

62719-557

09-08-2009

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

SEP 8 2009

Ms. Niamh McMahon  
Regulatory Leader  
Dow AgroSciences  
9330 Zionsville Road  
Indianapolis, IN 46268-1054

Subject: Label Notification for Pesticide Registration Notice 2007-4  
(EPA Registration Number 62719-557)

Dear Ms. McMahon,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 dated April 1, 2009 for the product Starane<sup>®</sup> NXT (EPA Registration Number 62719-557). The Registration Division (RD) has conducted its review of this request for its applicability under PRN 2007-4 and finds that the label changes requested fall within the scope of PRN 2007-4. The label submitted with the application has been stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please call me directly at 703-305-6249 or Steve Schaible of my staff at 703-308-9362.

Sincerely,

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number Dow AgroSciences/62719-557	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Dow AgroSciences/Starane® NXT	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(ii), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**NOTIFICATION**

**SEP - 8 2009**

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the confidential statement of formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Unit Packaging wgt. 23.8 lb	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Package wgt	2. Type of Container <input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		No. per container 2	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5 gal, 55 gallon	5. Location of Label Directions <input checked="" type="checkbox"/>
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled		<input type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Niamh McMahon	Title Regulatory Leader	Telephone No. (Include Area Code) (317) 337-4609
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Leader	
4. Typed Name Niamh McMahon ©Trademark of Dow AgroSciences LLC	5. Date April 1, 2009	

308/2E  
April 1, 2009



Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U. S. Environmental Protection Agency  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington, VA 22202

STARANE NXT (FLUROXYPYR, BROMOXYNIL)  
EPA REGISTRATION NUMBER: 62719-557  
NOTIFICATION OF MINOR LABEL CHANGE PER PR NOTICE 2007-4

Enclosed please find labeling for the notification action of Starane<sup>®</sup> NXT herbicide based on EPA accepted copy dated September 21, 2006. Following are changes by notification:

1. Updated Storage and Disposal per PR Notice 2007-4.

Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the confidential statement of formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Contents of Submission**

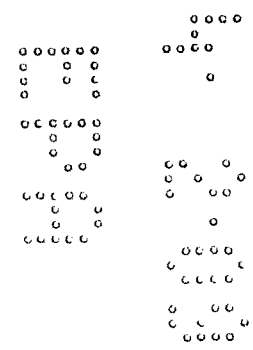
- Transmittal document (this letter)
- Application for Pesticide, EPA Form 8570-1
- Label entitled Starane (R9A /Starane NXT / Notif / 04-01-09) (23 Pages plus Registration Notes) (5 Copies)

If you require further information, please contact Amy Hudson, Regulatory Specialist at (317) 337-3967 or Kim Williamson, Registration Assistant for this product, at (317) 337-4657.

Sincerely,

Niamh McMahan  
Regulatory Leader  
(317) 337-4609  
(317) 337-4649 (FAX)

NM/akh  
Enclosures



# Starane<sup>®</sup> NXT

EPA Reg. No. 62719-557

## Registration Notes:

**Source section 3 labeling** based on EPA accepted label dated September 21, 2006. Following are changes by notification:

1. Revise Storage and Disposal per PR Notice 2007-4.

®Trademark of Dow AgroSciences LLC

Starane NXT  
EPA Reg. No. 62719-557  
Dow AgroSciences LLC  
2007-4

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(Base label):

**NOTIFICATION**

**SEP - 8 2009**

**Starane<sup>®</sup> NXT**  
**Herbicide**

**For postemergence control of annual broadleaf weeds in wheat, barley and oats not underseeded with a legume, corn (field), sorghum (grain and forage) and sudangrass, grasses grown for seed production**

<b>Group</b>	<b>4</b>	<b>6</b>	<b>HERBICIDE</b>
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**Active Ingredient(s):**

fluroxypyr: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid, 1-methylheptyl ester.....	9.23%
bromoxynil: (2,6-dibromo-4-cyanophenyl octanoate) .....	37.29%
Other Ingredients .....	53.48%
Total.....	100.0%

Contains Petroleum Distillates

**Acid Equivalents:**

fluroxypyr: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid – 6.4% - 0.583 lb/gal  
bromoxynil octanoate – 25.62% - 2.33 lb/gal

**Keep Out of Reach of Children**

**WARNING AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

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**Precautionary Statements**

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**Hazards to Humans and Domestic Animals**

**May be Fatal if Swallowed • Causes Substantial but Temporary Eye Injury • Harmful if Inhaled • Prolonged or Frequently Repeated Skin Contact May Cause Allergic Reactions in Some Individuals**

**Avoid breathing spray mist. Do not get in eyes or on clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.**

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selections chart.

