

TECHNICAL
GUIDE

NEW

Danisaraba®

Miticide

A great new
first choice for
web-spinning
mite control

 **BASF**

We create chemistry

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Danisaraba®

Miticide

A great new first choice for web-spinning mite control

Its novel mode of action and activity on all life stages make Danisaraba® Miticide the ideal new first-line treatment for web-spinning mites in all the crops on its label.

Early application of Danisaraba can assist in preventing infestations reaching damaging levels while also easing selection pressure on older chemistry.

Because Danisaraba has targeted activity on web-spinning mites, it has minimal impact on beneficial mites – just one of the ways it will enhance IPM programs and complement existing control methods.

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Product profile

Active ingredient	Cyflumetofen 200g/L
Mode of action	Group 25 A (Beta-ketonitriles)
Formulation	Suspension concentrate (SC)
Adjuvants	The addition of a non-ionic surfactant may increase the speed of knockdown and overall control.
Compatibility	Compatible with most commonly used fungicides, insecticides, biological controls and foliar nutrients, but tank-mixing with Mancozeb*, Summer Oil or an organophosphate insecticide is NOT recommended.
Withholding period	None: nursery stock 1 day: fruiting vegetables, strawberries, protected tomatoes 7 days: almonds, citrus, pome fruit 14 days: grapes
IPM status	Highly compatible with a range of IPM systems, with minimal impact on beneficial species, including predatory mites.
Pack size	5L

Use profile

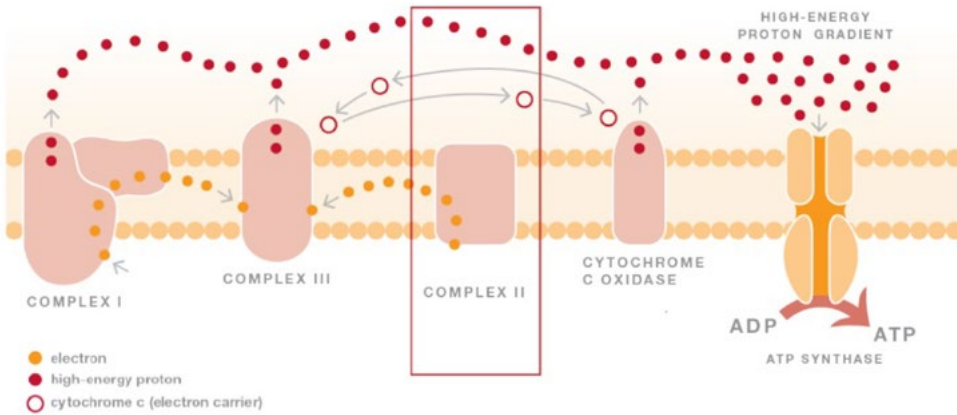
Crop and mite registrations

	Two-spotted spider mites	Oriental spider mites	Bryobia mites	European red mites	Citrus red mites
Almonds	✓		✓	✓	
Citrus	✓	✓			✓
Fruiting vegetables	✓			✓	
Grapes	✓				
Nursery stock	✓		✓	✓	
Pome fruit	✓		✓	✓	
Strawberries	✓			✓	
Protected tomatoes	✓			✓	
Protected strawberries	✓			✓	

MODES OF ACTION

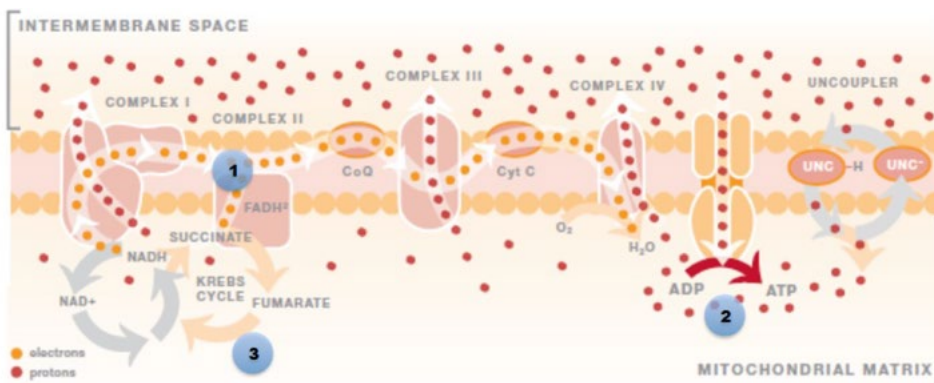
Danisaraba's active ingredient cyflumetofen has a unique site of action and works by disrupting the energy metabolism (complex II) of web-spinning mites.

