



# Introduction to AgroSource, Inc.

2018 IR-4 Food Use/Biopesticide Workshop  
September 19-21, 2018



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AgroSource, Inc.



# About AgroSource

- Science –based, privately-held, crop protection company since 2000
- Mission: Identify and develop products for unmet or underserved grower needs
- Products include the leading bactericide brands in fruits, vegetables and ornamentals for bacterial disease control in the US



# AgroSource Products

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**FireLine™** 17 WP (17% oxytetracycline)

**FireLine™** 45 WP (45% oxytetracycline)

**FireWall™** 17 WP (17% streptomycin)

**FireWall™** 50 WP (50% streptomycin)

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## Form of Active Ingredients:

- Oxytetracycline Hydrochloride (FireLine)
- Streptomycin Sulfate (FireWall)



# Product Uses

## Product/Active Ingredient

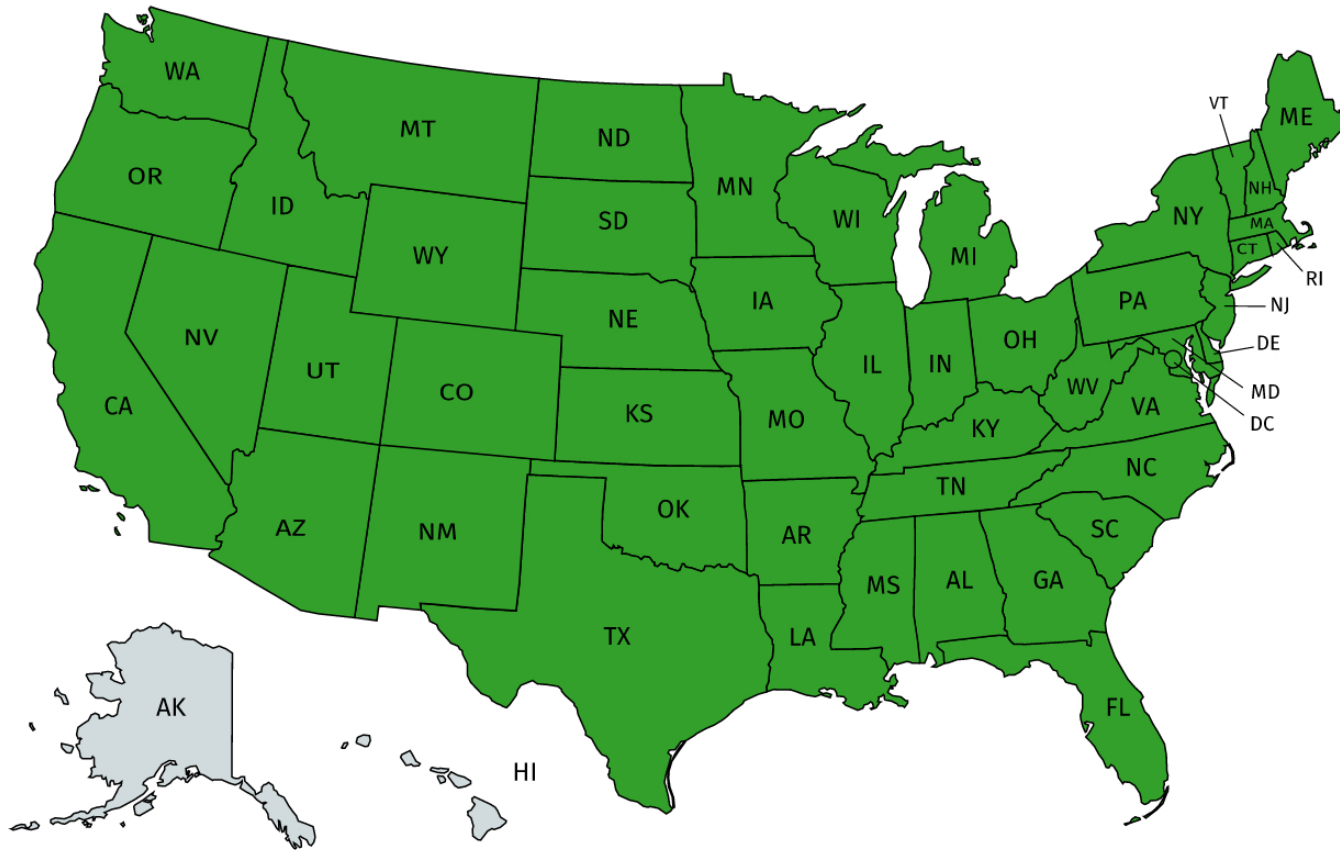
Diseases	Crop	<i>FireWall</i> <sup>17 WP</sup> 17% Streptomycin	<i>FireWall</i> <sup>50 WP</sup> 50% Streptomycin	<i>FireLine</i> <sup>17 WP</sup> 17% Oxytetracycline	<i>FireLine</i> <sup>45 WP</sup> 45% Oxytetracycline
Fire Blight	Apples	X	X	X	X
	Pears	X	X	X	X
Citrus Greening (HLB)*	Oranges		X	X	
	Grapefruit		X	X	
	Other Citrus Varieties		X	X	
Bacterial Spot	Peaches			X	X
	Nectarines			X	X
Other Diseases (See Label)	Ornamentals	X	X		
	Tobacco	X	X		
	Potatoes	X	X		
	Pepper (Seedlings)	X	X		
	Tomatoes (Seedlings)	X	X		
	Celery (Seedlings)	X	X		

