



ORO AGRI

ORO AGRI INTERNATIONAL Ltd

New possibilities in late blight control

EuroBlight Workshop
Aarhus, Denmark 14-17 May 2017

Tim Buchheim



Oro Agri



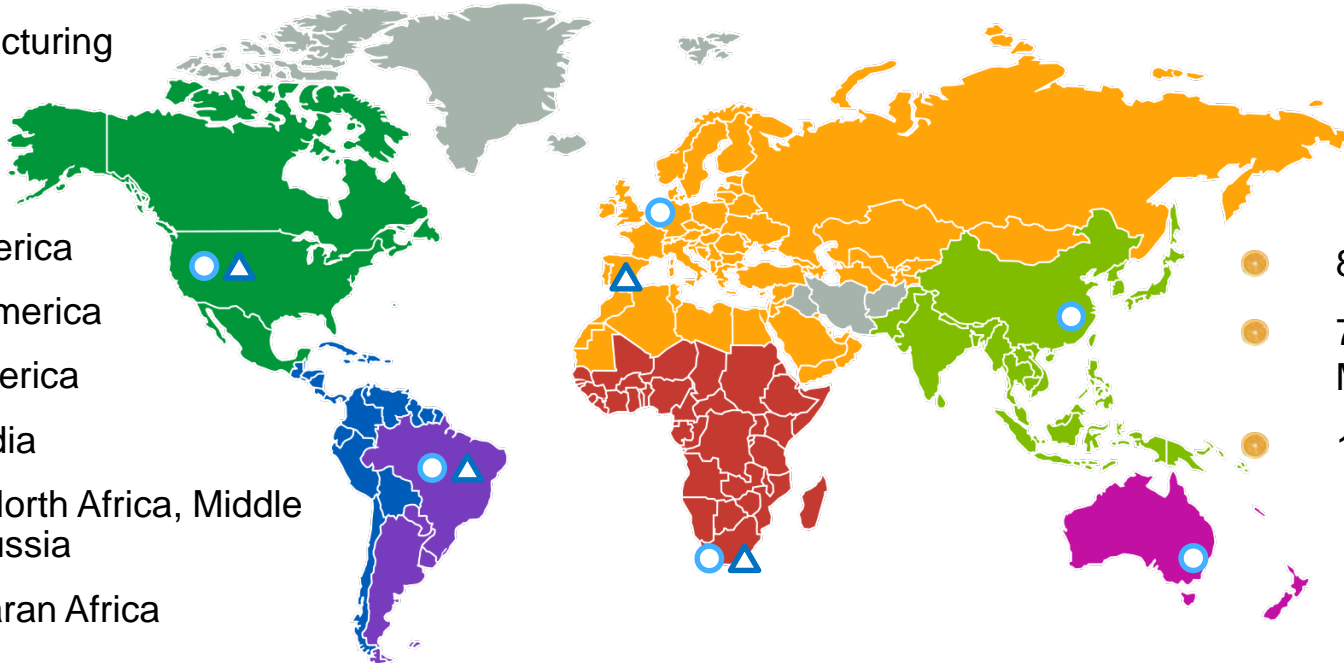
- Established 2001 in South Africa develops and manufactures patented products for agricultural, home and industrial applications worldwide, specializing in products that are safe to the user and environment and that provide an effective, yet residue free solution to our clients.
- Product categories include adjuvants, pesticides, soil conditioners and foliar fertilizers.

Oro Agri



- Regional Offices
- △ Manufacturing

- North America
- Central America
- South America
- Asia & India
- Europe, North Africa, Middle East & Russia
- Sub-Saharan Africa
- Australia



- 87 countries
- 7 Regional Managers
- 120 employees

Products for late blight control



PREV-AM™

- Multipurpose product including the a.i. orange oil that can be used as insecticide, fungicide and acaricide.
- The product works by disrupting the protective waxy layers of insects and fungi resulting in desiccation of the target.
- Targeted to be certified for organic production.

Products for late blight control



- Premium adjuvant for insecticides, fungicides and herbicides, provides excellent spreading, deposition and penetration.
- Certified for organic use in some EU countries.

