



# **BANJO FORTE: A Unique Solution for Potato Late Blight**

**Olaf Van Campen, Yair Jackson & Daphna Blachinsky**

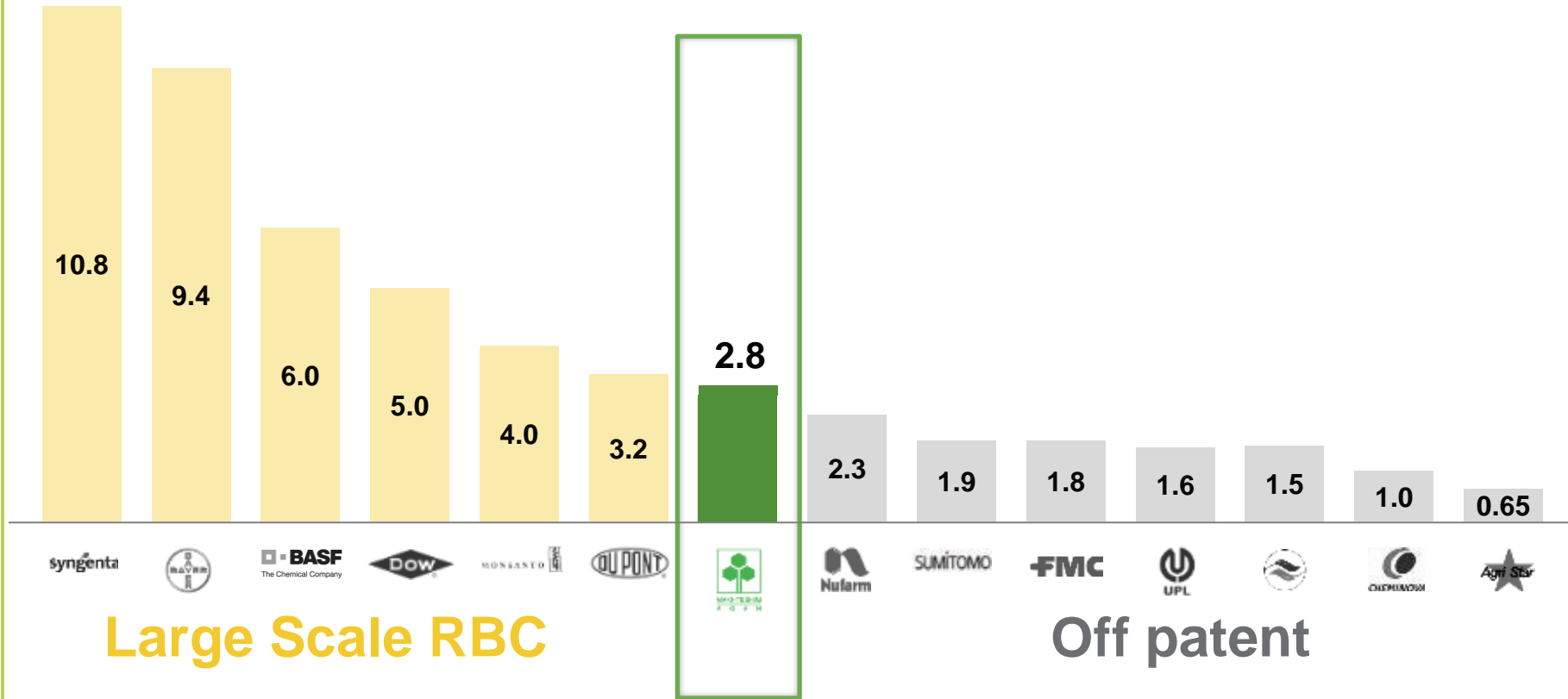
**Jerusalem, Israel. 17-21 November, 2013**



