

Revyona[®]

A new generation triazole fungicide,
combining **excellent** efficacy with
a planet-friendly profile



Same, but different

Martin Teichmann, BASF
EuroBlight Workshop 11.05.2022, Ascona

 **BASF**

We create chemistry

Revyona[®] in potatoes



A new generation
triazole-based
fungicide



Best in class
control of
Alternaria



Independent
of the
weather



Improved time
and risk
management

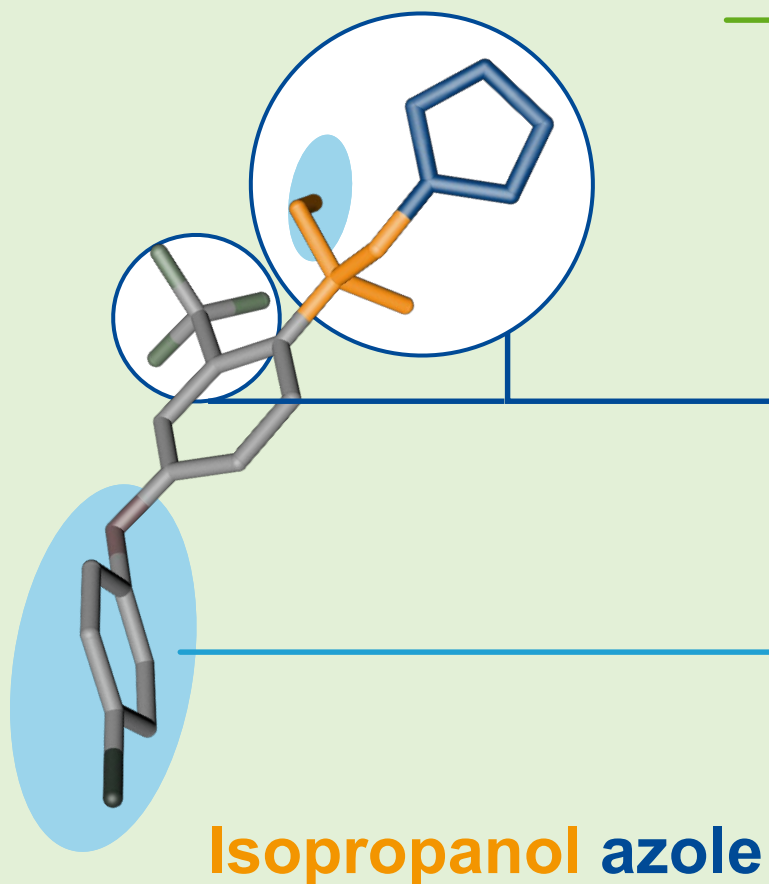


Increased quality
and marketable
yield



A planet
friendly
profile

Revysol®: Combining outstanding performance, selectivity and favorable regulatory profile



Regulatory Profile

- Up to factor 49 less off-target enzyme inhibition in vertebrate cells than other azoles
- no ED issues
- no CfS triggers

Activity driver

- High intrinsic activity with Flexi-Power hook
- Broad disease spectrum

Selectivity driver

- Broad crop selectivity (field and specialty crops)
- Optimized target selectivity (fungal enzyme)

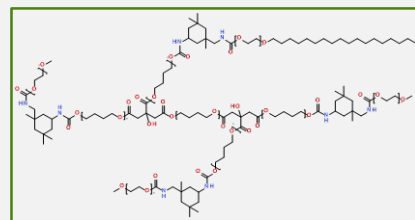
Formulation...is the process of converting an active ingredient into an applicable and effective product



Active ingredient is a white crystalline substance with low water solubility.



+ tailor-made multifunctional adjuvant system



Revyona®,
innovative water-based
SC formulation:

- stable and homogeneous
- easy to mix and stable in spray solution (no crystal growth)
- improved penetration, adhesion and long-lasting uptake
- good rain fastness and UV stability
- safe to crops, human and environment
- 75 g/L Mefentrifluconazole (Revysol®)





Best in class control of *Alternaria*



- Farmers' challenges with *Alternaria*
- Efficacy
- Long-lasting activity
- Recommended spray programs



“

It's hard to predict how we'll view crop protection agents in the years to come. I have no idea which products will still be in use. ”

