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# IFAS EXTENSION

**Citrus Notes** 

Polk County Extension Service PO Box 9005, Drawer HS03 • Bartow, FL 33831-9005 (863) 519-1052, email: wcoswalt@ufl.edu Hillsborough County Extension Service 5339 County Road 579 • Seffner, FL 33584-3334 (813) 744-5519, Ext. 54131





## April 2016

Inside this Issue:

2016 Florida Citrus Growers' Institute	2
Brazil Citrus Tour	2
Antibacterial Products for HLB	2
2016 Florida Citrus Integrated Pest Management Guides	2
2016 Annual Meeting of the Florida State Horticultural Society (FSHS)	3
Agricultural Tax Planning - Section 179	
Expensing and First Year Bonus Depreciation	3
Pesticide News & Information	4

Vol. 16-04

#### Dear Growers,

The following are grower events planned for the near future:

Society Annual Meeting

April 5th2016 Florida Citrus Growers'<br/>InstituteJune 12th-14th2016 Florida State Horticultural

Enjoy the issue,

Chin Oswatt

Chris Oswalt Citrus Extension Agent Polk/Hillsborough Counties 863-519-1052 P.O. Box 9005, Drawer HS03 Bartow, FL 33831-9005

#### 2016 Florida Citrus Growers' Institute



The 2016 Florida Citrus Growers Institute will be held in Avon Park at the South Flor-

ida State College Campus. The Institute will be on Tuesday, April 5, 2016, in the Theater for Performing Arts. The program agenda and a registration brochure is included. Online registration can be done at the following link: <u>https://www.picatic.com/institute2016</u>. CEU's will be available for your restricted pesticide license (five for agricultural tree crop or private applicator) and for your certified crop advisor designation (2.5 for integrated pest management, 2 for crop management and 0.5 for soil & water management). **Please remember that registration must be completed by Friday, April 1, 2016.** We look forward to seeing you at this year's Institute.



#### Brazil Citrus Tour, June 18-25, 2016

Dr. Steve Futch is looking at taking another group of citrus growers to Brazil to see their

citrus industry. The tentative dates are June 18-25, 2016. As in the past, we will depart on Saturday (June 18) with arrival in Brazil on Sunday morning. Our citrus visits will begin on Monday morning and our group will depart Brazil on Friday evening with arrival back to Florida on Saturday morning, June 25<sup>th</sup>. We will spend the entire week in the state of Sao Paulo looking at citrus operations to see how they are working on control measures to manage HLB. In the past, we have visited groves, citrus nurseries, and packing houses. Each tour has been slightly different, with actual stops to be determined in the near future.

Once we get 10 people that commit to going on the citrus tour, we will be developing a complete itinerary with locations visited. We anticipate the trip to cost

approximately \$2,500 per person, which will include hotel, ground transportation and airfare to and from Florida. The final cost may vary slightly due to exchange rates, increases in airfare, and the total number of participants participating in the trip. The maximum number of participants is limited to 15.

If you are interested in traveling to Brazil in June 2016, please call Dr. Futch at: 863-956-8644 or by email: <u>shf@ufl.edu</u>, and he will add you to a list of possible participants.



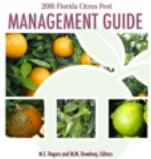
### Antibacterial Products for HLB

By this time, I am sure most growers have seen the crisis exemption for the use of antibacterials prod-

ucts for HLB infected citrus trees. I have attached to the newsletter the actual crisis exemption, along with a suggested product use pattern for citrus trees infected with HLB. Please note that the information on the suggested product use guide is not an official University of Florida recommendation. This information is based on the crisis declaration of March 4, 2016. It will become invalid after the establishment of a section 3 or 18 label. As additional information becomes available, we will pass it onto you.

### 2016 Florida Citrus Integrated Pest Management Guides

Last week we received copies of the new 2016 Florida Citrus Spray Guide. If you are interested in a copy, they are free and available here at my office in Bartow or at Frostproof Grower Supply in Frostproof.



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#### 2016 Annual Meeting of the Florida State Horticultural Society (FSHS)

As president of the Florida State Horticultural Society, I would like to invite you to this year's Annual Meeting. The meeting will be held from June 12 to June 14, 2016 at the Hutchinson Island Marriott Resort and Marina. This will be the Society's 129th Annual Meeting. The presentations are made in one of the Society's six sections, Citrus, Vegetables, Ornamental Garden and Landscaping, Handling and Processing, Krome Memorial and Natural Resources. Early bird discounted meeting registration will be available until April 15, 2016. Additional meeting and registration information can be found on the Society's website at: http://fshs.org/.

# Agricultural Tax Planning - Section 179 Expensing and First Year Bonus Depreciation (Author: Thomas J. Bryant, CPA and Ryan Beasley, CPA).

The tax extenders bill, Protecting Americans from Tax Hikes Act of 2015 (Path Act) produced two significant provisions that provide tax planning opportunities related to the timing of the tax deduction for **property used in a business**. The ability to **currently** deduct the cost of fixed asset purchases as opposed to depreciating those assets over a period of years **saves tax dollars**. These two provisions are the **Code Section 179 Expense Deduction (now permanent)** and the return of **First-Year Bonus Depreciation**. We will discuss each provision separately in this article.

