

POME AND STONE FRUIT

Terramera®
RANGO™

ONE PRODUCT, TRIPLE CONTROL
FUNGICIDE INSECTICIDE MITICIDE

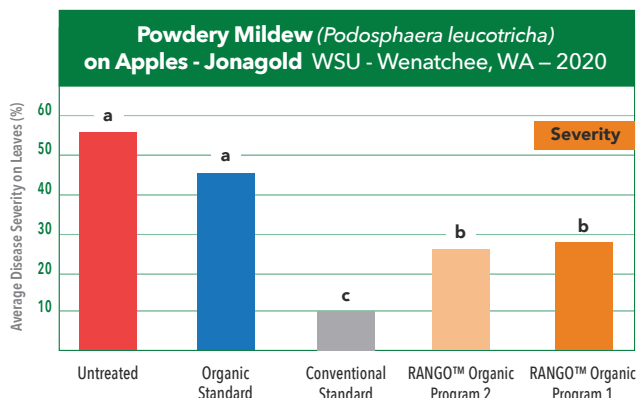


Proven broad-spectrum control
for major pests and diseases

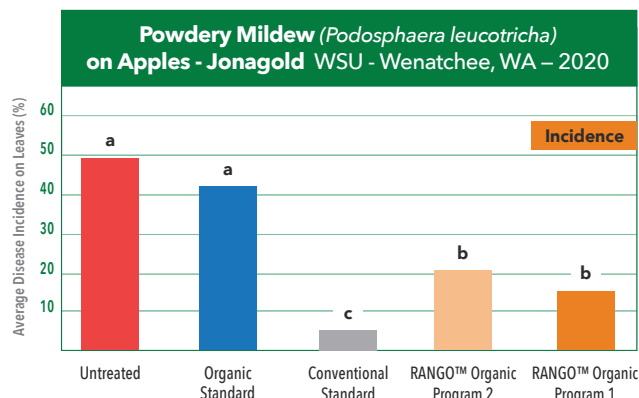
Try RANGO™ today.
See inside for field trials and more.

RANGO is an effective rotation partner in IPM programs for Powdery Mildew control

Washington State University evaluation efficacy for apple powdery mildew management in Wenatchee, WA 2020



Equipment: Backpack sprayer at 100GPA.



Statistical Analysis: Student's t-test $\alpha = 0.05$

RANGO Programs

Treatment RANGO Organic Program 1	Green tip	Pink	Petal fall	1st cover	2nd cover	3rd cover
Lime sulfur 3 gal/ac	+					
OSO 6.5 fl oz + SB56 12 fl oz		+				
RANGO™ 160 fl oz			+		+	+
Kaligreen 2.5 lb/ac				+		

Treatment RANGO Organic Program 2	Green tip	Pink	Petal fall	1st cover	2nd cover	3rd cover
Lime sulfur 3 gal/ac	+					
RANGO™ 160 fl oz		+				+
Serenade OPTI 18 oz/ac			+			
Kaligreen 2.5 lb/ac				+		
Double Nickel 64 fl oz/ac					+	

Please request a Terramera Representative for full WSU Report.