\*Only in Florida and California under a Section 18 Emergency Exemption

Pending Section 3 Labeling for Citrus includes uses for Citrus Canker and Citrus Greening



# Registered States



 REGISTERED

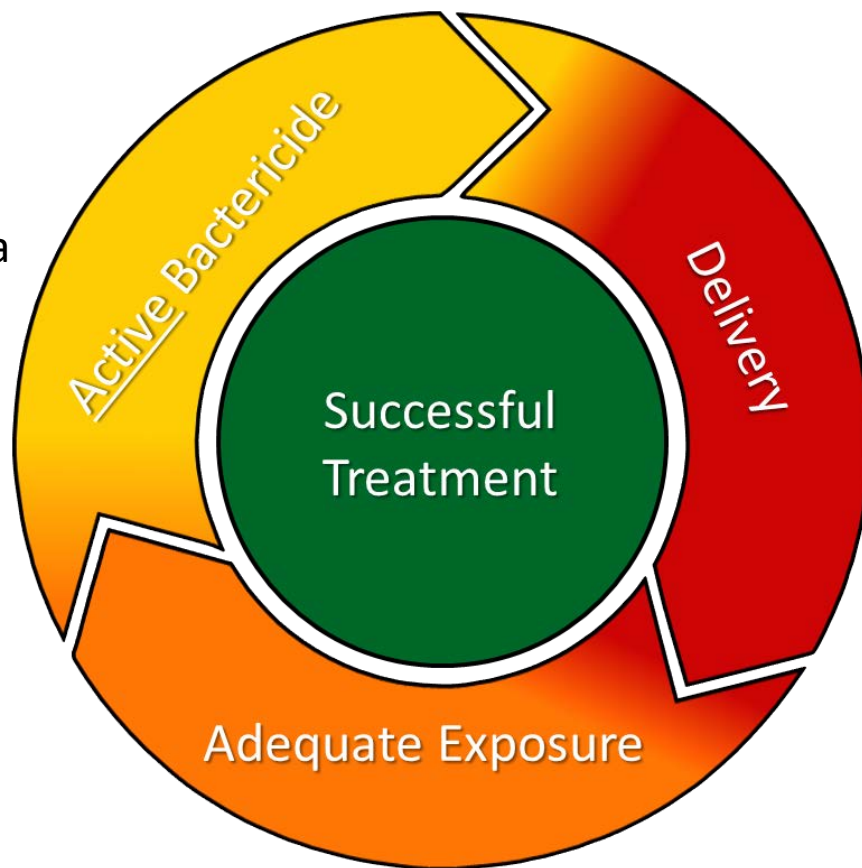
**FireWall**<sup>™</sup>  
50 WP

**AGRO SOURCE**<sup>™</sup>  
Fruitful Thinking<sup>™</sup>



# Keys to Success Against Bacterial Diseases of Plants with *FireLine*<sup>™</sup> & *FireWall*<sup>™</sup>

Proven activity against Gram negative bacteria (Fire blight, bacterial spot & speck, etc.)



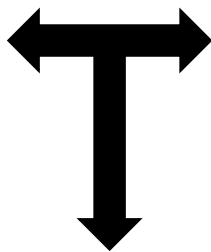
Screening adjuvants to optimize uptake and movement to active site

Validated control in greenhouse and field



# ASI Research & Development

- Cooperative Research and Development Agreement (CRADA) with USDA (2013)
  - The primary scientific investigators are: Dr. Robert Shatters, USDA; and Dr. Mark Trimmer, ASI & Dr. Kent Morgan, ASI



Growers



# Case study: Citrus and HLB

- Oxytetracycline and streptomycin have been in use for years in plant agriculture
- FireLine and FireWall were formulated for treatment of surface bacterial plant diseases
- HLB is an internal bacterial disease of Citrus
- CRADA HLB research discovered that by pairing FireLine and FireWall with a specific application schedule and screening adjuvants, FireLine and FireWall now penetrate and move systemically, translating to reduced bacterial titer, higher yields, and better tree health

This has led to Section 18s in FL and CA, and Section 3 new uses for all citrus are pending EPA approval



# The ASI/ARS CRADA Team



- Rene Amundson, Ph.D.
- Doug Baugher, Ph.D.
- Carly Franko
- Lori Hutchinson
- Jeongsoon Kim, Ph.D.
- Evan Koester
- Dave Lindsay, Ph.D.
- Bo Meador
- Kent Morgan, Ph.D.
- MaLu Oliveira, Ph.D.
- Taw Richardson, President/CEO
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- Mark Trimmer, Ph.D.
- Ericarose Warwick
- Monty Watson
- Kimberly Wood
- Patrick Zagorski



- Belkis Diego
- Carole Malone
- Steve Mayo
- Robert Shatters, Ph.D.



