



On Stream

A new generation biological based hybrid insecticide that combines natural orange oil (containing d-limonene) and spinosad for the control of Lepidoptera pests, thrips and soft body insects on a wide range of crops



Sineria has developed a bridge solutions portfolio

Transition from a system rooted in toxic pesticides to a healthier, low-residue, biological-based sustainable system.

Hybrid technology effectively combines synthetic pesticides with biological ingredients:



Plant extracts



Natural microbial agents



Fermentation products

Hybrid Biological formulation characteristics

- Can be integrated into conventional spraying programs
- Low toxicity profile
- Minimum residue levels
- Can be used with normal spraying equipment
- Release resistance pressure
- Broad spectrum of activity
- IPM Compatible

Biological
Active



Synthetic
Active

On-Stream 75SE unique combination offers a highly synergistic effect with minimum residues

Natural Orange Oil
(containing d-limonene)
5%

On Stream

Spinosad 2.5%

Natural Orange Oil (containing d-limonene) 5% + Spinosad 2.5%

- **On-Stream 75SE** new generation biological based hybrid insecticide, combines natural orange oil (containing d-limonene) and spinosad for the control of Lepidoptera pests, Thrips and soft body insects on a wide range of crops
- **On-Stream 75SE** is an integration of fermentation active with botanical ingredients that deliver better toxicological profile, lower residue index, and lower impact on beneficials and pollinators
- **On-Stream 75SE** is formulated as SE: Suspo-Emulsion

IPM Compatible

- Relatively low impact on beneficial organisms following application.
- Highly favourable mammalian and non-target species toxicological profile.
- Ideal for Plant Protection Resistance Management programs
- Low residue index
- No-cross resistance with other conventional insecticides

Multiple Mode of Action

- **On-Stream 75 SE** acts as a contact and stomach bio-insecticide with anti-feeding and repelling properties due to the essential oils it contains.
- **On-Stream 75 SE** has additional bio-fungicidal activity.

The natural Orange oil has a double mode of action:

- Interferes with the pests cuticle through a detergent effect, effectively dissolving the soft segments and damaging the integrity and permeability of the epicuticle in soft body insects & mites.
- Acts as a suffocating agent by blocking the respiratory tracts of pests
- Has additional anti-fungal activity by forming a protective film against the fungi on the leaf surface, meaning the spores of the fungi can't attach to the plant surface and therefore cannot germinate. Natural orange oil has also direct contact activity against epiphytic forms of fungi.

Spinosad is a novel mode-of-action insecticide derived from a family of natural products obtained by fermentation of *Saccharopolyspora spinosa*.

- The mode of action of spinosoid insecticides is by a neural mechanism.
- Highly active by both contact and ingestion.
- Spinosad has so far been proven not to cause cross-resistance to any other known insecticide groups

IRAC Group 5: Nicotinic acetylcholine receptor (nAChR) allosteric modulators – Site I (Nerve action)

Directions for Use

- On-Stream 75SE should be mixed with water to be ready for use.
- It may be applied with any type of spraying equipment
- Always ensure thorough coverage of the canopy during application, especially of the underside of the leaves
- Do not apply this product through any type of irrigation system.

Crop	Pest	Application Rate	Notes
Avocado Vegetables (Tomato, Cabbage, Cucurbits, Peas) Ornamentals Citrus Blueberries	Thrips, Caterpillars, Leafminers, Aphids, Whiteflies	3 - 4 L/Ha	Apply as a full cover spray upon the first signs of pest infestation. Repeat application at 7-10 days interval if necessary

Important Note: The indicated crops and recommended rate of application mentioned in this Product informative sheet may not be applicable in the country where the product is intended to be used. User must refer and use the product only as per the official registration at the country of use and the approved uses and rates by the authorized authorities. The supplier will not be responsible or liable if the product is used on crops which are not listed on the official label as approved the ministry of agriculture at the country of use.

On-Stream 75SE in Action..

FIELD EVALUATION OF THE ON STREAM PRODUCT EFFICIENCY (Spinosad 2.5% + "Extract from (d-limonene 5%)), FOR THE CONTROL OF Thrips tabaci "Thrips" IN THE ASPARAGUS CROP

Product Application

TREATMENTS	PRODUCTS	RATES
T0	Water - Control	-
T1	On-Stream 75SE	2.0
T2	On-Stream 75SE	2.5
T3	On-Stream 75SE	3.0
T4	On-Stream 75SE	3.5
T5	On-Stream 75SE	4.0



- Number of applications: 1
- The trials was done in 2 separate geographical zones: Viru and Trujillo areas

Fig 1: Comparison of the average of living individuals, in the different treatments used for the control of Thrips tabaci to ADA, 3 DDA, 5 DDA and 7 DDA. Virú - area. September, 2020.

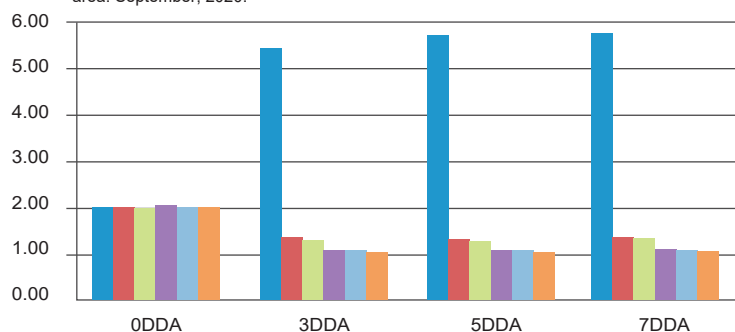
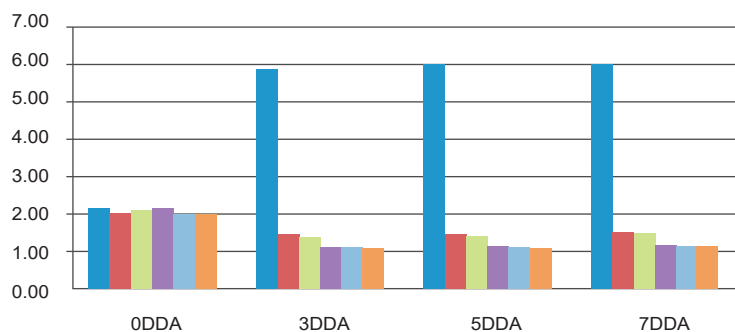


Fig. 2: Comparison of the average number of living individuals in different treatments used to control Thrips tabaci to ADA, 3 DDA, 5 DDA and 7 DDA. Trujillo - area. October, 2020.



- T0: Water - Control
- T1: ON-STREAM-2L/Ha
- T2 :ON-STREAM-2.5L/Ha
- T3: ON-STREAM-3L/Ha
- T4: ON-STREAM-3.5L/Ha
- T5: ON-STREAM-4L/Ha

Conclusion

- Maximus efficacy was observed at 5 days after application.
- The recommended application rate against Thrips in Asparagus is 2.0 to 3.0 lt per hectare.

Supplier:

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