Standard Programs

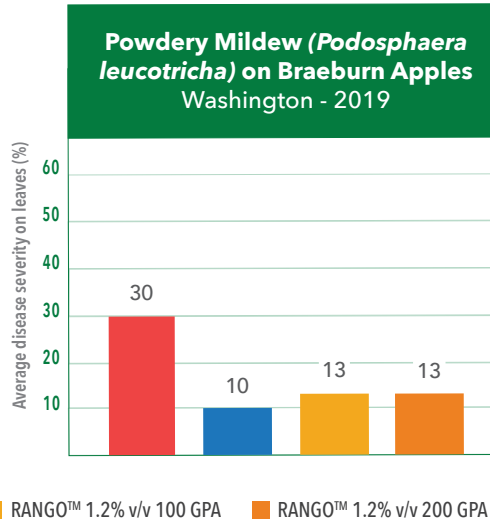
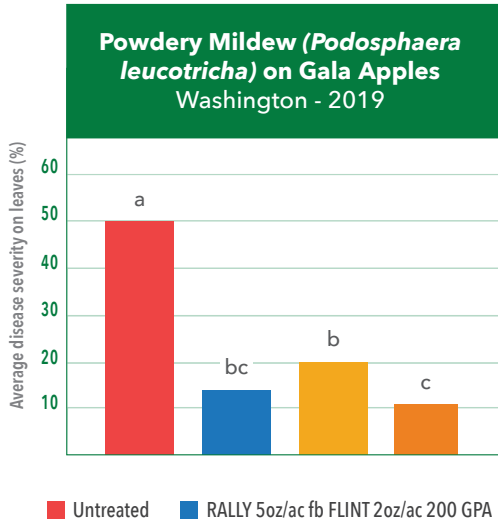
Treatment Standard Conventional	Green tip	Pink	Petal fall	1st cover	2nd cover	3rd cover
Lime sulfur 3 gal/ac	+					
Procure 12 fl oz/ac		+				
Luna S 5fl oz/ac			+			
Inspire Super 12 fl oz/ac				+		
OSO 6.5 fl oz + SB56 12 fl oz					+	
Aprovia 6 fl oz/ac						+

Treatment Standard Organic	Green tip	Pink	Petal fall	1st cover	2nd cover	3rd cover
Lime sulfur 3 gal/ac	+					
OSO 6.5 fl oz + SB56 12fl oz		+				
Serenade OPTI 18 oz/ac			+			
Kaligreen 2.5 lb/ac				+		
Double Nickel 64 fl oz/ac					+	
Neemix Neem Oil 10.5 fl oz/ac						+

Serenade Opti and LUNA are registered trademarks of BAYER · Kaligreen® is a registered trademark of Otsuka AgriTechno Co., Ltd. · OSO®, NEEMIX® 4.5 and Double Nickel® are registered trademarks of Certis USA LLC · INSPIRE SUPER® and Aprovia® are trademarks of Syngenta.

Proven control of Powdery Mildew three consecutive years in Washington

-  Fungicide
-  Insecticide
-  Miticide



Application Timings

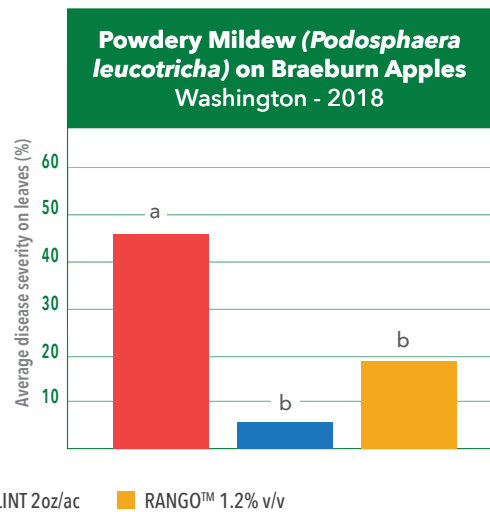
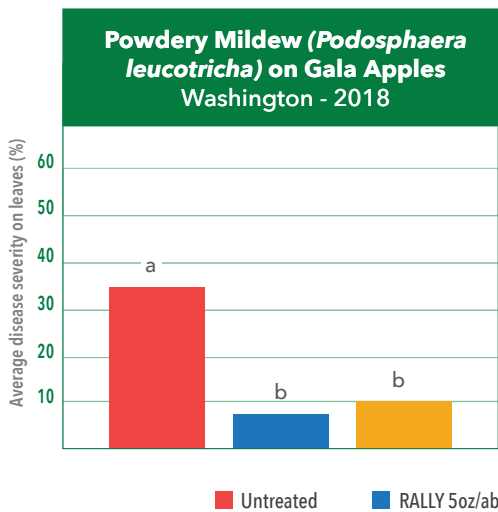
- Apr 4 (green tip)
- Apr 15 (tight cluster)
- Apr 24 (pink)
- May 8 (full bloom - petal fall)
- May 23 and 29 (cover sprays)
- Evaluation date Jul 31, 2019

Trial Information

- Air blast conventional sprayer
- 100-200 GPA.

