

# Banjo® Forte, extra powerful against phytophthora, protects leaf and tuber

## Introduction

Banjo Forte is the new potato late blight fungicide from Adama. The product was launched in 2013 and has been approved now in many European countries. Because of the unique combination of two active ingredients, Banjo Forte is a very strong product against potato late blight.

## Banjo Forte provides:

- A perfect solution against leaf- and tuber blight
- A strong side effect on white mold
- Very good rain fastness

## Banjo Forte content

Banjo Forte is a SC formulation which contains two active ingredients, fluazinam and dimethomorph. The mode of action of fluazinam is preventative and anti sporulating. Dimethomorph is systemic and moves upwards in the treated plant stem and into the growing leaves. It affects cell wall production in fungi by inhibition of sterol synthesis and is effective against all different strains of Phytophthora infestans.

## EuroBlight trials

Banjo Forte was included in EuroBlight trials in different European countries during 2006-2012. The average results are represented in Figure 1.

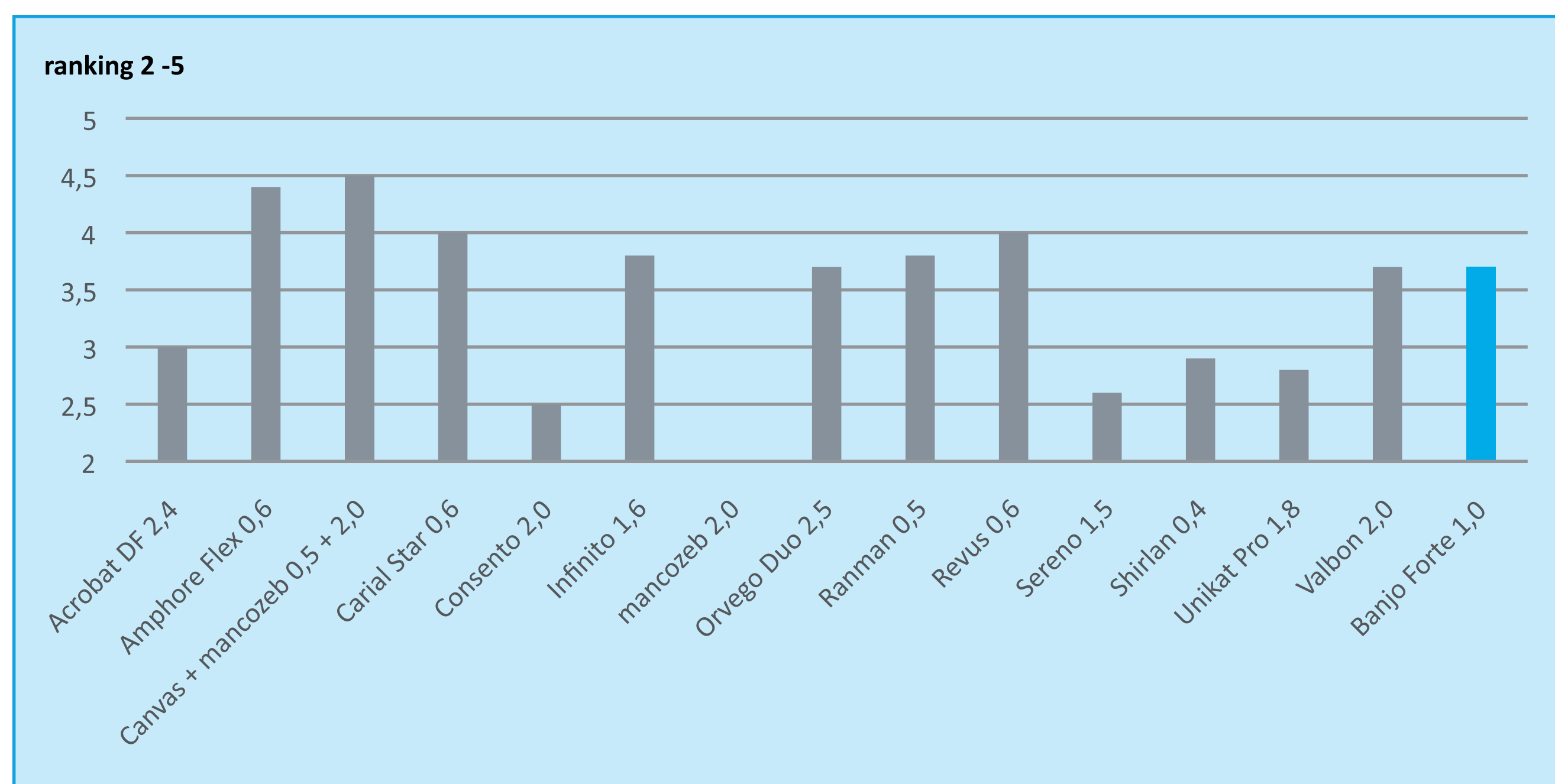
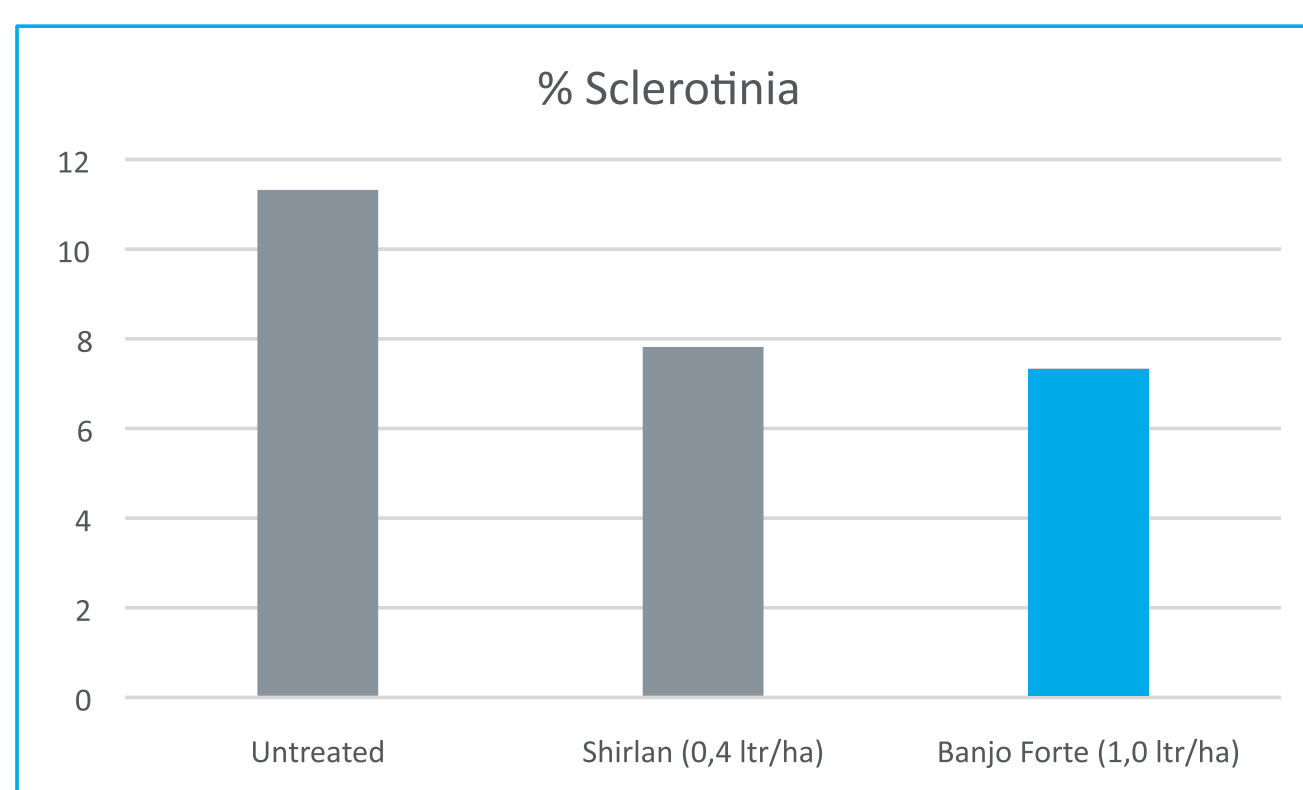