**Applicators and other handlers must wear:**

- Long sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate
- Shoes plus socks
- Protective eyewear

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.

### Engineering Controls

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

Users should:

- Wash hands 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 of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**Note to Physician:** Contains petroleum distillate. Vomiting may cause aspiration chemical pneumonia.

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 product is toxic to wildlife and fish. Drift or runoff from treated areas may be hazardous to aquatic organisms and non-target plants. Use with care when applying to areas frequented by wildlife or adjacent to any body of water. 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 cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes.

### Physical or Chemical Hazards

Do not use or store near heat or open flame.

### 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.

### Nonrefillable containers 5 gallons or less:

#### Storage and Disposal

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

**Pesticide Storage:** Store above 14°F. Warm to ambient conditions and shake well before using.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label

instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

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.

#### Refillable containers larger than 5 gallons:

##### Storage and Disposal

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

**Pesticide Storage:** Store above 14°F. Warm to ambient conditions and shake well before using.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**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 mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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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.

**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. 62719-557

EPA Est. \_\_\_\_\_

® Trademark of Dow AgroSciences LLC

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

**Net Contents \_\_\_\_\_**

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(cover):

# Starane<sup>®</sup> NXT

## Herbicide

**For postemergence control of annual broadleaf weeds in wheat, barley and oats not underseeded with a legume, corn (field), sorghum (grain and forage) and sudangrass, grasses grown for seed production**

<b>Group</b>	<b>4</b>	<b>6</b>	<b>HERBICIDE</b>
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**Active Ingredient(s):**

fluroxypyr: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid, 1-methylheptyl ester.....	9.23%
bromoxynil: (2,6-dibromo-4-cyanophenyl octanoate).....	37.29%
Other Ingredients.....	53.48%
Total.....	100.0%

Contains Petroleum Distillates

**Acid Equivalents:**

fluroxypyr: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid – 6.4% - 0.583 lb/gal
bromoxynil octanoate – 25.62% - 2.33 lb/gal

**Keep Out of Reach of Children**

### WARNING AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

<p><b>Agricultural Use Requirements</b></p> <p>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.</p>
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**Refer to inside of label booklet for Directions for Use.**

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EPA Reg. No. 62719-557

EPA Est. \_\_\_\_\_

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**Produced for  
Dow AgroSciences LLC**



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(Page 1 through end):

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**Precautionary Statements**

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**Hazards to Humans and Domestic Animals****WARNING**

**May be Fatal if Swallowed • Causes Substantial but Temporary Eye Injury • Harmful if Inhaled • Prolonged or Frequently Repeated Skin Contact May Cause Allergic Reactions in Some Individuals**

**Avoid breathing spray mist. Do not get in eyes or on clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.**

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selections chart.

**Applicators and other handlers must wear:**

- Long sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate
- Shoes plus socks
- Protective eyewear

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.

**Engineering Controls**

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**

Users should:

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**First Aid**

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

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Note to Physician:** Contains petroleum distillate. Vomiting may cause aspiration chemical pneumonia. 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.

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### Environmental Hazards

This product is toxic to wildlife and fish. Drift or runoff from treated areas may be hazardous to aquatic organisms and non-target plants. Use with care when applying to areas frequented by wildlife or adjacent to any body of water. 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 cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes.

### Physical or Chemical Hazards

Do not use or store near heat or open flame.

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### Directions for Use

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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 (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 24 hours.

PPE required 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, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as natural rubber
- Shoes plus socks
- Protective eyewear

### Storage and Disposal

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

**Pesticide Storage:** Store above 14°F. Warm to ambient conditions and shake well before using.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### Nonrefillable containers 5 gallons or less:

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

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

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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.

#### **Refillable containers larger than 5 gallons:**

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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 mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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## **General Information**

Starane<sup>®</sup> NXT herbicide is recommended for selective control of annual broadleaf weeds in wheat, barley, and oats not underseeded with a legume.

### **Resistance Management Guidelines**

- Use an effective integrated pest management (IPM) program, integrating tillage or other mechanical methods, crop rotation or other cultural control methods into weed control programs whenever practical.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its recommended rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Contact your extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

### **General Use Precautions and Restrictions**

- Do not apply this product directly to, or allow spray drift to come in contact with broadleaf crops or other susceptible broadleaf plants, including, but not limited to, alfalfa, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers,

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tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season.