Statistical Analysis

- LSD alpha=0.05



Application Timings

- Apr 4 (green tip)
- Apr 13 (tight cluster)
- Apr 24 (pink)
- May 3 (full bloom - petal fall)
- May 14 and 24 (cover sprays)
- Evaluation date Jul 23, 2018

Trial Information

- Air blast conventional sprayer
- 100 GPA.

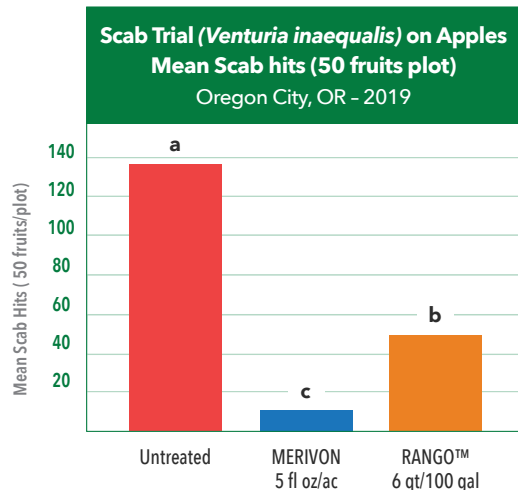
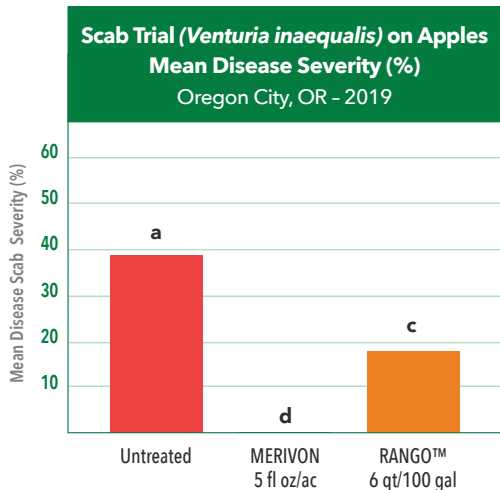
Statistical Analysis

- LSD alpha=0.05

RANGO, OMRI-Listed, delivers comparable efficacy to conventional products controlling powdery mildew

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RANGO is an effective solution for controlling Scab in apples and pears



Application and Evaluation

6 Applications:

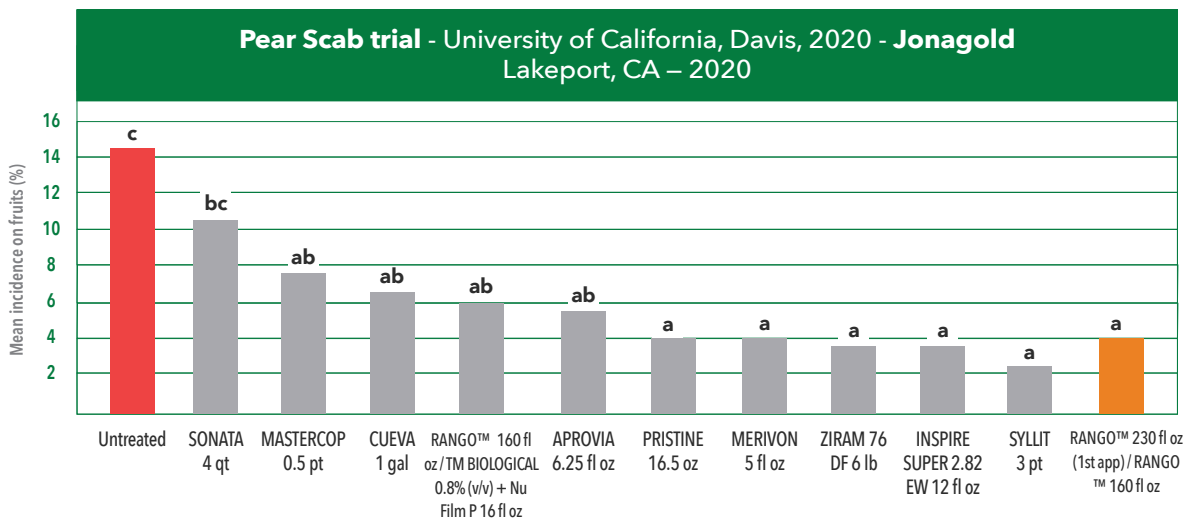
- Apr 10, 25
- May 9, 23
- Jun 5, 9
- Evaluation date Jul 2 and Jul 9, 2019

