# X-Cyte Plant Growth Regulator and Yield Stimulant

## ACTIVE INGREDIENTS: Cytokinin as kinetin.....0.04%

(Contains 0.01192 grams cytokinin/fluid ounce)



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 **DANGER**

Stoller

SEE ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTION FOR USE IN BOOKLET.

Z-XCYTE Rev:

20180604

F2399

# Registration Number 2018069A Fertilizers Act

Manufactured and Guaranteed by Stoller Enterprises, Inc.

9090 Katy Freeway, Suite 400 Houston, Texas 77024, USA Phone: 1-800-539-5283 or 713-461-1493

# <mark>X-C</mark>yte<sup>™</sup>

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	FIRST AID
lf on skin or clothing	<ul> <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>
If swallowed	<ul> <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>
	HOT LINE NUMBER
calling a poise for treatment.	duct container or label with you when on control center or doctor, or are going You may contact 1-800-539-5283 for edical treatment information
FOI	R CHEMICAL EMERGENCY:

#### FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure or accident, call CHEMTREC 1-800-424-9300.

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#### PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

DANGER: causes severe skin burns and eye damage. Harmful if absorbed through the skin or swallowed. Avoid contact with skin, eyes and clothing. Wash thoroughly with scap and water after handling and before eating, drinking, chewing gurn, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE). Do not re-enter or allow reently into treated areas until 12 hours after application.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical resistant to this product are any waterproof material.

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
- chemical safety goggles and/or a full face shield when handling the product.

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.

#### USER SAFETY RECOMMENDATIONS

 Remove clothing immediately if product 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. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

#### **DIRECTIONS FOR USE**

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.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling. This standard contains requirements for the protection of agricultural workers on farms and in forests, nurseries and greenhouses, and handlers of agricultural products. 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.

Do not re-enter or allow re-entry into treated areas until 12 hours after application.

For early entry to treated areas 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.
- chemical safety goggles and/or a full face shield when handling the product.

#### CHEMIGATION Application and Calibration Techniques for Sprinkler Irrigation

Apply this product only through the following types of irrigation systems: spinkler induding center pivot, traveler, big qun, motorized lateral move, end tow, side (wheel) roll, solid set, or hand move irrigation; furrow, or drin (trickle) irrigation systems. Don at apply through any other types of irrigation systems. Don at apply through any other types of irrigation systems. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact. Experiment Station specialists, equipment manufacturers or other experts. Do not comect an irrigation system (induding greenhouse systems) used for product application to a public water system unless the product 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 (hectarage) contained in circle or run. Mix recommended amount of product for acreage (hectarage) to be covered into same amount of water used during calibration and inject into system continuously for 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 (hectarage) 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 (hectarage) to be covered into quantity of water used during calibration and operate entice 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 or the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until product 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 product injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

(3) The product 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 product 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 product 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 the product 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 product introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to product 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 product injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

(4) The product injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the index eide 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 product 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 product 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 the product 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 product dispensing system must meter the product 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 product 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 product injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

c. The product 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 product 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 product distribution is adversely affected.

f. Systems must use a metering pump, such as a positive displatement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with the product 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 product injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- (3) The product injection pipeline must contain a functional, normally closed, solenoid-operated value 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 product 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 product 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 the product 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 1.2 liters X-CYTE per hectare any crop is prematurely dying down (loss of color) due to stress.

#### CROP USAGE - ALL CROPS LISTED FOR TRANSPLANTING AND SEED BED TREATMENT Not for Use in California

Use 2.3 liters X-CYTE per hectare or 1 part X-CYTE to 1000 parts water (approximately 15 ml X-CYTE to 3.8 liters water) as a root dip and watering solution when transplanting. Use 2.3 liters X-CYTE per hectare applied to the seedbed at time of seeding or up to 20 days thereafter.

#### ALFALFA - 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 - 1.2 liters/hectare Not for Use in California

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

#### ASPARAGUS - 1.2 to 2.4 liters/hectare Not for Use in California

1st application: spray crowns when growth begins. 2nd application: spray crowns after each cutting.