Dirk Beuling, potato farmer, The Netherlands



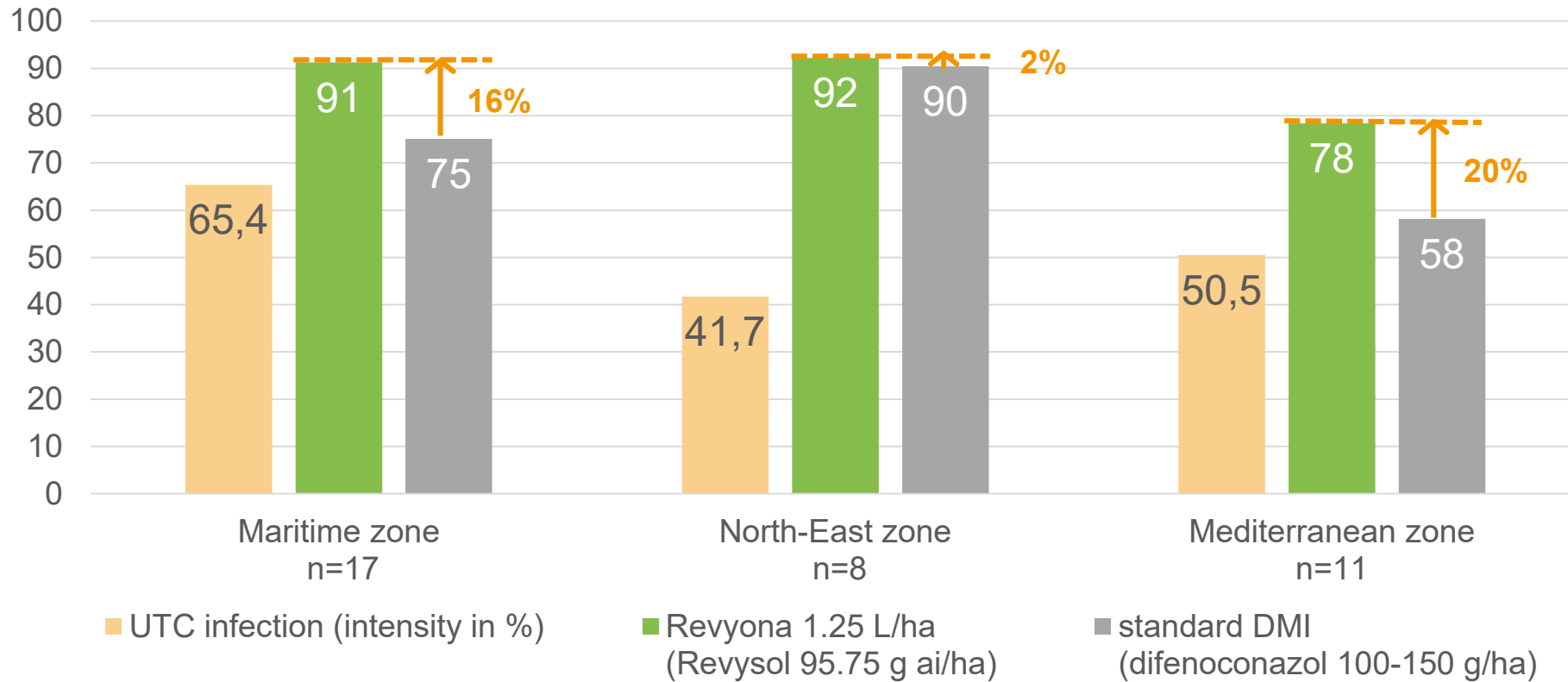
“

It will be a greater challenge, among other things, to keep the level of *Alternaria* infestation as low as possible. I hope and trust that new fungicides will be available and that we'll be able to continue our business in the best possible way in the future.”