Trials with PREV-AM

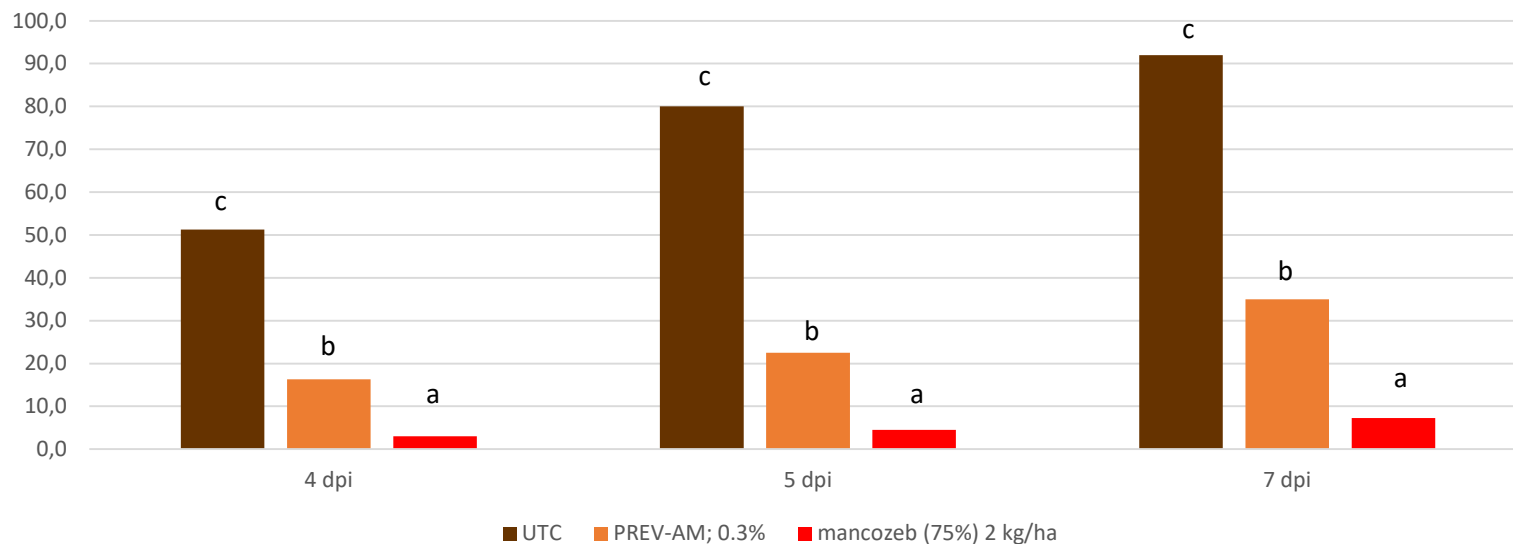


- 3 greenhouse trials in 2016 (1) and 2017 (2)
- Trials included an untreated control and a reference product treatment
- Design: Randomized complete block with 4 replicates.
- PREV-AM was applied 3 days (2) or 1 day (1) before artificial inoculation with *P. infestans*.
- % necrotic foliage was assessed at different timings after the inoculation.

PREV-AM 1



% necrotic foliage



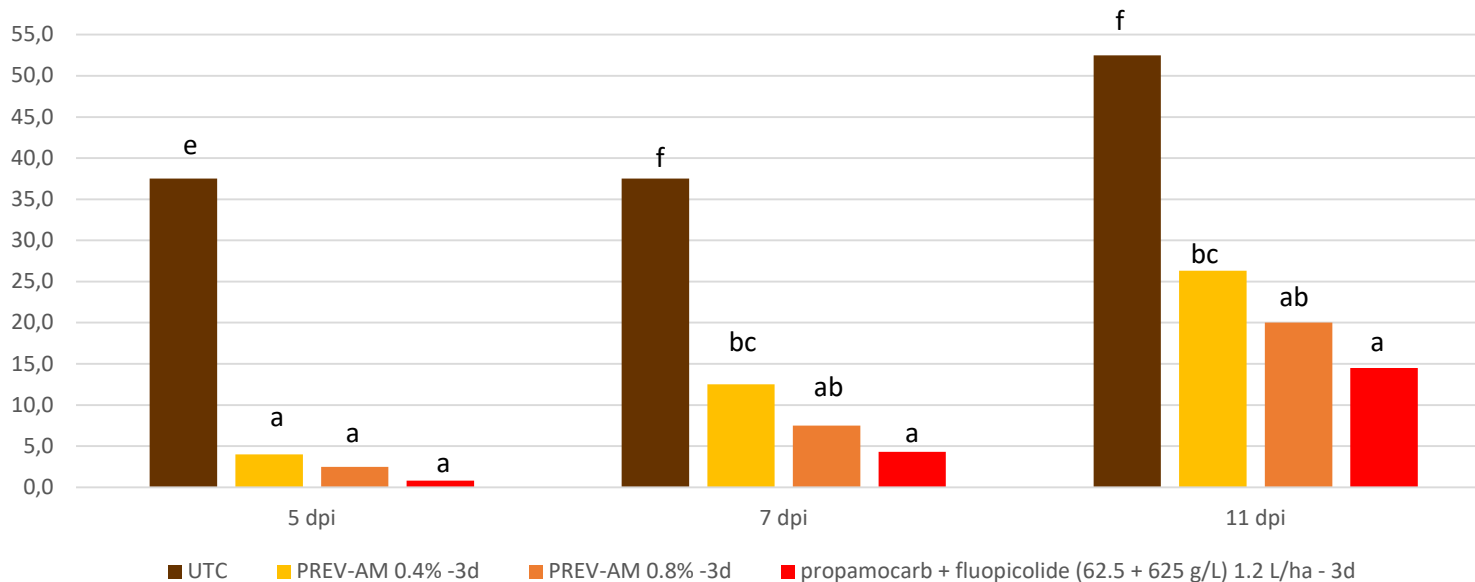
	4 dpi	5 dpi	7 dpi
UTC	51.3	80.0	92.0
mancozeb (75%) 2 kg/ha	3.0	4.5	7.3
PREV-AM 0.3%	16.3	22.5	35.0

