

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

EPA Reg. Number:

Date of Issuance:

2/6/20

#### NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance:
Conditional

Name of Pesticide Product: Instinct NXTGEN

Name and Address of Registrant (include ZIP Code):

Brian L. Bret US Crop Protection Regulatory Leader Dow AgroScience, LLC 9330 Zionsville Rd. Indianapolis, IN 46268

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Continued on page 2

Signature of Approving Official:	Date:
Mindy Ondish	2/6/20
Mindy Ondish, Product Manager 23	
Herbicide Branch, Registration Division (7505P)	

EPA Form 8570-6

- 2. You are required to comply with the data requirements described in the Generic Data Call-In (GDCI) identified below:
  - Nitrapyrin GDCI-069203-1205

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1">http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1</a>

3. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 12/14/2018
- Alternate CSFs #1-5 dated 12/14/2018
- Alternate CSF #6 dated 07/12/2019

Lastly, the alternate brand name "Instinct HL II" is added for this product.

If you have any questions, please contact Margaret Hathaway by phone at 703-305-5076, or via email at hathaway.margaret@epa.gov.

Enclosure

(Base label):

# Instinct NXTGEN™

[ Alternate Brand Name: Instinct® HL II ]

# NITROGEN STABILIZER OPTINYTE™ TECHNOLOGY

# **ACCEPTED** 02/06/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

62719-741

Use to delay nitrification of ammoniacal and urea nitrogen fertilizer compositions in the soil by controlling the nitrification process.

Active Ingredient:

nitrapyrin: 2-chloro-6-(trichloromethyl)

pyridine	·	• •	.25.97%
Other Ingredients			
Total			

Contains 2.50 lb of active ingredient per gallon.

# Keep Out of Reach of Children

# **CAUTION**

# **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or 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.

## Personal Protective Equipment (PPE)

### Mixers, loaders, applicators and other handlers must wear:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant (such as nitrile or butyl) gloves
- Chemical-resistant footwear plus socks
- When mixing and loading, or cleaning equipment, wear a chemical-resistant apron

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **User Safety Recommendations**

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### First Aid

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass or water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take of contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

#### **Environmental Hazards**

This pesticide is toxic to oysters/shrimp. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

This product may contaminate water through runoff. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

A level well-maintained vegetative buffer strip between areas to which this product is applied and surface water such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

#### **Non-target Organism Advisory Statement**

It is unclear how this product may impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Advisories section of this label.

## **Storage and Disposal**

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

**Pesticide Storage:** Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable containers 5 gallons or larger:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

# Nonrefillable containers larger than 5 gallons:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Mix or shake well before use.

Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs, or clothing.

EPA Reg. No. 62719-741	EPA Est.
LI A Neg. No. 02/ 19-741	LI A LSt.

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Produced for Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268

(Booklet cover, shipping container):

# Instinct NXTGEN™

[ Alternate Brand Name: Instinct® HL II ]

# NITROGEN STABILIZER OPTINYTE™ TECHNOLOGY

Use to delay nitrification of ammoniacal and urea nitrogen fertilizer compositions in the soil by controlling the nitrification process.

Active Ingredient:

nitrapyrin: 2-chloro-6-(trichloromethyl)

	3 /	
pyridine	 	25.97%
Other Ingredients	 	74.03%
ū		
Total		100 00%

Contains 2.50 lb of active ingredient per gallon.

# Keep Out of Reach of Children

# **CAUTION**

# **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Mix or shake well before use.

Refer to inside of label booklet for additional precautionary information including Directions for Use.

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EPA Reg. No. 62719-741

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(Booklet page 1 through end):

# **Precautionary Statements**

# **Hazards to Humans and Domestic Animals**

# **CAUTION**

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or 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.

# **Personal Protective Equipment (PPE)**

#### Mixers, loaders, applicators and other handlers must wear:

- · Coveralls worn over short-sleeved shirt and short pants
- · Chemical-resistant (such as nitrile or butyl) gloves
- Chemical-resistant footwear plus socks
- When mixing and loading, or cleaning equipment, wear a chemical-resistant apron

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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Users should:

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- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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This product may contaminate water through runoff. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level well-maintained vegetative buffer strip between areas to which this product is applied and surface water such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

#### **Non-target Organism Advisory Statement**

It is unclear how this product may impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Advisories section of this label.

#### **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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, 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, restricted-entry interval, and notification to workers (as applicable). 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 24 hours.