Dirk Beuling, potato farmer, The Netherlands

Alternaria control in potato by Revyona[®] – compared to registration standard

Control % of potato early blight, by climatic zones

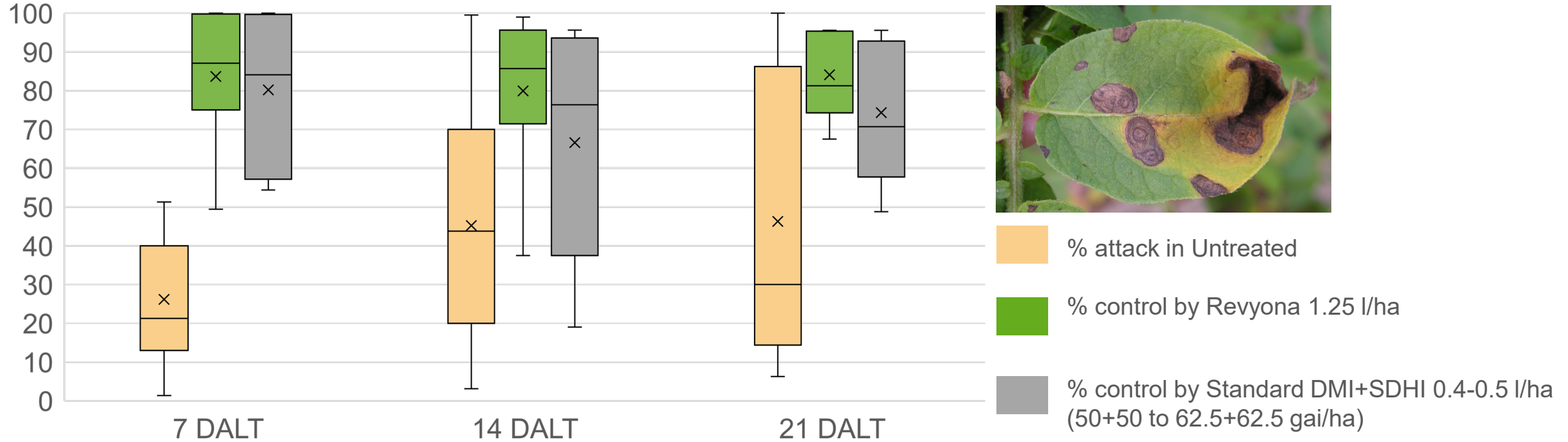





Best in class
Alternaria control in all
EPPO climatic zones



Long-lasting protection against potato early blight by Revyona®

Control of % potato early blight, 2021 vs new Competitor, 1, 2 and 3 weeks after last treatment



-  % attack in Untreated
-  % control by Revyona 1.25 l/ha
-  % control by Standard DMI+SDHI 0.4-0.5 l/ha (50+50 to 62.5+62.5 gai/ha)

»» Higher reliability of long-lasting control by Revyona compared to DMI+ SDHI based standard

Long lasting protection against potato early blight

Potato leaves – treated in the field & infected in the lab 21 days later with *Alternaria solani*, var. Kuras



Untreated



Revysol (SC⁺)
93,75 g ai/ha



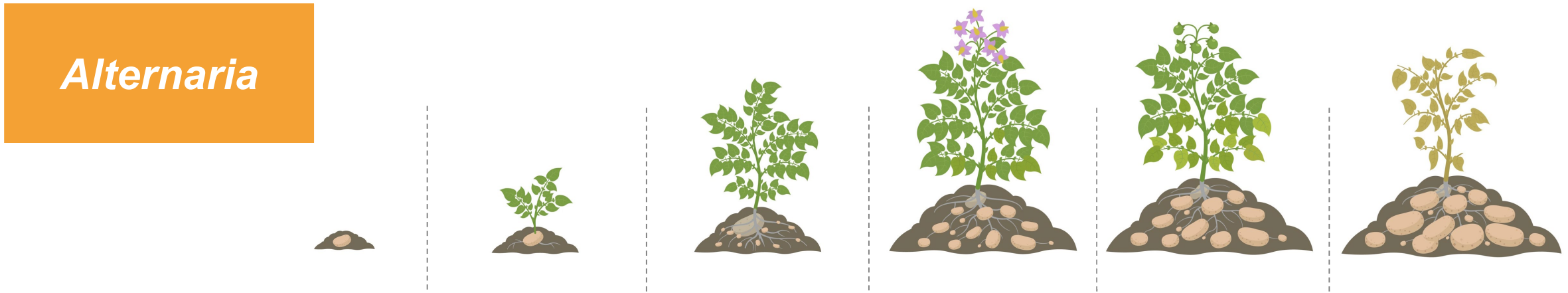
difenoconazol (EC)
150 g ai/ha



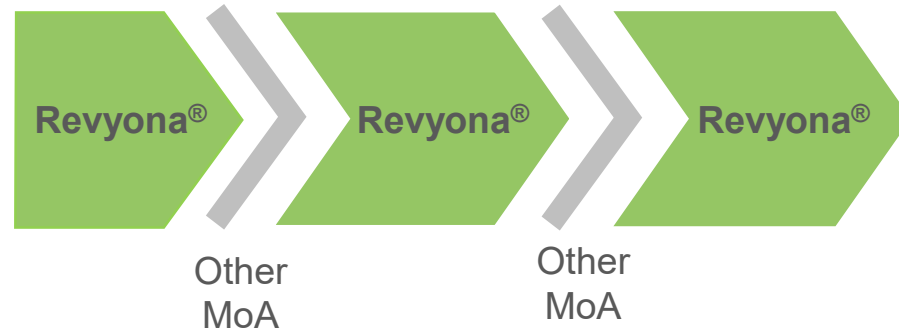
difenoconazol (EC)
100 g ai/ha

- 》》》 Revyona can be applied longer preventative than standard triazole and provides protection
- 》》》 Crop remains green for a longer time – for better yield and high quality potato

