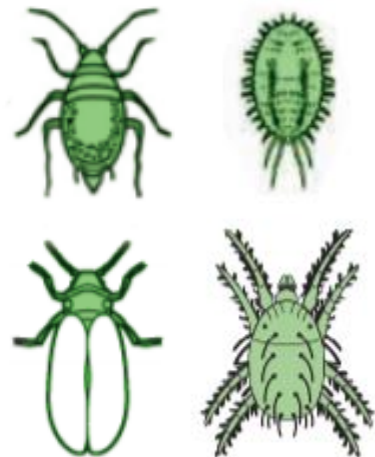




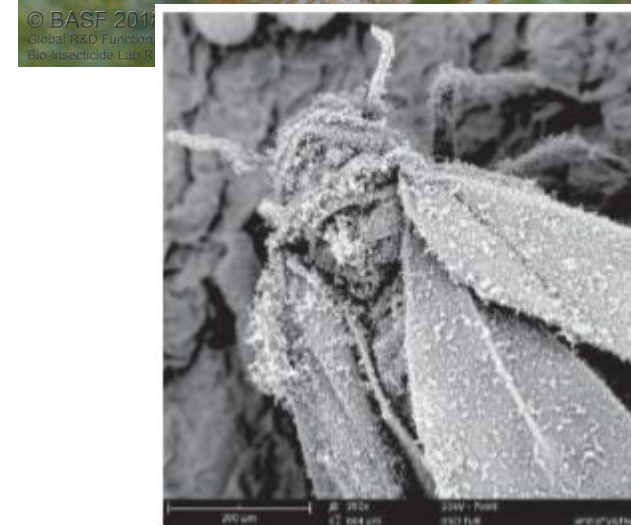
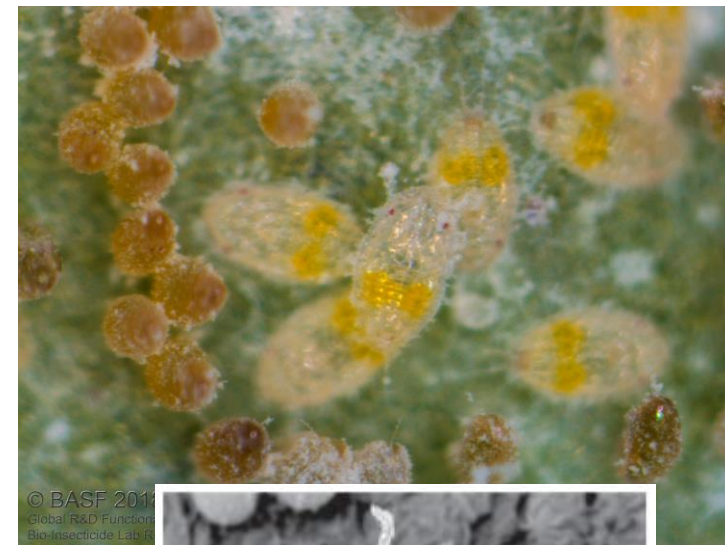
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Velifer™ Fungal Contact Insecticide/Miticide

Velifer™ Fungal Contact Insecticide/Miticide Product Profile

Active ingredient	<i>Beauveria bassiana</i> strain PPRI 5339 – BASF proprietary
Mode of action	Contact (germination → penetration → infection)
Formulation	Oil Dispersion (OD) formulation (min 8 x 10 ⁹ CFU/ml)
Crops	Ornamentals, fruits, vegetables, herbs and spices, including transplants for the home consumer market and agriculture
Target Pests	Whiteflies, Thrips, Mites, Mealybugs, Aphids
Application rate	3-13 fl oz/100 gallons H ₂ O
Number of applications	Recommend foundational – every 7 days
Spray interval	Dependent on pest pressure and thresholds 3-day minimum retreatment interval
PHI	0 days



