

# X-CYTE<sup>TM</sup>



## A Plant Growth Regulator and Yield Stimulant

**ACTIVE INGREDIENT:**

Cytokinin, as kinetin, based on biological activity ..... 0.04%

OTHER INGREDIENTS: ..... 99.96%

TOTAL ..... 100.00%

(Contains 0.0064 oz. cytokinin/pint)

**CONTAINS NON-PLANT FOOD INGREDIENTS:**

0.04% Cytokinin

Information regarding the contents and levels of metals in this product is available on the internet at  
<http://www.aapfco.org/metals.html>

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

<b>FIRST AID</b>	
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>Take off contaminated clothing.</li><li>Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>Call a poison control center or doctor immediately for treatment advice.</li><li>Have person sip a glass of water if able to swallow.</li><li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>Do not give anything by mouth to an unconscious person.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or are going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. For emergencies, call the Poison Control Center at 1-800-222-1222	
<b>FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure or accident, call CHEMTREC 1-800-424-9300.</b>	

**SEE ADDITIONAL PRECAUTIONARY STATEMENTS AND  
DIRECTION FOR USE IN BOOKLET.**

EPA Reg. No. 57538-15

EPA Est. No.  57538-TX-2

57538-FL-1

57538-IA-1

**NET WEIGHT:** 8.37 lbs/gal or 1.004 kg/L

**NET CONTENTS:**

1 Gal

2.5 Gal

5 Gal

55 Gal

4 L

10 L

20 L

208 L

## PRECAUTIONARY STATEMENTS

### Hazards To Humans And Domestic Animals

**CAUTION:** Harmful if absorbed through the skin or swallowed. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE).

### Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are any waterproof material. If you want more options, follow instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- long-sleeved shirt and long pants,
- chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### Environmental Hazards

**For terrestrial uses:** Do not apply directly to water or areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwater or rinsate. Exposed treated seed may be hazardous to birds and other wildlife. Treat only those seeds needed for immediate use and planting. Dispose of all excess treated seed and seed packaging by burial away from streams and bodies of water.

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 the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms and in forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours unless wearing the appropriate PPE.

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, wear:

- coveralls over long-sleeved shirt and pants,
- chemical-resistant gloves made of any waterproof material, and
- shoes plus socks.

**\*NOT FOR USE IN CALIFORNIA  
CHEMIGATION\***

**Application and Calibration Techniques for Sprinkler Irrigation**

Apply this product only through the following types of irrigation systems: sprinkler including center pivot, traveler, big gun, motorized lateral move, end tow, side (wheel) roll, solid set, or hand move irrigation; furrow; or drip (trickle) irrigation systems. Do not apply through any other types 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 Experiment Station 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 devices 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.

- A. Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment:** Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank of injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until product has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.
- B. Solid Set and Hand Move Irrigation Equipment:** Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that product will remain in suspension during the injection cycle. Product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until pesticide is cleared from last sprinkler head.

**Safety Devices for Sprinkler Chemigation**

- (1) The systems designated above 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 backflow.
- (2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- (3) 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.
- (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- (5) 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.
- (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- (7) Do not apply when wind speed favors drift beyond the area intended for treatment.

**Systems Connected to Public Water Sources**

- (1) 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 a year.
- (2) 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 physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- (3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- (4) 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.

- (5) 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 pesticide distribution is adversely affected.
- (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- (7) Do not apply when wind speed favors drift beyond the area intended for treatment.

### **In-Furrow Chemigation**

- (1) 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 backflow if water flow stops.
- (2) Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. 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 backflow.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. 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.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e. 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.
  - f. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Apply X-CYTE in sufficient water to penetrate into the root zone without excessive leaching into deeper soil.

### **Drip (Trickle) Chemigation**

- (1) 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 backflow.
- (2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- (3) 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.
- (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- (5) 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.
- (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Apply X-CYTE in sufficient water to penetrate into the root zone without excessive leaching into deeper soil.

## **GENERAL USE INSTRUCTIONS**

For best results, apply X-CYTE before noon or after 4 p.m. Use a spreader-sticker (surfactant) cleared for application to growing crops with the product. Before using, clean thoroughly with soap and water any spigot or pump put into an X-CYTE drum. Mix X-CYTE with enough water to get thorough coverage of plant surfaces. X-CYTE is compatible with most other spray materials.

### **CROP USAGE – ALL CROPS FOR STRESS RELIEF**

#### **Not for Use in California**

Use 1 pint X-CYTE per acre (1.2 liters/hectare) any crop is prematurely dying down (loss of color) due to stress caused by one or more of the following conditions: weather (frost, drought, excessive moisture), insect infestation, fungus attack, and/or herbicide burn.

### **CROP USAGE – ALL CROPS LISTED FOR TRANSPLANTING AND SEED BED TREATMENT**

#### **Not for Use in California**

Use 2 pints X-CYTE per acre (2.4 liters/hectare) or 1 part X-CYTE to 1000 parts water (approximately 1 tablespoon X-CYTE to 1 gallon water) as a root dip and watering solution when transplanting.