Spray programs



Dose rate (max): 1.25 L/ha Revyona®
BBCH 21-93
Number of applications: 3
Interval between application (min): 7 days
PHI: 3 days

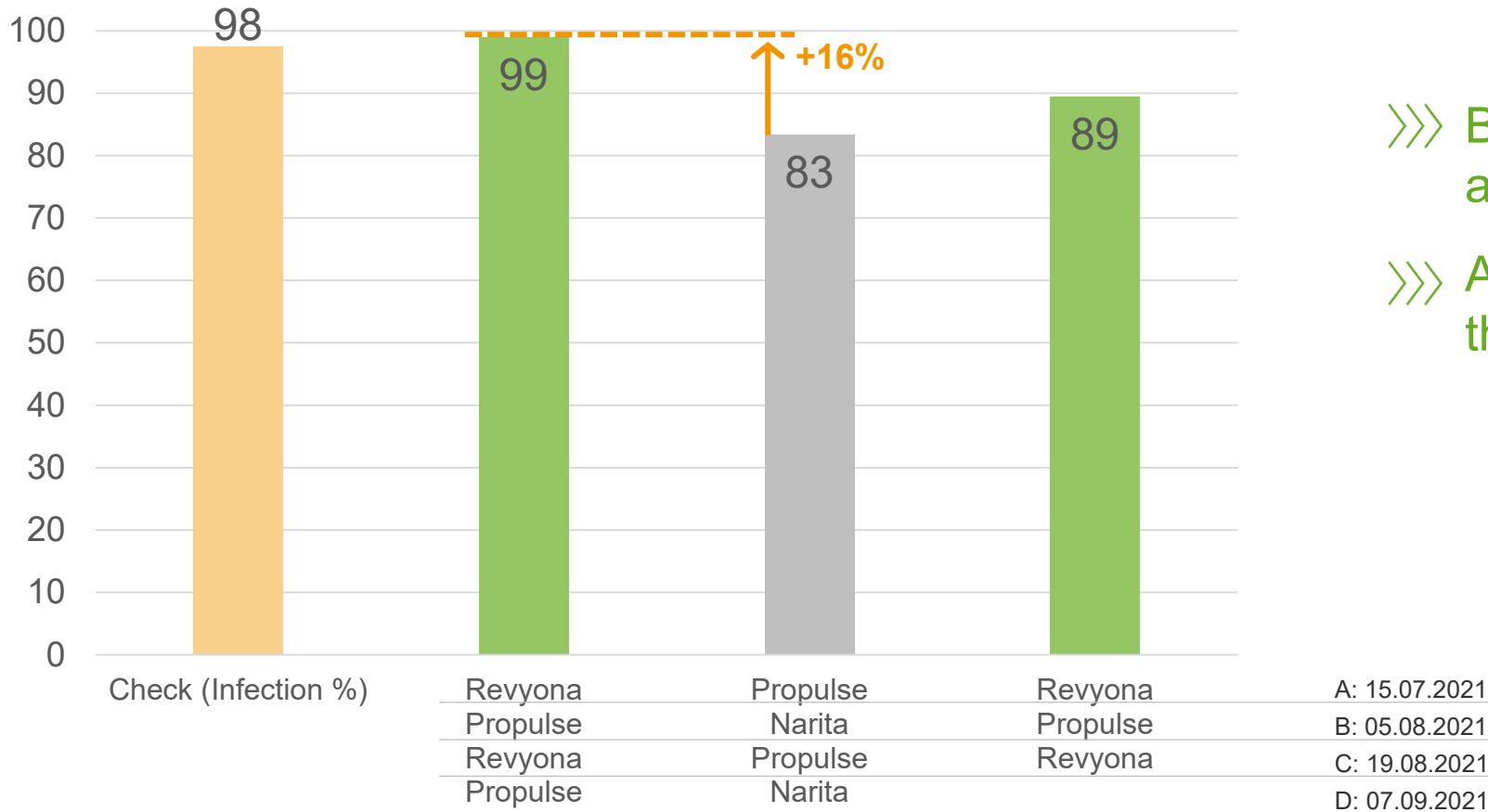


- Start with Revyona® and alternate with other MoAs
- SDHI containing products are restricted to 50% of total number of applications in spray programs

The difference is Revyona®

Alternaria control in potato by Revyona® in spray programs

Control % of potato early blight, var. Kuras, Sweden, starch area , 7th Sept 2021