- The bromoxynil component of this product may cause occasional transitory leaf burn. The temporary leaf burn is similar to that seen with liquid fertilizer. Because the activity of bromoxynil is not systemic, recovery of the crop is generally rapid with no lasting effect. Frequency and amount of leaf burn may be greater when crops are stressed by abrasive winds, cool to cold evening temperatures or mechanical injury such as that caused by hail, sleet or insect feeding. To reduce the potential for temporary leaf burn, apply to dry foliage in the labeled spray volumes per acre when weather conditions are not extreme.
- Avoid application where proximity of susceptible crops or other desirable plants is likely to result in exposure to spray or spray drift.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- **Maximum Application Rates:** Do not apply more than 0.5 lb ai of bromoxynil/A per use season (27.4 fl. oz of Starane NXT herbicide). Do not cumulatively apply more than 0.25 lb ai/A of fluroxypyr per use season. Do not apply more than 0.375 lb ai of bromoxynil/A per season (21 fl. oz per acre of Starane NXT per season) to sorghum.
- Do not apply this product if wheat, barley, or oat crop to be treated has been underseeded with a desirable legume.
- Do not use this product in combination with fungicides containing strobilurin chemistry.
- Do not allow livestock to graze treated areas within 45 days of application
- **Preharvest Interval:** Do not apply within 45 days of hay, grain or straw harvest.
- Do not apply aerially within 300 feet of residential areas including homes, schools, playgrounds, shopping areas, and hospitals.

#### Crop Rotation Intervals

If replanting is required, plant only those crops listed on this label or Federally approved supplemental labeling for Starane NXT after 30 days but prior to 120 days following application. Any crop may be replanted when more than 120 days have lapsed following application.

#### Management of Kochia Biotypes

Research has suggested that many biotypes of kochia can occur within a single field. While kochia biotypes can vary in their susceptibility to Starane NXT, all will be suppressed or controlled by the rates listed in the label. Application of this product at less than labeled rates can result in a shift to more tolerant biotypes within a field.

**Best Resistance Management Practice:** Extensive populations of dicamba tolerant kochia have been identified in certain small grain and corn production regions (such as Chouteau, Fergus, Liberty, Toole, and Treasure counties in the state of Montana). In these areas, Starane NXT should be rotated with products **that do not contain dicamba** to minimize selection pressure. Use of these practices will preserve the utility of Starane NXT for control of dicamba tolerant kochia biotypes

#### Precautions for Avoiding Spray Drift

Spray drift, even very small quantities of the spray that may not be visible, may severely injure susceptible crops whether dormant or actively growing. When applying this product, use low-pressure equipment capable of producing sprays of uniform droplet size with a minimum of fine spray droplets. Under adverse weather conditions, fine spray droplets that do not settle rapidly onto target vegetation may be carried a considerable distance from the treatment area. A drift control or spray thickening agent may be used with this product to improve spray deposition and minimize the potential for spray drift. If used, follow all use recommendations and precautions on the product label.

**Ground Applications:** To minimize spray drift, apply this product in a total spray volume of 8 or more gallons per acre using spray equipment designed to produce large-droplet, low pressure sprays. Refer to the spray equipment manufacturer's recommendations for detailed information on nozzle types, arrangement, spacing and operating height and pressure. Spot treatments should be applied only with a calibrated boom to prevent over application. Operate equipment at spray pressures no greater than is

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necessary to produce a uniform spray pattern. Operate the spray boom no higher than is necessary to produce a uniformly overlapping pattern between spray nozzles. Do not apply with hollow cone-type insecticide nozzles or other nozzles that produce a fine-droplet spray.

**Aerial Application:** To minimize spray drift, apply this product in a total spray volume of 3 or more gallons per acre. Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high potential for temperature inversion. Spray drift from aerial application can be minimized by applying a coarse spray at spray boom pressure no greater than 30 psi; by using straight-stream nozzles directed straight back; and by using a spray boom no longer than 3/4 the rotor or wing span of the aircraft. Spray pattern and droplet size distribution can be evaluated by applying sprays containing a water-soluble dye marker or appropriate drift control agents over a paper tape (adding machine tape). Mechanical flagging devices may also be used.

**Do not apply under conditions of a low level air temperature inversion.** A temperature inversion is characterized by little or no wind and lower air temperature near the ground than at higher levels. The behavior of smoke generated by an aircraft mounted device or continuous smoke column released at or near site of application will indicate the direction and velocity of air movement. A temperature inversion is indicated by layering of smoke at some level above the ground and little or no lateral movement.

### Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 75% the length of the wingspan or rotor width.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory Information:**

#### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

#### Controlling Droplet Size

**Volume-**Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure-**Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of nozzles-**Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation-**Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

**Boom Length:** For some use patterns, reducing the effective boom length to less than 75% of the wingspan or 90% of rotor width may further reduce drift without reducing swath width.