#### Code Section 179 Expensing

The PATH Act not only increased the limit for 2015 but also made Section 179 expensing **permanent.** Under the PATH Act, the Section 179 yearly **dollar expense limit is \$500,000** with a dollar for dollar phaseout beginning when the taxpayer's fixed asset investment exceeds \$2,000,000 for the tax year. Thus, if the taxpayer's fixed asset purchases exceed \$2,500,000 no Section 179 expensing is available for that tax year. Both the dollar limit and investment limit will be indexed for inflation beginning in 2016. Also, the amount eligible to be expensed in any one tax year cannot exceed the taxable income derived from the taxpayer's active conduct of a trade or business. Section 179 deductions can offset a taxpayer's income, but cannot be used to create a loss. However, amounts not allowed due to the taxable income limitation can be carried forward to succeeding tax years.

Code Section 179 allows farmers, orchard growers and other businesses the ability to deduct in the year placed in service, usually the year purchased, the cost of qualified assets which would otherwise require capitalization and expensing for tax purposes over a number of years. This provision does not apply to estates, trusts, or certain non-corporate lessors. The property must meet the definition of "qualified property" which is normally tangible personal property purchased for use in a business with a useful life of more than one year. For example, office furniture and fixtures, tractors, and other farm equipment; single purpose agricultural or horticultural structures; vines, groves and orchards; water wells; drainage facilities; agricultural fences; breeding and dairy livestock as well as fur-bearing animals are eligible for Section 179 expensing.

In addition, there are special rules for trucks and SUV's. Full-sized pickups and SUV's with an unloaded gross vehicle weight rating (GVWR) of over 6,000 pounds but not more than 14,000 pounds are limited to a Section 179 deduction of \$25,000. However, there are exclusions to this limitation that allow 100% expensing.

The Section 179 election applies to "qualified real property" which includes qualified leasehold improvement property, qualified restaurant property and qualified retail improvement property and off-the-shelf computer software. Also added is the ability of a taxpayer to revoke a Section 179 election without IRS consent.

#### Additional First-Year Depreciation (Bonus Depreciation)

The Path Act restored Bonus Depreciation but with some changes. It only allows 50% first-year depreciation for three years staring with 2015. The percentage is reduced to 40% in 2018 and 30% in 2019. The year the property is "placed in service" determines the firstyear Bonus Depreciation amount. Bonus Depreciation generally applies to property with a recovery period of 20 years or less. Most farm machinery, equipment and other depreciable property will qualify. Bonus Depreciation applies only to **new** property and its original use must commence with the taxpayer claiming the Bonus Depreciation. For passenger autos, Bonus Depreciation is increased by \$8,000, unadjusted for inflation in computing the first-year depreciation.

The PATH Act also relaxes that rule regarding the timing when Bonus Depreciation may be taken on fruitbearing or nut-bearing plants. The old rule provided that Bonus Depreciation was not allowed on fruit-bearing and nut-bearing plants until they reached an income-producing stage "placed in service". After December 31, 2015 and before January 1, 2020, the new rule is they may qualify when planted or grafted. Thus, growers can claim Bonus Depreciation when certain trees, vines and plants bearing fruit or nuts are planted or grafted rather than waiting until the plant reaches an income-producing stage. However, if bonus depreciation is taken upon planting or grafting, no additional Bonus Depreciation can be claimed later when the plants are placed in service. Planning should be considered with this election. To qualify, the plant must be grafted or planted in the United States and is generally any tree, vine, or plant that bears fruit or nuts; or any other plant that will have more than one yield of fruits or nuts and generally has a pre-productive period of more than two years from the time of planting or grafting to the time that the plant bears fruit or nuts.

Taxpayers may opt out of Bonus Depreciation for any class of property, as opposed to an individual item, for any tax year, which results in another tax planning opportunity. Bonus Depreciation and Section 179 expensing are both reported on tax Form 4562. The basis of the property and the depreciation taken in the year of purchase and later years are appropriately adjusted to reflect the <u>Bonus Depreciation</u> deduction. Note, there is no additional depreciation on an asset deducted under Section 179 expensing.

#### **De minimis Safe Harbor Election Limit**

As a reminder, the De minimis Safe Harbor Election limit under the new Tangible Property Regulations has increased the current expensing of assets from **\$500 to \$2,500** for years beginning on or after January 1, 2016 for taxpayers without an Applicable Financial Statement (AFS). However the IRS also stated that taxpayers can use the \$2,500 limit for years before 2016 if all other requirements of the election are met. The limit for taxpayers with AFS is \$5,000. This increase alone gives taxpayers the ability to currently deduct a large variety of items costing \$2,500 or less that would otherwise require capitalization. The De minimis <u>Safe</u> <u>Harbor Election must be made each year</u> with the tax return filing and a consistent accounting policy or procedure must be in place before the beginning of the tax year to make the election. It is not required that the policy or procedure be in writing.

#### Summary

All businesses should take advantage of these provisions if applicable to their particular business. If considering large capital purchases in the near future businesses should consider making those purchases in 2016 or 2017 if possible, to take advantage of the 50%Bonus Depreciation. There are no limits on the total amount of Bonus Depreciation that may be taken in any one tax year as there is with Section 179 expensing. Taxpayers should make the most of these benefits while they are available. Please contact me or your tax advisor to maximize the benefit of these tax provisions as they relate to your particular business.

For information on this topic and other tax planning for farming, please contact me at (863) 640-2008 or tom@beasleybryantcpa.com and/or Ryan Beasley at (863) 646-1373 or ryan@beasleybryantcpa.com. Please visit our website at www.beasleybryantcpa.com for information on other relevant topics.

We at Beasley, Bryant & Company, CPA's, P. A. are experienced in agricultural business problems, tax issues or concerns, and are here to help you.

