Initium based products for the control of *Phytophthora infestans*

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Topics

Product Profiles

- Biology of the products
  - Field performance (foliar blight)
  - Rainfastness
  - Tuber blight efficacy
### BAS 651 F and BAS 653 F

**Product profiles**

<table>
<thead>
<tr>
<th></th>
<th>BAS 651 F</th>
<th>BAS 653 F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active ingredients</strong></td>
<td>Initium® + Dimethomorph</td>
<td>Initium® + Mancozeb</td>
</tr>
<tr>
<td><strong>Mode of action</strong></td>
<td>Complex III inhibitor +</td>
<td>Complex III inhibitor +</td>
</tr>
<tr>
<td></td>
<td>Inhibition of phospholipids</td>
<td>Multi-side</td>
</tr>
<tr>
<td></td>
<td>biosynthesis and for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>interference with cell wall</td>
<td></td>
</tr>
<tr>
<td><strong>Formulation</strong></td>
<td>300 + 225 g/l SC</td>
<td>80 + 480 g/kg WG</td>
</tr>
<tr>
<td><strong>Target dose rate</strong></td>
<td>0.8 l/ha</td>
<td>2.5 kg/ha</td>
</tr>
<tr>
<td>(potato)*</td>
<td>(= 240 + 180 gai/ha)</td>
<td>(= 200 + 1200 gai/ha)</td>
</tr>
<tr>
<td><strong>Target disease</strong></td>
<td>Phytophthora infestans</td>
<td>Phytophthora infestans,</td>
</tr>
<tr>
<td>(potato)*</td>
<td></td>
<td>(Alternaria spp.)</td>
</tr>
<tr>
<td><strong>First Registration</strong></td>
<td>2009 (RO)</td>
<td>2010</td>
</tr>
<tr>
<td>(expected)</td>
<td>2010 (further countries)</td>
<td></td>
</tr>
<tr>
<td><strong>Further target crops</strong></td>
<td>different vegetables, hops</td>
<td>Leek, Onions</td>
</tr>
<tr>
<td><strong>Further target diseases</strong></td>
<td>Phytophthora, downy mildews</td>
<td>Phytophthora, downy mildews</td>
</tr>
</tbody>
</table>

* General information; the country-specific labels must be considered
Combining the premium preventive and translaminar action

BAS 651 F (Initium® + Dimethomorph)
Combining the premium preventive action of two a.i.s

BAS 653 F (Initium® + Mancozeb)

X = Initium

X = Mancozeb
Topics

Product Profiles

- Biology of the products
  - Field performance (foliar blight)
  - Rainfastness
  - Tuber blight efficacy
BAS 651 F (Initium® + Dimethomorph) in comparison to market standards

- Standard 1 (0.4 l/ha)
- Standard 2 (0.6 l/ha)
- Standard 3 (1.6 l/ha)
- Standard 4 (0.2 l/ha)

- Untreated
- BAS 651 F
- Competitor

Fluazinam (200 gai/ha) n = 36
Mandipropamid (150 gai/ha) n = 36
Fluopicolide + Propamocarb (100 + 1000 gai/ha) n = 30
Cyazofamid (80 gai/ha) n = 36

➤ BAS 651 F is comparable to the market standards
BAS 653 F (Initium® + Mancozeb) in comparison to market standards

BAS 653 F is comparable or better than the market standards.
Topics

- Product Profiles
- Biology of the products

Field performance (foliar blight)

- Rainfastness
- Tuber blight efficacy
Rainfastness Trial
(Germany – Palatinate area - Böhl, 2008)

Trial: DEV-F-2008-P18-VTF-383; Location: Böhl; Variety: Bintje, No. of appl.: 4 appl.; \( \text{H}_2\text{O} \): 400 l/ha; Initial attack: 1%

- **Method:** according to Euroblight protocol
- **Variety:** Bintje
- **Application dates:** 13.06., 19.06, 30.06, 14.07
- **Irrigation:**
  - No irrigation
  - 20 mm
    - 1 h after application
  - 20 mm
    - 3 h after application
  - 40 mm
    - 1 h after application
  - 40 mm
    - 3 h after application
Rainfastness Trial (Germany – Palatinate area - Böhl, 2008)

Trial: DEV-F-2008-P18-VTF-383; Location: Böhl; Variety: Bintje; No. of appl.: 4 appl.; H20: 400 l/ha;
Assessment shown: 14 days after last treatment

Both products display a rainfastness as good as the market standards
Both products display a rainfastness as good as the market standards.
Topics

- Product Profiles

- Biology of the products
  - Field performance (foliar blight)

Rainfastness

- Tuber blight efficacy
What can we expect from Initium® based products in terms of tuber blight control?

Inoculum
- Due to the good performance on foliar blight the inoculum will be reduced
- In the mixture with DMM sporangia formation will be reduced

Viability and Mobility of Zoospores
- Sporangia germination and zoospore release is inhibited
- In the presence of Initium® already released spores burst within seconds
Tuber blight trial
UK, Agrisearch Ltd. 2005 (Marloes & Talbenny)

% tubers Infected
(Weight at harvest)

Untreated
Initium + Mancozeb
(200 + 1200 gai/ha)
Initium + Dimethomorph
(240 + 180 gai/ha)
Fluazinam
(200 gai/ha)
Cyazofamid
(80 gai/ha)

Statistik: SNK-test
Tuber blight trial
FR, BASF 2006 (Saint Julien & Ligny Saint Flochel)

% tubers Infected
(Weight at harvest)

- Untreated
- Initium + Mancozeb (200 + 1200 gai/ha)
- Initium + Dimethomorph (240 + 180 gai/ha)
- Fluazinam (200 gai/ha)

Statistik: SNK-test
Tuber blight trial
NL, Hulshof, 2005 (Valthermond)

% tubers Infected
(Weight at harvest)

Untreated  Initium + Mancozeb  Initium + Dimethomorph  Fluazinam  Cyazofamid
(200 + 1200 gai/ha)  (240 + 180 gai/ha)

Statistik: SNK-test
Tuber blight trial
NL, BASF 2007 (Helvoirt)

% infected tubers

- Untreated: 46.0%
- Initium + Dimethomorph (240 + 180 gai/ha): 22.0%
- Initium + Mancozeb (200 + 1200 gai/ha): 21.5%
- Fluazinam (200 gai/ha): 26.0%

Statistik: SNK-test
Overall Conclusions

- Foliar activity: the activity of both Initium products is comparable to the best market products.  
  ⇒ BAS 653 F got a preliminary Euroblight rating of 3.6!

- Rainfastness: Initium products provide an excellent rainfastness comparable to Revus and Ranman.  
  ⇒ Therefore a rainfastness rating of three dots was proposed.

- Tuber Blight: First trial results have shown that the tuber blight control provided by the Initium® products is on the same level as Shirlan.  
  ⇒ Therefore a tuber blight rating of four dots was proposed.
Initium®.. forms a premium preventive shield FOR THE CROP

offers confidence and convenience FOR THE GROWER

has a favourable profile FOR THE ENVIRONMENT

A Plus for you