General Information

GENERAL INFORMATION

CS 2005 IS A COPPER SULFATE PENTAHYDRATE FORMULATION USED TO CONTROL BACTERIA AND FUNGI THAT CAN CAUSE SPOILAGE ON AGRICULTURAL COMMODITIES.

Using water containing moderate to high amounts of sulfur may cause CS 2005 to neutralize. Whenever possible, use a compatibility jar test before mixing a whole tank.

DIRECTIONS FOR USE
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

FOR USE TO CONTROL BACTERIA AND FUNGI THAT CAUSE SPOILAGE ON AGRICULTURAL COMMODITIES: To use CS 2005 as a systematic formulation to control bacteria and fungi that cause spoilage on agricultural commodities, the following directions apply. This pesticide is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and permitting authority has been notify prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment authority. For guidance contact your State Water Board or Regional office of the EPA. Do not contaminate water when disposing washwaters or rinsate.

GENERAL INSTRUCTIONS
CS 2005 may be applied with any type of application equipment that gives uniform coverage of all foliage, including ground, aerial and low volume sprayers as specified on this label. Equipment used for application should be PVC or 316L stainless steel. CS 2005 is compatible with most fungal and insecticidal biopesticides when applied at least two (2) days before or after application of the
bio-pesticide.

Phytotoxicity - Although CS 2005 has been tested on a wide variety of fruits, vegetables and nuts without phytotoxicity, there could be some varieties and cultivars that because of environmental factors and stages of growth could possibly foster systems. The per acre use rate of CS 2005 is applicable for dilute spraying. Depending on the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to the Minimum Recommended Spray Volume Table. Complete spray coverage is essential to assure optimum performance from CS 2005. When treating by aerial application or with low volume application equipment, unless you have had specific previous experience, it is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial utilization. Consult CS 2005 label for specific rates and timing of application by crop. Where application rates and intervals are provided in a range (e.g., 2-4 fluid ounces and 7 to 10 days) the higher rates and shorter spray time intervals are recommended when rainfall is heavy and/or disease pressure is high. Use the higher rates for large mature tree crops. The use of a surfactant, such as Cell-U Wett is acceptable for plants having waxy or hairy surfaces. CS 2005 works via surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. CS 2005 does not produce any visible residue or have a distinct odor. It does have a residual, especially if applied with a surfactant.

SPECIAL PRECAUTIONS
Do not mix with acidic compounds such as Alliette within 14 days before or after application of same.

This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc. Environmental conditions such as extended periods of wet weather, acid rain, etc., which alter the pH of the leaf surface may effect the performance of CS2005 resulting in the possible phytotoxicity or loss of effectiveness.

Do not mix with pot ash.

It must be determined in the selection process if proper application equipment is available and if the waste associated with its use can be properly handled. Materials used on the construction of application equipment is also an important factor as agricultural chemicals are often reactive with soft metals such as aluminum and
even some synthetic materials such as plastics, rubbers, etc. Therefore it is necessary when working with the equipment containing these materials, that they are thoroughly flushed with clean water after each days use.

**GENERAL CHEMIGATION INSTRUCTIONS**

Apply this product only through one or more of the following types of systems: Sprinkler including center pivot, lateral move, end row, side (wheel) roll, traveler, big gun, solid set or hand move: flood (basin); furrow; border or drip (trickle) irrigation and system(s). Do not apply this product through any other type of irrigation systems.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety device for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Posting areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds or other public facilities not including public roads, or 2) when chemigated area is open to the public such as golf courses or retail greenhouses.
Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters of at least 2 1/2 inches tall, and all letters and the symbol shall be in a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER. This sign is in addition to any sign posted to comply with the Workers Protection Standard.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS
Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete break (air gap) between the flow outlet end of the fill pipe and the top of the overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back toward the injection. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected. Systems must use a metering pump,
such as a positive displacement injection pump (i.e. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. When mixing, agitation is not necessary. Adjust the pH of the water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc., add CS 2005 first. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the label of all products used in the mixtures. CS 2005 may be added through a traveling system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. CS 2005 readily disperses and needs no agitation.

SPRINKLER CHEMIGATION
The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. When mixing, agitation is not necessary. Adjust the pH of the carrier water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc., add the CS 2005 first. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the label of all products used in the mixtures. CS 2005 may be added through a traveling irrigation system or at the last 30 minutes of solid set or hand moved irrigation systems. CS 2005 readily disperses
and needs no agitation.

FLOOR (BASIN), FURROW AND BORDER CHEMIGATION
Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement pump (i.e. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

When mixing, agitation is not necessary. Adjust the pH of the carrier water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc., add the CS 2005 first. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the labels of all products used on the mixtures. CS 2005 may be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. CS 2005 readily disperses and needs no agitation.

DRIP (TRICKLE) CHEMIGATION
The system must contain a functional check valve, vacuum relief valve and low
pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of liquid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor pump stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump such as a positive displacement injection pump (i.e. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. When mixing, agitation is not necessary. Adjust the pH of the carrier water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc, add the CS 2005 first. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the label of all products used in the mixtures. CS 2005 may be added through a traveling irrigation system continuously or at the last 30 of solid set or hand moved irrigation systems. CS 2005 readily disperses and needs no agitation.

FOR SPRAY AND SOIL DRENCH APPLICATIONS
Always spray for total foliage coverage. When re-spraying the rates and severity of the disease vary with unforeseen conditions. However, in the event of severe disease, spraying intervals can be shortened to 3 to 5 days. At times, lower rates can be as effective as higher rates and should be tried first. Usually, preventive programs may be maintained at lower rates. Use of low volume spraying is effective against Botrytis and not effective against established powdery mildew and Xanthomonas infections. Also, applications on actively growing tissue may be more effective than applications on dormant tissue.

- Refer in the label for a MINIMUM RECOMMENDED SPRAY VOLUME (GALLONS) PER ACRE WHEN APPLYING CS 2005.
- Pesticide application equipment such as Curtec or other similar sprayers which are
capable of obtaining coverage at low volumes may be used at as low as 20 gpa of spray volume. The following specific instructions are based on general application procedures. The recommendations of the State Extension Service should be closely followed as to timing, frequency and numbers of sprays per season.

FROST INJURY PROTECTION BACTERIAL ICE NUCLEATION INHIBITOR
Application of CS 2005 made to all crops listed on this label at rates and stages of growth indicated on this label, at least 24 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (Pseudomonas syringae, Erwinia herbicola and Pseudomonas flourescens) and may therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

- Refer in the label for the chart used to calculate correct ppm’s† of active ingredient (A.I.) per volume of carrier water. These volumes can be used for either conventional or concentrated sprays.

Limitations, Restrictions, and Exceptions

VINES: KIWI - (ERWINIA HERBICOLA, PSEUDOMONAS FLOURESCENS, ETC.)

Instructions

Apply in 200 gallons of water per acre. Make applications on a Monthly basis. A maximum of 3 applications may be made.

Note:
6.3 lb. - Maximum Annual Rate (lbs Cu²+/ A)
30 days - Minimum Retreatment Rate (lbs Cu²+/ A)
2.1 lb - Maximum per Application Rate (lbs Cu²+/ A)

Method
Broadcast/Foliar Air
Broadcast/Foliar Ground
Spray
Rates
field_rates 0
field_rates 1
Restricted Entry Interval

48 hours

Timings

N.A.