PMV®-01

Vaccination against PepMV damage on tomatoes

IR-4
Biopesticide workshop
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Symptoms

PepMV

Damage in case of severe PepMV infection causes (EU):

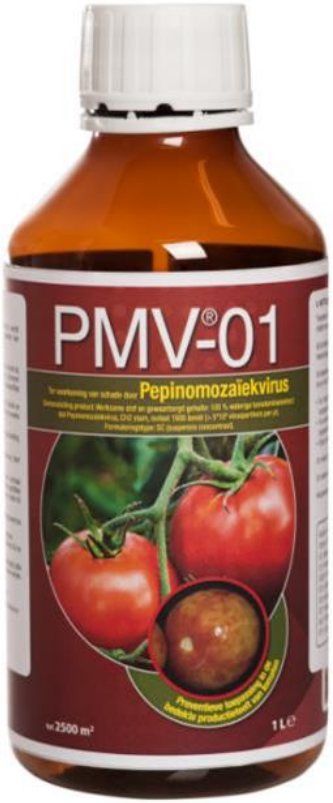
Production loss: 4 to 12 %
Quality loss: 4 to 15 %

Differences in loss can be explained by

- Pure isolate ⇔ mixed infection
- Mild ⇔ agressive isolate
- Time of infection
- Variety
- Climate conditions

No solutions available!

PMV®-01



a.i.: PepMV, strain CH2, isolate 1906

Formulation: SC (Suspension concentrate)

Target: Pepino Mosaic Virus (PepMV) in tomato GHs

Vaccine based on Cross Protection Mechanism

A plant infected by a certain virus cannot
be infected again by another virus similar to the first virus

Low risk biological plant protection product

Efficacy

Preliminary range-finding tests
Climate chambers

↓ Minimum dose needed for efficient infection

4 GEP studies
2 L/ha

↓ Aggressive isolate not able to infect vaccinated plants
Mild leaf symptoms might appear
No fruit symptoms

5 non-GEP studies
2 L/ha – pressure 2 to 10 bar

↓ Effective protection
No detrimental fruit symptoms
Slow colonization: Faster with higher dose?

2 GEP studies
2 L/ha – 4 L/ha – (6 L/ha) - 8 L/ha

↓

4 L/ha sufficient to obtain fast, good colonization
8L/ha when a very fast colonization is needed

Efficacy

4 L/ha sufficient to obtain fast, good colonization
8L/ha when a very fast colonization is needed

Additional studies to test the effect of plant care treatment, of other climatological conditions and of a more aggressive challenge strain

Non-GEP study 4 L/ha + plant treatment – 4 L/ha – 8 L/ha	GEP study 4 L/ha – artificial light Very aggressive challenge	GEP study 4 L/ha – Southern climate Very aggressive challenge
Plant care treatment results in faster colonization, and thus faster protection of the crop	No fruit symptoms 2,7 % more fruits harvested in the treated plot	No leaf and no fruit symptoms 112 % more marketable fruits in the treated plot

Registration

Europe

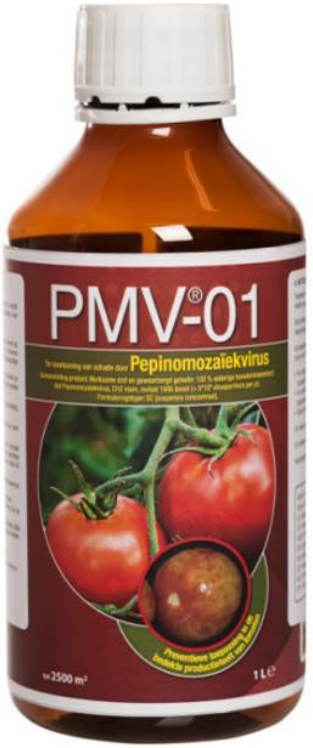
Active ingredient: authorized since 2015

PMV®-01 (end product) authorized

- 2015 in Belgium
- 2016 in Austria, Czech Republic, France, UK, Hungary, The Netherlands,
- expected soon in Portugal, Italy, Poland, Spain, Greece, Germany…

Emergency authorizations of PMV®-01

- since 2011 in Belgium, France, Germany, Switzerland, The Netherlands



Morocco (Africa)

PMV®-01 authorized since April 2015

Already more than 3000 ha of excellent results !