Unlike any other miticide, Danisaraba acts on the complex II enzyme in the mitochondrial matrix of mites at every life stage – including in the egg.



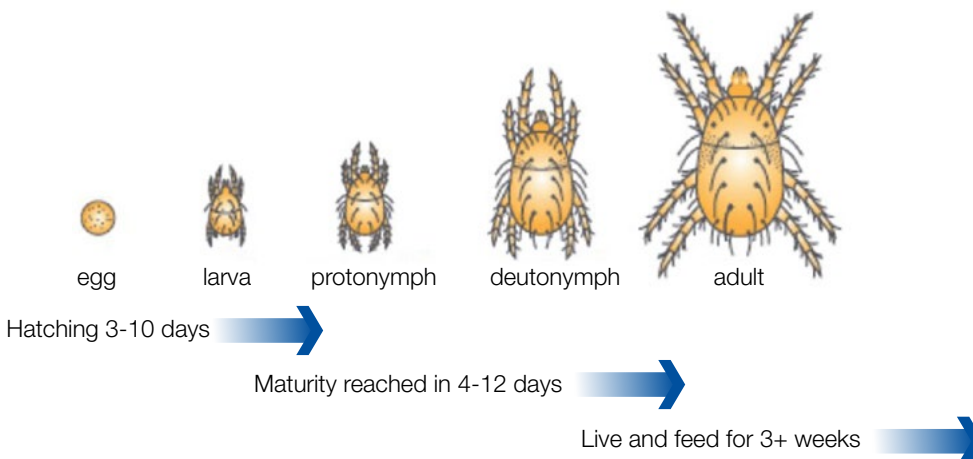
Danisaraba is the first Group 25 miticide and the only one that targets Complex II in this energy production process.

By inhibiting the mitochondrial electron transport complex II enzyme (1), Danisaraba stops the production of adenosine triphosphate or ATP (2). The loss of ATP rapidly depletes the cell energy and leads to the paralysis and death of the affected mites.



The complex II enzyme is within the Krebs cycle (3), where NADH – the enzyme for basic DNA construction – is generated from NAD⁺ produced by complex I. Disrupting either complex inhibits most electron transport. Group 21A miticides like fenpyroximate (Acaban*), pyridaben (Samnite*) and tebufenpyrad (Pyranica*) target acequinocyl (Kanemite) targets complex III.

ACTIVITY AT EVERY LIFE-CYCLE STAGE



Danisaraba can control every mite in an infestation and disrupts the life cycle at every stage to slow population build within days.

IPM FIT

Danisaraba will strengthen IPM programs because its mode of action is both novel and highly selective.

Danisaraba has low toxicity to bees and testing has shown no effects on honey bee mortality or foraging behaviour.

Danisaraba is not toxic to the predatory mites and parasitoids used in IPM programs and has no negative impact on other beneficial species like lacewings and ladybirds.

Its unique site of action will also help manage the development of resistance to other miticides.

TANK-MIX COMPATIBILITY

Testing has shown that Danisaraba is physically compatible with the fungicides and insecticides listed in the tables when both products are used as directed on their labels.

Testing is ongoing. Please contact BASF about products not listed here, but also test all mixtures before mixing commercial quantities.