**Application:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment** - When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

**Wind:** Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions:** Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. A temperature inversion is characterized by increasing temperature with altitude and commonly develops at night when there is limited cloud cover and calm conditions. They begin to form as the sun sets and often continue into the morning. Presence of a temperature inversion is indicated by ground fog; however, if ground fog is not present, a temperature inversion can also be indicated by movement of smoke from a ground or an aircraft smoke generator. Smoke that forms a layer and moves laterally in a connected cloud (under low wind conditions) is an indication of inversion conditions, while smoke that moves upward and dissipates rapidly is an indication of good vertical air mixing.

**Sensitive Areas:** The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

**Sprayer Clean-Out:** To avoid injury to desirable plants, equipment used to apply this product should be thoroughly cleaned before re-using to apply any other chemicals.

1. Rinse and flush application equipment thoroughly at least 3 times with water after use. Dispose of rinse water by application to treatment area or in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15-20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Remove nozzles and screens and clean separately.

### Mixing Instructions

1. Fill spray tank with water equal to 1/2 to 3/4 of the required spray volume and start agitation.



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2. Add the required amount of Starane NXT Herbicide.
3. Agitate during final filling of the spray tank and maintain sufficient agitation during application to ensure uniformity of the spray mixture.

**Note:** Allow time for thorough mixing of each spray ingredient before adding the next. If allowed to stand after mixing, agitate spray mixture before use.

### Tank Mixing

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing with products containing fluroxypyr or bromoxynil is not prohibited by the label of the tank mix product.

### Tank Mixing Precautions:

- Read carefully and follow the most restrictive of all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified label application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be applied.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See instructions for Sprayer Clean-Out.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.
- Do not use this product in combination with fungicides containing strobilurin chemistry.

**Tank Mix Compatibility Testing:** A jar test is recommended prior to tank mixing to ensure compatibility of Starane NXT Herbicide and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

### Tank Mixing Instructions

Fill spray tank with water to 1/2 to 3/4 of the required spray volume. Start agitation. Add different formulation types in the order indicated, allowing time for complete mixing and dispersion after addition of each.

1. Add dry flowables; wettable powders; aqueous suspensions, flowables or liquids.
2. Maintain agitation and fill spray tank to 3/4 of total spray volume and then add Starane NXT Herbicide and other emulsifiable concentrates and any solutions.

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

**The following foliar fungicides are compatible with Starane NXT as tank mixtures:**

Fungicide Common Name	Brand Name	Formulation Type
Propiconazole	PropiMax, Tilt	Emulsifiable Concentrate (EC)

**The following foliar insecticides are compatible with Starane NXT as tank mixtures:**

Insecticide Common Name	Brand Name	Formulation Type
Chlorpyrifos (wheat only)	Lorsban	Emulsifiable Concentrate (EC)
Dimethoate (wheat only)	Various	Emulsifiable Concentrate (EC)

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Gamma cyhalothrin (wheat only)	Proaxis	Capsule suspension (CS)
Malathion	Various	Emulsifiable Concentrate (EC)

### Application Timing

Apply to actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following application may reduce weed control and increase the risk of crop injury at all stages of growth. **Only weeds that have emerged at the time of application will be controlled.** If foliage is wet at the time of application, control may be decreased. Applications of this product are **rainfast within 1 hour after application.**

### Effect of Temperature on Herbicidal Activity

Herbicidal activity of this product is influenced by weather conditions. Optimum activity requires active plant growth. The temperature range for optimum herbicidal activity is 55°F to 75°F. Reduced activity will occur when temperatures are below 45°F or above 85°F. Frost before application (3 days) or shortly after (3 days) may reduce weed control and crop tolerance.

### Spray Coverage

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Do not broadcast apply in less than 3 gallons of total spray volume per acre. For best results and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under "Precautions for Avoiding Spray Drift."

**For ground applications,** a spray volume of 10 to 20 gallons per acre (GPA) is recommended for optimum spray coverage. Ground applications made when dry, dusty field conditions exist may provide reduced weed control in wheel track areas. Applications using less than 10 gallons per acre may result in reduced weed control.

**For aerial applications,** use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage. In general a minimum spray volume of 5 GPA and a maximum pressure of 40 psi are recommended.

Do not apply during inversion conditions, when winds are gusty or when other conditions favor poor spray coverage and off target spray movement. Off target spray movement can be minimized by increasing the spray volume per acre and not applying when winds exceed 10 mph.