# MAI: On our Way to Innovation

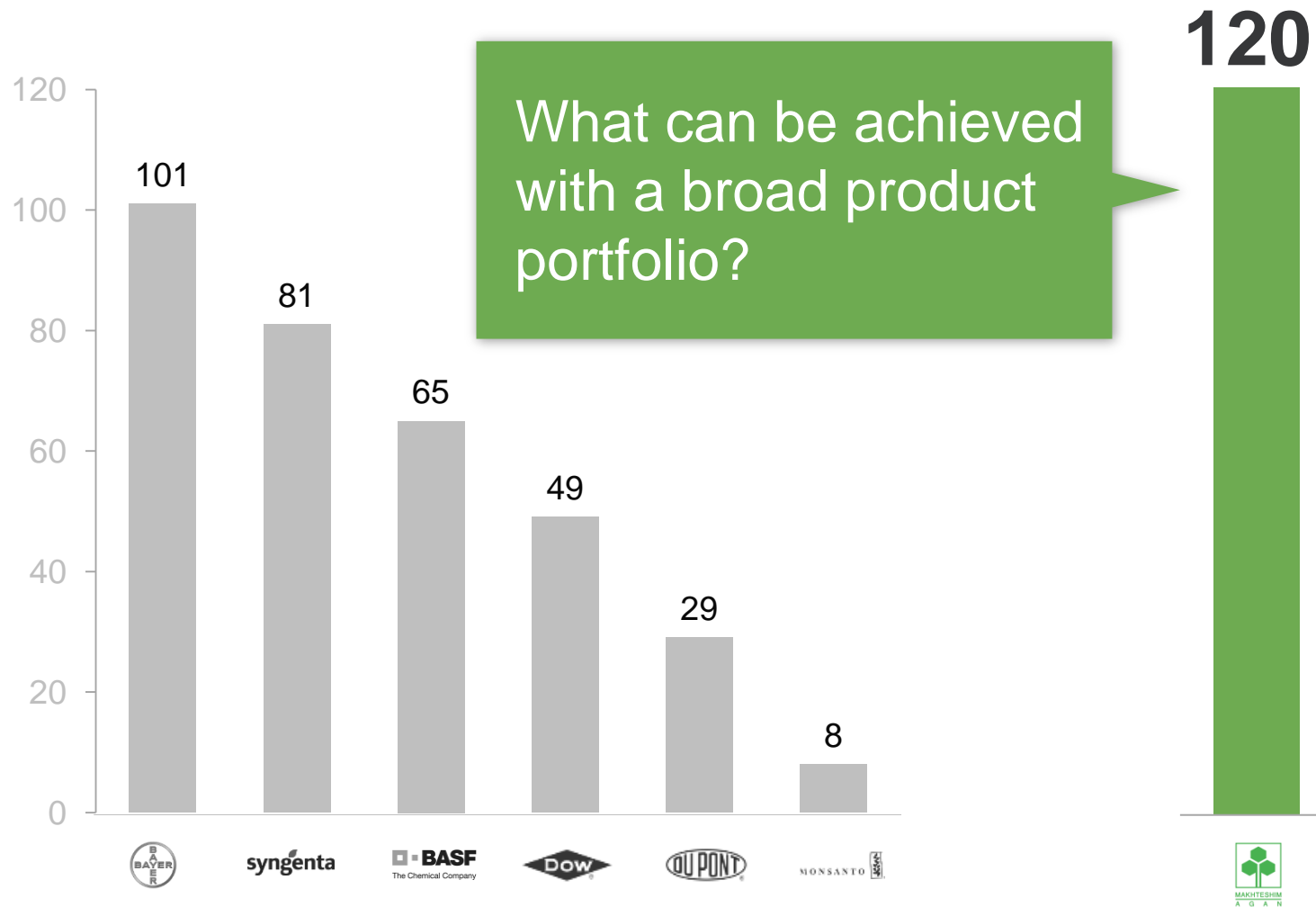


## 2011 Agrochemical Sales, \$ Billion





# Opportunity: A Broad Product Portfolio



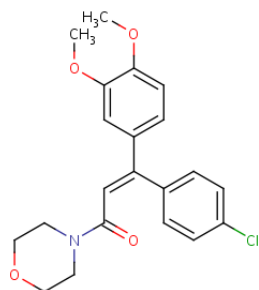
RBC's Active Ingredient: By Phillips McDougal

# What is Banjo Forte?

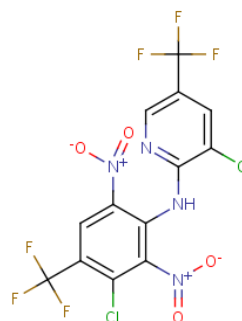
Fluazinam 200 + Dimethomorph 200 =



FRAC Group:  
**C5**, uncoupler of  
 oxidative  
 phosphorylation contact



FRAC Group:  
**H5**, cellulose synthase  
 inhibition, Local systemic /  
 Translaminar







