

## Evaluation Report for Category B, Subcategory 3.12 Application

**Application Number:** 2010-6156  
**Application:** Use Expansion  
**Product:** Acramite 50WS  
**Registration Number:** 27925  
**Active ingredients (a.i.):** Bifenazate (BFZ) miticide  
**PMRA Document Number English PDF:** 2144847

### Background

The technical active, bifenazate (Registration number 27923) and the end-use product, Acramite 50WS (Registration number 27925) are currently registered in Canada to control mite pests on apples, grapes, berries (Crop Group 13-07A), and tree nuts (Crop Group 14).

### Purpose of Application

The purpose of this application was to expand the use of Acramite 50WS on stone fruits (Crop Group 12-09) and to establish a maximum residue limit (MRL) to cover residues of bifenazate plus the metabolite D3598 (expressed as bifenazate).

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

A toxicology assessment was not required for this application.

A mixer, loader, and applicator risk assessment was conducted to incorporate updated area-treated-per-day data. Worker and bystander exposures from the treatment of, and post-application activities related to, stone fruits are considered to be within the registered use pattern of bifenazate. Worker personal protection equipment (PPE) recommended on the label is considered to be adequate to address short- to intermediate-term exposures in treated stone fruit orchards. Entry of pick-your-own fruit patrons into areas of stone fruits treated with Acramite 50WS Miticide is acceptable following the appropriate pre-harvest interval (PHI).

Crop field trial residue data as well as confirmatory and radiovalidation data for the analytical method were submitted to support the use expansion to stone fruits (Crop Group 12-09). Data on file were reviewed in combination with the submitted field trials, conducted at a higher rate (1.3-fold proposed application rate) and with shorter PHIs (3-4 days instead of 7 days), which provide added conservatism to the overall assessment.

### Maximum Residue Limit(s)

Based on the maximum residues observed in crops treated at 0.55-0.58 kg a.i./ha/season and harvested at a PHI of 3-4 days, MRLs to cover residues of bifentazate and the metabolite D3598 in/on crops will be established as shown in Table 1. Residues of bifentazate in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodities (RACs).

**TABLE 1. Summary of Field Trial Data Used to Establish Maximum Residue Limit(s) (MRLs)**

Commodity	Total Application Rate (kg a.i./ha)	PHI (days)	Average Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)	US Tolerance (ppm)
			Min	Max				
<b>Stone Fruits (Crop Group 12-09), except plums</b>								
PMRA # 876591/876592/876599 (peaches and plums); 1980922 (peaches), 1994351 (peaches, plums, apricots); 1994353 (cherries)								
Peaches	0.55-0.57	3	0.130	1.24	--	--	2.5	2.5
Cherries (Sweet and Tart)	0.55-0.58	3-4	0.111	1.61	--	--		
Apricots	0.56-0.57	3	0.233	0.728	--	--		
<b>Plums</b>								
PMRA # 876591/876592/876599; 686349 (plum processing); 1994351								
Plums	0.56-0.57	3	0.010	0.125	<u>Prune (dried)</u> 0.5	--	0.2	0.2

### Environmental Assessment

For the label expansion for Acramite 50WS to include stone fruit fruits (Crop Group 12-09), the maximum application rate of 851 g end-use product/ha (426 g a.i./ha), number of applications (one) and method of application (ground application only) are the same as that of the registered product. Label expansion for Acramite 50WS to include stone fruits (Crop Group 12-09) is, therefore, not expected to pose additional environmental concerns.

### Value Assessment

Trials conducted on cherries, prune, and plums in Michigan, Oregon, and California demonstrate that bifentazate controlled two spotted spider mite and European red mite at rates of approximately 430 g a.i./ha. As well, extrapolation from the currently registered use pattern for control of two spotted spider mite and McDaniel mite on crop subgroup 13-07A (canberries) at 426 g a.i./ha with a maximum of 1 application a year is possible.

## Conclusion

Following the review of all available data, the label expansion of Acramite 50WS for use on stone fruits (Crop Group 12-09) has been approved. MRLs have been recommended to cover residues of bifenazate and the metabolite D3598 (expressed as bifenazate) in stone fruits (Crop Group 12-09). Residues of bifenazate and D3598 (expressed as bifenazate) in stone fruit commodities at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

## References

### PMRA

#### Document

#### Number

#### Reference

686347	1999, Stability of bifenazate and metabolite in fruit matrices during freezer storage, DACO: 7.3
686349	2000, UCC-D2341 50WP on Stonefruit: Magnitude of the residue and processing study, DACO: 7.2.1,7.4.1,7.4.2,7.4.5
876591	2000, UCC-D2341 50WP on Stonefruit: Magnitude of the residue and processing study, DACO: 7.2.1,7.4.1,7.4.2,7.4.5
876592	2000, UCC-D2341 50WP on Stonefruit: Magnitude of the residue and processing study, DACO: 7.2.1,7.4.1,7.4.2,7.4.5
876599	2000, UCC-D2341 50WP on Stonefruit: Magnitude of the residue and processing study, DACO: 7.2.1,7.4.1,7.4.2,7.4.5
1980922	2010, Residue report - "Bifenazate: Magnitude of the Residue on Peach", DACO: 7.4.1
1994351	2003, ACRAMITE-50WS on Peaches, Plums and Apricots: Magnitude of the Residue, DACO: 7.4.1,7.4.2
1994353	2003, Bifenazate: Magnitude of the Residue on Cherry, DACO: 7.4.1
1994374	2003, Confirmatory Method: Residue analytical method validation for bifenazate and UCC-D3598 in peaches, raisins and almonds, DACO: 7.2.2,7.2.3
2036268	1998, Validation of the Crop Residue Method for D2341 and D3598 (Combined Method for Apples and Citrus, Including Radiovalidation), DACO: 7.2.2
1994357	2010, Acramite 50WS (bifenazate) PCP # 27925 efficacy for the control of mites: Two-spotted spide mite and European red mite on Cherry and Prune/Plum (Crop Group 12), DACO: 10.1,10.2.3.1,10.3.2

- 1994358 2000, Bifenazate for TSSM and ERM control in tart cherries, DACO: 10.2.3.3
- 1994362 2001, UCC-D2341 - Cherries - Evaluate for the control of two-spotted spider mites, DACO: 10.2.3.3
- 1994363 2003, Acramite - Sweet Cherries - Evaluate Acramite in University trials for the control of two-spotted spider mites, DACO: 10.2.3.3
- 1994364 2003, Acramite - Cherries - Evaluate for control of two-spotted spider mites, DACO: 10.2.3.3
- 1994365 2003, Acramite 50WS - Prunes - Evaluate for spider mite control in commercial size trials - DACO: 10.2.3.3
- 1994366 2003, Acramite - Prunes - Evaluate for spider mite control in commercial size trials - DACO: 10.2.3.3
- 1994372 2003, Acramite 50WS - Prunes - Evaluate for spider mite control in commercial size trials - DACO: 10.2.3.3
- 1994373 2003, Evaluate Acramite compared to Pyramite for control of the two-spotted mite on cherries, DACO: 10.2.3.3

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2011

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.