

# PREVENTING BLOSSOM END ROT IN TOMATOES WITH AMBIORIX: A SUCCESS STORY



The next generation of iron fertigation is provided by iron complexed by polyphosphates, a technology which offers many advantages over chelates. **Ambiorix**, Roam Technology's unique iron fertiliser does not only provide your crop with plant-available iron, but also with phosphorus and potassium. Furthermore, it enhances the uptake of cationic nutrients, such as calcium.

## THE CHALLENGE

Intensive cultivation faces many challenges including the provision of sufficient macro- and micronutrients by fertilisers. If not, symptoms such as blossom end rot caused by a calcium deficiency can occur easily. However, supplementing your crop with those nutrients is one thing, but the formula and conditions they are in completely determine the final availability. Furthermore, the constant disease pressure necessitates the use of disinfectant products or techniques which might affect the fertilisers. Ideally, a specific nutrient fertiliser transfers those nutrients to the plants in a range of conditions and is also compatible with different disinfectant methods. **Ambiorix** combines all these characteristics in one product.

## OUR SOLUTION

To fully show the power of **Ambiorix**, a trial with tomatoes (Savantas) at the Botany was performed. Blossom end rot was induced in this trial to compare the effectiveness of **Ambiorix** (35 µmol/L Fe) and the often used DTPA 3% (35 µmol/L Fe) to prevent this symptom.

The use of **Ambiorix** as iron fertiliser resulted in a generally higher yield throughout the cultivation compared to the DTPA 3% treatment (Fig. 2).



Fig. 1: Tomato trial at the Botany.

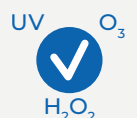
## THE BENEFITS

- » Guaranteed transport of nutrients to the plants' roots by the polyphosphates
- » Reduced risk of nutrient deficiencies
- » Iron fertiliser that can be combined with disinfectants throughout the cultivation

## RECOMMENDED PRODUCT



Fully  
plant-available  
iron



100% compatible  
with UV, ozone &  
hydrogen peroxide



Enhanced  
micronutrients  
assimilation



Includes  
polyphosphates

Moreover, the percentage of fruits with blossom end rot symptoms reduced significantly at every harvest (Fig. 3). This indicates that **Ambiorix**, besides being an ideal iron source, additionally enhances uptake of other cationic nutrients such as calcium.

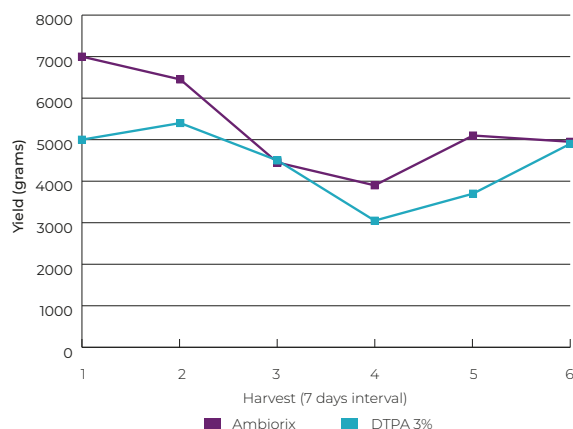


Fig. 2: The tomato yield (gram) per harvest after treatment with Ambiorix or DTPA 3%.

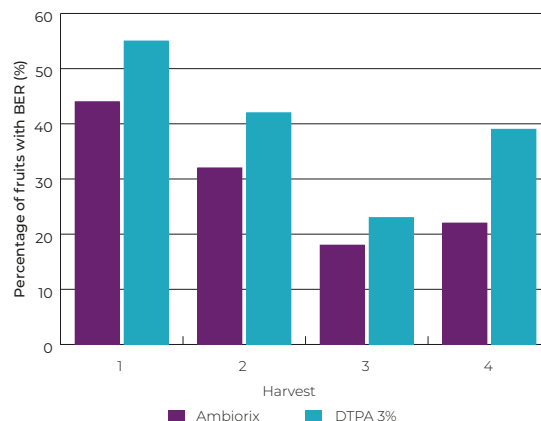


Fig. 3: The percentage of tomato fruits showing blossom end rot symptoms after treatment with Ambiorix or DTPA 3%.

Additionally, to show the full compatibility of **Ambiorix** with disinfectants, the University of Ghent compared the effect of UV+H<sub>2</sub>O<sub>2</sub> and O<sub>3</sub> (Fig. 4) on **Ambiorix** and other frequently used iron fertilisers. Clearly, **Ambiorix** is not affected by any of the disinfectant methods used, guaranteeing an effective disinfection without compromising the iron availability.

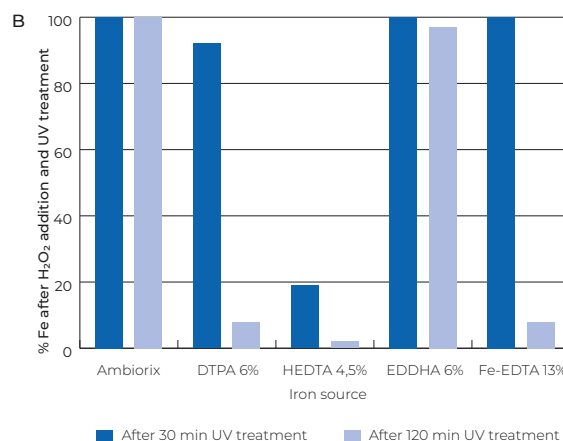
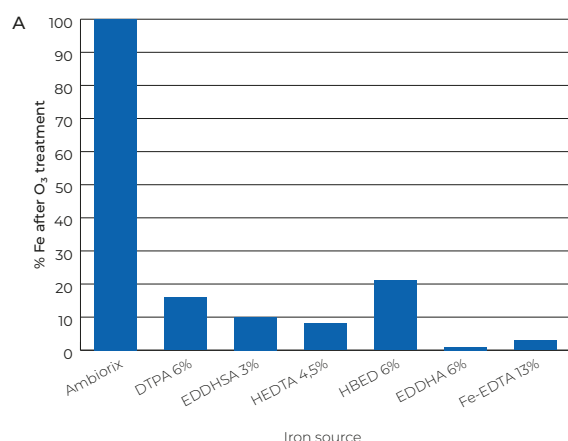


Fig. 4: Percentage of iron in solution after O<sub>3</sub> treatment (A) and after H<sub>2</sub>O<sub>2</sub> addition and UV treatment (B).

## CONCLUSION

**Ambiorix** guarantees continuous availability of iron and essential nutrients, preventing quality-reducing symptoms like blossom end rot. Furthermore, O<sub>3</sub> as well as a combination of H<sub>2</sub>O<sub>2</sub> and UV treatment can be applied simultaneously with **Ambiorix** preventing the incidence and spread of harmful pathogens while providing the necessary iron and other nutrients.

*Trial was performed with the solid formulation of this fertiliser.*