# Why Banjo Forte?



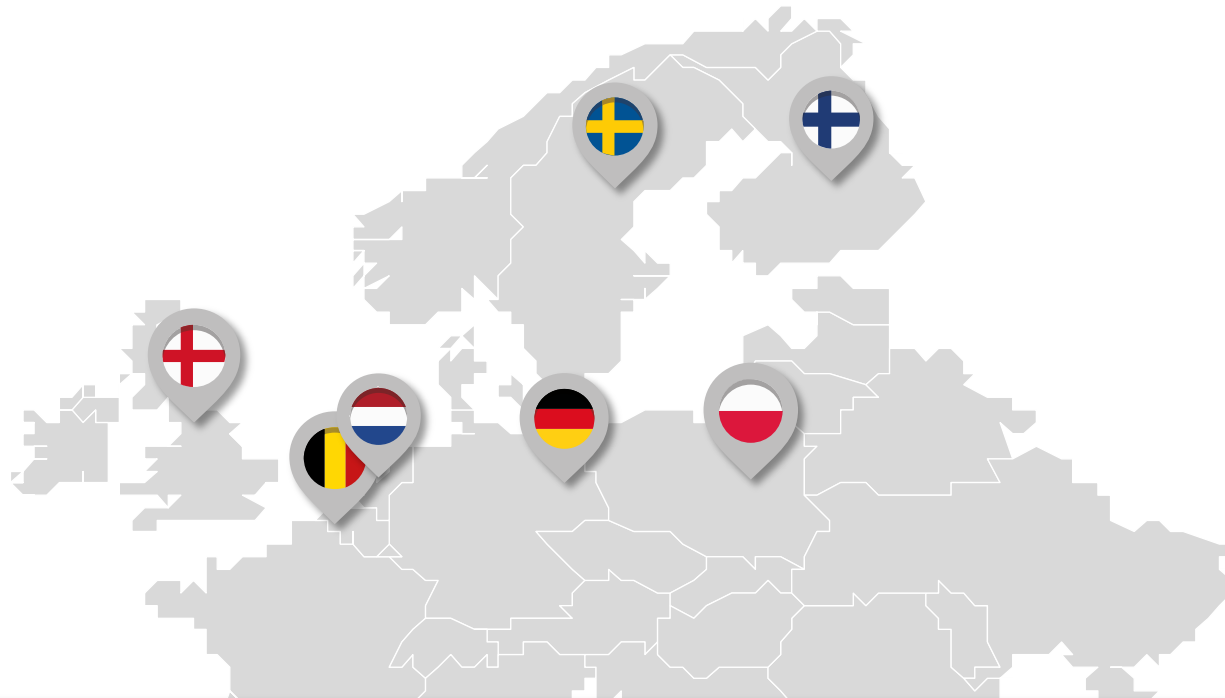
## Perfectly Complementary Actives

- Local systemic + very effective contact
- Fit Resistance Management
- Fit perfectly the middle application timing

## Prevents ...

- Leaf late blight
- Tuber blight control
- *Sclerotinia sclerotiorum*
- Powdery scab