**Exception:** If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

For early entry into 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 short-sleeved shirt and short pants
- · Chemical-resistant (such as nitrile or butyl) gloves
- · Chemical-resistant footwear plus socks
- · Protective eyewear

#### Storage and Disposal

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

**Pesticide Storage:** Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

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# Nonrefillable containers 5 gallons or less:

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#### **Product Information**

Instinct NXTGEN nitrogen stabilizer is a water-based microencapsulated formulation of nitrapyrin that may be used in the application of ammoniacal dry fertilizers (such as urea, MAP, DAP), aqua ammonia, other liquid ammoniacal or urea nitrogen fertilizer compositions (such as 28%, 30% or 32% UAN), or manure. This product is not a substitute for fertilizer.

Incorporation may occur at any time up to 10 days after application and may be either by mechanical means or by moisture (rainfall or overhead irrigation). For moisture incorporation, a minimum of 0.5 inch of moisture is necessary. If 0.5 inch of moisture does not occur within the 10-day window, incorporate mechanically with light tillage.

#### **Precautions**

This product is no more corrosive to standard liquid fertilizer equipment than liquid fertilizer alone or liquid manure alone.

#### Restrictions

**Rotational Crop Restrictions:** All crops (except for root and tuber crops) must be planted no earlier than 30 days after the last application of this product. Do not plant root and tuber crops less than one year after last application.

# **Spray Drift Advisories**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size – Ground Boom**

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use
  the highest practical spray volume for the application. If a greater spray volume is needed, consider
  using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size – Aircraft**

Adjust Nozzles – Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT – Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, keep the boom level with the crop and minimize bounce.

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release the spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

- Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
- Applicators must be familiar with local wind patterns and terrain that could affect spray drift.

# **Application Directions**

**Aerial Application:** This product may be applied by aircraft in a liquid carrier such as liquid fertilizer or pesticides, or as impregnated on a granular fertilizer. See Spray Drift Advisories for information to reduce likelihood of drift on other crops or non-target areas.

**Ground Application:** This product may be applied through ground application equipment that may be used in the application of ammoniacal dry or liquid fertilizers, or manure.

**Chemigation:** In corn, Instinct NXTGEN may be applied through properly equipped chemigation systems at a preplant or postplant application timing prior to crop emergence. In wheat, Instinct NXTGEN may be applied through properly equipped chemigation systems preplant up to the 1st detectable joint (Feekes 6 or Zadock 31) growth stage. Unless otherwise indicated in specific use directions, the application rates for chemigation are the same as those specified for broadcast applications.

**Directions for Chemigation:** This product may be applied through the following irrigation systems: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, micro sprinkler, drip, hand move, or other systems that provide uniform application.

**Chemigation Equipment Preparation:** Thoroughly clean the chemigation system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injection system with soap and/or a cleaning agent and water. Determine the amount of Instinct NXTGEN needed to cover the desired acreage. Mix according to instructions in the Mixing Directions section and bring mixture to desired volume. Maintain continuous agitation during mixing and throughout the application period.

**Chemigation Equipment Calibration:** In order to calibrate the irrigation system and injector to apply the mixture containing Instinct NXTGEN, calculate or determine the following.

- Calculate the number of acres to be irrigated by the system.
- Calculate the amount of Instinct NXTGEN required and other crop inputs such as fertilizers, insecticides, or herbicides.
- Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area.
- Divide the total gallons of Instinct NXTGEN mixture needed by the number of minutes (minus time to flush out) to cover the treatment area. The following value equals the gallons per minute output that the injector or educator must deliver. Convert the gallons per minute to milliliters or ounces per minute, if needed.
- Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the timed output of the injector pump be checked at least twice before operation and the system monitored during operation.

#### **Chemigation Equipment Requirements**

- The system must contain an air gap, an approved backflow prevention device, a functional check valve, vacuum relief valve (including inspection port), and/or low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information or state specific regulations.
- The Instinct NXTGEN mixture injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The Instinct NXTGEN mixture 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 Instinct NXTGEN mixture injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump when the water pressure decreases to the point where the Instinct NXTGEN mixture distribution is adversely affected.
- 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 Instinct NXTGEN mixture and capable of being fitted with a system interlock.
- To ensure uniform mixing of the Instinct NXTGEN mixture into the water line, inject the mixture through a nozzle placed in the fertilizer injection port or just ahead of an elbow or tee in the irrigation line so that the turbulence will assist in mixing. The injection point must be located after all back-flow prevention devices on the water line.

• The tank holding the Instinct NXTGEN mixture must be free of rust, sediment, and foreign material and equipped with an in-line strainer situated between the tank and the injector point.

