

New Biopesticide

Code name: RM-1963K

(Edible blended oil)



OAT Agrio Co., Ltd.

—Tokyo, Japan—

2021 IR-4 meeting



General Information

■ Active Ingredient

Edible blended oil : 97 % EC (emulsifiable concentrate)

■ Human-Friendly

1. A.I.: Made from edible Oils
2. ADI/MRL: Exempted
3. PHI: 0 day

■ Environmental-Friendly

Low impact on beneficial insects and bees



■ Registration

Japan: # 22801

Taiwan: # 00065

Korea: # 3-6-034 (Organic agricultural materials (Category: pest management))

NOTICE

JAS (Japanese Agricultural Standards) certifies A.I. of RM-1963K is compatible with organic cultivation.



■ Mode of Action

1. Considered to be suffocation by blocking the spiracle
2. Inhibits the behavior and egg laying in mites
3. Inhibits the orientation and the courtship behavior in white flies

■ Usage

1. Spray on both sides of leaves evenly with sufficient water volume
2. Can be used for repeated sprays at 5-7day interval
3. Suitable for resistance management



Target pests

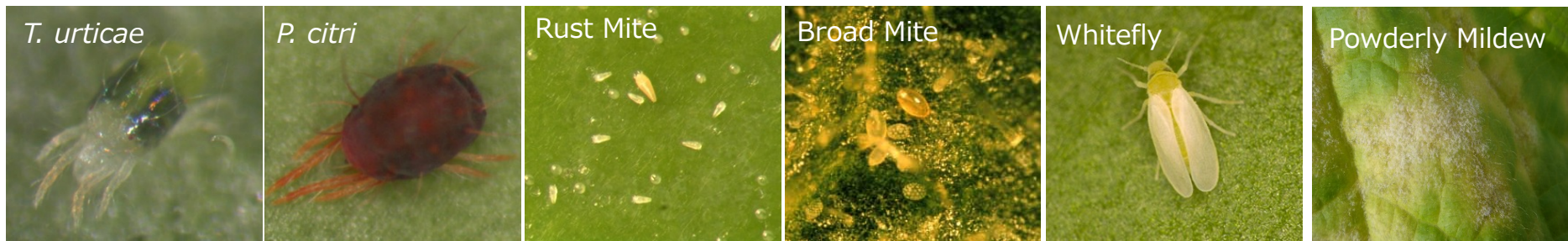
Phytophagous Mites (*Tetranychus* spp. / *Panonychus* spp.)

Rust Mites (*Aculops* spp.)

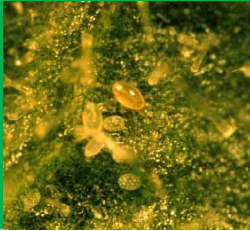
Broad Mite (*Polyphagotarsonemus latus*)

Whiteflies (*Trialeurodes vaporariorum* / *Bemisia* spp.)

Powderly Mildew: Suppressive



Biological Activity

Product	Dose rate FP Gal/100Gal (Dilution rate)	<i>Tetranychus ulticae</i> * ₁ (Spider mite) 		<i>Aculops lycopersici</i> * ₂ (Rust mites) 		<i>Polyphagotarsonemus latus</i> * ₁ (Broad mites) 	
		Egg	Adult	Egg	Adult	Egg	Adult
RM-1963K	0.329 (300)	+++	+++	+++	+++	+++	+
Octanoic/Decanoic glyceride	0.329 (300)	+++	++	++	+++	+++	+++
Hydroxy propyl starch	0.988 (100)	-	+++	nd	nd	nd	nd