Biggest potato growing countries



# Evolution: Banjo Forte & Potato Market



MAI

**2007**  
Idea for  
mixture

**2008-2011**  
Formulation  
development  
& registration

**2012**  
First Banjo  
Forte Launch  
in Germany

**2013 - 2015**  
Banjo Forte  
European  
Launch

2007

2008

2009

2010

2011

2012

2013

2014

2015

New products continue to be introduced in the market





# Fluazinam Use in Potatoes



## Green33

a genotype,  
resistant to  
Fluazinam

## 2009

Founded  
in the  
Netherlands

## 2010

Population  
increased

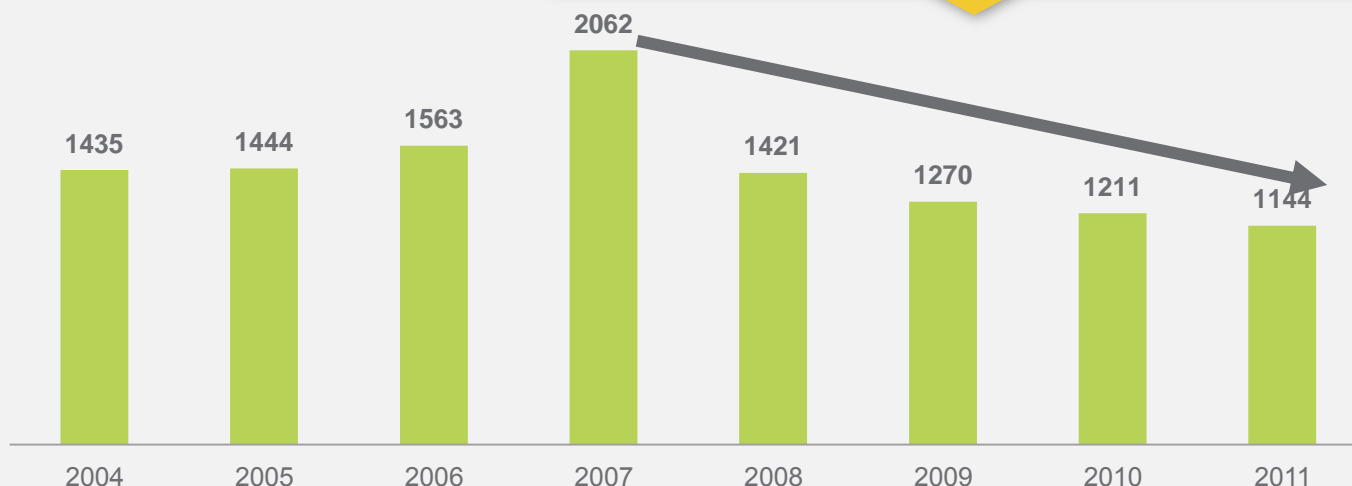
## 2011

Stabilized  
and spread

Since 2007 Fluazinam sales in Europe dropped dramatically

### Fluazinam Volume in Potatoes, West

■ AI volume (Tons)



\*Data obtained from Sigma 2012

A photograph of a field of green, leafy plants, likely a crop affected by phytin. The plants are densely packed and appear to be in a field setting.

**Netherlands: 120M €**  
**Europe: 900M €**

**Green 33 loss**

## How did it happen?

- Use of Fluazinam straight
- Reduced rates
- Block spraying strategy

## Who is Green 33?

- Extremely violent
- Quick cycle (3-4 days)

But...

- Low fitness to environmental conditions
- Very sensitive to CAA fungicides



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Until 2007  
Fluazinam  
a leading  
product  
Sales  
growth

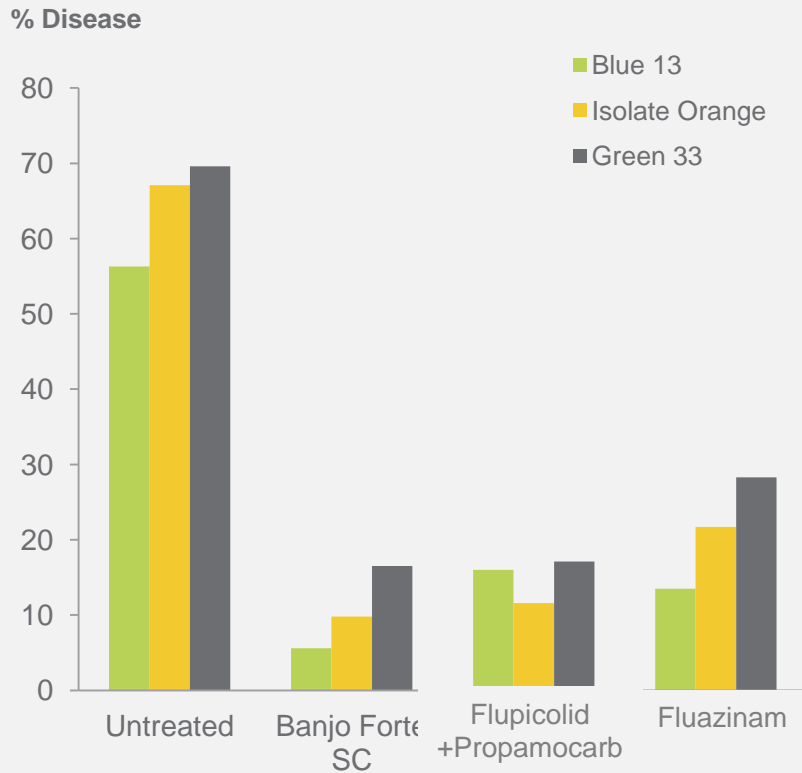
2009  
Green 33  
detected &  
spreading

