BANJO FORTE
A new product in the late blight market

DAPHNA BLACHINSKY & OLAF VAN CAMPEN

Makhteshim Agan, Golan Street, Airport City, 70151, Israel
Introduction
Banjo Forte is the new potato late blight fungicide from Makkeshin Agan. This product has been launched in 2013 and will be registered all over Europe. Because of the unique combination of two active ingredients, this 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 preventive and anti sporulating.

The mode of action of dimethomorph is effective against all different strains of Phytophthora infestans.

This active ingredient redistributes in the new leaves of the potato plant.

Multi year multi site Euroblight trials
Makkeshin Agan participated in Euroblight trials in different European countries. The average results are represented in Figure 1. “Based on Euroblight trials in NL, UK, DK, 6 to 19 trials.

Banjo Forte controls white mold
An upcoming disease in Europe is white mold, caused by Sclerotinia sclerotiorum. In 2012 in the Netherlands, a trial has been conducted by PPO (Plantenonderzoek Plant en Ongereiniging) for the Productschap Akkerbouw. Goal of this trial was to show the efficacy of different late blight fungicides towards white mold (Figure 2).

Banjo Forte - Resistance testing
In 2011 and 2012 Makkeshin Agan did some resistance testing for Banjo Forte in Europe. In six countries P. infestans samples have been taken and tested by Epilogic in Germany. Infected leaves from different sites were placed in humid Petri dishes and incubated to encourage sporulation. The sporangia of the single colonies were transferred for maintenance and propagation onto fresh material. Afterwards the wet leaves were placed in a dark cold site to encourage the release of zoospores.

Results
Samples from France, Netherlands, United Kingdom, Germany, Sweden and Poland were sent to EPLOGIC to be analyzed. The highest NEC50 values were calculated from a French and German sample (9.4 mg/l a.i.). The NEC50 of the sensitive standard was 4.4 mg/l a.i. There were no significant differences of NEC50 found values compared to the sensitive standard. All samples showed full sensitivity against dimethomorph.

Also on new 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 Blue 3 (picture 2).

Summary
- Banjo Forte is one of the first late blight fungicides of Makkeshin Agan.
- Unique combination of two active ingredients, contributes to:
  - Better efficacy
  - Resistance management
- Very good side effect on other potato diseases
- White mold

---

Fig. 1: Multi site efficacy towards late blight, 2006-2011

Fig. 2: Banjo Forte efficacy against white mold

---

Photo: Plants inoculated with Green33, Uninoculated control vs. Banjo Forte