#### Pesticide News & Information



## LUNA<sup>®</sup> SENSATION

Bayer CropScience announced earlier this month (March) that LUNA<sup>®</sup>

SENSATION was approved for use on Florida citrus. LUNA® SENSATION is a combination of Fluopyram and Trifloxystrobin with a mode of action from group 7 and 11.

#### PURPOSE OF THE INSTITUTE

Citrus Greening or Huanglongbing (HLB) continues to impact all citrus production areas of Florida. The 2016 Florida Citrus Growers' Institute is an opportunity for Florida citrus growers to come together to learn about effective management of HLB and other challenging diseases affecting the industry. Topics this year include citrus tree root health, performance of rootstock and scions with HLB, Asian citrus psyllid management, and the use of plant antibiotics.

#### **CONTINUING EDUCATION UNITS**

Continuing Education Units (CEU's) will be offered for holders of restricted use pesticide licenses (RUP) and certified crop advisors (CCA). CEU's have been granted in the following categories: private applicator, agricultural tree crop and demonstration & research for RUP holders. CEU's have been requested for CCA's in the appropriate CEU categories.

#### SPONSORS

#### PLATINUM

Bayer CropScience Syngenta Crop Protection

#### GOLD

Valent

#### SILVER

DuPont Crop Protection

FMC Corporation

#### Gowan

#### BRONZE

Alltech Dow AgroSciences Farm Credit Tradewinds Power Corp.



DIRECTIONS

The South Florida State College is located at 600 West College Drive in Avon Park.

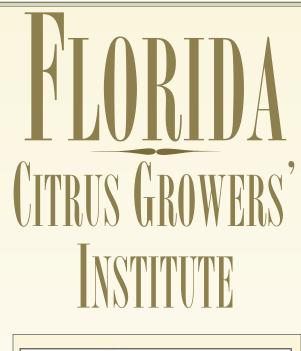
From the South: Take U.S. Hwy. 27/98 north towards Avon Park, turn east onto W. College Drive and follow the signs to the Theatre.

From the North: Take U.S. Hwy. 27/98 south to Avon Park, continue south to W. College Drive, turn east onto W. College Drive and follow the signs to the Theatre.

From the East: Take U.S. Hwy. 98 north to where U.S. Hwy. 27/98 merge south of Sebring. Proceed on U.S. Hwy. 27/98 north towards Avon Park, turn east onto W. College Drive and follow the signs to the Theatre.

From the West: Take S.R. 64 east to Avon Park, turn south on U.S. Highway 27/98 to W. College Drive, turn east onto W. College Drive and follow the signs to the Theatre.

South Florida State College Theatre for Performing Arts 600 W. College Drive Avon Park, FL





#### Conducted by

University of Florida, IFAS Extension Citrus Research and Development Foundation

> South Florida State College Theatre for Performing Arts Avon Park, Florida April 5, 2016

## 2016 Florida Citrus Growers' Institute

#### PROGRAM AGENDA TUESDAY, APRIL 5, 2016

8:00 AM - Registration

#### 8:30 AM - Welcome and Introductions

*Mr. Gary England*, CES, Tavares, FL & *Dr. Michael Rogers*, UF/IFAS CREC

#### BUILDING A HLB TOLERANT CITRUS TREE

Moderators: Mr. Chris Oswalt, CES, Bartow, FL

8:45 AM - How much can the rootstock help to survive with HLB? - *Dr. Kim Bowman,* USDA/ ARS

9:15 AM - Progress on Developing Scions and Rootstocks for an HLB-Endemic Florida - Dr: Jude Grosser, UF/IFAS CREC

9:45 AM - Scion and Rootstock Planting Choices: Questions, Considerations, and Opportunities - Dr. Fred Gmitter, UF/IFAS CREC

10:15 AM - Break

10:30 AM - Developing Scion Cultivars with HLB Tolerance and Resistance - Dr. Ed Stover, USDA/ARS

#### PSYLLID MANAGEMENT AND ECONOMICS OF CHMA'S

Moderators: Dr. Steve Futch, CES UF/IFAS CREC

11:00 AM - Integrated Management of Asian Citrus Psyllid - Dr: Jawwad Qureshi, UF/IFAS SWFREC

11:30 AM - Comparison of CHMAs Economic Performance - Dr. Ariel Singerman, UF/IFAS CREC

12:00 PM - Lunch

#### IMPROVING ROOT HEALTH IN HLB INFECTED CITRUS TREES Moderators: Dr. Mongi Zekri, CES, LaBelle, FL

1:00 PM - Fertigation and Soil Acidification

1:00 PM - Fertigation and Soil Acidification Sustain Root Density of HLB-Infected Trees in Florida Citrus Groves - Dr. Jim Graham, UF/ IFAS CREC

1:30 PM - Rootstocks and *Phytophthora* Management: Implications for Root Health -*Dr. Evan Johnson,* UF/IFAS CREC

### ANTIBIOTICS IN DISEASE MANAGEMENT

Moderators: Dr. Cami McAvoy, CES, Bushnell, FL

2:00 PM - Lessons Learned on the Use of Antibiotics in Fruit Tree Disease Control - Dr: Megan Dewdney, UF/IFAS CREC

2:30 PM - Commercial Grove Studies on the Effectiveness of FireLine<sup>TM</sup> and FireWall<sup>TM</sup> on HLB Symptoms in Florida Citrus - *Dr*: *Robert Shatters*, USDA/ARS

3:00 PM - Adjourn

CES: County Extension Service CREC: Citrus Research & Education Center, Lake Alfred, FL FDACS/DPI: Florida Department of Agriculture & Consumer Services/ Division of Plant Industry, Gainesville, FL

SWFREC: Southwest Florida Research & Education Center, Immokalee, FL

- UF/IFAS: University of Florida, Institute of Food and Agricultural Sciences
- USDA/ARS: United States Department of Agriculture/Agricultural Research Service, Ft. Pierce, FL
- The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution.