Since 2008  
Fluazinam use drops dramatically

2007 2008 2009 2010 2011 2012 2013 2014 2015

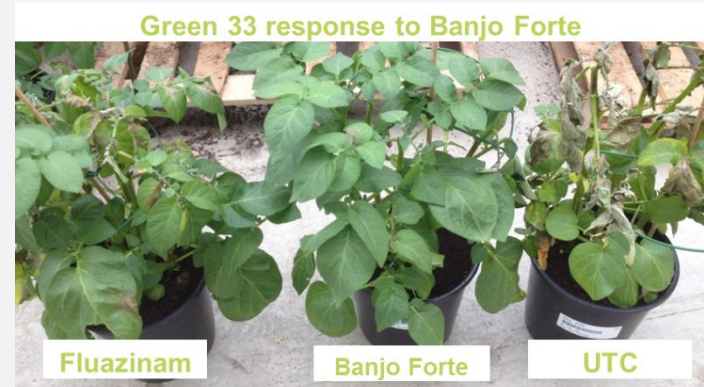
New products continue to be introduced in the market

## Different LB Isolates



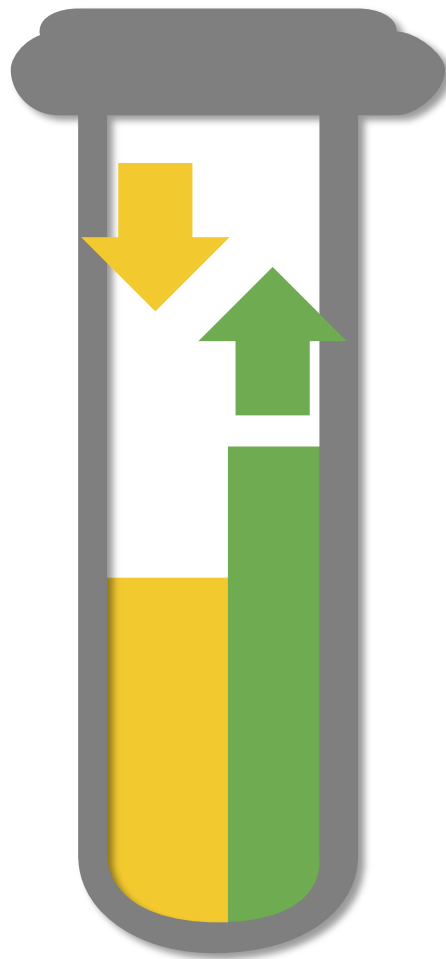
\*Pot Trial, Huub Schepers, PPO

## Green 33



- Banjo Forte controls well all major genotypes
- Banjo Forte is very effective against genotype Green 33

**Fluazinam**



***Sclerotinia***



# Evolution: Banjo Forte & Potato Market



■ MAI   ■ The Market

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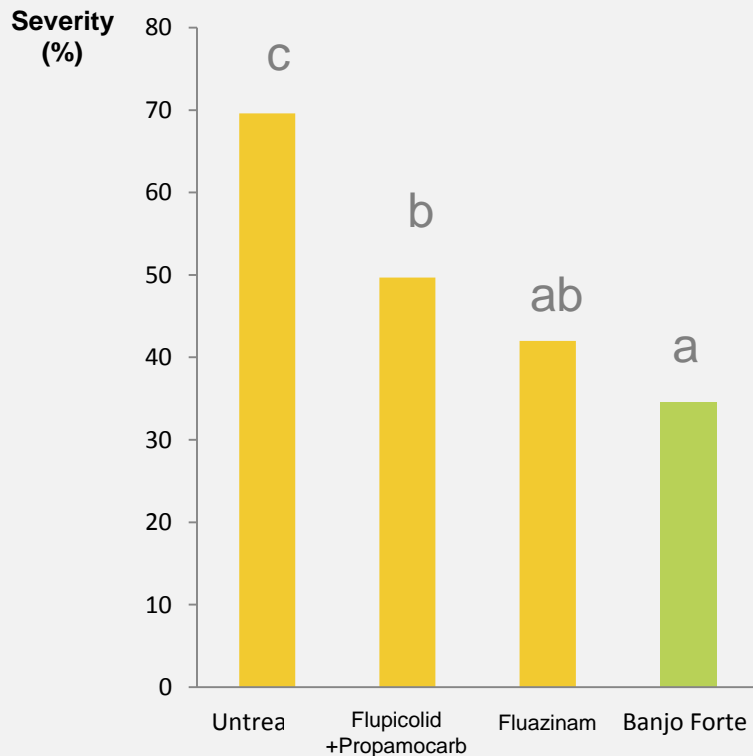
**2009**  
Green 33  
detected &  
spreading