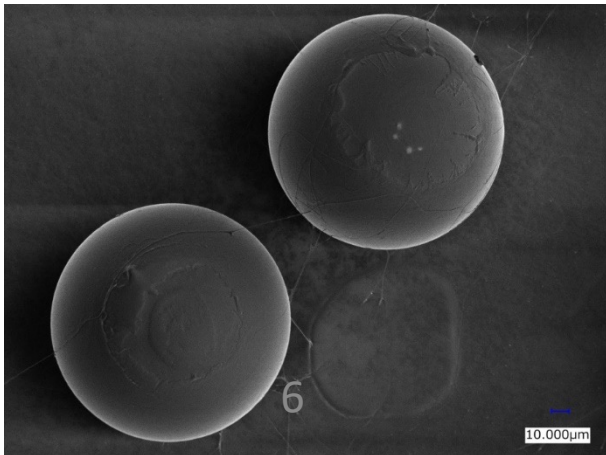
*1: Dipping, *2: Spraying, nd: no data

Mortality(%): +++: > 90, ++: 89-75, +: 74-50, -: 49>

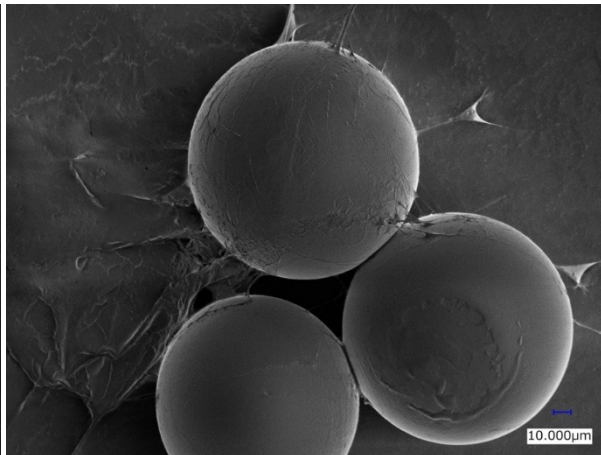
FP: Formulated product



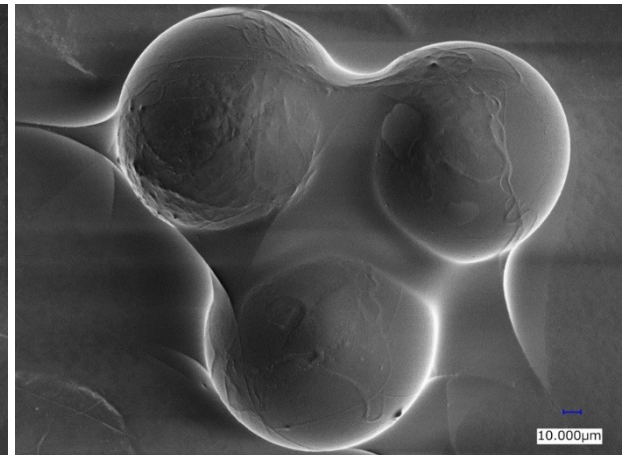
Inhibition of hatching / Spider mites



Water (Control)