Velifer™ Fungal Contact Insecticide/Miticide Label Overview

- **Greenhouse** labeled biological
- Fungal organism for insect management in ornamental and vegetable crops grown in greenhouse production
- Oil Dispersion (OD) formulation
 - ▶ Contains no petroleum distillates
 - ▶ Plant-based oil provides enhanced plant safety profile
- Packaged in 1-quart containers

Velifer™ Fungal Contact Insecticide/Miticide

Oil Dispersion Spore Concentrate of *Beauveria bassiana* strain PPRI 5339

For biological control of the labeled piercing and sucking insect or mite pests in enclosed commercial greenhouses on ornamentals, fruits, vegetables, herbs and spices, including vegetable, fruit, herb, and spice transplants for the consumer market

Active Ingredient:

Beauveria bassiana strain PPRI 5339*

8.00%

Other Ingredients:

92.00%

Total:

100.00%

*Velifer contains a minimum of 8×10^9 viable spores per mL

EPA Reg. No. 71840-22

EPA Est. No. 67064-ZAF-001

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete First Aid, Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty.

You may contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).

Net Contents: **1 quart**

Batch Code: [Located on physical container]

Product of South Africa.

Manufactured for:

BASF Corporation

26 Davis Drive, Research Triangle Park, NC 27709

NVA 2018-05-543-0635

Velifer Formulation in Solution

Photos taken immediately after mixing – 0 hours



UTC	Velifer® 13 fl oz	Velifer® 21 fl oz	Velifer® 42 fl oz	BotaniGard ® ES 32 fl oz	BotaniGard ® ES 64 fl oz	BotaniGard ® WP 1.5 lb	BotaniGard ® WP 3.0 lb
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Velifer
rate:
3-13 fl oz/100 gallons

Botanigard WP
rate:
1-2 pounds/100
gallons

Botanigard ES
rate:
1-3 qts/100 gallons
32-96 oz/100 gallons
(32 oz = 1 qt)



Velifer™ is Delivered via BASF's Cold Tunnel Logistics

Storage & Shelf-Life:

- Velifer containers are labeled with expiry
 - ▶ Store Velifer **unopened** in refrigerated storage for up to 24 months (4°C or 40°F) – good to expiry date
 - ▶ Store Velifer **unopened** at room temperature for up to 12 months (20°C or 68°F) – good to expiry date minus 1 year
- Do not expose Velifer to extreme heat or direct UV
- Do not freeze Velifer
- Protect Velifer from contamination and store properly



Velifer™ Fungal Contact Insecticide/Miticide Label Review

Application Directions

- Apply **Velifer** at the first sign of pest infestation for best performance
- 3 – 13 fl oz/100 gallons applied as a foliar spray
- Recommended application timing is afternoon or evening
- Apply on a 3 – 14 day interval depending on pest pressure
- Biologicals work best at low and moderate pest pressure



Velifer™ Fungal Contact Insecticide/Miticide Label Review

Application Success

- Thorough and uniform coverage of the leaf surface and/or direct contact of the spray mixture with the target pest is required for control

- Avoid making applications in the presence of beneficial insects, such as bumblebees and parasitoids
 - ▶ Check tank mix partners
 - ▶ Check compatibility of adjuvants, be mindful of spray pressure
 - ▶ Adopt a pollinator & beneficial safety mindset
 - ▶ Ask your BASF sales rep for more information

Compatibility with Beneficial Insects

Velifer insecticide Compatibility with Commercially Applied Beneficial insects		
Beneficial insect tested	Effect of Velifer	Effect of standard
Predatory mites (Phytoseidae)		
<i>Amblyseius cucumeris</i>	1	1
<i>Amblyseius swirskii</i>	1	1
<i>Phytoseilus persimilis</i>	1	1
Parasitoids (Hymenoptera)		
<i>Aphidius colemani</i>	1	1
<i>Encarsia formosa</i>	1	2
<i>Eretmocerus eremicus</i>	1	2
Predatory bugs (Hemiptera)		
<i>Macrolophus caliginosus</i>	1	2
<i>Nesidiocoris tenuis</i>	1	1
<i>Orius leavigatus</i>	1	1