**Since 2010**  
*Sclerotinia* in potatoes rising  
Fluazinam use drops dramatically

2007   2008   2009   2010   2011   2012   2013   2014   2015

New products continue to be introduced in the market

## *Sclerotinia* severity



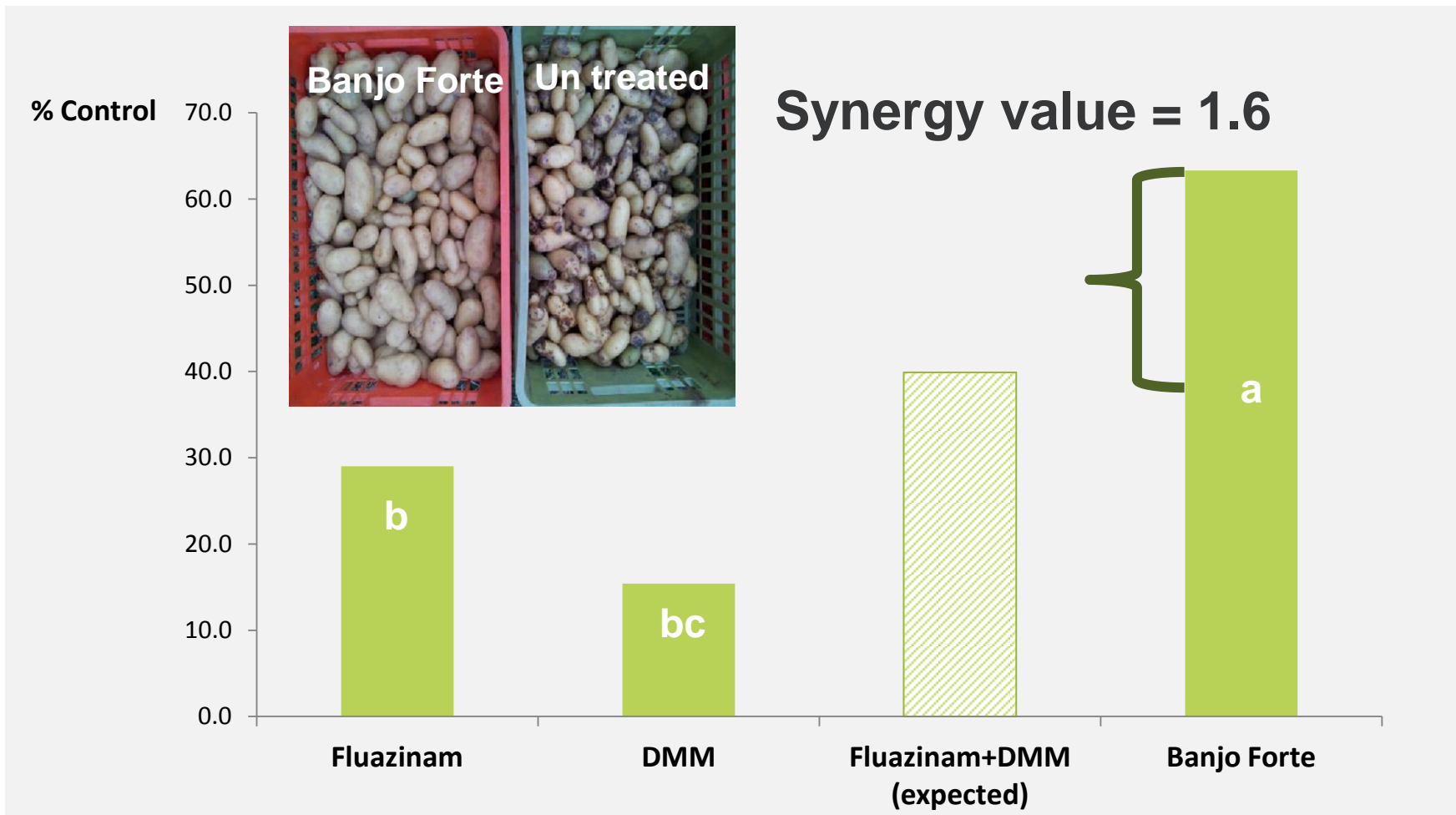
## *S. sclerotiorum*



Fungicide	<i>Sclerotinia</i> Severity
Untreated	69.6
Flupicolid + Propamocarb	49.7
Fluazinam	42.0
<b>BANJO FORTE</b>	<b>34.6</b>