Trial conducted at
 **WAGENINGEN**
UNIVERSITY & RESEARCH

PREV-AM 2



% necrotic foliage



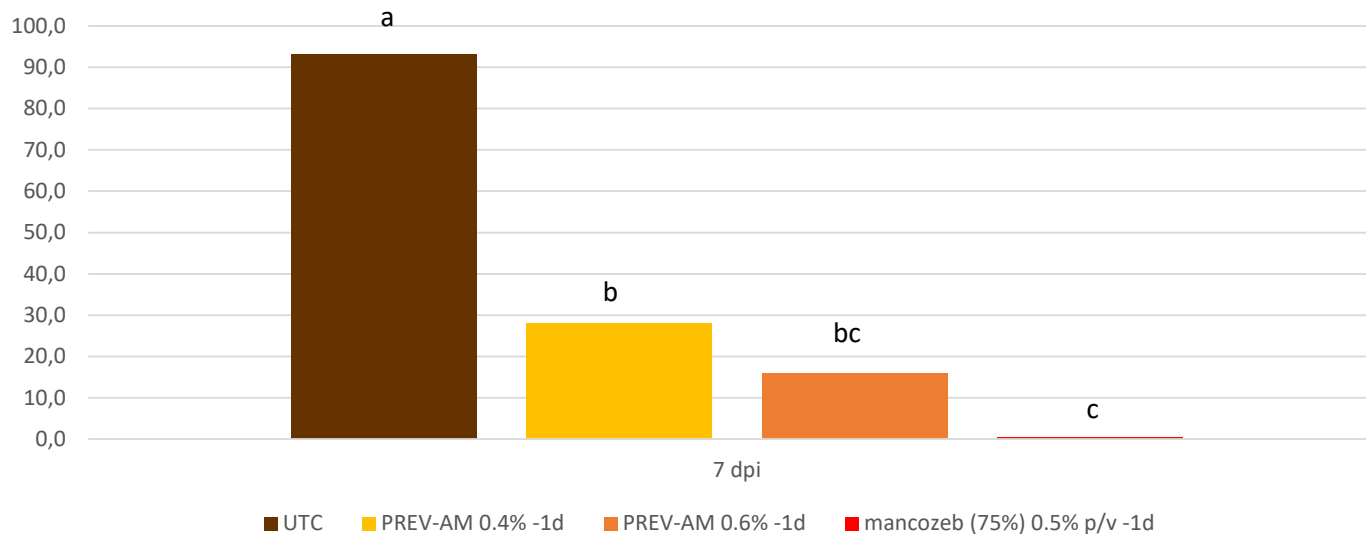
	5 dpi	7 dpi	11 dpi
UTC	37.5	37.5	52.5
PREV-AM 0.4% -3d	4.0	12.5	26.3
PREV-AM 0.8% -3d	2.5	7.5	20.0
propamocarb + fluopicolide (62.5 + 62.5 g/L) 1.2 L/ha - 3d	0.8	4.3	14.5

Trial conducted by
 **WAGENINGEN**
 UNIVERSITY & RESEARCH

PREV-AM 3



% necrotic foliage



	7 dpi
UTC	93.0
PREV-AM 0.4% -1d	27.9
PREV-AM 0.6% -1d	15.8
mancozeb (75%) 0.5% p/v -1d	0.5

Trial conducted by



Trial with WETCIT



- One field trial in 2016
- Trials included an untreated control, a reference product treatment and a total of 11 different treatments with different late blight control programs.
- Design: Randomized complete block with 4 replicates.
- We compared the results of the addition of WETCIT to a program that includes 5 treatments of mandipropamid (250 g/L), 4 treatments of propamocarb + fluopicolide (625 + 62.5 g/L) and 1 treatments of cyazofamid (160 g/L) vs. same program without WETCIT.
- % foliage damage was assessed at 6 different timings during the trial.