FLORIDA CITRUS GROWERS' INSTITUTE April 5, 2016 Citad Concord					Email:	Please send registration to: Gail Crawford, Polk County Extension Service, P.O. Box 9005, Drawer HS03, Bartow, FL 33831.	By phone: 863-519-1042, Fax: 863-534-0001, email: <u>dorothyc@ufl.edu</u> or	online at: https://www.picatic.com/institute2016
PREREGISTRATION IS REQUIRED	Name:	Company:	Address:	City/State/Zip:	Phone:	lease send registration to: Gail Crawford, Polk Coun	By April 1, 2016 By phone: 863-519	online at: http



## **Suggested Antibacterial Product Use Pattern for** Huanglongbing (HLB; citrus greening) Management

M.M. Dewdney and J.H. Graham<sup>1</sup>

The information in this document is a suggested use pattern of antibacterial products in Florida citrus. This is not an official University of Florida recommendation. Information based on crisis declaration of March 4, 2016. Document is invalid after the establishment of a Section 3 or 18 label.

## **Antibacterial Product Application Schedule**

Application schedule should be adjusted based on harvest and flush timing<sup>1</sup>. Antibacterial products should **NEVER** be applied during harvest. **ALWAYS** rotate.

<u>Citrus Type</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Early Season Varieties (Ex. Hamlin, Navel, Fallglo)		STP	ΟΧΥ	STP			STP	ΟΧΥ		$\left \right>$	$\left \right>$	$\left \right>$
Mid Season Varieties (Ex. Murcott, Pineapple, Midsweet)	$\searrow$	$\searrow$	$\searrow$	STP	ΟΧΥ	STP		ΟΧΥ	STP	ΟΧΥ		$\left \right\rangle$
Late Season Varieties (Ex. Valencia)		ΟΧΥ	$\searrow$	$\left \right>$	$\left \right>$	$\searrow$			STP	OXY	STP	
Grapefruit (Ex. Ray Ruby, Flame, Ruby Red)		STP	ΟΧΥ	STP			STP	ΟΧΥ		$\mathbf{\mathbf{X}}$	$\mathbf{\mathbf{X}}$	$\mathbf{\times}$
STP: streptomycin; OXY: oxytetracycline												

<sup>1</sup>apply with initiation of leaf flush

## **Product Details**

	FireWall 50 WP™ (streptomycin)	FireLine 17 WP <sup>™*</sup> (oxytetracycline)	Mycoshield <sup>®*</sup> (oxytetracycline)
Preharvest Interval (days)	40	40	21
Maximum Number of Applications per Calendar Year	3	3	8
Minimum Retreatment Interval (days)	21	21	21
Re-entry Interval (hours)	12	12	12
Total amount of product per year	2.07 lbs product 1.36 lbs a.i.	4.50 lbs product 0.81 lbs a.i.	12.0 lbs product 2.04 lbs a.i.*
FRAC Group	25	41	41

## Antibacterial programs do not replace Asian citrus psyllid management programs.

<ul> <li>Adjuvants are recommended</li> <li>Agitation is required</li> <li>Alternate mode of action (MOA)</li> </ul>	
<ul> <li>Antibacterial products are only labeled for airblast ground sprays (no low volume applications)</li> </ul>	

## THE LABEL IS THE LAW!

Refer to label for additional information. This guide does not supersede the label.

1. Megan M. Dewdney, associate professor, Department of Plant Pathology, Citrus Research and Education Center and James H. Graham, professor, Soil and Water Science Department, Citrus REC; UF/IFAS Extension: Gainesville, FL 32611.

Spray Volume <sup>2</sup>	FireWall 50 WP <sup>™</sup> FireLine 17 WP <sup>™</sup>				Mycos	<u>Mycoshield®</u>	
(GPA)	ounces of product	pounds per active ingredient	ounces of product	pounds per active ingredient	ounces of product	pounds per active ingredient	
50	5.50	0.225	12.0	0.125	8.0	0.125	
75	8.25	0.337	18.0	0.190	-	-	
100	11.0	0.450	24.0	0.255	18.0	0.190	
150	-	-	-	-	24.0	0.255	



Created: March 2016 Version 2

Personal Protective Equipment for Applicators and Handlers						
<b>Product</b> (EPA registration #)	<b>FireWall 50 WP™</b> (80990-3)	<b>FireLine 17 WP™</b> (80990-1)	<b>Mycoshield®</b> (55146-97)			
Long-sleeved shirt and long pants	Yes	Yes	Yes			
Chemical-resistant gloves made of waterproof material	Yes	Yes	Yes			
Shoes and socks	Yes	Yes	Yes			
Protective eyewear	Yes	Yes	Yes			
Respirator	Yes <sup>1</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>			
Application Method	For worker protection concerns, applicators must be in enclosed cab or with headgear that ensures full coverage of the neck.					
<sup>1</sup> a particulate respirator with any N,R, c	· · · ·					

<sup>2</sup>dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N, R, P or HE filter

<u>Crop Site</u>
Citrus: Grapefruit, lemon, lime, orange, tangelo, tangerine, citrus citron, kumquat, and hybrids of these plus pummelo.