### Adjuvants

Generally, this product does not require the use of an adjuvant to achieve satisfactory weed control. However, the addition of an adjuvant (nonionic surfactant or crop oil) may optimize herbicidal activity when applications are made (a) at lower use rates or lower carrier volumes, (b) under conditions of cool temperature, low relative humidity or drought, or (c) to small, heavily pubescent kochia.

### Use with Sprayable Liquid Fertilizer Solutions

This product is compatible with most non-pressurized liquid fertilizer solutions, however, if liquid fertilizer solutions are to be applied with this product, a compatibility test (jar test) should be made prior to mixing. When tankmixing with liquid fertilizer, always add the fertilizer to the spray tank first and agitate thoroughly before adding this product. Agitation must be maintained during filling and application operations to ensure that this product is evenly mixed with the fertilizer. Leaf burn may occur when this product is applied with liquid fertilizer, but new leaves are not adversely affected.

Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when the water source changes, or when tank mixture ingredients or concentrations are changed. A compatibility test is performed by mixing the spray components (in the desired order and proportions) into a clear glass jar before mixing in the spray tank. Use of a compatibility aid such as Unite or Compex may help obtain and maintain a uniform spray solution during mixing and application. Agitation in the spray tank must be

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vigorous to compare with jar test agitation. For best results, liquid fertilizer should not exceed 50% of the total spray volume. Premix this product with water and add to the liquid fertilizer/water mixture while agitating contents of the spray tank. Apply the spray the same day it is prepared while maintaining continuous agitation.

**Advisory:** Fertilizers and spray additives can increase foliage leaf burn when applied with Starane NXT. Do not apply fertilizers or spray additives with Starane NXT if leaf burn is a major concern due to environmental conditions, crop or variety sensitivity to Starane NXT. Do not apply Starane NXT in combination with fertilizers or spray additives if restricted under the individual crop use directions.

**Broadleaf Weeds Controlled or Suppressed  
Wheat (including Durum), Barley, Oats**

**Spring-seeded wheat, barley, oats  
(All states except Idaho, Oregon, Washington, Colorado, Wyoming, Montana)**

Apply Starane NXT from the 3-leaf crop growth stage up to flag leaf emergence for control of listed broadleaf weeds. Only weeds emerged at the time of application will be controlled. Apply to actively growing weeds according to recommendations in the following table:

**Note:** Numbers in parentheses (-) refer to footnotes below.

Weeds Controlled		Additional Weeds Controlled	Additional Weeds Controlled
Up to 8-leaf stage or 4 inches in height; 2 inch rosette		Up to 4 inches in height	Up to 8 inches in height
14 fl oz / Acre	14 to 21 fl oz / Acre	21 fl oz / Acre	27.4 fl oz / Acre
buckwheat, wild buckwheat, tartary cocklebur, common fiddleneck, coast grape species jimsonweed kochia (2) lambsquarters, common lanceleaf sage mustard, blue nightshade, (black, cutleaf, Eastern black, hairy, silverleaf) pennycress, field pepperweed species shepherdspurse smartweed, (green, ladythumb, Pennsylvania) sowthistle, annual starbur, bristly sunflower (1) tarweed, common	buffalobur burcucumber canola, volunteer chamomile, corn chamomile, false (scentless) chamomile, mayweed (dogfennel) cow cockle gromwell, corn grounsel, common hemp sesbania knawel knotweed London rocket mallow, Venice morningglory, (tall, ivyleaf, pitted) mustard, tumble (Jim Hill) mustard, wild pigweed, redroot pigweed, spiny puncturevine radish, wild ragweed, common ragweed, giant starthistle, yellow thistle, Russian	bedstraw (cleavers) (1-4 whorls) flax, volunteer grape species lettuce, prickly mallow, common (1-6 leaf) puncturevine purslane, common	bedstraw (cleavers) (1-4 whorls) flax, volunteer grape species hemp dogbane kochia (2) lettuce, prickly mallow, common (1-6 leaf) puncturevine purslane, common
		<b>Weeds Suppressed<sup>†</sup></b> chickweed marshelder	<b>Weeds Suppressed<sup>†</sup></b> chickweed field bindweed field horsetail mare's tail marshelder

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	velvetleaf waterhemp, tall		
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1. For best control of sunflower, delay application until emerging seedlings are 4 inches in height.
2. Includes herbicide tolerant or resistant biotypes. Best control is achieved when weeds are at least 1 inch tall.

† **Suppression** is expressed as a reduction in weed competition (reduction in population or vigor) as compared to untreated areas. The degree of weed control and duration of effect may vary with weed size, density, application rate, coverage, and growing conditions before, during and after treatment.

