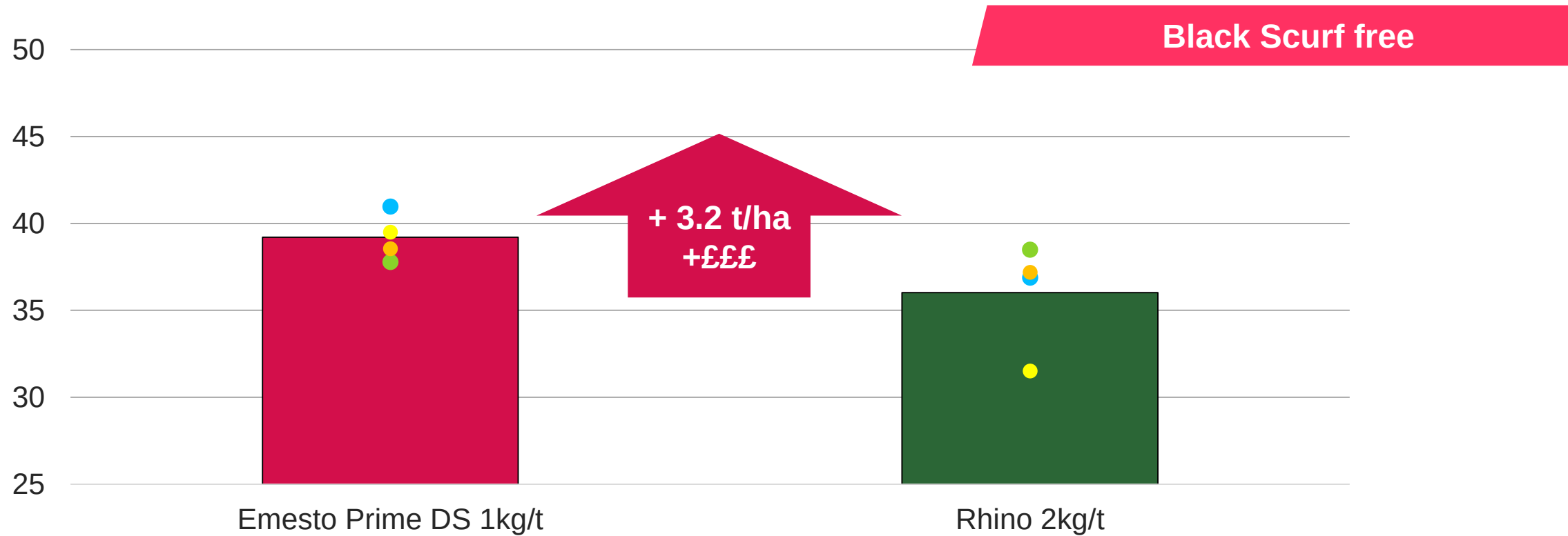


Mean 8 trials



Emesto Prime DS: Marketable Yield t/ha (45–65mm)