Compatible fungicides

Belanty®	Kocide* Blue X-tra™	Serifel®
Bravo*	Luna* Sensation	Switch*
Cabrio®	Merivon®	Sythane
Captan*	Nimrod*	Toledo*
Delan®	Polyram®	Tri-Base Blue
Fontelis*	Pristine®	Vivando®

Compatible insecticides

Altacor*
Belt*
Movento*
Success Neo
Versys®

NOT compatible

Mancozeb 750 WG

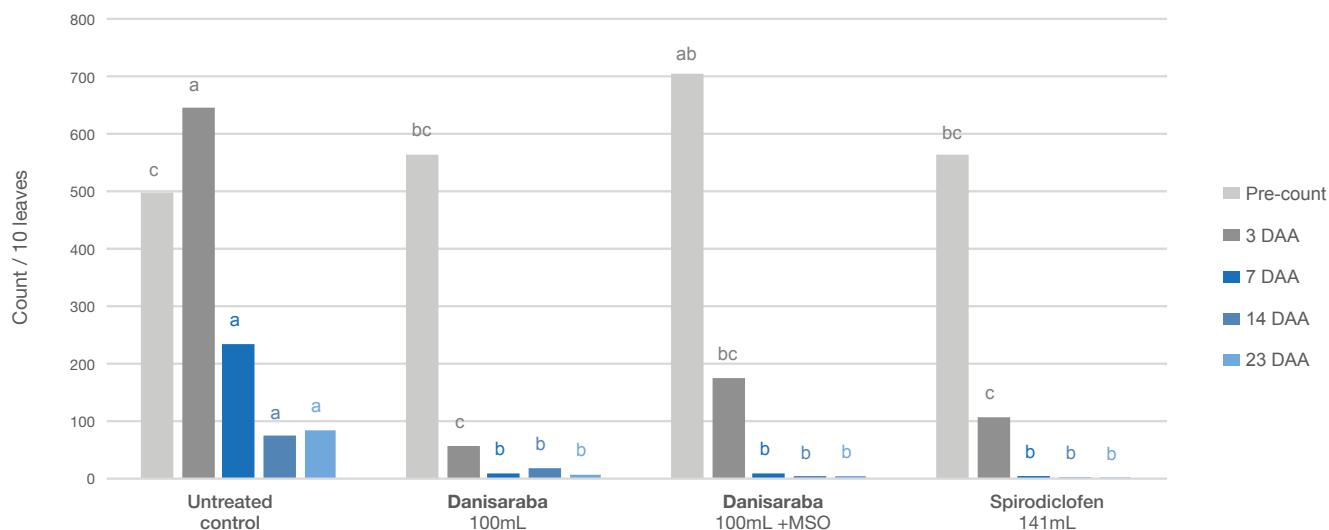
* Registered trademark.

TRIAL RESULTS

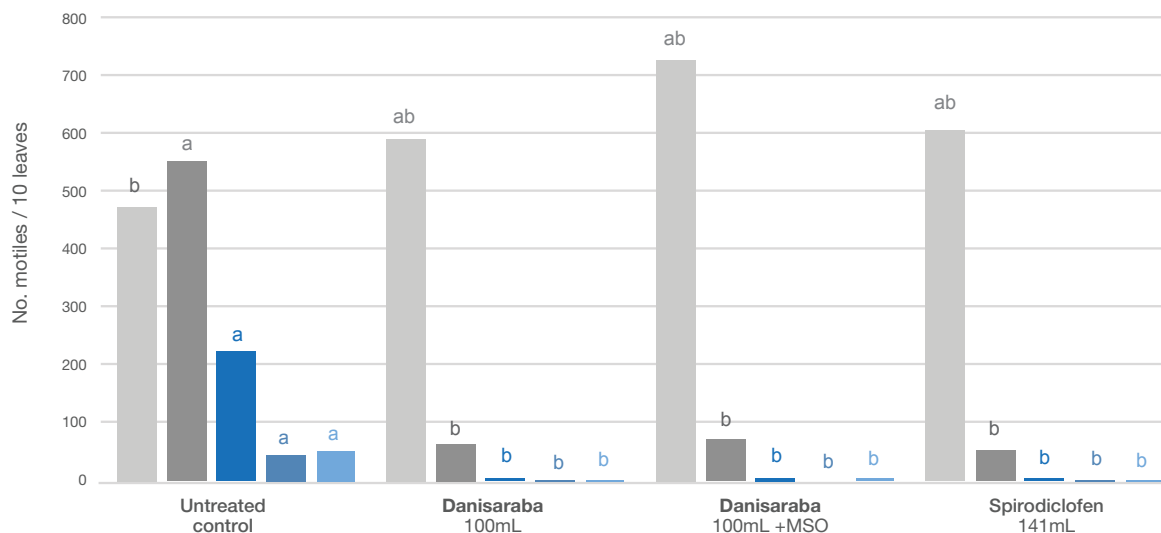
Trials and in-crop experience have confirmed that Danisaraba is not just active, but highly effective at all life stages.