Octonic / Decanoic glyceride

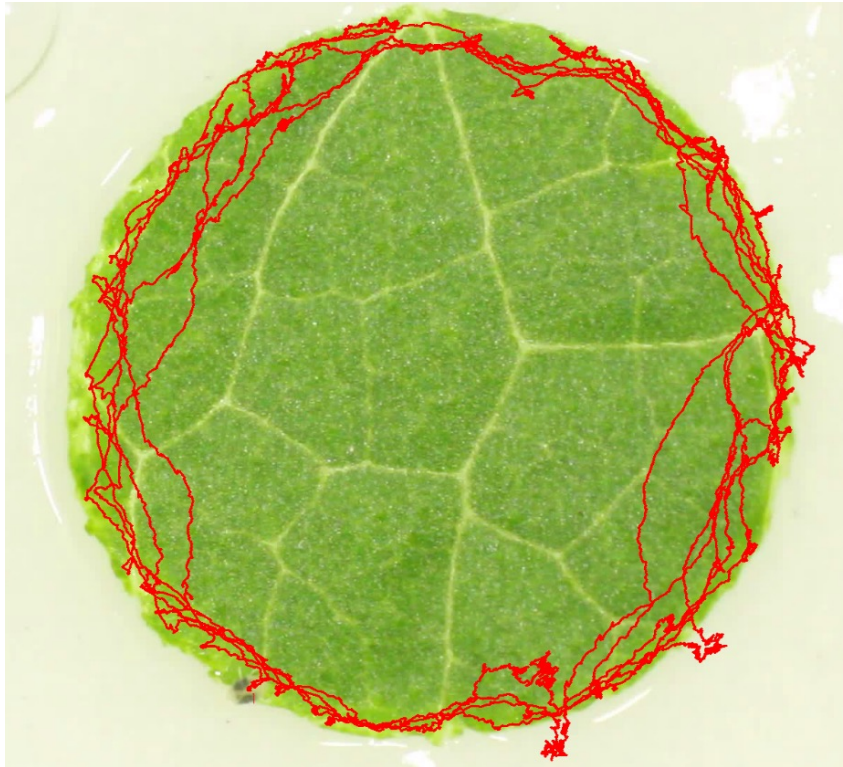


RM-1963K

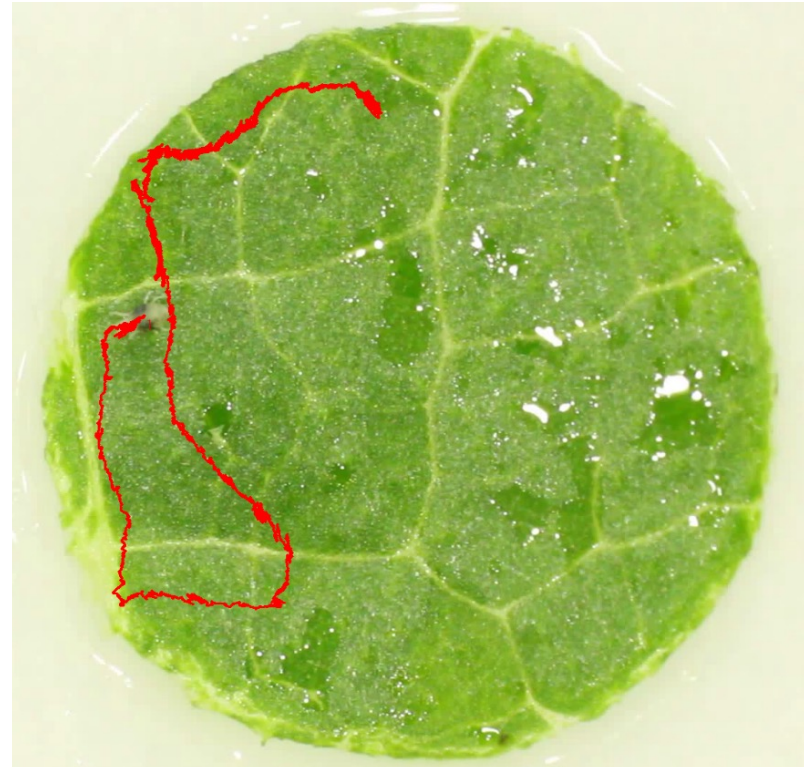
<https://onlinelibrary.wiley.com/doi/10.1002/elsc.202000042>

Inhibition of hatching / Spider mites

Water



RM-1963K



Observation period: 10minutes
(24hour after application)

Mite behavior/movement on the **RM-1963K** treated leaf is much less than water treated



