

# **Renewal Assessment Report**

***Lecanicillium muscarium* Ve6**

**- Mycotal -**

**Volume 3MP – B.8 Fate and behavior in the environment**

**January 2018**

**Rapporteur Member State: The Netherlands**

**Co-Rapporteur Member State: France**

## Version history

When	What
January 2018	Initial RAR

## **Table of contents**

### **B Summary, evaluation and assessment of the data and information**

<b>INTRODUCTION .....</b>	<b>4</b>
<b>B.8 Fate and behaviour in the environment .....</b>	<b>5</b>
<b>B.8.1 References relied on .....</b>	<b>6</b>

## INTRODUCTION

Note to reader:

Information from the original DAR and/or addenda to the DAR is highlighted grey.

The company Koppert B.V. is submitting a dossier for the re-approval of the microorganism *Lecanicillium muscarium* Ve6 (19-97), further referred to as *Lecanicillium muscarium* Ve6, as an active ingredient under regulation (EC) 1107/2009.

The Microbial Pest Control Agent *Lecanicillium muscarium* Ve6 (formerly *Verticillium lecanii* Ve6) was included in Annex I of Directive 91/414/EEC on 1 May 2009 pursuant to Article 24b of the Regulation (EC) No 2229/2004, (Commission Directive 2008/113/EC) and then approved according to the Commission Implementing Regulation (EU) No 540/2011 of 25 May 2011, implementing Regulation (EC) No 1107/2009 of the European Parliament. *L. muscarium* Ve6 was notified and defended by Koppert Beheer B.V. (Koppert B.V. is a 100% daughter company of Koppert Beheer B.V.). The active ingredient has been evaluated in The Netherlands according to Uniform Principles. The representative formulated product for the initial evaluation was the product MYCOTAL, containing  $1.0 \times 10^{10}$  spores/g.

The microorganism has been previously classified as *Verticillium muscarium*. The strain has been re-classified in 2001 as *Lecanicillium muscarium*, based on molecular analysis as RFLP and ITS sequence analysis by Zare & Gams. The taxonomy change was already considered for the peer review of the pesticide risk assessment of the active substance by EFSA<sup>1</sup>.

Although Zare & Gams reclassified members of *Verticillium* section Prostata IV to *Lecanicillium* and *Simplicillium* gen. nov. already in 2001, some recent publications in the open literature may still use the old designation. As long as no more information on taxonomy is provided, species identity has to be considered carefully.

*Lecanicillium muscarium* Ve6 is a ubiquitous entomopathogenic fungus, originally isolated in 1979 from the glasshouse whitefly *Trialeurodes vaporariorum*. The formulated product of *L. muscarium* Ve6 is used in greenhouses and tunnels against whitefly and thrips. Since the fungus needs high humidity for effective germination of spores, conditions during application need to be adequate. Therefore it is recommended to apply the product in the evenings in greenhouses and in closed tunnel systems to provide high humidity for at least 12 hours.

The corresponding product for the EU evaluation is MYCOTAL, formulated as water dispersible granules, containing  $1 \times 10^{13}$  spores of *L. muscarium* Ve6 per kg product.

Mycotal is intended for greenhouse uses and plastic tunnels (strawberries only) in fruiting vegetables of *Cucurbitaceae*, *Solanaceae*, strawberries, floriculture crops and tree nursery crops. The product is sprayed up to 36 times at a minimum interval of 7 days and a maximum rate of 72 kg/ha per crop/season. For more details please refer to the GAP table below.

---

<sup>1</sup> European Food Safety Authority; Conclusion on the peer review of the pesticide risk assessment of the active substance *Lecanicillium muscarium* strain Ve6, notified as *Verticillium lecanii*. EFSA Journal 2010; 8(1):1446. [45 pp.]. doi:10.2903/j.efsa.2010.1446. Available online: [www.efsa.europa.eu](http://www.efsa.europa.eu)

Here the data is presented that were previously evaluated by RMS The Netherlands in the DAR (June 2007) and DAR addenda (June 2009, October 2009), as well as new data and information based on literature searches and studies. Previously submitted information (consolidated from DAR and addenda) is highlighted in grey, and information on the original DAR Points and the respective EU Points is complemented where necessary.

Crop	F/G*	g a.s./ha per application	CFU/ha per application	Max. number of applications
fruiting vegetables of Cucurbitaceae	G	96	$2 \times 10^{13}$	12 per use; 36 per season
fruiting vegetables of Solanaceae	G	96	$2 \times 10^{13}$	12
strawberry	G	48	$1 \times 10^{13}$	12 per use; 24 per season
strawberry	F	48	$1 \times 10^{13}$	12 per use; 24 per season
floriculture crops, except cut roses	G	96	$2 \times 10^{13}$	4 per use; 24 per season
cut roses	G	144	$3 \times 10^{13}$	24
tree nursery crops	G	96	$2 \times 10^{13}$	24

\* F = field application; G = greenhouse application

## B.8 Fate and behaviour in the environment

None of the non-active substances of MYCOTAL is considered toxic. They are approved food additives or are food products. All the non-active substances of MYCOTAL are biodegradable.

Fate and behaviour of the active ingredient of MYCOTAL (*Verticillium lecanii* strain Ve6) is therefore considered relevant only.

See information provided in Annex IIB dossier *Verticillium lecanii* strain Ve6, Section 5, chapter IIM 7.

### New data 2016

Information from the original authorisation is still valid; all information for the assessment of the environmental fate and behaviour of *Lecanicillium muscarium* Ve6 (previously *Verticillium lecanii* Ve6) can be found in Volume 3-MA Section B.8.

### **B.8.1           References relied on**

No references were submitted in this section.