**Fall-seeded wheat, barley, oats (All states)**

**Spring-seeded wheat, barley, oats (Idaho, Oregon, Washington, Colorado, Wyoming, Montana)**

Apply Starane NXT from the 3-leaf crop growth stage up to flag leaf emergence for control of listed broadleaf weeds. Only weeds emerged at the time of application will be controlled. Apply to actively growing weeds according to recommendations in the following table:

**Note:** Numbers in parentheses (-) refer to footnotes below.

Weeds Controlled		Additional Weeds Controlled	Additional Weeds Controlled
Up to 8-leaf stage or 4 inches in height; 2 inch rosette	Up to 4-leaf stage or 2 inches in height; 1 inch rosette	Up to 4 inches in height	Up to 8 inches in height
14 fl oz / Acre	21 to 27.4 fl oz / Acre	21 fl oz / Acre	27.4 fl oz / Acre
buckwheat, wild buckwheat, tartary cocklebur, common fiddleneck, coast grape species jimsonweed kochia (2) lambquarters, common lanceleaf sage mustard, blue nightshade, (black, cutleaf, Eastern black, hairy, silverleaf) pennycress, field pepperweed species shepherdspurse smartweed, (green, ladysthumb, Pennsylvania)	buffalobur burcucumber canola, volunteer chamomile, corn chamomile, false (scentless) chamomile, mayweed (3) (dogfennel) cow cockle gromwell, corn grounsel, common hemp sesbania knawel (3) knotweed London rocket mallow, Venice morningglory, (tall, ivyleaf, pitted) mustard, tumble (Jim Hill) mustard, wild	bedstraw (cleavers) (1-4 whorls) flax, volunteer grape species lettuce, prickly mallow, common (1-6 leaf) puncturevine purslane, common	bedstraw (cleavers) (1-4 whorls) flax, volunteer grape species hemp dogbane kochia (2) lettuce, prickly mallow, common (1-6 leaf) puncturevine purslane, common
		<b>Weeds Suppressed†</b>	<b>Weeds Suppressed†</b>

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sowthistle, annual starbur, bristly sunflower (1) tarweed, common	pigweed, redroot pigweed, spiny puncturevine radish, wild ragweed, common ragweed, giant starthistle, yellow thistle, Russian velvetleaf waterhemp, tall	chickweed marshelder	chickweed field bindweed field horsetail marestail marshelder
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1. For best control of sunflower, delay application until emerging seedlings are 4 inches in height.
2. Includes herbicide tolerant or resistant biotypes. Best control is achieved when weeds are at least 1 inch tall.
3. For best control of mayweed and knawel, use 27.4 fl oz per acre.

† **Suppression** is expressed as a reduction in weed competition (reduction in population or vigor) as compared to untreated areas. The degree of weed control and duration of effect may vary with weed size, density, application rate, coverage, and growing conditions before, during and after treatment.

**Management of Kochia Biotypes:** Research has suggested that many biotypes of kochia can occur within a single field. While kochia biotypes can vary in their susceptibility to this product, generally, all will be suppressed or controlled by the labeled rates of this product. Application of this product at rates lower than recommended can result in a shift to more tolerant biotypes within a field.

**Do not use if cereal crop is underseeded with a legume.**

**Tank Mixtures for Wheat (including Durum), Barley or Oats**

This product may be applied in tank mix combination with labeled rates of other products registered for postemergence application in wheat, barley, and oats. See "Tank Mixing Precautions" under "Mixing Instructions". When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

**Corn (field)**

Apply Starane NXT to field corn at the application rates and timings shown in the table below.

Application Rate	Crop Stage	Weeds
14 to 21 fl oz / Acre	Aply from prior to planting to just prior to crop emergence	Refer to the application rate and weeds controlled table for corn and sorghum.
14 fl oz / Acre	Apply from emergence up to and including the V5 growth stage	
21 to 27.4 fl oz / Acre	Apply from the V4 growth stage up to and including the V5 growth stage	Use the 27.4 fl oz per acre rate on corn to control susceptible weeds that are growing under less than optimum conditions and where Starane NXT plus atrazine cannot be used.

**Sorghum (grain and forage) and Sudangrass**

Apply Starane NXT to sorghum (grain and forage) and sudangrass at the application rates and timings shown in the table below.