Almonds – Two-spotted spider mites

Reduction in egg numbers



Control of motiles

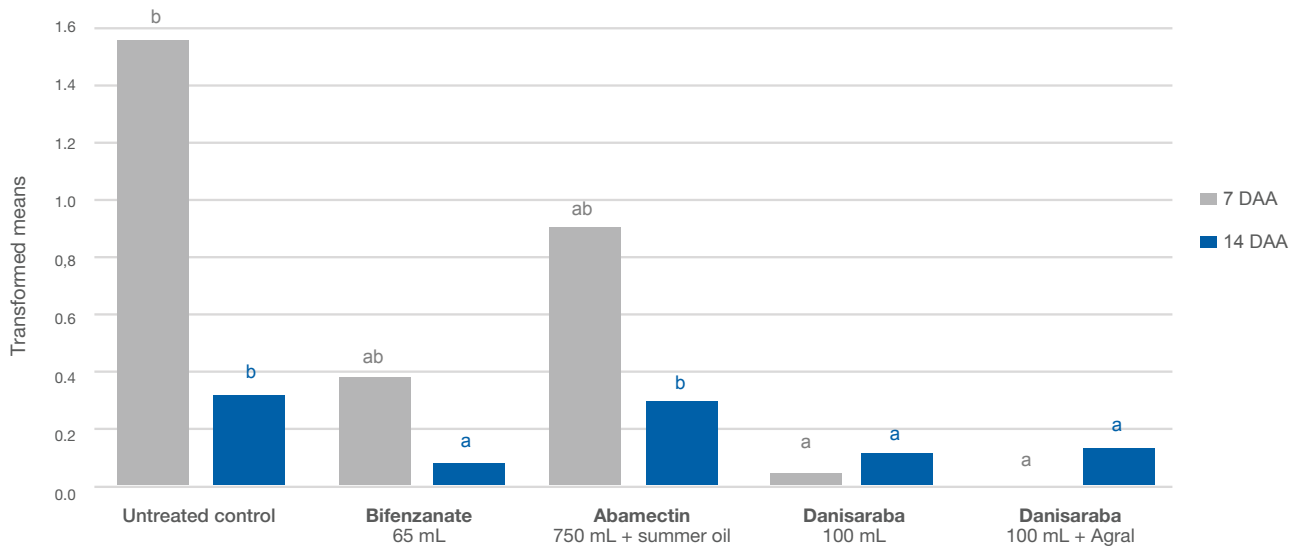


Multi-trial analysis. All rates per 100 L/water. TRIALS: DEV-I-2011-US-G62-E-01.0-US-UCA-SB1; DEV-I-2011-US-G62-E-01.0-US-UCA-SB2.