Do not use antibacterial products in groves in which current practices include fertilization with animal manure. This restriction addresses concerns that antibiotic resistance could be transferred to *Escherichia coli* or other pathogenic bacteria in the feces.

U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Nick T. Place, dean for UF/IFAS Extension.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office.

## **Crisis Declaration by Commissioner Adam Putnam Allows Use of Bactericides as Foliar Treatments in Florida Citrus**

March 4, 2016

The Florida Commissioner of Agriculture, the Honorable Adam Putnam has exercised his authority under the Emergency Exemptions provisions of FIFRA to declare a crisis that will allow use of the antibiotics; Streptomycin Sulfate (FireWall<sup>™</sup> 50WP, AgroSource, Inc), Oxytetracycline Hydrochloride (FireLine<sup>™</sup> 17WP, AgroSource, Inc), and Oxytetracycline Calcium Complex (Mycoshield®, Nufarm Americas, Inc.) in foliar applications to enhance the overall tree health of Huanglongbing infected trees in Florida citrus groves. Florida growers can use any of the three products allowed for use once the Crisis declaration is issued (as limited by the specific conditions of use for the individual product) until the Environmental protection Agency completes its review of the specific exemption petition submitted by FDACS December 4, 2015 (at the request of FFVA and its subsidiary TPR, Inc. on behalf of the Citrus Industry). The need to move forward at this time with the crisis declaration is due to the unseasonably warm period we are experiencing triggering the flush and bloom of citrus. For maximum potential efficacy these products need to be applied during maximum flush of young leaves at the appropriate use rate and finished spray volume to ensure coverage of the young foliage.

Use of these three products during the crisis period and while the EPA continues its review of the pending specific exemption request will be governed by the conditions described in the Declaration letter to EPA from Commissioner Putnam (letter is attached). These use restrictions were based on the draft proposed labels (also attached) included in the package submitted to the agency. Growers who use these products during the crisis period and beyond must have copies of the crisis declaration letter, the existing Federal label for the registered products and the section 18 label authorizing use in the state of Florida (once finalized with the issuance of the section 18 by the Agency). These documents should be available from the distributor where the product is purchased. During the crisis period the draft labels under consideration by the agency will be available and used as a guide for the use of each product. Attached to this notice is a use label comparison of the three products that provide a side-by-side comparison of the label conditions contained on those draft labels. <u>This document is not a</u> substitute for the EPA and FDACS approved labels.

Growers should be especially diligent in their use of these products and recognize the importance of maintaining the rotational aspects and the use conditions concerning worker re-entry and preharvest intervals. For additional information, if needed, please contact either the registrants of the of the products, AgroSource, Inc. -- FireWall 50 WP and Fireline 17 WP (Bo Meador, Florida Sales Representative Cell Phone (863) 673-0727), and Nufarm Americas, Inc. -- Mycoshield (Craig Noll 239 691 8060 - Craig.Noll@us.nufarm.com, Danielle Larochelle - 919 379 2530 Danielle.Larochelle@us.nufarm.com, or Bob Bruss - 919 379 2513 - Bob.Bruss@us.nufarm.com) or FFVA/TPR, Inc., Daniel Botts, daniel.botts@ffva.com or Michael Aerts, mike.aerts@ffva.com or by telephone at (321) 214-5222. Attachments:

Crisis Declaration Letter, Commissioner Adam Putnam to EPA, March 4, 2016

Draft Proposed Section 18 Exemption Labels

FireLine 17 WP Firewall 50 WP Mycoshield

Use Comparison Table, FFVA/TPR, Inc., March 4, 2016



## FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES COMMISSIONER ADAM H. PUTNAM

March 4, 2016

Ms. Tawanda Maignan, Team Leader Emergency Response Team Risk Integration, Minor Use and Emergency Response Branch U.S. Environmental Protection Agency Office of Pesticide Programs (7505P) Room S4900, One Potomac Yard 2777 Crystal Drive Arlington, Virginia 22202

Dear Ms. Maignan:

Utilizing my crisis exemption authority as provided under FIFRA Section 18 and Part 166.40 of Title 40 of the Code of Federal Regulations, I hereby declare a crisis exemption for the use of streptomycin sulfate (FireWall 50 WP), oxytetracycline hydrochloride (FireLine 17 WP) and oxytetracycline calcium complex (MycoShield) to control *Candidatus* Liberibacter asiaticus (*C*Las) bacterium, the cause of citrus greening disease, in Florida citrus.

Name of Chemical:

Active ingredient(s):

Streptomycin sulfate Oxytetracycline hydrochloride Oxytetracycline calcium complex

Product Name(s) and EPA Reg. No(s) .:

FireWall	50	WP
FireLine	17	WP
MycoShi	eld	

EPA Reg. No. 80990-3 EPA Reg. No. 80990-1 EPA Reg. No. 55146-97

Chemical Abstract Service (CAS) Number/PC Code:

Streptomycin sulfate (3810-74-0) Oxytetracycline hydrochloride (2058-46-0) Oxytetracycline calcium complex (7179-50-2)



Ms. Tawanda Maignan, Team Leader March 4, 2016 Page Two

#### Site or Crop on Which the Chemical is to be Used, or is being Used:

These chemicals are to be applied to up to 388,534 acres of citrus [grapefruit, lemon, lime, orange, tangelo, tangerine, citrus citron, kumquat, and hybrids of these plus pummelo].