Use 2 pints X-CYTE per acre (2.4 liters/hectare) applied to the seedbed at time of seeding or up to 20 days thereafter.

### **ALFALFA – 1 pint/acre (1.2 liters/hectare)**

#### **Not for Use in California**

1<sup>st</sup> application: after cutting, with repeat sprays at 14 to 21 day intervals.

### **APPLES – 1 pint/acre (1.2 liters/hectare)**

#### **Not for Use in California**

1<sup>st</sup> application: at full pink. 2<sup>nd</sup> application: at calix (petal fall). 3<sup>rd</sup> application: 3 weeks after 2<sup>nd</sup> spraying. 4<sup>th</sup> application: 4 weeks after 3<sup>rd</sup> spraying.

### **ASPARAGUS – 1 to 2 pints/acre (1.2 to 2.4 liters/hectare)**

#### **Not for Use in California**

1<sup>st</sup> application: spray crowns when growth begins. 2<sup>nd</sup> application: spray crowns after each cutting.

### **BANANAS – 0.85 to 8.5 pints per acre (1 to 10 liters/hectare)**

#### **Not for Use in California**

To reduce stress: Apply when stress conditions are anticipated. Rates and timing must be determined for each site. Make applications at least 14 days apart using ground sprayers, aerial sprayers, or by plant injection.

### **BEANS – 1.0 to 2.0 pint/acre (1.2 to 2.4 liters/hectare)**

1<sup>st</sup> application: 4-5 inch stage. 2<sup>nd</sup> application: at early bloom. 3<sup>rd</sup> application: at early pod set.

### **CARROTS – 1 pint/acre (1.2 liters/hectare)**

#### **Not for Use in California**

1<sup>st</sup> application: at tuber initiation. 2<sup>nd</sup> application: 2-3 weeks after first spraying.

### **CELERY**

#### **Not for Use in California**

1<sup>st</sup> application: Use 2 pints X-CYTE per acre (2.4 liters/hectare) applied to the seed bed at time of seeding or up to 20 days thereafter.

2<sup>nd</sup> application: Use 2 pints X-CYTE per acre (2.4 liters/hectare) at the time seedlings are transplanted. See transplanting instructions above.

3<sup>rd</sup> application: Use 1 pint X-CYTE per acre (1.2 liters/hectare) 2-3 weeks after transplanting.

### **CORN – 1 pint/acre (1.2 liters/hectare)**

#### **Not for Use in California**

1<sup>st</sup> application: At the 1 to 1.5 foot stage. 2<sup>nd</sup> application: at tassel time.

### **COTTON – 1 pint/acre (1.2 liters/hectare)**

#### **Not for Use in California**

1<sup>st</sup> application: At pinhead square with repeat applications at 14 to 21 day intervals.

### **CRUCIFEROUS CROPS - 0.5 to 1 pint/acre (0.6 to 1.2 liters/hectare)**

**(Cabbage, Broccoli, Cauliflower, Brussels Sprout)**

#### **Not for Use in California**

1<sup>st</sup> application: 3 to 4-inch stage. Repeat at 10 to 14 day intervals.

**CUCURBITS - 0.5 to 1 pint/acre (0.6 to 1.2 liters/hectare)**  
**(Cucumbers, Muskmelon, Cantaloupe, Watermelon, Honey Dew, Squash, etc.)**  
**\*Not for Use in California**

1<sup>st</sup> application: 4 to 8-inch stage. 2<sup>nd</sup> application: at early bloom. 3<sup>rd</sup> application: start of fruiting.

**OLIVE - 2 to 8 fl. Oz./acre**  
**Not for Use in California**

Every 7 to 21 days from bud break through harvest.

**GRAPES - 1 pint/acre (1.2 liter/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: between leafout and prebloom. 2<sup>nd</sup> application: at petal fall. 3<sup>rd</sup> application: 30 days before harvest.

**POMEGRANATE - 2 to 8 fl. Oz./acre**  
**Not for Use in California**

Every 7 to 21 days from bud break through harvest.

**ORANGES - 1 pint/acre (1.2 liter/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: at prebloom. 2<sup>nd</sup> application: at calyx (petal fall). 3<sup>rd</sup> application: 3 weeks after 2<sup>nd</sup> spraying. 4<sup>th</sup> application: 4 weeks after 3<sup>rd</sup> spraying.

**PEACHES AND NECTARINES - 1 pint/acre (1.2 liter/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: at prebloom. 2<sup>nd</sup> application: at calyx (petal fall). 3<sup>rd</sup> application: 3 weeks after 2<sup>nd</sup> spraying. 4<sup>th</sup> application: 4 weeks after 3<sup>rd</sup> spraying.