Trial Information

- High-pressure orchard gun
- 110 GPA
- Apple variety "Gala"

Statistical Analysis

- LSD alpha = 0.05



Application and Evaluation

- 12 Mar = Green tip
- 20 Mar = Green cluster
- 31 Mar = Early bloom
- 14 Apr = Full bloom
- 24 Apr = Petal fall
- 08 May = 1st cover
- 22 May = 2nd cover
- Evaluation date: June 3rd

Equipment:

- Backpack Sprayers
- 100GPA

Statistical Analysis

- LSD alpha=0.05

RANGO outperforms organic products and is comparable to conventional products in controlling pear scab

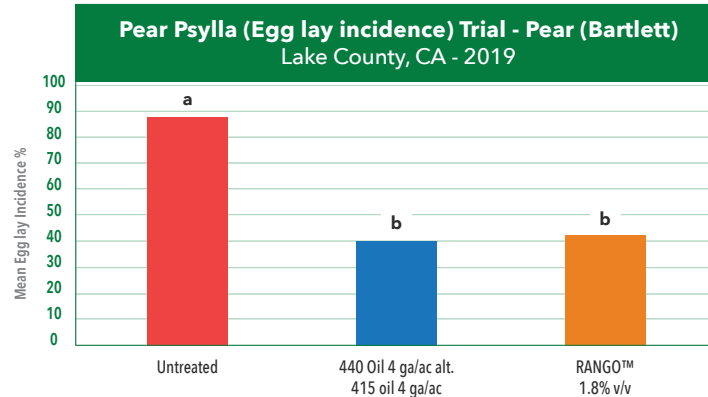
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RANGO controls Pear Psylla throughout its life-cycle (egg to adult)

-  Fungicide
-  Insecticide
-  Miticide

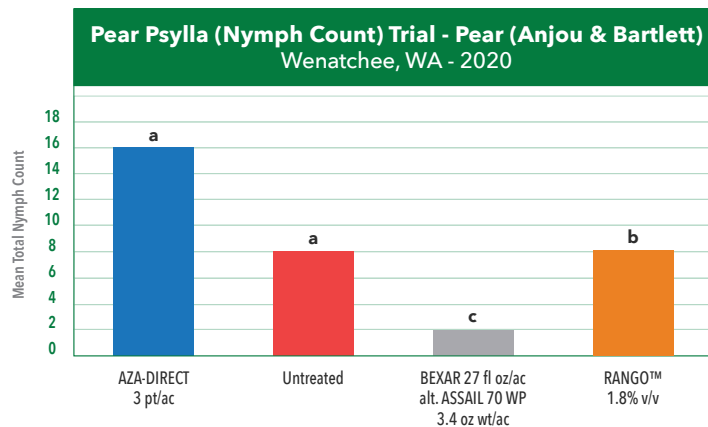


RANGO, as an early season management program, effectively deters egg laying by 50%



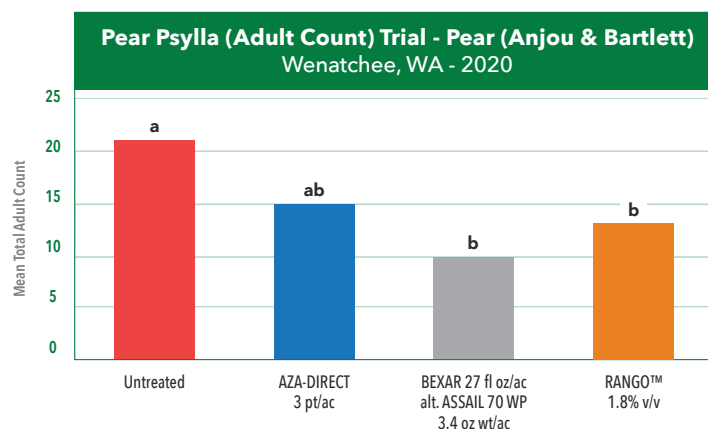
- Application and Evaluation**
- Mar 4th (Delayed Dormant)
 - Mar 24th (Beginning of Egg-laying)
 - Evaluation date Mar 21 and Apr 3
- Trial Information**
- 100 GPA
- Statistical Analysis**
- LSD alpha = 0.05

