Revus Top

A new product for the control of *P. infestans* and *Alternaria* in potatoes in Europe.

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A new product for the control of *P. infestans* and *Alternaria* in potatoes in Europe

| Product | Revus Top |
| Aim | To control with one product two main diseases in potatoes |
| Formulation | SC |
| Active ingredients | 250 g/l mandipropamid and 250 g/l difenoconazole |
| Crop | Potatoes |
| Target | *Phytophthora* infestans and *Alternaria* spp. |
| Rate | 0.6 /ha |
| Number of sprays | Max 3 times/season |
Mandipropamid

- gives inhibition of cellulose biosynthesis
- is highly active on spore germination
- is specific to Oömycetes
- is residual and preventative with some translaminair activity
- has a high affinity to the wax layer and strong rain fastness properties
- is registered against *P. infestans* since 2006 in most EU countries
Difenoconazole

- gives inhibition of the sterol biosynthesis in cell membranes
- is translaminair, preventative and curative
- is not active on Oömycetes
- is quickly taken up in the plant tissue
- is registered in South Europe against *Alternaria* in potatoes
- and in almost all EU countries against *Alternaria* in a variety of vegetables
Comparison efficacy of several active ingredients against Late Blight - Preventative

Mandipropamid is very strong late blight compound
Difenoconazole against Early Blight (*A. solani*) - Preventative

Difenoconazole is very strong early blight compound
Difenoconazole against Early Blight (A. solani) - Curative

Difenoconazole is very strong early blight compound
Difenoconazole efficacy on *A. solani* and *A. alternata*

Difenoconazole is more active on *A. solani*
22 trials with Late Blight were distributed in the major potato growing regions.
Efficacy of Revus Top and Revus against Late Blight (n=22)
Control of *Phytophthora infestans* in potatoes (2011 - Benelux)
Control of *Phytophthora infestans* in potatoes (2011 - Benelux)

- 6-7 day schedule
- 3 X Shirlan/ Treatments/Shirlan
- Spray 10 : 2/8
- Revus
- Revus Top
- 6 X Revus 0.6
- 3 x Revus 0.6/ 3x RT 0.6
- 6 X Revus Top 0.6
- 6 X Standard 1
- 6 X Standard 2
- 6 X Standard 3

Controlled experiments with different fungicides and their effects on potato plants infected with *Phytophthora infestans*.
13 location of the Early Blight trial sites
Efficacy of Revus Top and reference products against Early Blight (n=9)
Control of *Alternaria solani* in potatoes (2011 - Benelux)

- **3X Amistar 0.25 op T7, T9, T11**
- **Standaard 1**
- **6 x Standaard 2 van T1-T6**
- **3x Revus Top 0.6 op T4, T6, T8**

% Attack

24-aug | 29-aug | 1-sep

[Graph showing the percentage attack from 24-aug to 1-sep with different treatments and their effects on the percentage of attack.]
Size distribution of tubers from plots treated with Revus Top or Revus in potato Late Blight trials (n=16)
Size distribution of tubers from plots treated with Revus Top, and reference compounds in potato Early Blight trials (n=6)
Yield data in potatoes in presence of Late Blight (n=18)
Yield data in potatoes in presence of Early Blight (n=9)
Other factors of importants

● Revus Top ........ in 35 trials in 11 different countries with 19 different varieties shows no adverse or phototoxic effects observed.
● Revus Top........ is not harmful to honeybees
● Revus Top........ is safe to *Aphidius rhopalosiphi, Typhlodromus pyri*, earthworms and soil micro-organisms.
● Revus Top........ has no negative impact on propagation material.
● Revus Top........ has no restrictions on following crops.
● Revus Top........ has no restrictions on adjacent crops.
● Revus Top........ has a low resistance risk for mandipropamid/*P. infestans* and a medium risk for Difenoconazole/A. sp. the maximal number of three registered applications is regarded as sufficient to minimize selection, no additional anti-resistance strategies are deemed necessary.
In Summary

Revus Top is effective against *Phytophthora* and *Alternaria* in potatoes. A new active ingredient against *Alternaria* is safe for crop, yield and grading. It is safe for beneficials and has no negative impact following crops. It has low to medium resistance risks. Registrations are expected for 2012 and 2013.
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