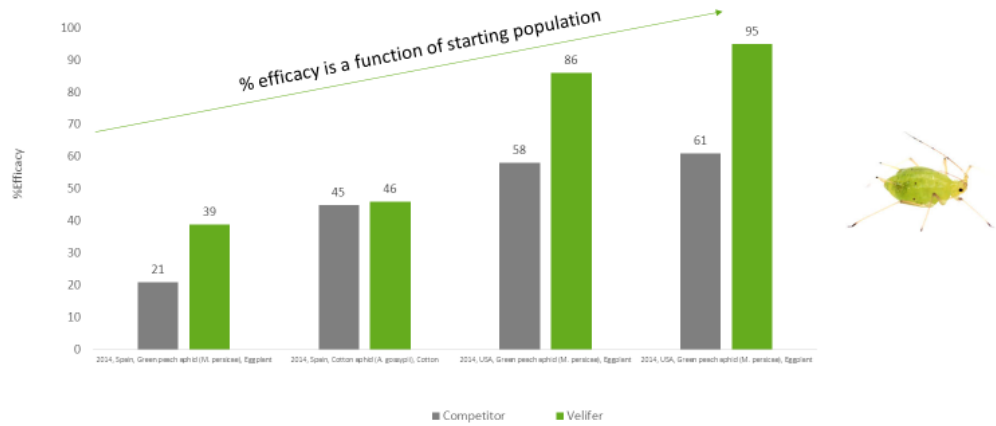
IOBC SCALE: (EXTENDED Laboratory)		% mortality
1	HARMLESS	< 25 %
2	LIGHTLY HARMFUL	25-50 %
3	MODERATELY HARMFUL	50-75 %
4	VERY HARMFUL	75-100 %

IPM Beneficials trials ARS Utrera

Velifer is compatible with beneficials and non-targets

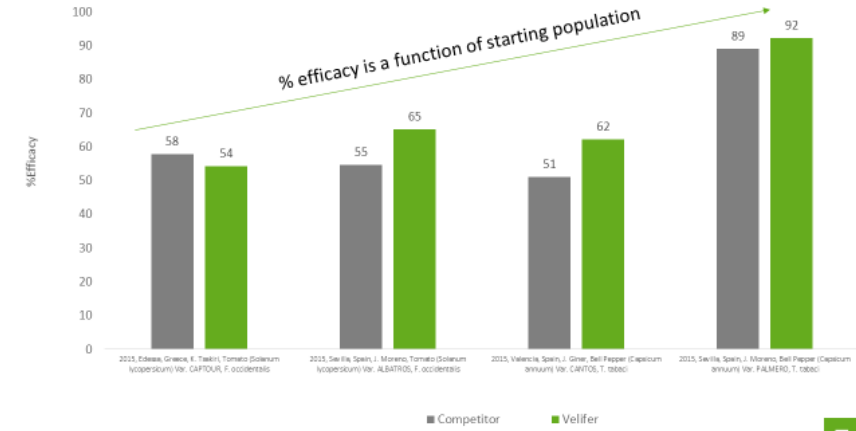


Aphid Efficacy with Velifer™ Fungal Contact Insecticide/Miticide versus Competitors



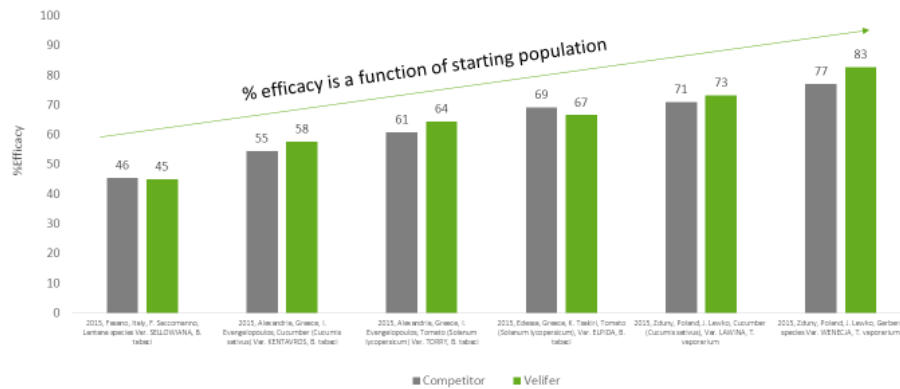
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Thrips Efficacy with Velifer versus Competitors