RANGO significantly lowers pear psylla nymph count vs untreated without harming natural enemies



- Applications**
- Apr 2 (delayed dormant)
 - Apr 8 (popcorn)
 - Apr 23 (petal fall)
 - Apr 27 (petal fall +5)
- Post-treatment evaluations:**
- Apr 16
 - May 2, 5th
 - Natural Enemies: RANGO had no negative effect
- Trial Information**
- Application A and B = 100GPA
 - Application C and D = 200GPA
- Statistical Analysis**
- LSD alpha = 0.1

RANGO is comparable to conventional products in controlling adult pear psylla

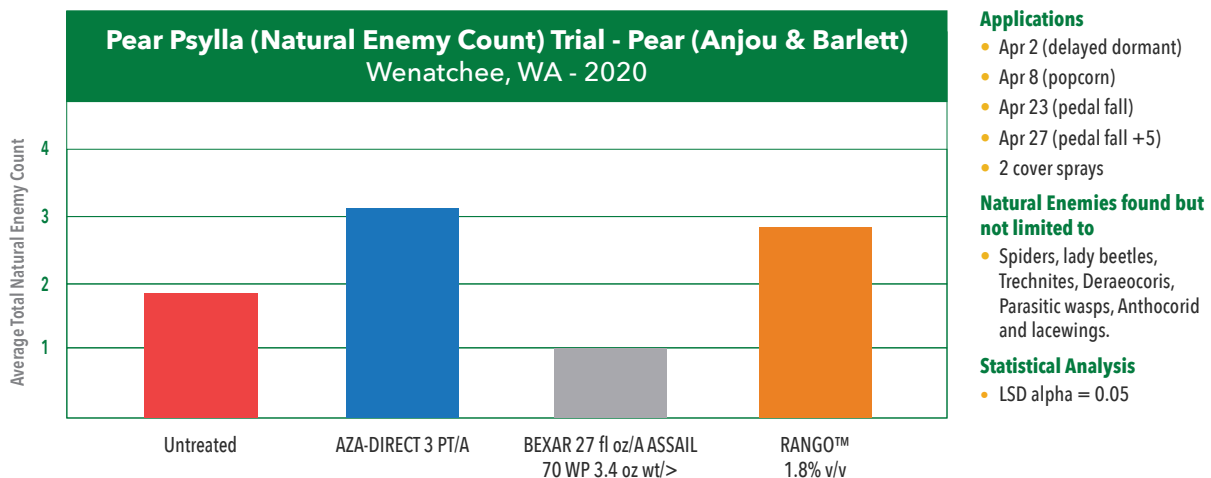


- Applications**
- Apr 2 (delayed dormant)
 - Apr 8 (popcorn)
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 - Apr 27 (petal fall +5)
- Post-treatment evaluations:**
- Apr 16
 - May 2, 5th
 - Natural Enemies: RANGO had no negative effect
- Trial Information**
- Application A and B = 100GPA
 - Application C and D = 200GPA
- Statistical Analysis**
- LSD alpha = 0.1

Aza-Direct® is a registered trademark of Gowen Company, L.L.C. · Bexar is a registered trademark of Nichino America, Inc 10 · Assail® is a registered trademark of Nippon Soda Co., Ltd

RANGO: Soft on Beneficials

RANGO resulted in numerically higher beneficials than the conventional standard



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What growers say about RANGO