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Application Rate	Crop Stage	Weeds
14 to 21 fl oz / Acre	Apply from prior to planting to just prior to crop emergence	Refer to the application rate and weeds controlled table for corn and sorghum.
14 fl oz / Acre	Apply from 3-leaf stage through the 7-leaf stage	
21 fl oz / Acre	Apply from 4-leaf stage through the 7-leaf stage	
21 fl oz / Acre (Drop nozzle application)	Apply from 8-leaf stage to prior to the boot stage using drop nozzles	
27.4 fl oz / Acre <b>FOR USE ON SUDANGRASS ONLY (DO NOT USE ON SORGHUM)</b>		

### Weeds Controlled

Weed species <sup>1</sup>	14 fl oz / Acre		21 to 27.4 fl oz / Acre <sup>3</sup>		27.4 fl oz / Acre <sup>3</sup> FOR USE SUDANGRASS ONLY (DO NOT USE ON SORGHUM)
	Max. Leaf Stage	Max. Weed Height (inches)	Max. Leaf Stage	Max. Weed Height (inches)	Max. Weed Height (inches)
buckwheat, wild	4	6	6	8	8
buffalobur	4	2	6	4	4
burcucumber	-	-	4	4	4
cocklebur, common	6	8	8	10	10
hemp dogbane	-	-	-	-	8
hemp sesbania	-	-	4	4	4
jimsonweed	4	4	6	6	6
kochia	-	2	-	4-8	8
ladysthumb	4	4	6	6	6
lambsquarters, common	-	6	-	8	8
lettuce, prickly	-	-	-	4	6
mallow, Venice	-	-	8	4	8
morningglory, ivyleaf	3	3	6	6-8	8
morningglory, pitted	3	3	6	6-8	8
morningglory, tall	3	3	6	6-8	8
mustard, wild	-	-	4	4	4
nightshade, black	6	6	6	6	6
nightshade, E. black	6	6	6	6	6
pigweed, redroot <sup>2</sup>	-	-	4	2	2
pigweed, spiny <sup>2</sup>	-	-	4	2	2
puncturevine	-	-	-	6 inch vine	12 inch vine
purslane, common	-	-	-	4-8	8
ragweed, common	6	4	8	6	8
ragweed, giant	6	4	6	6	6

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smartweed, Pennsylvania	4	4	6	6	6
sunflower	4	6	6	8	8
velvetleaf	4	3	6	5	8
waterhemp, tall <sup>2</sup>	-	-	4	2	2

### Weeds Suppressed

Weed species	14 fl oz / Acre		21 to 27.4 fl oz / Acre		27.4 fl oz / Acre
	Max. Leaf Stage <sup>1</sup>	Max. Weed Height (inches)	Max. Leaf Stage <sup>1</sup>	Max. Weed Height (inches)	Max. Weed Height (inches)
bindweed, field	-	-	-	6 inch vines	12 inch vines
devilsclaw	-	-	6	4-6	6
horseweed (marestail)	-	-	-	4-8	8
mallow, common	-	-	8	4	8
marshelder	6	4	6	6	6
thistle, Russian	-	-	4	2	2

<sup>1</sup> When determining leaf stage, count all leaves except cotyledons.

<sup>2</sup> Control of pigweed species in the high plains areas of Texas and Oklahoma may not be satisfactory, especially under environmental conditions that are not optimal for good herbicidal activity.

<sup>3</sup> Do not apply more than 0.375 lb a.i. of bromoxynil/A per season (21 fl oz per acre of Starane NXT per season) to sorghum.

### Restrictions and Precautions: Corn (Field) and Sorghum (Grain and Forage), and Sudangrass

- Starane NXT does not control grasses. Therefore, it is recommended that a suitable grass control program be used to provide any required grass control.
- Addition of a spray additive or mixture with liquid fertilizers may cause excessive crop leafburn.
- Seed corn producers should consult the respective seed corn company regarding tolerance of certain seed production inbred lines to Starane NXT
- Do not apply Starane NXT to postemergence to seed corn inbreds prior to the 3-leaf stage of crop growth as excessive crop leaf burn may occur.
- Do not cut crop for feed, fodder or graze within 45 days of application. Do not plant labeled rotational crops within 30 days following application.
- Do not plant non-labeled rotational crops within 120 days following application.
- Do not apply more than 0.375 lb a.i. of bromoxynil/A per season (21 fl oz per acre of Starane NXT per season) to sorghum.
- Postemergence application prior to the 3 leaf growth stage of corn or sorghum may result in increased crop leaf burn.
- Tank mixtures with Accent/nonionic surfactant or Beacon/nonionic surfactant may result in increased initial crop leaf burn. Use of crop oil concentrate, nitrogen fertilizer solution or other adjuvants in tank mixtures of Starane NXT + Accent or Starane NXT + Beacon may result in a further increase in crop leaf burn.
- Special care should be taken when using Starane NXT and Banvel, Clarity, or 2,4-D tank mixtures to avoid off target drift to sensitive crops.
- Tank mixtures with 2,4-D, Banvel, or Clarity can cause stalk brittleness to field corn. Tank mixtures with 2,4-D and Banvel can cause stalk brittleness to sorghum. Winds or cultivation may cause breakage while crop is brittle.
- Follow all restrictions and precautions on the label of all products used in tank mixture with Starane NXT.