\*Pot Trial, Huub Schepers, PPO







# Banjo Forte Summary



- Excellent late blight prevention
- Very good tuber blight control

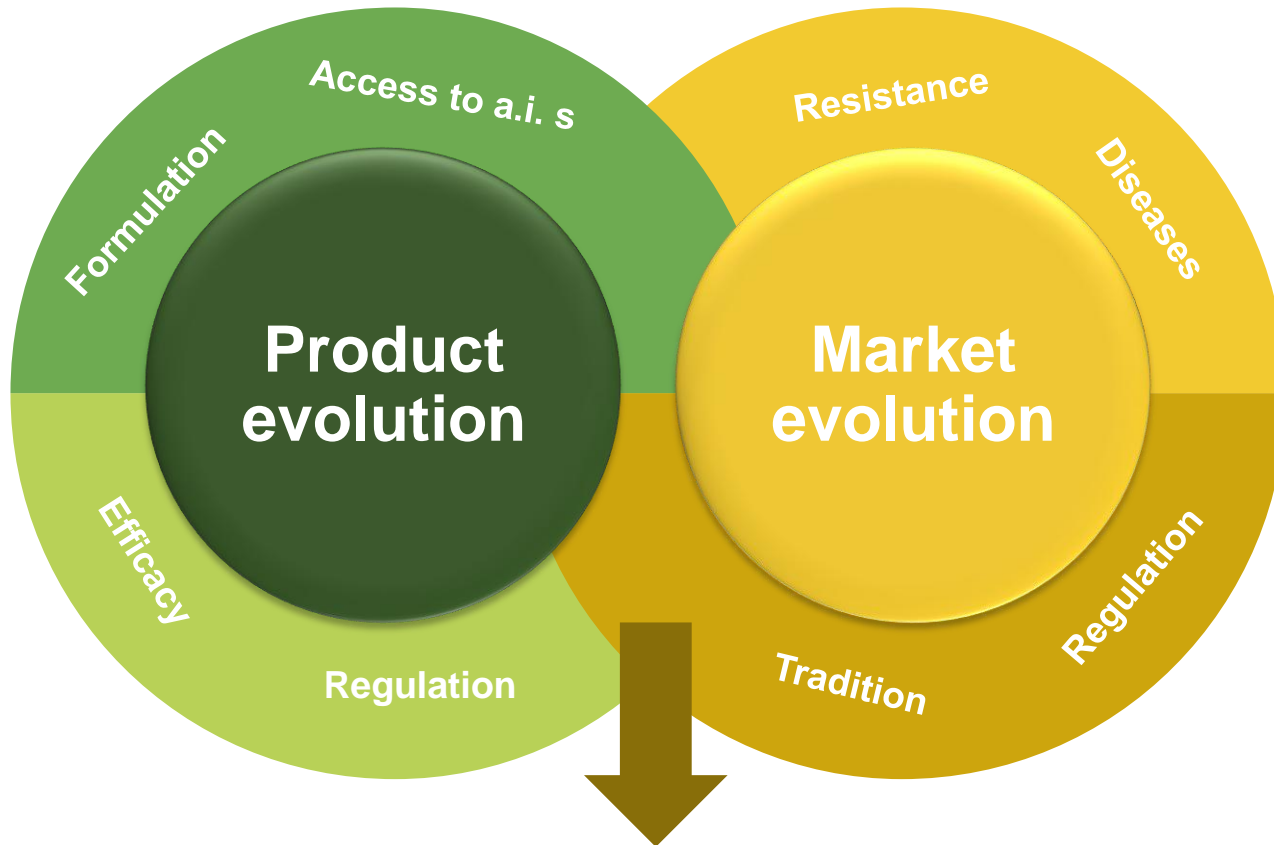
  
**Fits Resistance Management strategy**



- Reduces *Sclerotinia* and powdery scab damage



More Countries, Crops & Disease Prevention



**INNOVATION = RESPONSE TO THE MARKET !**



**Daphna Blachinsky**

[daphna.blachinsky@ma-Industries.com](mailto:daphna.blachinsky@ma-Industries.com)