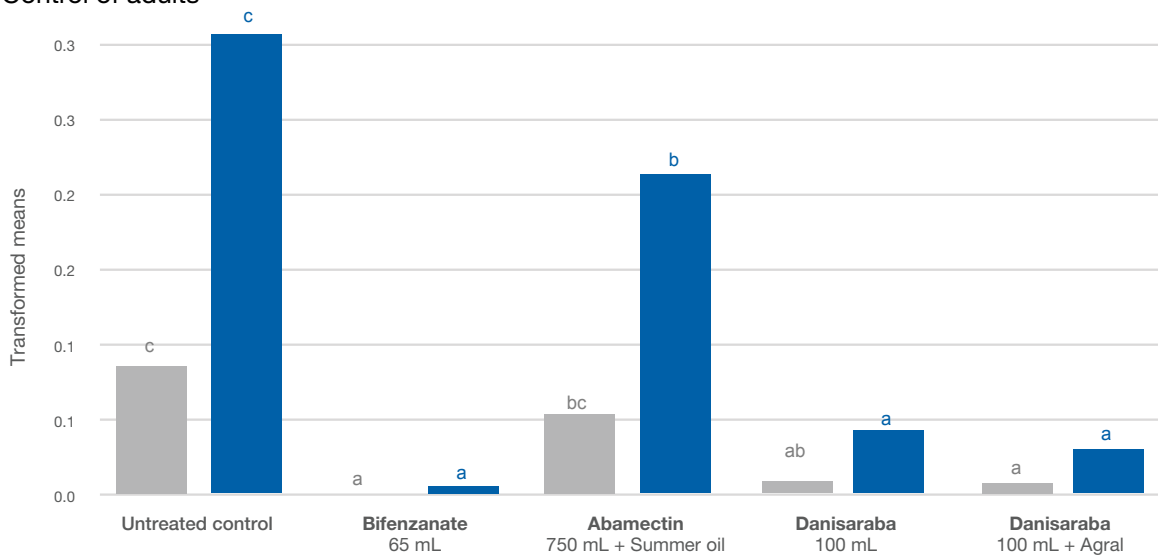
*Spirodiclofen is a Group 23 miticide not registered in Australia.

Apples – European red mites

Control of nymphs



Control of adults



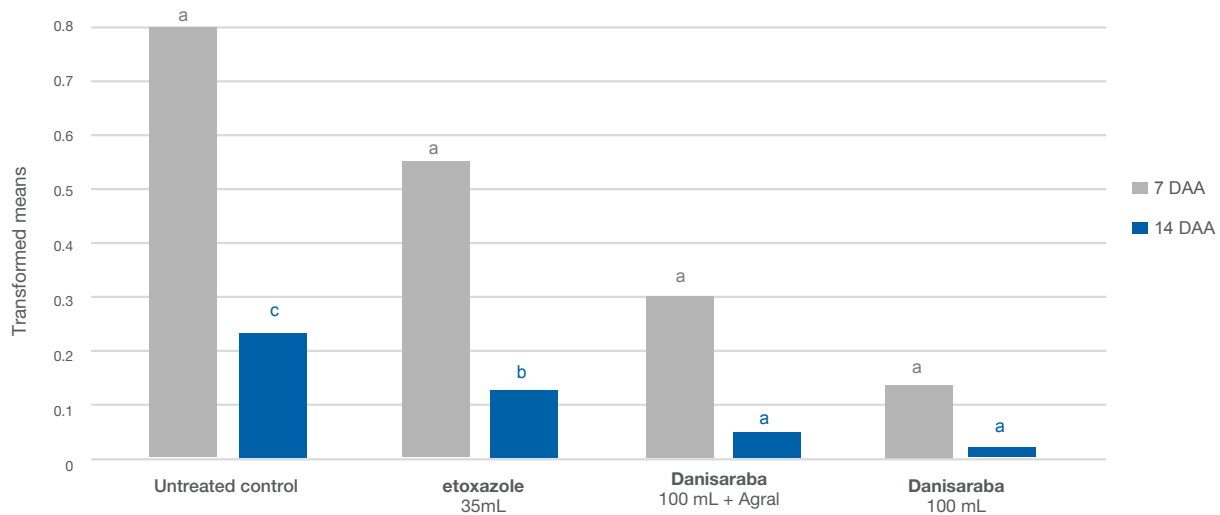
Multi-trial analysis. All rates per 100 L/water. TRIALS: DEV-I-2017-AU-208-A-01.0-AU-CAN-001; DEV-I-2017-AU-208-A-01.0-AU-CAN-002; DEV-I-2017-AU-208-A-01.0-AU-CAN-003.