Spray program

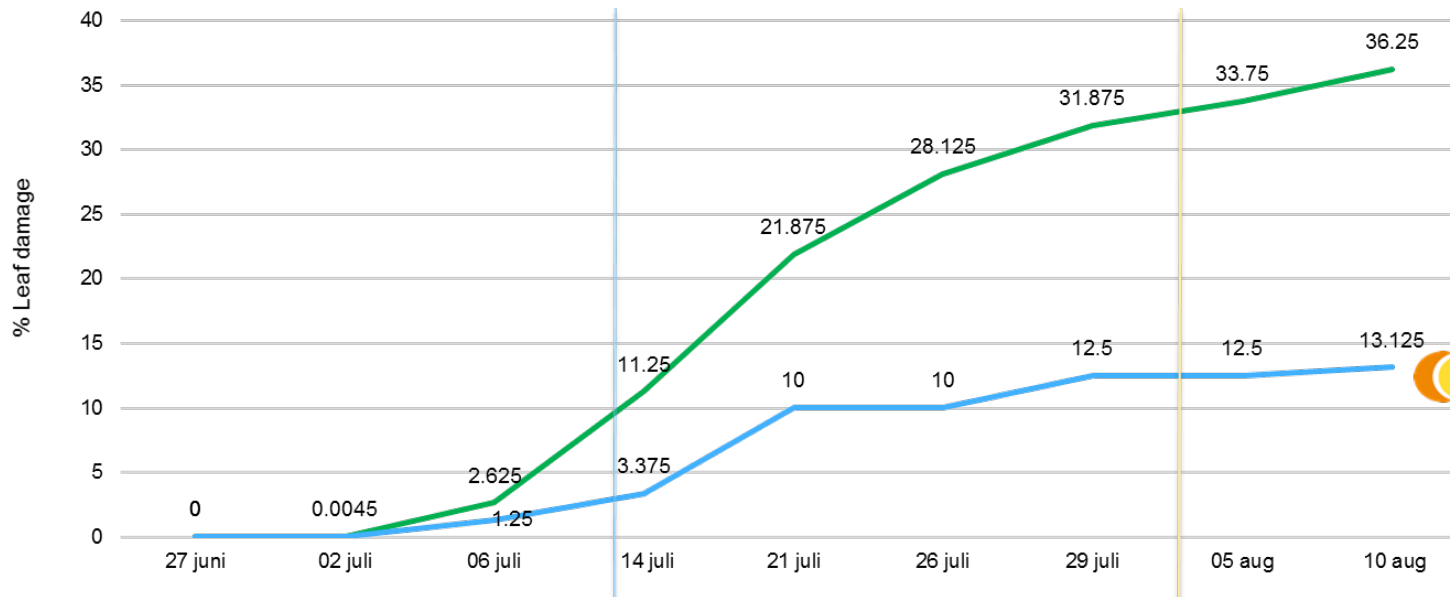


	16-Jun	23-Jun	01-Jul	06-Jul	13-Jul	14-Jul	18-Jul	25-Jul	29-Jul	03-Aug	08-Aug
Treatment Number	T1	T2	T3	T4	T5-1	T5-2	T6	T7	T8	T9	T10
A	0.6 L/ha mandipropamid (250 g/L)						1.2 L/hapropamocarb + fluopicolide (625 + 62.5 g/L)				0.5 L/ha cyazofamid (160 g/L)
K	0.6 L/ha mandipropamid (250 g/L) + 0.25 % Wetcit						1.2 L/ha propamocarb + fluopicolide (625 + 62.5 g/L) + 0.25 % Wetcit				0.5 L/ha cyazofamid (160 g/L) + 0.25 % Wetcit

Results



% Evolution of leaf damage by Late Blight



Trial conducted by



0.6 L/ha mandipropamid (250 g/L)

1.2 L/ha propamocarb + fluopicolide (625 + 62.5 g/L)

0.5 L/ha cyazofamid (160 g/L)

Summary



- Both tested products have proven to possess great potential to help control potato late blight both in conventional and organic potato production.
- PREV-AM provides a good preventive action delaying the development of late blight. It can therefore be included in traditional spraying programs and can possibly be an alternative to copper in organic potato production.
- WETCIT has impressively shown to be a perfect partner for your traditional spraying program helping to achieve the maximum efficacy of the sprayed products.
- Both products will be further tested to confirm the shown results under different conditions.

Thank you for your attention!