#### Use Information:

Method of Application:

Each of these products will be applied by ground (airblast) equipment

#### Rate of Application:

Streptomycin sulfate- 0.45 pounds active ingredient per acre per application; 0.69 pounds of formulated FireWall 50WP per acre per application

Oxytetracycline hydrochloride- 0.27 pounds of active ingredient per acre per application; 1.5 pounds of formulated FireLine 17 WP per acre per application

Oxytetracycline calcium complex- 0.255 pounds of active ingredient per acre per application; 1.5 pounds of formulated Mycoshield per acre per application

**Note:** For oxytetracycline, regardless of formulation, the total amount of oxytetracycline applied per acre will not exceed 2.04 oxytetracycline base

#### Maximum Number of Applications:

FireWall 50 WP- Three applications per 12 month period FireLine 17 WP- Three applications per 12 month period MycoShield- Eight applications per 12 month period

#### Application Restrictions:

FireWall 50 WP

Pre-harvest Interval (PHI): 40 days Minimum interval between applications: 21 days Maximum streptomycin sulfate allowed per crop season: 2.07 pounds of formulated FireWall 50 WP per acre per year (1.35 pounds active ingredient) Ms. Tawanda Maignan, Team Leader March 4, 2016 Page Three

FireLine 17 WP

Pre-harvest Interval (PHI): 40 days Minimum interval between applications: 21 days Maximum oxytetracycline hydrochloride allowed per crop season: 4.5 pounds of formulated FireLine 17WP per acre per year (0.81 pounds active ingredient)

MycoShield

Pre-harvest Interval (PHI): 21 days Minimum interval between applications: 21 days Maximum oxytetracycline calcium complex allowed per crop season: 12 pounds of formulated Mycoshield per acre per year (2.04 pounds oxytetracycline base).

#### Other Pertinent Information:

All applicable directions, restrictions, prohibitions and precautions on the Section 3 label will be followed.

Personal Protective Equipment (PPE): Applications must be made with enclosed cabs. If enclosed cabs are not feasible, "headgear" ensuring full coverage of the neck must be worn.

Dates that Applications Started or Will Begin and End:

This crisis authority is effective beginning March 4, 2016.

#### Estimate of Level of Residues of the Chemical Expected to Result from Use under the Crisis Exemption:

Streptomycin - An action level of 2 parts per million (ppm) on citrus fruit and 6 ppm on dried citrus pulp is being requested for this use.

Oxytetracycline - An action level of 0.4 ppm on all citrus commodities is being requested for this use.

Ms. Tawanda Maignan, Team Leader March 4, 2016 Page Four

Discussion of the Emergency Situation and Any Other Pertinent Information Currently Available, Including Explanation of Why There Was Insufficient Time to Request a Specific or Quarantine Exemption, and Whether a Specific or Quarantine Exemption Will be Requested:

In 2005, citrus greening disease was found to be present in Florida. This disease is caused by the pathogen *Candidatus* Liberibacter asiaticus and is spread by the Asian citrus psyllid (*Diaphorina citri* Kuwayama), which is an invasive pest to Florida, first discovered in 1998. HLB is considered to be the most serious disease of citrus worldwide and has greatly limited commercial production of citrus in countries where it is present. Since its discovery in Florida, this disease has rapidly spread throughout citrus production area to all commercial production areas in the state.

Since this disease's appearance, citrus production has been compromised with the loss of millions of trees, and HLB has subsequently been detected in every county with commercial citrus and in residential dooryard citrus as well. Trees infected with HLB will continuously decline and eventually die, even when incorporating all management options available to the industry at this time. The severity of HLB and declining tree health far exceeds that of any previously known citrus disease, and all citrus species and their hybrids are confirmed to be affected by HLB. Infected trees first produce leaf symptoms; typically leaf yellowing on one or more branches, then leaves develop a blotchy (irregular spotted) appearance with grades of color. Infected trees typically also show symptoms that resemble micronutrient deficiency, especially, zinc and manganese. Fruit set becomes thin, fruit appear lopsided, the lopsided fruit may contain aborted seeds, and juice quality is unacceptable.

Impacts from HLB are numerous. On infected trees, fruit are few in number, small, lopsided with a curved central core, and they fail to color properly, remaining green at the stylar end (hence the name "greening"). Excessive fruit drop occurs prematurely on afflicted trees, and this has been reported in the past three harvest seasons in Florida to exceed 10 percent per season across all varieties. Even if fruit remain on the tree until harvest, the fruit are undersized and contain bitter juice, rendering it of reduced economic value.

HLB disease and the lack of any tree health improvement antibiotic has already pushed untold numbers of farmers out of the industry. Between 2004 and 2014, the amount of Florida land planted with citrus shrunk by nearly one-third, from 748,555 acres down to 515,147 acres (USDA, FASS). During that same timeframe, overall citrus production in the state dropped from 292 million boxes of fruit down to 124 million boxes (a 58% reduction). Average orange yields sunk from 428 boxes per acre in 2004 down to 250 boxes an acre in 2014 (a 42% reduction), despite the higher-density new plantings of orange trees, almost solely resulting from HLB infection.

Ms. Tawanda Maignan, Team Leader March 4, 2016 Page Five

The Department submitted a specific exemption petition to the Agency on December 4, 2015. It is our understanding that the petition is currently under review. However, the time for growers to make these applications is now, as our citrus is currently flushing and will commence blooming soon. This is the opportune time to make these antimicrobial applications to achieve the greatest level of uptake and control. Delay could potentially push the application until after flush which would render these applications less effective.