**Chemigation Operation:** Start the water pump and irrigation system and let the system achieve the desired pressure and speed before starting the injector. Check for leaks and uniformity and make repairs before any chemigation takes place. Start the injector system and calibrate according to manufacturer's specifications. The following procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, flush and clean the entire irrigation and injector system prior to shutting down the system to remove any Instinct NXTGEN, herbicide, insecticide, or fertilizer residue from the system.

#### **Chemigation Precautions**

- Crop injury, lack of effectiveness, or illegal pesticide residues in crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact state extension service specialist, equipment manufacturers, or other experts.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall operate the system and make necessary adjustments should the need arise and continuously monitor the injection.

#### **Chemigation Restrictions**

- The Instinct NXTGEN mixture pipeline must contain a functional, automatic quick-closing check valve to prevent the flow fluid back toward the injection
- The Instinct NXTGEN mixture injection pipeline must contain a functional, normally closed, solenoidoperated 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 Instinct NXTGEN
  mixture 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 Instinct NXTGEN mixture distribution is
  adversely affected.
- 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 Instinct NXTGEN mixture and capable of being fitted with a system interlock.
- Do not allow irrigation water to collect or runoff and pose a hazard to livestock, wells, or adjoining crops.
- Do not apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.
- 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.

# **Mixing Directions**

#### Mix or shake well before use.

For large containers, use a cage mixer / motor for 30-60 minutes to improve product uniformity.

This product may be applied alone or in combination with dry fertilizers (such as urea, MAP, or DAP), liquid fertilizers (such as UAN, aqua ammonia, other liquid ammoniacal, or urea nitrogen fertilizers), liquid manures, fungicides, insecticides, herbicides, and/or water at the use rates specified for each crop.

#### **Liquid Fertilizers**

This product may be applied with liquid fertilizers such as UAN or aqua ammonia or other liquid ammoniacal or urea nitrogen fertilizers. Instinct NXTGEN can be added to urea ammonium nitrate liquid fertilizer without a compatibility agent, although when mixing this product with fertilizer plus herbicides, fungicides, or insecticides, a jar test may indicate that a compatibility agent is needed.

There are two methods which may be used to create a stable emulsion with Instinct NXTGEN plus a compatibility agent in liquid fertilizer:

**Premix Method**: The compatibility agent and Instinct NXTGEN may be mixed together in a separate container and then added to the liquid fertilizer. Continuously agitate as the mixture is added to the fertilizer.

**Sequential Method**: The compatibility agent may be added to the fertilizer and thoroughly agitated. While the agitation continues, the required amount of Instinct NXTGEN may be added to the tank.

Most phosphate ester types of compatibility agents are suitable for use in these mixtures. Follow the label directions for the compatibility agent to determine rates and any use precautions.

#### **Liquid Manure**

This product may be applied with liquid manure. Apply to the field or directly to the manure immediately prior to or during application. Ensure that this product is uniformly blended with the manure prior to application or properly injected with the manure application equipment to deliver the targeted rate per acre. The best practice for fertilization using manure is to inject the liquid manure into the soil ensuring soil coverage or surface application followed by immediate incorporation. Check local laws and regulations on acceptable manure practices and for the area where manure is to be applied.

#### **Granular Ammonium and Urea**

This product may be applied by impregnation on urea, most dry ammoniacal fertilizers, or fertilizer blends containing ammoniacal fertilizers (MAP, DAP, or others). Uniform impregnation on fertilizer and uniform application in the field is necessary to ensure optimum results.

Various types of equipment can be used to impregnate Instinct NXTGEN onto dry fertilizers, including vertical and horizontal mixers. Once impregnated, fertilizer may be applied with either spinner, airflow, or other suitable equipment.

Use a minimum of 100 lb of dry fertilizer per acre. With lower rates of fertilizer (higher concentrations of Instinct NXTGEN), the fertilizer may not readily absorb all of the liquid. For a suitable free-flowing mixture, add a drying agent to the mixture. Use a minimum of 1 lb of drying agent per pint of Instinct NXTGEN unless experience indicates a different amount works well. Do not apply more than 1 lb active ingredient (ai) nitrapyrin per acre per year.

Apply bulk fertilizers impregnated with Instinct NXTGEN within 24 hours of impregnation. Do not store the impregnated fertilizer. Following all individual state regulations, including those related to dry bulk blending registration, labeling, and application, is the responsibility of the individual and/or company selling mixtures of Instinct NXTGEN and fertilizer.