»»» Best control with Revyona® in the alternation program

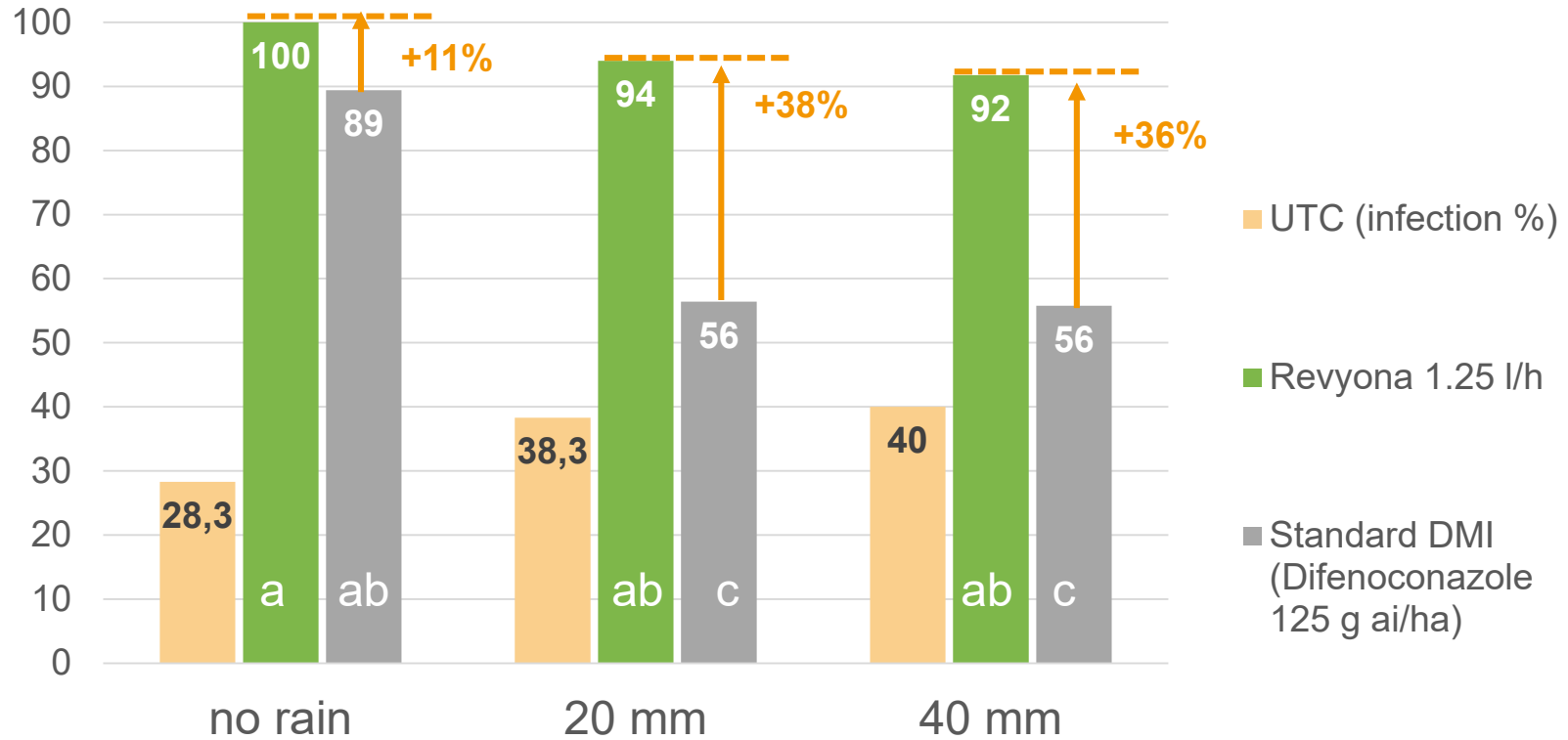
»»» Adapt the number of applications to the infection pressure

MKD-F-2021-SE-DP1-A-01.0-SE-SE0-AL1 14-21 d interval, appl. 15.7 – 7.9.21,
Cover sprays of all plots with late blight products every week.