Please send any correspondence on this declaration to: Mr. Charlie L. Clark, Environmental Administrator, Pesticide Registration Review Section, Bureau of Scientific Evaluation and Technical Assistance, Division of Agricultural Environmental Services, 3125 Conner Boulevard, Building #6, Tallahassee, Florida 32399-1650, Phone 850-617-7940, e-mail: Charlie.clark@freshfromflorida.com.

Sincerely,

Adam H. Putnam Commissioner of Agriculture

AHP/cc

Attachment

**Comparison of Use and Label Information** (Based on Draft labels as submitted to the Agency December 4, 2016 with Interim Changes as suggested by the Agency through March 4, 2016)

## These will change upon final approval by EPA of the Section 18

Label Information	FireWall ™ 50 WP	FireLine™ 17 WP	Mycoshield®
Registrant	AgroSource, Inc. P. O. Box 3091 Tequesta, Florida 33469	AgroSource, Inc. P. O. Box 3091 Tequesta, Florida 33469	Nufarm Americas Inc AGT Division 11901 S. Austin Avenue Alsip, Illinois 60803
EPA Reg. No.	80990-3	80990-1	55146-97
	Group 25 Fungicide/Bactericide	Group 41 Fungicide/Bactericide	Group 41 Fungicide/Bactericide
Product Information	Wettable Powder formulation of 65.80% Streptomycin Sulfate	Wettable Power formulation of 18.30% Oxytetracycline Hydrochloride	Wettable Powder Formulation of 31.5% Oxytetracycline calcium Complex
	Equivalent to 50% Streptomycin	Equivalent to 17% oxytetracycline	Equivalent to 17% Oxytetracycline
	Citrus:	Citrus:	Citrus:
Crop Site	Grapefruit, lemon, lime, orange, tangelo, tangerine, citrus citron, kumquat, and hybrids of these] pummelo.	Grapefruit, lemon, lime, orange, tangelo, tangerine, citrus citron, kumquat, and hybrids of these] pummelo.	Grapefruit, lemon, lime, orange, tangelo, tangerine, citrus citron, kumquat, and hybrids of these] pummelo.
	Concentration at use rate: 400 ppm	Concentration at use rate: 300 ppm	Concentration at use rate: 200 ppm
	Maximum single application use rate is 11 oz of product (0.450 lbs. streptomycin) per acre. (mixed in100 gallons of carrier)	Maximum single application use rate is 24 oz of product (0.255 lbs. oxytetracycline) per acre. (mixed in100 gallons of carrier)	Maximum single application use rate is 24 oz of product (0.255 lbs. oxytetracycline) per acre. (mixed in150 gallons of carrier)
Use Rate	Application rate is proportional based on amount of material needed to provide coverage of the foliage without runoff.	Application rate is proportional based on amount of material needed to provide coverage of the foliage without runoff.	Application rate is proportional based on amount of material needed to provide coverage of the foliage without runoff.
	For smaller trees the effective use rate per acre can be reduced to 5.5 oz of product (0.225 lbs. of streptomycin) when mixed to deliver 50 gallons of spray per acre	For smaller trees the effective use rate per acre can be reduced to 12.0 oz of product (0.125 lbs. of oxytetracycline) when mixed to deliver 50 gallons of spray per acre	For smaller trees the effective use rate per acre can be reduced to 8.0 oz of product (0.125 lbs. of oxytetracycline) when mixed to deliver 50 gallons of spray per acre

## Proposed Section 18 Tree Health Labeling

Label Information	FireWall ™ 50 WP	FireLine™ 17 WP	<b>Mycoshield</b> ®
Mixing Instructions	Finished Spray Volume, GPA 50 gpa – 5.50 oz product – .225 Lbs. a.i. 75 gpa – 8.25 oz. Product – .337 Lbs. a.i. 100 gpa – 11.0 oz. product – 0.450 Lbs. a.i.	Finished Spray Volume, GPA 50 gpa – 12.0 oz product – .125 Lbs. a.i. 75 gpa – 18.0 oz. Product – .190 Lbs. a.i. 100 gpa – 24.0 oz. product – .255 Lbs. a.i.	Finished Spray Volume, GPA 50 gpa – 8.0 oz product – .125 Lbs. a.i. 100 gpa – 18.0 oz. Product – .190 Lbs. a.i. 150 gpa – 24.0 oz. product – .255 Lbs. a.i.
Maximum Number of Applications	3	3	8
Minimum Retreatment Interval	21 days	21 days	21 days
Re-entry Interval	12 hours	12 hours	12 hours
Pre Harvest Interval	40 days	40 days	21 days
Total Amount of Product Per Year	2.07 lbs. product 1.36 lbs. a.i.	4.50 lbs. product 0.81 lbs. a. i.	12.0 lbs. product 2.04 lbs. a.i.
Application Method	Ground Application Equipment Only For Worker protection concerns applicators must be in enclosed cab or with headgear that ensures full coverage of the neck	Ground Application Equipment Only For Worker protection concerns applicators must be in enclosed cab or with headgear that ensures full coverage of the neck	Ground Application Equipment For Worker protection concerns applicators must be in enclosed cab or with headgear that ensures full coverage of the neck