#### BANANAS - 1 to 10 liters per 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 - 1.2 to 2.4 liters/hectare

 $1^{st}$  application: 10 to 13-cm stage.  $2^{nd}$  application: at early bloom.  $3^{rd}$  application: at early pod set.

#### CARROTS - 1.2 liters/hectare Not for Use in California

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

#### CELERY

#### Not for Use in California

1st application: Use 2.3 liters X-CYTE per hectare applied to the seed bed at time of seeding or up to 20 days thereafter.

 $2^{\rm nd}$  application: Use 2.3 liters X-CYTE per hectare at the time seedlings are transplanted. See transplanting instructions above.

 $3^{\rm rd}$  application: Use 1.2 liters X-CYTE per hectare 2-3 weeks after transplanting.

#### CORN - 1.2 liters/hectare Not for Use in California

1st application: At the 30.5 to 46-cm stage. 2<sup>nd</sup> application: at tassel time.

#### COTTON - 1.2 liters/hectare Not for Use in California

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

#### CRUCIFEROUS CROPS - 0.6 to 1.2 liters/hectare Not for Use in California (Cabbage, Broccoli, Cauliflower, Brussels Sprout)

 $1^{st}\ application:\ 7.5\ to\ 10\ cm\ stage.\ Repeat\ at\ 10\ to\ 14\ day\ intervals.$ 

#### CUCURBITS - 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: 10 to 20-cm stage. 2<sup>nd</sup> application: at early bloom. 3<sup>rd</sup> application: start of fruiting.

#### OLIVE - 0.15 - 0.29 liters/hectare Not for Use in California

Every 7 to 21 days from bud break through harvest.

#### GRAPES - 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 - 0.15 - 0.29/hectare Not for Use in California

Every 7 to 21 days from bud break through harvest.

#### ORANGES - 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 - 1.2 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 - 1.2 liter/hectare Not for Use in California

1st application: at pegging. 2nd application: 2-3 weeks after 1st spraying.

#### PEAS - 0.6 to 1.2 liters/hectare Not for Use in California

1<sup>st</sup> application: 7.5 to 10-cm stage. 2<sup>nd</sup> application: Prebloom. 3<sup>rd</sup> application: at early pod set.

#### PEPPERS AND EGGPLANT - 0.6 to 1.2 liter/hectare Not for Use in California

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

#### PINEAPPLE - 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 - 1.2 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 - 1.2 liters/hectare Not for Use in California

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

#### SOYBEANS - 1.2 liters/hectare Not for Use in California

Application: at first bud formation.

#### SPINACH AND LETTUCE - 0.6 to 1.2 liters/hectare Not for Use in California

Application: 7.5 to 10-cm stage.

#### STRAWBERRIES - 2.4 liters/hectare Not for Use in California

1st application: As a transplant solution. See "Transplanting Instructions" above.

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

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

4th application: After harvest.

#### SUGAR BEETS - 1.2 liters/hectare Not for Use in California

 $1^{st}$  application: at tuber initiation.  $2^{nd}$  application: 2-3 weeks after  $1^{st}$  spraying.

#### TOMATOES Not for Use in California

1<sup>st</sup> application: use 2.4 liters X-CYTE per hectare applied to the seed bed at time of seeding or up to 20 days thereafter. 2<sup>nd</sup> application: use 2.4 liters X-CYTE per hectare at the time seedlings are transplanted. See "Transplanting Instructions". 3<sup>nd</sup> application: use 1.2 liters X-CYTE per hectare 2 to 3 weeks after 1<sup>st</sup> bloom.

#### WHEAT - 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 2.4 liters per hectare in transplant water. Apply 1.2 liters per hectare as a foliar spray when growth begins in the early spring. Apply 1.2 liters per hectare at bud burst. Apply 1.2 liters per hectare at bud set. Apply 1.2 liters per hectare 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.

Per hundredweight (cwt.) of seed, dilute 60 ml 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.

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 (often such programs are run by 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 beings to drip. Triple Rinse as follows: Fill container V kill with water and reaco. (For containers 18.9 Liters or less) Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Disposal instructions for rinsate. Repeat procedure two more times. (For containers larger than 18.9 Liters) Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand container several times. Follow 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.



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