



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* (CLas) 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	EPA Reg. No. 80990-3
FireLine 17 WP	EPA Reg. No. 80990-1
MycoShield	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)

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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)

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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)

MycosShield

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.

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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.

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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