Efficacy, RHIZSO infected seed



Mean 4 UK trials: 91% Black Scurf Incidence in UTC



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Emesto →



← Untreated



Late Blight

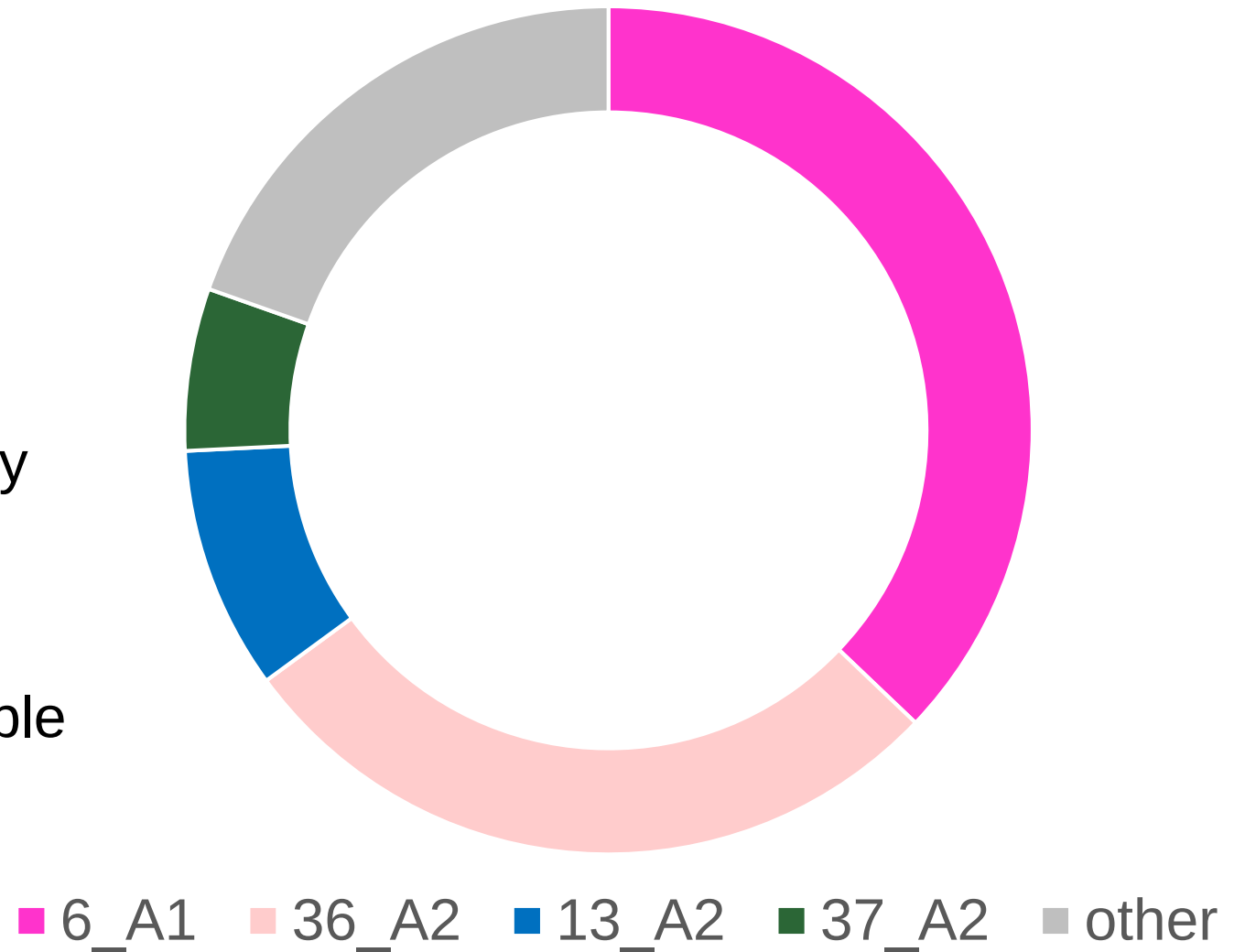


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GB blight strains 2019

- New aggressive blight strains have spread rapidly
- 4 main strains are present
- Resistance management a very important part of a blight programme
- Limited number of MOA available with tuber blight activity



Demo trial, Dordrecht NL, 2019



Infected with:

