Beauveria bassiana J25

Product Information

1. A Registered Product for the Control of White Fly (Bemesia tabacii)

Product	BEAUVITECH® WP
Active agent	Beauveria bassiana J25
Agent Type	Insect-killing fungus
Product use	White flies (Bemesia tabacii)
Mode of Action	kills the insect by mechanical damage (resulting from tissue invasion), depletion of nutrients and release of toxins.
Product company	Dudutech
Experimental Site	Dummen orange on Poiensettia
Experiment done by	Melkassa Agricultural Research Center
Registered date	November,2020

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Ref. No. 9.7/2749/2020
Date: November 20, 2020
2749

MINISTRY OF AGRICULTURE
Plant Health & Product Quality Control Directorate
Addis Ababa

Subject: Submission of report for the verification of Entomopathogenic fungi, BEAUVITECH® WP
This is an official notification of the results of the candidate bio-control agent:
Trade Name: BEAUVITECH® WP
Scientific Name: *Beauveria bassiana*
Formulation (conc. and type): 1.0x1010 B. bassiana spores per gram in inert carrier

In which it is requested to develop a Local Efficacy Data through verification of the test product as per the agreement MOU No.86/2019.

In accordance with the results of greenhouse experiment extending for one season in 2020, BEAUVITECH® WP effectively controlled whitefly (*Bemisia tabacii*) on Poinsettia (*Euphorbia pulcherrima*) in the trial. Therefore it is recommended for the same purpose.

Attached herewith please find the results of the verification of BEAUVITECH® WP.

With regards,

Diriba Geleti (PhD)
Deputy Director General

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2. Mode of Action

The infection process is as follows:
Attachment – Spores of B. bassiana attach to the insect body and germinate.
Penetration – Fungal hyphae through enzymatic action break the insect cuticle and penetrate the insect body.
Multiplication – The fungus obtains nutrients from the insect and multiplies inside the insect, destroying internal tissues.
Death – The insect reduces its feeding and mobility and eventually dies after 3 – 5 days, depending on insect species, age and conidial dose.
Spore emergence – After insect death, spores emerge through the cuticle forming a white covering around the insect cadaver.
Note:- Relative humidity of above 70% and temperature between 18 – 30°C are essential for spore germination and infection. Infection occurs within 24 -48 hours of contact with the fungal spores. The infected insect may live for 3-5 days after hyphal penetration.

3. Rate of Application

RATE SCHEDULE	Dosage g/Ha	Interval (days)
Preventative	250	14
Light/Medium Curative	250	7
Heavy Curative	250	5-7

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4. Application Method

BEAUVITECH® WP is applied as a foliar spray:
Mix BEAUVITECH® WP with water at rate of 2 liters per 250g product; stir well to form a uniform suspension.
Add the suspension to the required volume of water in the spray tank and mix well.
Add the required amount of an appropriate wetter at recommended rates and mix thoroughly
After mixing with water, the product should be sprayed as soon as possible; DO NOT store overnight.
Apply using High volume spray equipment.
Thorough coverage of the leaf surfaces where the insects are to be found is a must to obtain good efficacy.
Maintain a minimum relative humidity of 70% for at least 8-12 hours. Highest infection levels are achieved at temperatures of between 20 - 28°C.

5. Time of Application

Best results will be achieved when applications are done late afternoon. Avoid spraying between 11am and 4pm when the UV light concentration is high and the relative humidity is low, as these factors affect B.bassiana spore germination.
Avoid fungicides at least 12 hours before and after application

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6. Storage

Store BEAUVITECH® WP in a cool, dry place in tightly closed original pack. May be stored in original unopened container for six months at temperatures of 10 - 20°C. Do not freeze and do not allow the product to undergo thermal shock.

7. IPM

Before the introduction of the pesticide, it is important that the plant is clean of negative chemical residues.

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