“Applied at 100 GPA in calibrated air blast sprayer, pre application beat tray samples were used to determine thrip population estimates, on average, 21.5 adult thrip. Applied RANGO to certified organic sweet cherryblock in Wenatchee Heights, 5/4/2020, 3 qts/100 and 1 pint of Alluma (garlic oil & potassium oleate) per 100. Next day, more beat tray samples and average thrip count was, 5.6, which was extremely superior efficacy when compared to other treatments, but more research and trials need to be done to guarantee the efficacy over Entrust SC, before claims are made. With that said, grower, consultant with Chamberlin and myself were extremely pleased with the results and the same tank-mix went on the rest of the organic certified cherry blocks. Rango is quickly showing it multi-purpose uses, which is a big thing in the organic world where we don't have a “nuke” to reset things.”

Jake Carson - Washington State

Key features of RANGO

- Fungicide
- Insecticide
- Miticide



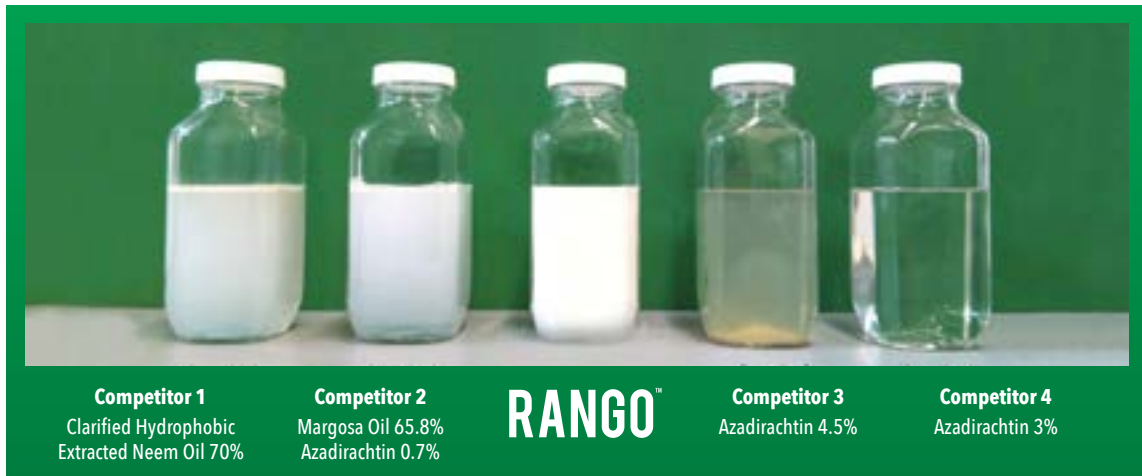
Multiple modes of action

RANGO is a high quality, 70% cold-pressed neem oil containing over 150 active limonoids including azadirachtin. Limonoids have activity on a variety of different organisms. The modes of action on insects are repellence, anti-feedance and interference with the molting process. Diseases are controlled by inhibition of mycelial growth.



Superior stability

RANGO is a premium formulation of high quality cold-pressed Neem oil loaded into a proprietary inert chassis resulting in superior emulsion and in-tank stability. RANGO™ has the ability to stay in suspension with minimum agitation for more than 48 hours, a significant improvement compared to other Neem-based products. RANGO is formulated in a synthetic pesticide-free facility in the USA.



*Image taken after 48 hours of mixing (product label rates were followed)



Grower flexibility

RANGO also offers flexibility in application timing and method, and is exempt from maximum residue requirements. It may be applied to food and non-food crops up to and including the day of harvest. Worker re-entry interval (REI) is just four hours after application, minimizing interference with labor.



OMRI-Listed and no known resistance

RANGO is OMRI-Listed for use in organic agriculture. It is also classified as a "NC" FRAC Code – no known resistance and can be used as part of an integrated pest management program for organic and conventional farming.

See label for full list of crops, insects and diseases

Scan to download the product label



TRY NEW RANGO™ – ONE PRODUCT, TRIPLE CONTROL



FUNGICIDE



INSECTICIDE



MITICIDE



Want to know more?
Try RANGO™ today.

Visit tryrango.com for field trials and more.

CONTACT US: For more information call your territory manager at **360.988.3850/ 360.988.3032** or contact your local dealer!

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