Rain-fast Early blight control by Revyona®



Control % of Potato early blight ; 19 days after last appl

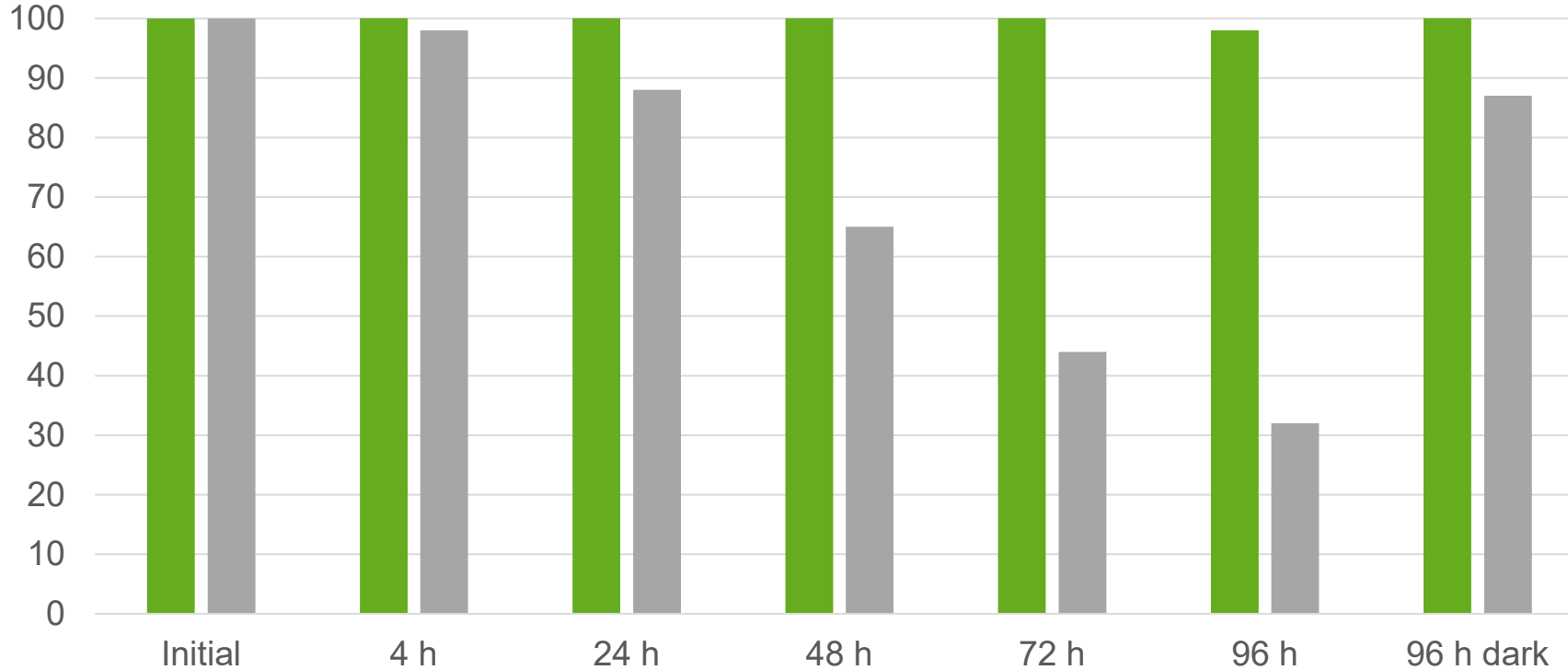


»» Higher efficacy than common azole standard under dry and rainy conditions



Revyona[®] is well protected from UV radiation

Quantification of Revysol vs. Difenoconazol over time (sun tester experiment)