TRIAL RESULTS

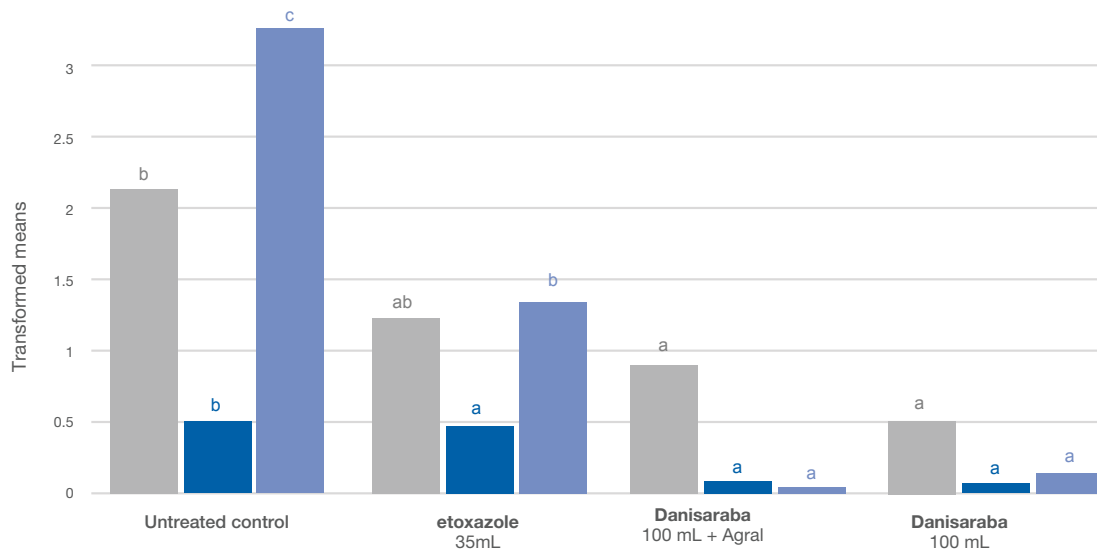
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Citrus – Oriental spider mites