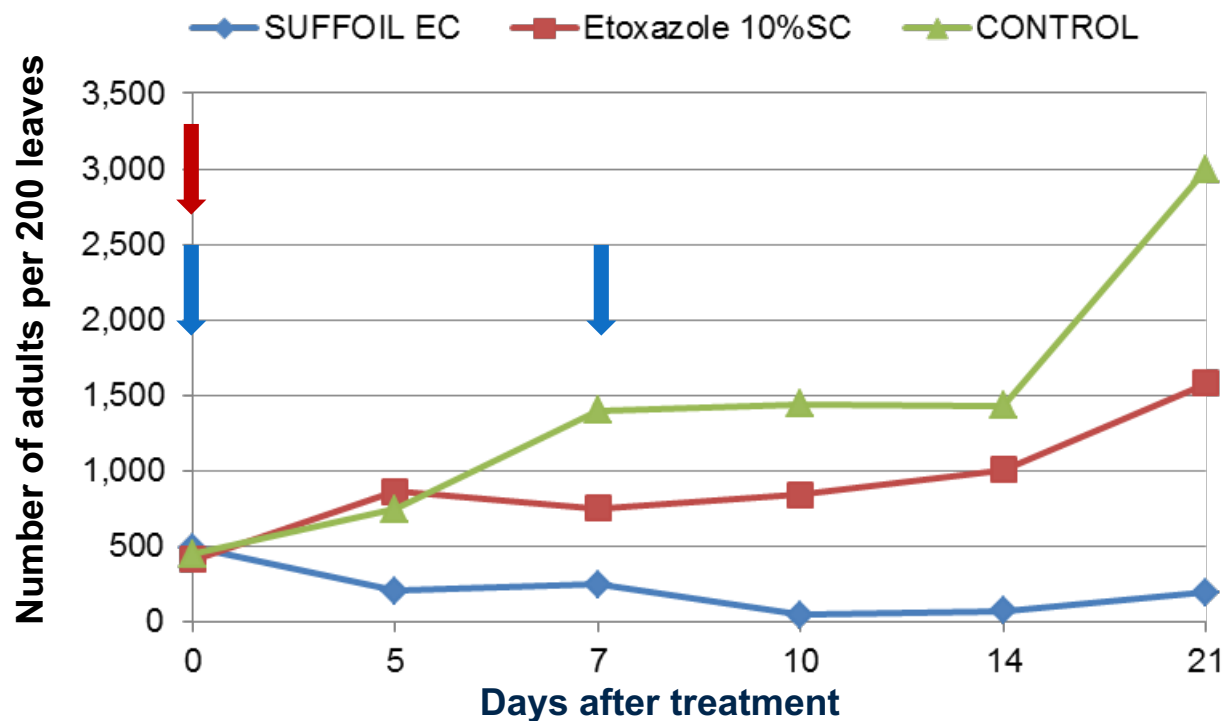
Registration in Japan

CROPS	TARGET PESTS	DILUTION RATE (fold)	FL (Gal/ 100Gal)	WATER VOLUME (GAL/ACRE)	PHI (DAY)	No. of applications
Citrus	Citrus Red Mite	500	0.2	214 – 748	1	Not Limited
Vegetables (Except Tomato, Cherry Tomato and Strawberry)	Spider Mites	300 - 500	0.2-.0.33	107 - 535		
	Broad Mite Whiteflies Powdery Mildew	300	0.33			
Tomato and Cherry Tomato	Spider Mites	300 - 500	0.2-0.33			
	Broad Mite Tomato rust mite Whiteflies	300	0.33			
Strawberry	Spider Mites	300 – 500	0.2-0.33			
	Broad Mite Whiteflies Powdery Mildew	300	0.33			
Ornamentals (Except Chrysanthemum)	Spider Mites	500	0.2		Not Applicable	
Chrysanthemum	Spider Mites	300 – 500	0.2-0.33			



Trial Results

Spider mites on Strawberry (Japan)

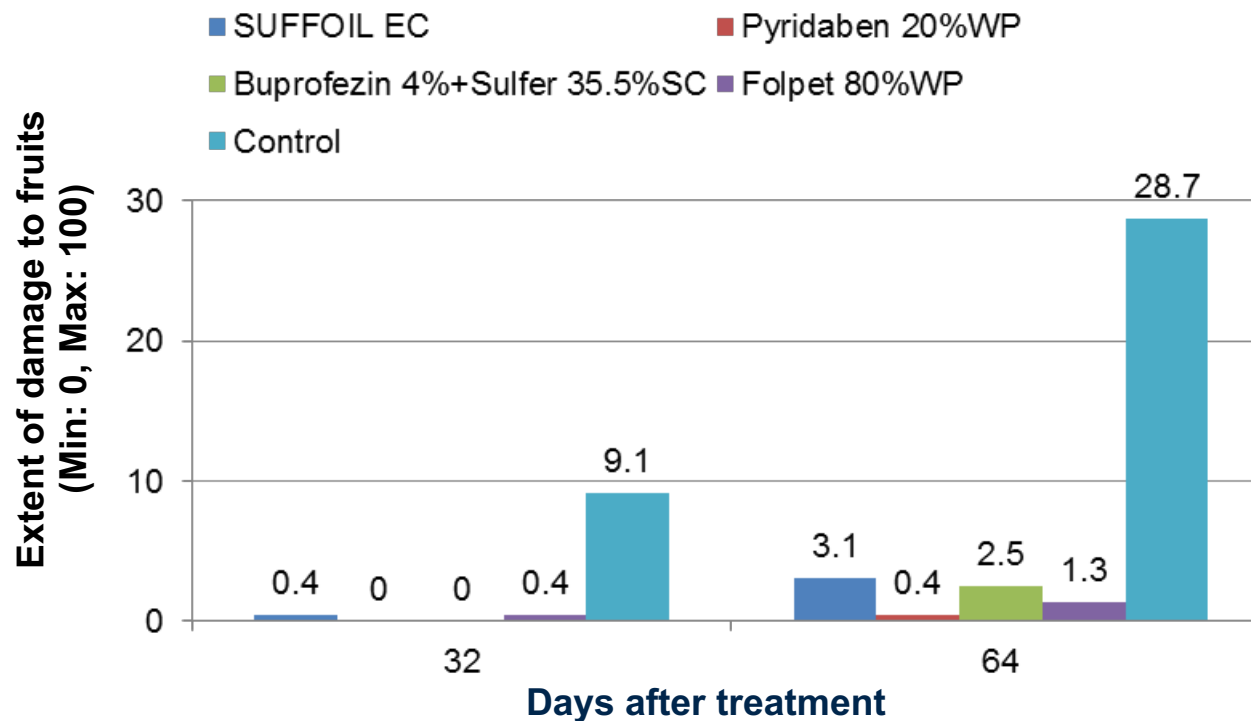


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|---------------|-------------|--------------------|--|
| • Prefecture | : Ibaraki | • Dilution rate | : RM-1963K EC 300 fold |
| • Plot size | : 22 plants | • Spray volume | : 306 Gal/Acre (May 2), 353 Gal/Acre (May 9) |
| • Replication | : 3 | • Application Date | : May 2 (RM-1963K & Std), May 9 (RM-1963K) |