Label Information	FireWall ™ 50 WP	FireLine™ 17 WP	<b>Mycoshield</b> ®
Use Directions	<ul> <li>Apply as a foliar spray using sufficient carrier volume to ensure complete coverage. Spray to near-runoff. Use with a spray adjuvant demonstrated to be effective with FireWall™ 50WP.</li> <li>Make first application in the spring after initiation of flush.</li> <li>Make a second application during midsummer</li> <li>Make a third application in the late summer/early fall.</li> <li>Do not exceed 11 oz. of FireWall™ 50WP per acre per application.</li> </ul>	<ul> <li>Apply as a foliar spray using sufficient carrier volume to ensure complete coverage. Use with spray adjuvant, spreader sticking agent or horticultural oil</li> <li>Make <u>first</u> application at initiation of spring flush to suppress HLB titer and disease symptoms.</li> <li>Make <u>second</u> application mid-summer (not less than 21 days after the first application).</li> <li>Make <u>third</u> application in late summer to reduce the incidence of HLB-induced fruit drop and to further suppress HLB titer and disease symptoms ( not less than 21 days after the second application)</li> </ul>	Use 1.0 lb Mycoshield/100 gal water (equivalent to 8 oz/50 gal or 24 oz/150 gal). Vary the total volume of solution per acre from 50 to 150 gallons depending on tree size and density of foliage. Larger, denser trees will require a higher volume of spray to obtain coverage to the point of runoff. The addition of a full labeled rate of an acidifying foliage penetrating surfactant approved for citrus is recommended. Foliar applications of Mycoshield alone are not phytotoxic. However, some combinations of Mycoshield plus other pesticides, surfactants and/or fertilizers may cause severe crop injury. The crop safety of any Mycoshield mixture must be verified on a few trees before making a commercial application. For maximum benefit, apply at the initiation of a new leaf flush. Repeated applications are more likely to be absorbed when applied to tender foliage that have not fully expanded and obtained a dark green color. Tighter spray intervals allow for more application to a given flush. Mycoshield is only effective when used in conjunction with an Asian citrus psyllid management program recommended the state Cooperative Extension Service or department of Agriculture. This program is not expected to cure the systemic infection in the branches, truck ot roots of a diseased tree.

Label Information	FireWall ™ 50 WP	FireLine™ 17 WP	<b>Mycoshield</b> ®
Restrictions/Precautions	A maximum of three sequential treatment of <b>FireWall™ 50 WP</b> are permitted.	A Maximum of three sequential treatments of FireLIne <sup>™</sup> 17 WP are permitted.	Do not apply more than 1.5 lb of product per acre per application
	Do Not make more than three (3) applications, or apply more than 33 oz. of <b>Firewall™ 50 WP</b>	Do Not make more than three sequential applications or apply more than 72 oz. of FireLine™ 17 WP per acre per season.	Do Not apply at a retreatment interval of less than 21 days
	Minimum number of days between applications: 21	Minimum number of days between the applications: 21	Do not make more than 8 applications to bearing trees per year
	Do not apply <b>FireWall™ 50 WP</b> at any rate below that specified in these use directions.	Do not apply FireLine <sup>™</sup> 17 WP at any rate below those specified in these use instruction.	Do not apply more than 12 lb of product per acre per year Do not Harvest within 21 day of the last
	Do not apply <b>FireWall™ 50 WP</b> through	Do not apply <b>FireLine™ 17 WP</b> through	application
	any type of irrigation system.	any type of irrigation system.	Do not apply by air
	Do not apply <b>FireWall™ 50 WP</b> by aircraft.	Do not apply <b>Fireline™ 17 WP</b> by aircraft.	Do not apply in groves in which current practices include fertilization with animal
	Do not harvest fruit laess than 40 days after the last application ( <b>PHI = 40 days</b> ).	Do not harvest fruit laess than 40 days after the last application ( <b>PHI = 40 days</b> ).	manure. This restriction address concerns that oxytetracycline–resistance could be transferred to <i>Escheria coli</i> or other
	FireWall ™ 50 WP should be tank mixed	Do not apply <b>FireWall™ 50 WP</b> through any type of irrigation system.	pathogenic bacteria in the feces.
	or rotated with <b>FireLine™ 17 WP</b> (a comparable bactericide having a different mode of action) to reduce risk of selecting for streptomycin-resistant organisms.	Do not apply <b>FireWall™ 50 WP</b> by aircraft.	
	Do not use streptomycin sulfate in groves in which current practices include	Do not harvest fruit laess than 40 days after the last application (PHI = 40 days).	
	fertilization with animal manure. This restriction address concerns that streptomycin–resistance could be	<b>Fireline</b> <sup>™</sup> <b>17 WP</b> should be tank mixed or rotated with <b>FireWall</b> <sup>™</sup> <b>50 WP</b> (a comparable bactericide having a different	
	transferred to <i>Escheria coli</i> or other pathogenic bacteria in the feces.	mode of action) to reduce risk of selecting for oxytetracycline-resistant organisms.	
		Do not apply in groves in which current practices include fertilization with animal manure. This restriction address concerns	
		that oxytetracycline-resistance could be transferred to <i>Escheria coli</i> or other pathogenic bacteria in the feces.	

Label Information	FireWall ™ 50 WP	FireLine™ 17 WP	<b>Mycoshield</b> ®
Maximum Amount –Active ingredient	524,250 lbs. streptomycin sulfate	762.309 lbs. oxytetracycline Annual Total across both Products	
Maximum Amount – Formulated Product	1,066,354 lbs	1,748,403 lbs. 314,712 lbs. oxytetracycline hydrochloride	4,662,408 lbs. 762,309 lbs oxytetracycline calcium complex base