Sun simulator

■ Revysol
■ Difenoconazole

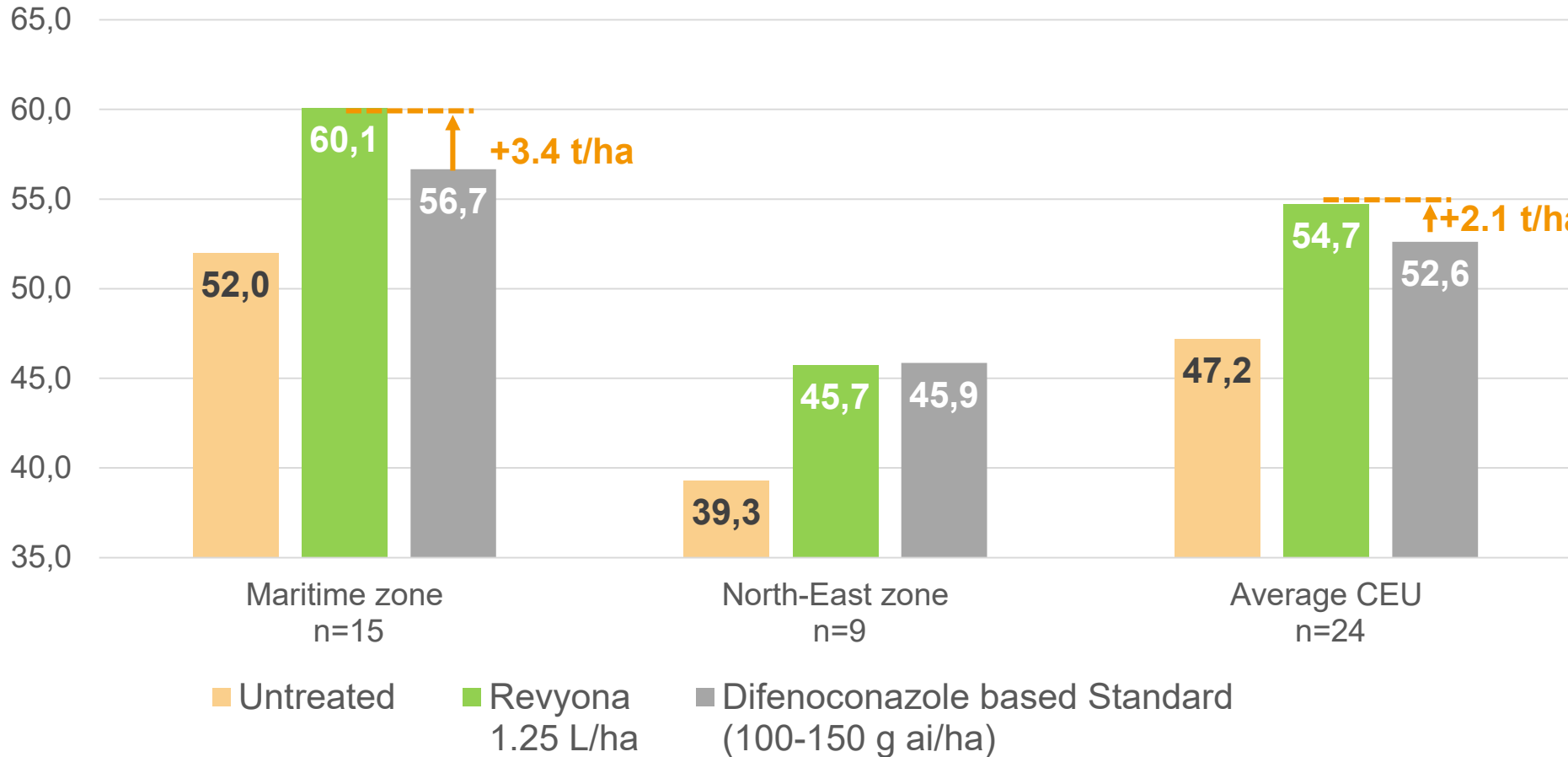
»» Significant loss of Difenoconazole over time due to UV* degradation

(* >10% loss in the dark control indicate additional factor)

Revyona[®] Protecting the crops regardless of the weather

Increased quality and marketable yield

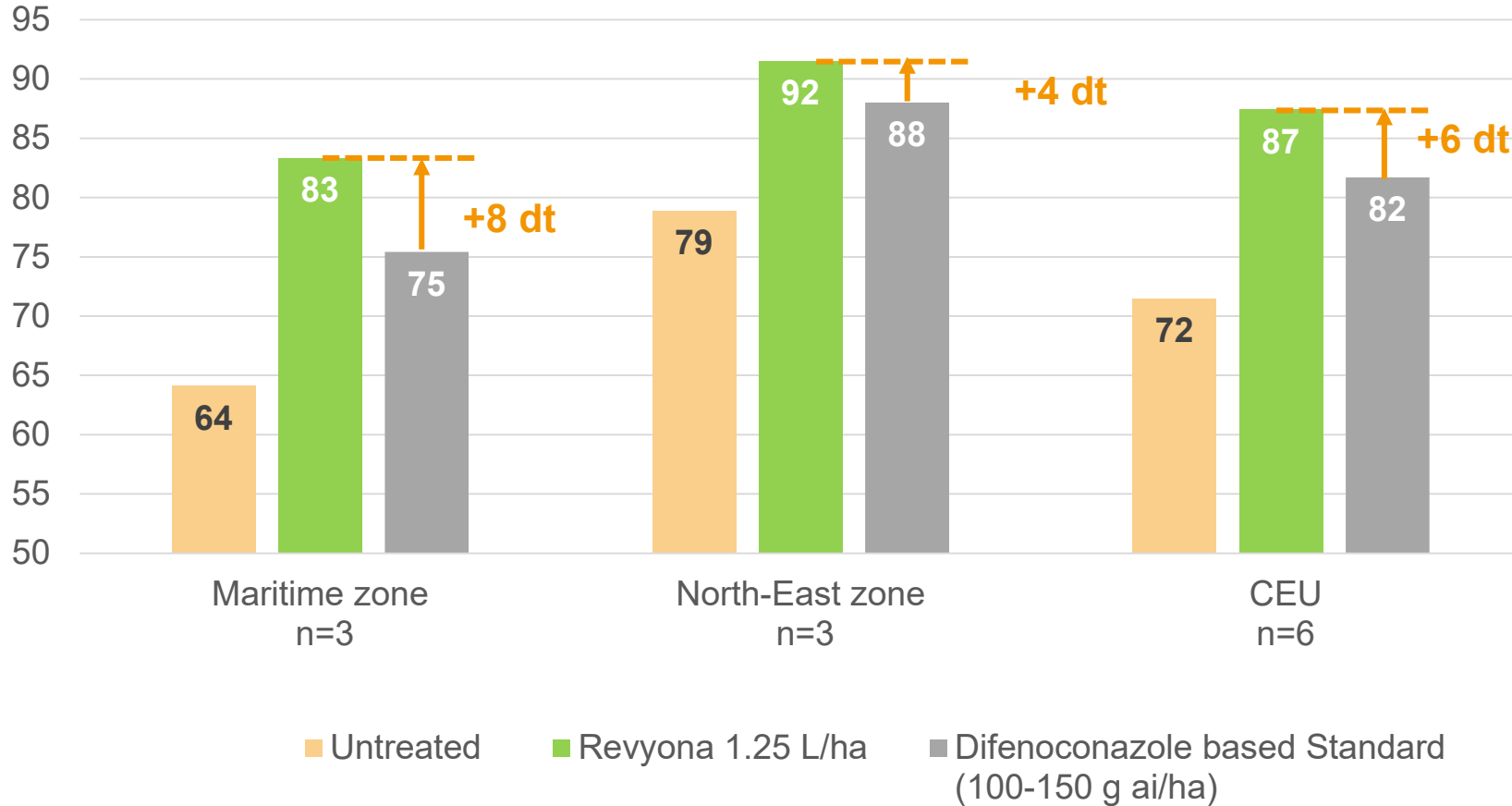
Yield (in t/ha) Potato, in trials for *Alternaria* control, Central EU Registration zone