Control of nymphs



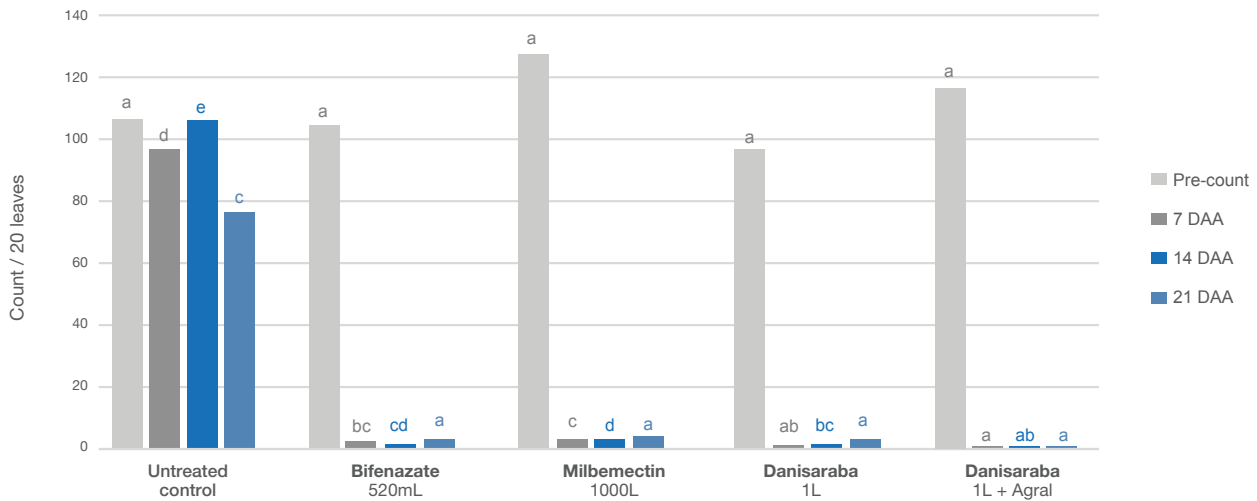
Control of adults



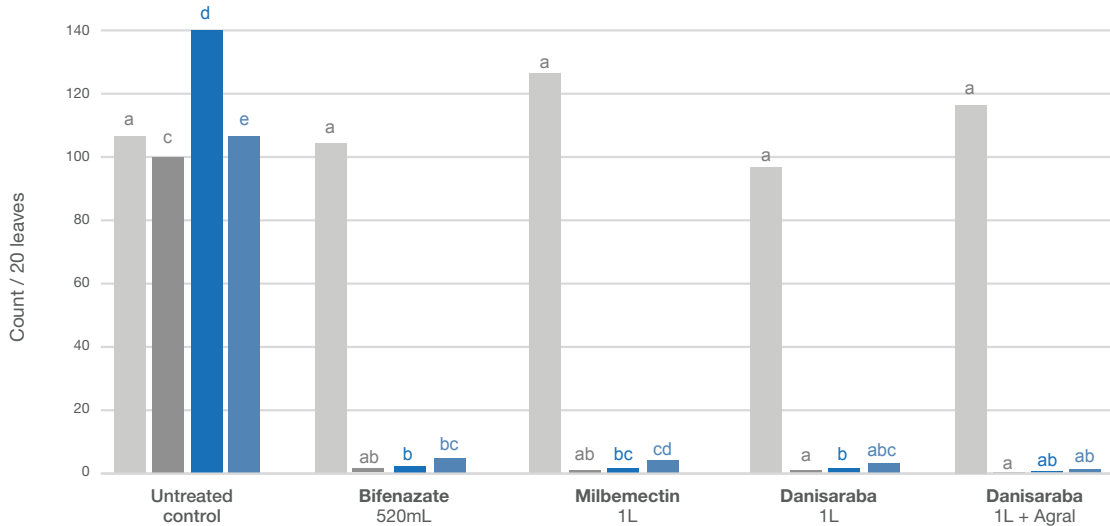
Multi-trial analysis. All rates per 100 L/water. TRIALS: DEV-I-2018-AU-212-A-01.0-AU-CAN-001; DEV-I-2018-AU-212-A-01.0-AU-CAN-001.

Strawberries – two-spotted spider mites

Control of nymphs



Control of adults



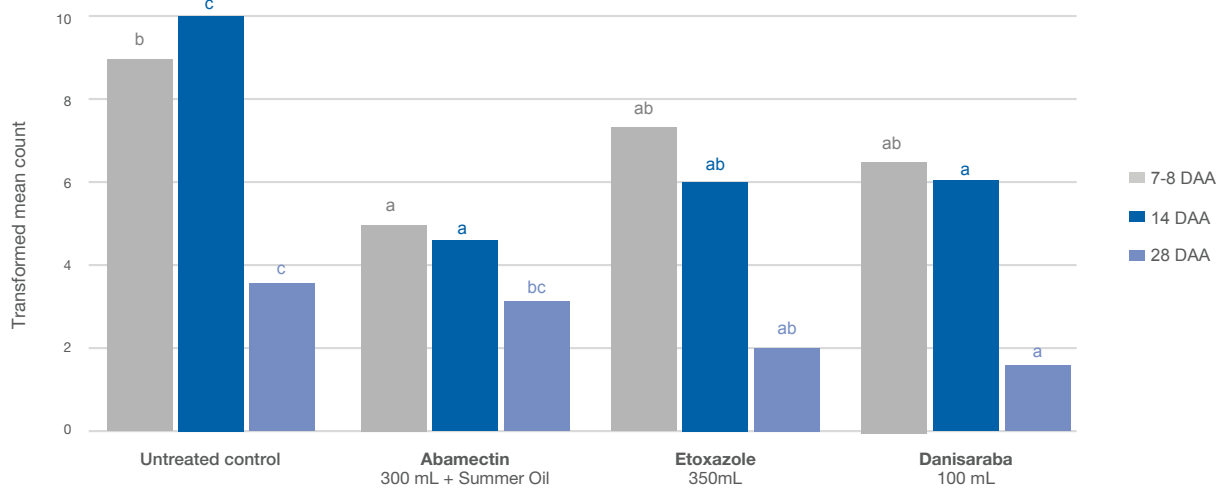
All rates per hectare. TRIAL: DEV-I-2016-AU-201-A-01.0-AU-ASV-001