Fig. 1. EuroBlight trial program 2006-2012

## Banjo Forte controls white mold

An upcoming disease in Europe is white mold (picture 1), caused by *Sclerotinia sclerotiorum*. In 2014 in the Netherlands, a trial has been conducted by PPO (Praktijkonderzoek Plant en Omgeving). Goal of this trial was to show the efficacy of different late blight fungicides towards white mold (figure 2).

Fig. 2. Banjo Forte efficacy against white mold >>



Picture 1. \*Sclerotinia sclerotiorum >>

## Banjo Forte - Resistance testing

Since 2011 Adama is carrying out a resistance program in which Banjo Forte is included. Since 4 years some resistance testing for Banjo Forte in Europe. In six countries *P. infestans* samples are taken and tested by Epilogic in Germany. Infected leaves from different sites are placed in humid Petri dishes and incubated to encourage sporulation. The sporangia of the single colonies are transferred for maintenance and propagation onto fresh material. Afterwards the wet leaves are placed in a dark cold site to encourage the release of zoospores.

## Results

In 2014 samples from France, The Netherlands, United Kingdom, Germany, Sweden and Poland were sent to EPILOGIC to be analyzed. The highest MEC50 values were calculated from an English sample (6.1 mg a.i./l). The MEC50 of the sensitive standard was 3.47 mg a.i./l. There were no significant differences of MEC50 found values compared to the sensitive standard. All samples showed full sensitivity against dimethomorph.

Also on more recently found *P. infestans* strains, the efficacy of Banjo Forte is good. In several pot trials in the Netherlands, Banjo Forte showed good control of *P. infestans* strains like Green33 and Blue13 (picture 2).



Picture 2. \*pottrial PPO, 2012, NL. Plants inoculated with Green33. Untreated control vs. Banjo Forte.



## Summary

- Banjo Forte is one of the first LateBlight blight fungicides of Adama Agricultural Solutions Ltd.
- Unique combination of two active ingredients contributes to:
  - o Better efficacy
  - o Resistance management
- Very good side effects on other potato diseases
  - o White mold

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