>>> Higher yield provided by Revyona due to its better *Alternaria* control

Increased quality and marketable yield

Starch Yield (in dt/ha), Potato in trials for *Alternaria* control, 2016-18 Europe



>>> Revyona treatments result in higher starch yield per hectare compared to standard

Residues in potatoes and rotational crops



- **No residues in potatoes in GLP residue trials**
 - Dose rate: 1.25 L/ha Revyona® (0.09 kg a.i./ha)
 - Number of applications: 3
 - Interval between application: 7 days
 - PHI: 3 days
- **No residues in rotational crops** when applied according to worst case product GAP



**Helping to achieve
consistently high quality
crops and still better yield**

The natural environment

The balance makes the difference



Fact



Low soil mobility



Low formation of 1,2,4-triazole



No risk of leaching



Low volatility

The Revysol[®] Difference

Revysol[®] shows well balanced features contributing to the favorable regulatory profile of the compound regarding natural environment.

The living environment

The sum makes the difference



Fact



Safe* for bees and pollinators



Safe* for beneficial insects



Safe* for earthworm



Safe* for aquatic life
(risk mitigation measures for 3D crops)



Safe* for birds and mammals



No CfS

* when used according to the label

The Revysol[®] Difference

Revysol[®] combines multiple supportive features contributing to the favorable profile regarding living environment.

The human environment

The sum makes the difference



Fact



No CMR classification



No Endocrine disruptor



Low skin sensitizing potential



Safe* for operators



Safe* for workers in treated crops



Safe* for bystanders and residents



Safe* for consumers



Residues in succeeding crops are unlikely in practice

* when used according to the label.

The Revysol[®] Difference

Revysol[®] combines multiple supportive features contributing to the favorable regulatory profile of the compound.

More rigorous evaluation for now and in the longer term



Fact

- Revysol[®] is currently the only Azole fully approved under EU Regulation 1107/2009 until 2029.
- Revysol[®] has been evaluated by the most recent and rigorous criteria;
- making sure of no negative impacts on the environment or human beings;
- considering all individual details but looking at them in sum it makes Revysol[®] different.

The difference is Revyona[®]

Revyona® in summary

- A new, triazole-based fungicide, powered by Revysol®
- with the best-in-class control of Alternaria
- Proven efficacious regardless of the weather
- Contributing to improved quality, better and more marketable yield
- Combining increased productivity with enhanced sustainability
- Safe for the environment, safe for humans, a long-term solution
- Simplifying risk, work and crop management.
- An invaluable partner in the continuing development of responsible, productive and profitable potato growing practice.



The difference is Revyona®

Revyona[®]

It's what makes the difference



Thank you for your interest
and your attention



We create chemistry