

# Tivano

Fungicide & Bactericide

For Angular Leaf Spot and  
Powdery Mildew



0 Day PHI

4 Hours REI



## TECHNICAL SPECIFICATIONS

- Canadian registration number: 30459
- Active ingredients: Citric acid and lactic acid (present as fermentation products of *Lactobacillus casei* strain LPT-111)
- Packaging: One (1) case = 2 x 10L
- Formulation Type: Liquid concentrate
- Chemical Group: N/A Biopesticide
- PHI: 0 days
- REI: When spray is dry

## COMPATIBILITY

Tivano was tested with: Cantus™ WDG (Boscalid)<sup>1</sup>, Nova™ 40W (Myclobutanil), Elevate® 50 WDG, (Fenhexamide)<sup>1</sup>, Supra Captan 80 WDG (Captan), Pure Spray Green

Physical and chemical compatibilities were tested. <sup>1</sup>Phytotoxicity was tested on Seascape strawberries

## USE PATTERN

CROP	DISEASE	RATE	FOLIAR SPRAY VOLUME	APPLICATION TIMING
Strawberries	Powdery mildew ( <i>Sphaerotheca macularis f.sp.fragariae</i> )	1.4% + Xiameter OFX-0309 fluid (Silicone based surfactant) at 0.05%	Use a combination of spray volume and pressure to obtain an excellent coverage of both sides of leaf. (usually 500-700 L/ha)	7-10 days
	Angular leaf spot ( <i>Xanthomonas fragariae</i> )	1.7%		5-10 days

Manufactured by:

925 des Calfats • Lévis (QC) G6Y 9E8

Toll free: 1 (866) 622-3222 • Tel.: (418) 838-4441 • Fax: (418) 838-9909

info@aefglobal.com • www.aefglobal.com

Update: 18/06/2019

**AEF GLOBAL**  
Biopesticides

# Tivano

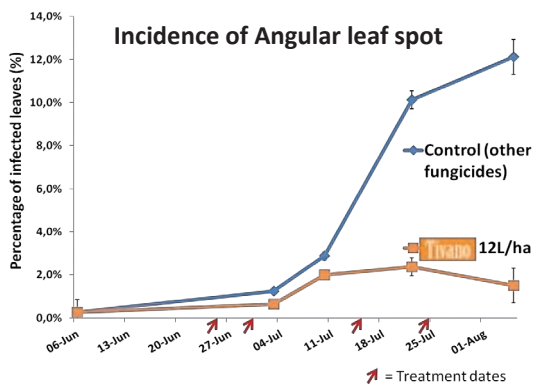
## MODE OF ACTION

Organic acids break the integrity of the cell wall. It has antifungal effects on conidia germination, germ tube formation and elongation, appressorium formation, hyphae branching and haustorium formation. In addition, it has a direct bactericide activity and also reduces bacterial growth and the appearance of various disease symptoms.

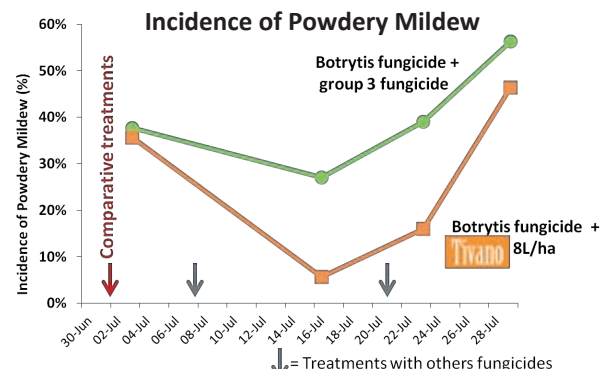
## OPTIMAL USED PATTERN

- For angular leaf spot, apply at the first sign of disease. Tivano has to be applied when disease is active before mechanical disturbance or rain events. It will dry out the bacterial exudates and prevent their spreading.
- Use silicone surfactant only against powdery mildew.

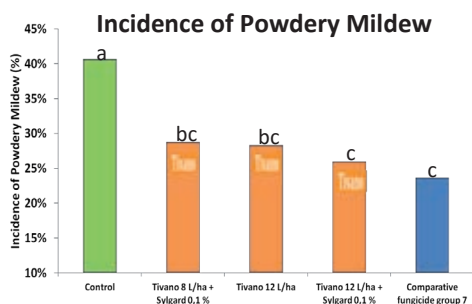
## RESULTS



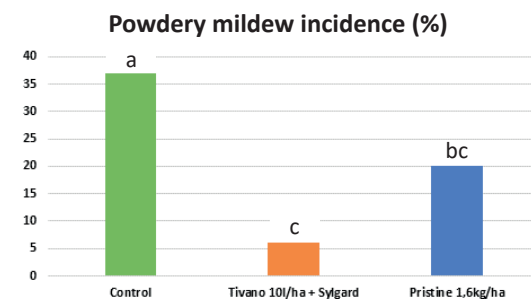
Trial with large commercial operation in 2014. Treatment applied by grower with a boom sprayer (200 psi). Spray volume: 700 L/ha. Strawberry variety: Seascape.



Trial with large commercial operation in 2013. Treatments applied by grower with boom sprayer (200 psi). Volume spray: 700 L/ha. Strawberry variety: Seascape.



Field trial in 2014. Spray interval: weekly. Spray volume: 700 L/ha. Strawberry variety: Seascape. Surfactant use: 150 ml/ha Xiameter



Greenhouse trial in 2017. Spray interval: weekly. Spray volume: 700 L/ha Strawberry variety: Albion. Surfactant use: 350 ml/ha Xiameter.

Tivano is registered in Canada by AEF Global. Cantus and Pristine are registered trademarks of BASF Canada Inc. Elevate is a registered trademark of Arysta LifeScience North America. Nova is a trademark of Dow AgroSciences Canada Inc. Supra Captan 80 WDG is a registered trademark of Loveland Products Inc. Please refer to product label for complete application details. Always read and follow label directions. Log on to [www.aefglobal.com](http://www.aefglobal.com) for full label information.

Manufactured by:  
 925 des Calfats • Lévis (QC) G6Y 9E8  
 Toll free: 1 (866) 622-3222 • Tel.: (418) 838-4441 • Fax: (418) 838-9909  
 info@aefglobal.com • www.aefglobal.com