**PEANUTS - 1 pint/acre (1.2 liter/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: at pegging. 2<sup>nd</sup> application: 2-3 weeks after 1<sup>st</sup> spraying.

**PEAS - 0.5 to 1 pint/acre (0.6 to 1.2 liters/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: 3 to 4-inch stage. 2<sup>nd</sup> application: Prebloom. 3<sup>rd</sup> application: at early pod set.

**PEPPERS AND EGGPLANT - 0.5 to 1 pint/acre (0.6 to 1.2 liter/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: just prior to 1<sup>st</sup> bloom. 2<sup>nd</sup> application: 10 days after 1<sup>st</sup> spraying. 3<sup>rd</sup> application: 10 days after 2<sup>nd</sup> spraying.

**PINEAPPLE - 2 to 6 pints/acre (2.4 to 7.2 liters/hectare)**  
**Not for Use in California**

To reduce plant stress\*: Apply to vegetative growth according to climate and crop needs at the site of proposed application.

To improve fruit growth\*: Apply post bloom according to climate and crop needs at the site of proposed application.

\*Allow at least 14 days between applications.

**POTATOES - 1 pint/acre (1.2 to 2.4 liters/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: at tuber set. The time of application is determined by pulling an average size plant in the field 4 weeks (and every 7 days thereafter if necessary) after planting. Observe the roots to see if tubers are forming. Anytime you see the small tubers forming, it is time for the 1<sup>st</sup> application. Usually tubers start to set 5 to 6 weeks after planting.

2<sup>nd</sup> application: at full blossom. Spray Russet Burbanks, which do not show full blossom, should be sprayed 2-3 weeks after 1<sup>st</sup> spray.

**RICE - 1 pint/acre (1.2 liters/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: at 2 to 5 leaf stage with repeat application 14 to 21 days after.

**SOYBEANS - 1 pint/acre (1.2 liters/hectare)**  
**Not for Use in California**

Application: at first bud formation.

**SPINACH AND LETTUCE - 0.5 to 1 pint/acre (0.6 to 1.2 liters/hectare)**  
**Not for Use in California**

Application: 3 to 4-inch stage.

**STRAWBERRIES – 2 pints/acre (2.4 liters/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: As a transplant solution. See "Transplanting Instructions" above.

2<sup>nd</sup> application: At prebloom.

3<sup>rd</sup> application: At petal fall.

4<sup>th</sup> application: After harvest.

**SUGAR BEETS - 1 pint/acre (1.2 liters/hectare)**  
**Not for Use in California**

1<sup>st</sup> application: at tuber initiation. 2<sup>nd</sup> application: 2-3 weeks after 1<sup>st</sup> spraying.

**TOMATOES**  
**Not for Use in California**

1<sup>st</sup> application: use 2 pints X-CYTE per acre applied to the seed bed at time of seeding or up to 20 days thereafter. 2<sup>nd</sup>

application: use 2 pints X-CYTE per acre at the time seedlings are transplanted. See "Transplanting Instructions". 3<sup>rd</sup>

application: use 1 pint X-CYTE per acre 2 to 3 weeks after 1<sup>st</sup> bloom.

**WHEAT - 1 pint/acre (1.2 liters/hectare)**  
**Not for Use in California**

Application: 1-2 weeks before boot stage.

**ORNAMENTAL TREES AND HERBACEOUS PLANTS**  
**Not for Use in California**

Apply 2 pints per acre in transplant water. Apply 1 pint per acre as a foliar spray when growth begins in the early spring.

Apply 1 pint per acre at bud burst. Apply 1 pint per acre at bud set. Apply 1 pint per acre at the end of summer to maintain color through autumn.

**SEED TREATMENT**  
**Not for Use in California**

Use only on seeds for crops listed elsewhere on the label. Do not use treated seed for food, feed or oil purposes. Commercially treated seed must be labeled in accordance with the requirements of the Federal Seed Act and applicable State seed laws. An approved dye must be added to distinguish treated seed and prevent inadvertent use for food, feed, or oil purposes.

Per hundredweight (cwt.) of seed, dilute two fluid ounces of X-CYTE in equal amounts of water and mist spray on seed. X-CYTE can be poured on or mixed with the seed in the hopper at planting.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

STORAGE: Store in a cool place and out of direct sunlight.

PESTICIDE DISPOSAL: To avoid wastes, use all of the material in this container by application according to label directions. If waste cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Triple Rinse as follows: Fill container ¼ full with water and recap. (For containers 5 gallons or less) Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate. Repeat procedure two more times. (For containers larger than 5 gallons) Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Then offer for recycling if available or puncture and dispose if in a sanitary landfill, or by incineration.

**WARRANTY**

To the fullest extent permitted by law, neither the manufacturers nor the seller make any warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use of this material when such use is contrary to label instructions. Read and follow the label directions carefully.

**Manufactured by:**

STOLLER ENTERPRISES, INC.  
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