Japan Plant Protection Association (2007)

Trial Results

Citrus rust mite on Mandarin Orange (Japan)



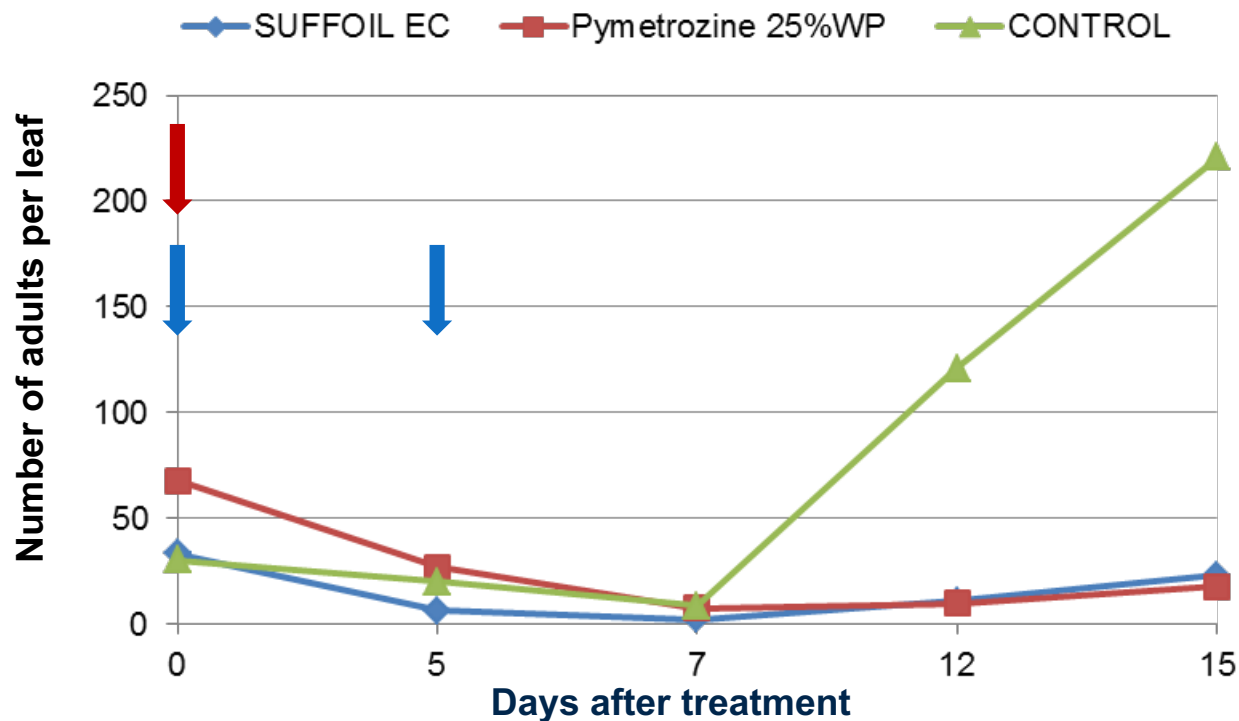
- Prefecture : Nagasaki
- Plot size : 1 tree
- Replication : 4
- Dilution rate : RM-1963K EC 300 fold
- Spray volume : 1.8 Gal/ tree
- Application Date : Jul. 8 (RM-1963K & The others), Jul. 15 (RM-1963K)

Nagasaki Agricultural and Forestry Technical Development Center (2010)



Trial Results

Whitefly (*Bemisia tabaci*) on Eggplant (Japan)



- Prefecture : Okinawa
- Plot size : 10 plants
- Replication : 2
- Dilution rate : RM-1963K EC 300 fold
- Spray volume : 214 Gal/Acre
- Application Date : Jun. 6 (RM-1963K & Std), Jun. 11 (RM-1963K)

Plant Protection Center, Agricultural Support Division, Okinawa Prefecture (2007)



Thank you very much for your attention

日本の技術を世界へ——豊かな未来を築くために

The OAT logo, featuring a stylized blue 'A' with a green swoosh and the letters 'OAT' in blue, followed by a green symbol.

OAT Agrio Co., Ltd.