Do not mix seed with dry fertilizers impregnated with Instinct NXTGEN.

#### **Tank Mixing**

This product may also be applied in tank mixtures with preplant incorporated or preemergence herbicides, fungicides, or insecticides registered for use on corn and wheat. The tank mixes may be in water or in most urea-ammonium nitrate solutions, N-P-K solutions, slurries, or suspensions. Check the physical compatibility of tank mixtures as indicated below before mixing in the tank. Maintain constant agitation during both the mixing and application processes to ensure uniform spray mixture. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Tank Mix Compatibility Test:** To test the compatibility of this product with liquid fertilizers and/or herbicide, fungicide, or insecticide mixes, add proportionate amounts of each ingredient to a small jar, then cap, shake, and let stand for 15 minutes. Formation of precipitates or layers that do not readily redisperse indicates an incompatible mixture that must not be used.

Note: Instinct NXTGEN has shown incompatibility with some ammonium thiosulfate and liquid fertilizers containing boron.

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order.

- To start, add one-half of the required amount of liquid fertilizer, water, or other urea-ammonium nitrate solutions. Begin agitation.
- Add Instinct NXTGEN (Compatibility agent if needed).
- Products in water soluble packaging. Important: Products in water soluble packaging must be premixed with water (slurried) prior to addition to the spray tank.
- Wettable powders or dry flowables (slurry if recommended by tank-mix product label).
- Liquid flowables.
- Emulsifiable concentrates.
- Suspension concentrates.
- Soluble liquids.
- Add other nutrients.
- Finish filling spray tank to required spray volume.

Note: For all tank-mixtures, maintain agitation during mixing and throughout application to ensure that the spray mixture remains uniformly suspended. If spray mixture is allowed to settle at any time, thorough agitation is required to re-suspend the mixture before spraying is resumed.

#### **Use Sites**

#### Corn (field corn, production seed corn, silage corn, sweet corn, popcorn)

#### Preplant, At-Plant, Postplant, or Preemergence Application

Apply this product at the rate of 24 fl oz (0.5 lb ai) per acre from preplant up to the V6 corn growth stage. Greater rates from 24 to 48 fl oz (0.5 to 1.0 lb ai) per acre may be applied with liquid nitrogen fertilizer prior to corn emergence or with liquid manure in the fall prior to spring corn planting when a greater duration of activity is desired.

## Postemergence

This product may be sidedress applied at the rate of 24 fl oz per acre from crop emergence up to the V6 corn growth stage. Reduced rates of 12 to 18 fl oz (0.25 to 0.35 lb ai) per acre may be applied at the V4 to V6 corn growth stage when severe nitrate leaching and or denitrification are less likely to occur. Applications with liquid fertilizers may be injected, dribbled, or applied as a sidedress band. Applications with dry fertilizers may be broadcast, injected (knived), or banded.

#### **Split Application**

A second application may be made postplant following a preplant or at-plant application at 12 to 24 fl oz (0.25 to 0.5 lb ai) per acre. The 24 fl oz rate may be used where nitrogen fertilization is intended for high yield production. The total amount of this product applied in a split application program involving a preplant or at-plant treatment followed by a postplant treatment must not exceed 48 fl oz (1.0 lb ai) per acre per year.

#### **Restrictions:**

- Do not apply more than 24 fl oz of this product (0.5 lb ai) per acre per application after crop emergence.
- Do not apply more than a total of 48 fl oz of this product (1.0 lb ai) per acre per year.
- Preharvest Interval: Do not apply past V6 corn growth stage.

# Wheat (including spring and winter)

## Preplant, At-Plant, Preemergence, or Postemergence Application

Apply this product at the rate of 24 to 48 fl oz (0.5 to 1.0 lb ai) per acre from prior to planting up to the 1st detectable joint (Feekes 6 or Zadock 31 wheat growth stage). Applications with liquid fertilizers may be

injected, dribbled, or broadcast applied to the crop. Liquid fertilizers broadcast across actively growing wheat can cause leaf necrosis.

#### **Restrictions:**

- Do not apply more than 48 fl oz of this product (1.0 lb ai) per acre per application.
- Do not apply more than 48 fl oz of this product (1.0 lb ai) per acre per year.
- Preharvest interval: Apply prior to 1st detectable joint (Feekes 6 or Zadock 31 growth stage).

#### **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

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- 1. Refund of purchase price paid by buyer or user for product bought, or
- 2. Replacement of amount of product used.

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