TRIAL RESULTS

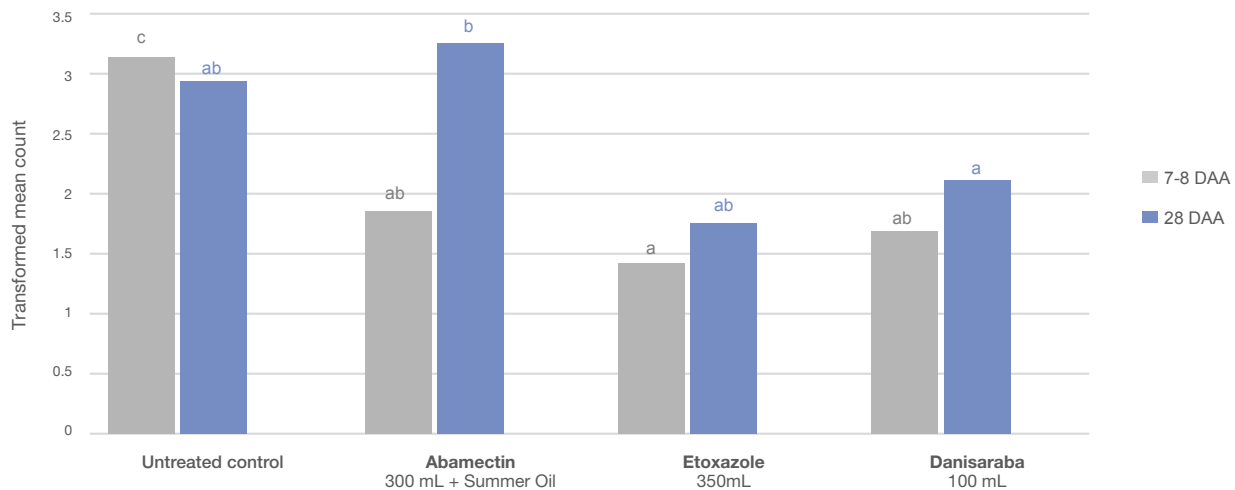
Trials and in-crop experience have confirmed that Danisaraba is not just active, but highly effective at all life stages.

Tomatoes – two-spotted spider mites

Reduction in eggs



Control of adults



Multi-trial analysis. All rates per 100 L/water. TRIALS: DEV-I-2014-AU-329-A-01.2-AU-AAU-R02 ; DEV-I-2014-AU-329-A-01.2-AU-AAU-R01; DEV-I-2014-AU-329-A-01.2-AU-AAU-R03.

APPLICATION GUIDELINES

Use Danisaraba as the first miticide of the season to take full advantage of its control of all life stages and its safety for beneficial mites and insects.

Rates

Strawberries and fruiting vegetables:	1 L/ha
All other label crops:	100 mL/100 L (minimum of 1L/ha)

Timing

- Apply Danisaraba as mite populations begin to build, before mite damage is observed
- Danisaraba provides up to 21 days of control following good coverage
- As mite populations build, Danisaraba may take up to 4 days to provide full control
- A second application can be made after 14 days if required, with a different mode of action.

Method

Danisaraba is a contact insecticide with no translaminar movement within the target plant, so thorough spray coverage is essential.

- Use high water volumes to ensure good coverage:
 - Up to point of run-off for boom-spraying ground crops
 - At least 1000 L/ha in larger tree and vine crops
 - Where less than 1000 L/ha is sprayed in a crop, ensure a minimum of 1L of Danisaraba is applied per hectare
- Adding an adjuvant registered for use in the crop can improve performance
- DO NOT mix Danisaraba with Summer Oil

NEW

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Miticide

Key Danisaraba advantages

- ✓ Highly effective at all life stages
- ✓ Rapid knockdown and up to 21 days' residual control
- ✓ A new mode of action with no known cross-resistance
- ✓ Minimal impact on beneficial mites and insects
- ✓ Minimal impact on bee numbers and behaviour

For more information on Danisaraba[®], visit crop-solutions.basf.com.au or contact your local BASF representative on **1800 558 399**

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