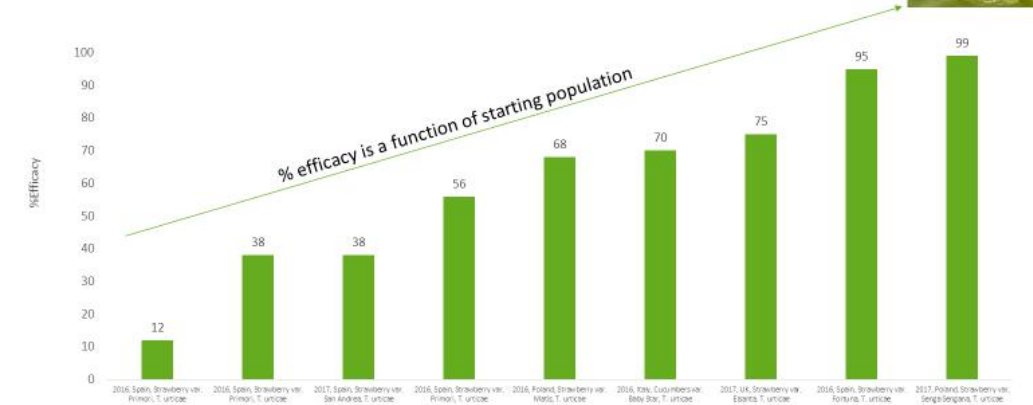
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Whitefly Efficacy with Velifer versus Competitors



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Two-spotted Spider Mite Efficacy with Velifer™ Fungal Contact Insecticide/Miticide