13_A2

36_A2

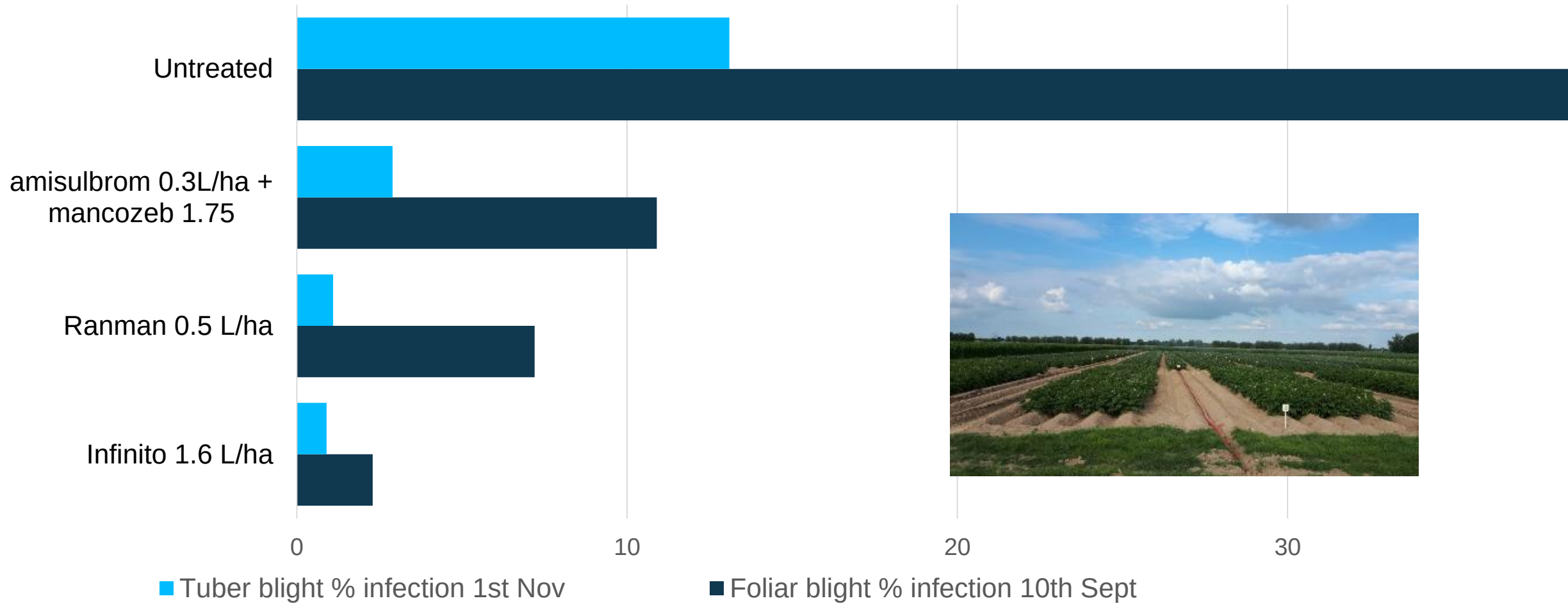
37_A2





Demo trial, Dordrecht NL, 2019

Tuber and Foliar blight infection



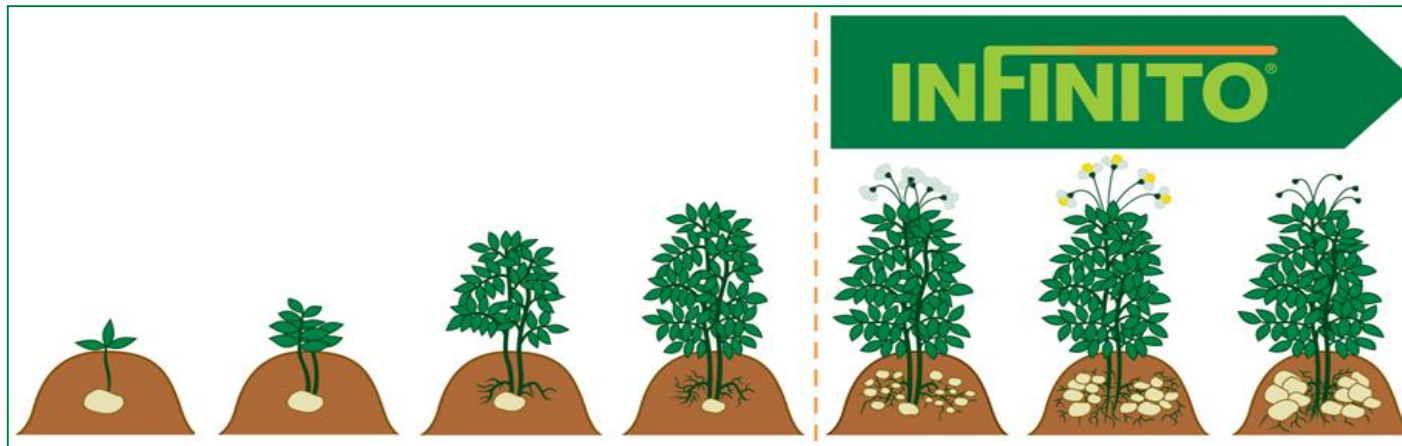
How does Infinito fit into the blight programme?



Position Infinito in the blight programme from tuber initiation onwards for excellent protection against **foliar and tuber blight**

Infinito has in-built resistance management from **2 strong actives**

Infinito is important for resistance management due to its **unique MOA**





Serenade



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What is it and What are the Modes of Action of Serenade?

A **unique strain**: *Bacillus amyloliquefaciens* QST713

Current EAMU for potato. Label application for 5L/ha in-furrow use

QST713 strain provides **rapid colonization of roots** for **protection**

Bacteria + suite of **patented biological compounds** produced by the Bacillus

Contact Fungicide

Lipopeptides

Contact Bactericide

A range of biological chemistries

Plant-Microbe Interaction

Plant Growth

Nutrient Uptake

Plant Defense

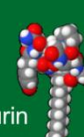
Stress Tolerance



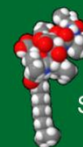
Anti-Fungal



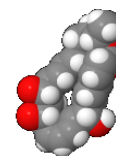
Agrastatin



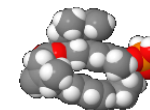
Iturin



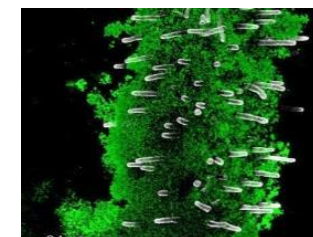
Surfactin



Macrolactin



Difficidin





Bayer Range Summary

- Emesto provide the best replacement for Monceren
 - Leading black scurf control
 - Increased marketable yield
- Infinito an important tool for:
 - Tuber blight control
 - Resistance management
- Biscaya dates to be published for revocation this year
- Serenade EAMU anticipating on label approval


EMESTO[®]
PRIME

INFINITO[®]


BISCAYA[®]

 **SERENADE**[®]
ASO



Thank you!