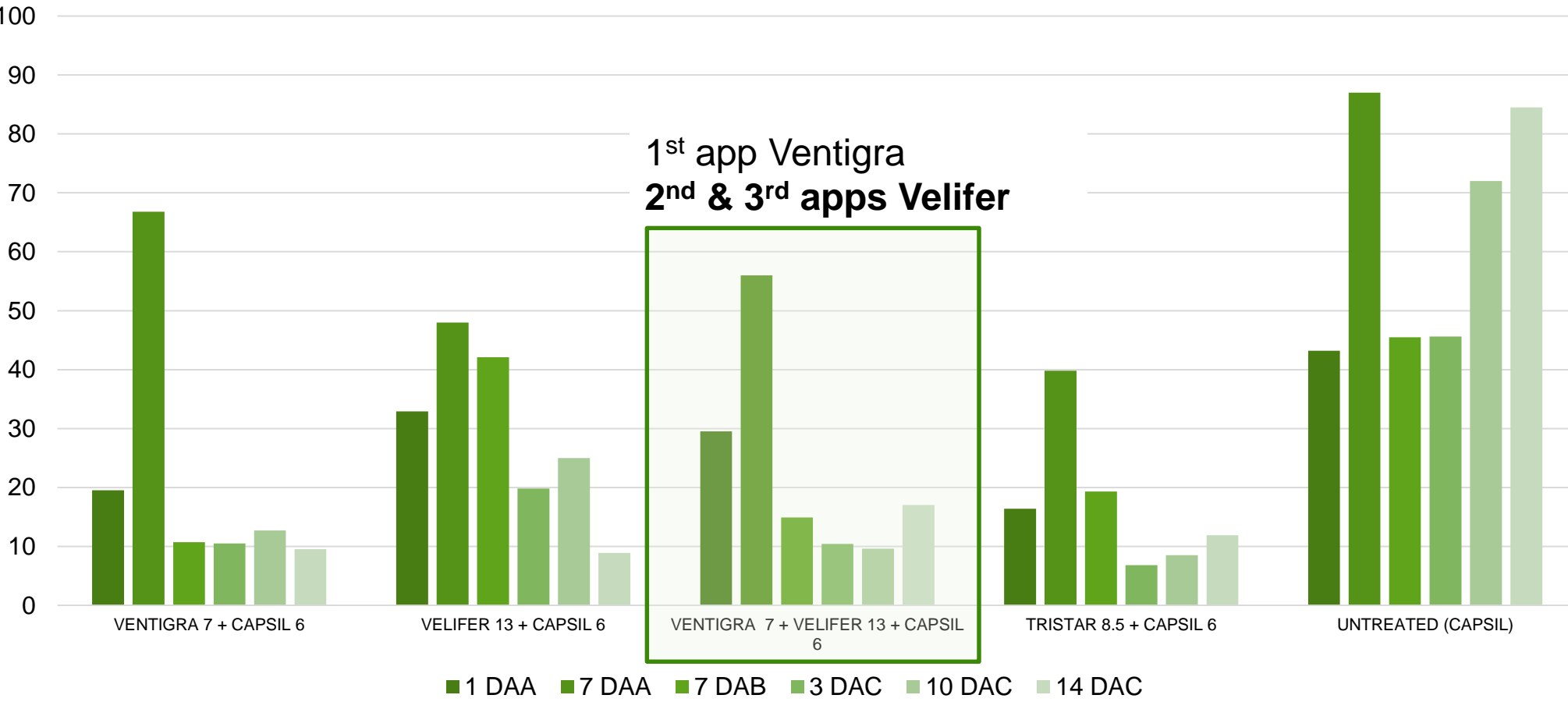


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Velifer Control of Silverleaf Whitefly in an Integrated Program

Crop Inspection Service, 2018

Mean # Nymphs per Plot (10 cm²)



Application Dates:

10/6, 10/13, 10/20
(7 day interval)

Tank Mix Partner:

Capsil 6 fl oz included in UTC + all treatments

Pest:

Bemesia argentifolii

Crop:

Prestige Red Poinsettia

Excellent control was achieved with **Velifer** + Ventigra in rotation





Velifer Plant Tolerance

- Efficacy trials were conducted on a total of 85 varieties of Ornamentals, Solanaceae, Cucurbitaceae, and Strawberries
- Plants are evaluated for injury in all efficacy trials
- **In all trials, no symptoms of phytotoxicity were recorded after 3-5 applications at a 5-7 day interval**
- No spray deposits were recorded with Velifer after a single application in greenhouse

Velifer @ 21 fl oz (1.5X rate)



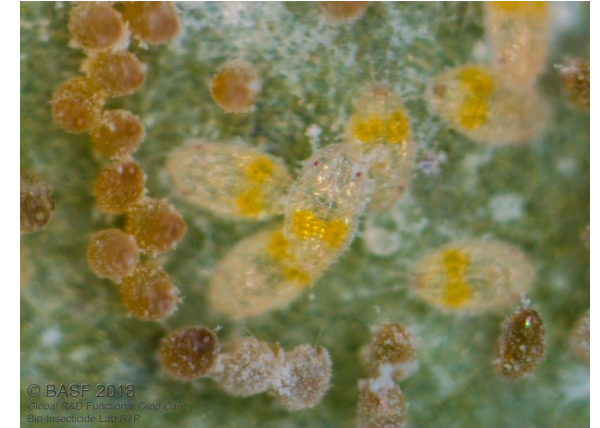
Botanigard WP @ 1.5 lb



Velifer™ Fungal Contact Insecticide/Miticide

Key Features and Benefits

- Effective way to add biological controls into IPM program
- Parasitic on many different insect pests
- Provides rapid feeding cessation and insect death results 24-48 hours after application
- Works in conjunction with chemical controls to suppress and maintain low pest populations in the crop
- Excellent resistance management tool
- Compatible with beneficials and non-target arthropods (including *Apis*, *Bombus*, *Aphidius* and *Orius*)
- Enhanced plant safety profile





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