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- Do not apply Starane NXT at any rate to sorghum after the preboot stage of growth (growth stage 4) as severe crop injury, including loss of crop yield may result.
- Do not apply more than 0.375 lb a.i. of bromoxynil/A per season (21 fl oz per acre of Starane NXT per season) to sorghum.

## Grasses Grown for Seed Production

### Seedling and Established Grasses

Apply Starane NXT to seedling grasses from the 2-leaf crop growth stage up to early boot stage for control of listed broadleaf weeds. Seedling grasses tolerant to Starane NXT include Kentucky bluegrass, fescue, orchardgrass and perennial ryegrass.

Starane NXT may also be applied to established grasses prior to the early boot stage. Established grasses tolerant to Starane NXT include bluegrass, fescue, ryegrass and bermudagrass.

Apply Starane NXT to actively growing weeds according to recommendations in the following table. Only weeds emerged at the time of application will be controlled.

Susceptible Weed Species	Susceptible Weed Size	Rate per Acre
Refer to "Weeds Controlled" in wheat, barley, oats section (above) for a list of susceptible broadleaf weeds.	Optimal control will be achieved when susceptible broadleaf weeds are treated prior to the 4-leaf stage, 2 inches in height or 1 inch in diameter.	14 to 27.4 fl oz

### Restrictions:

- Do not allow livestock to graze in treated areas or feed treated grasses to livestock.
- Do not apply Starane NXT to grasses grown for seed production with backpack or hand-held application equipment.
- Do not apply more than 27.4 fl oz of Starane NXT per acre in a single growing season.
- Do not plant non-labeled rotational crops within 120 days following an application of Starane NXT.

## Application by Sprinkler Irrigation

### Wheat, Barley, Oats, Field Corn and Grasses Grown for Seed

Starane NXT can be applied through sprinkler irrigation systems to wheat, barley, oats, field corn and grasses grown for seed production.

Apply Starane NXT through sprinkler systems including center pivot, lateral move, side (wheel) roll, solid set or hand move irrigation systems only. If hand moved pipe is used for chemigation, the pipe must not be handled in any way until 24 hours after chemigation has been completed and residues have been flushed from the system. When applying by chemigation, no person may enter the application site unless in an enclosed vehicle. Do not apply this product through any other type of irrigation system.

### Requirements for application through automated sprinkler irrigation system

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.



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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.
8. Agitation is recommended in the pesticide supply tank when applying the Starane NXT.
9. Starane NXT should be applied continuously for the duration of the water application with center pivot and continuous lateral move systems. Starane NXT should be applied during the last 30-45 minutes of the irrigation set with other overhead sprinkler systems.
10. For best performance, set the sprinkler system to deliver approximately 0.5 inch or less of water per acre.
11. Remove scale, pesticide residues and other foreign matter from the supply tank and entire injector system. Flush with clean water.
12. If Starane NXT is diluted in the supply tank, fill the tank with half of the water amount desired, add the Starane NXT and then add the remaining amount of water with agitation. Always dilute with at least 4 parts water to 1 part Starane NXT.
13. Start the sprinklers and then inject Starane NXT into the irrigation line. Starane NXT should be injected with a positive displacement pump into the main line at least 8 feet ahead of a right angle turn to insure adequate mixing. Refer to the label for Starane NXT for detailed information on application rates and timings.

#### Chemigation User Precautions

- Application of more than 0.5 inch/acre of irrigation water may result in decreased product performance on certain soils.
- Do not apply when conditions favor drift, when system connections or fittings leak, or when nozzles do not provide uniform distribution.
- Allow sufficient time for pesticide to be flushed through all the lines and nozzles before turning off irrigation water.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Do not connect an irrigation system used for pesticide application to a public water system.

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

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## Crop Uses

Apply Starane NXT by chemigation at 27.4 fl oz per acre to the following crops:

- Wheat, barley and oats from the 3-leaf crop growth stage up to flag leaf emergence.
- Field corn from emergence up to and including the V5 growth stage.
- Grasses grown for seed from the 2-leaf crop growth stage up to early boot stage

Apply through automated sprinkler irrigation systems with a mechanical transfer loading system only. Refer to the complete label for Starane NXT for additional information.

Do not use chemigation for control of weeds that exceed 4 inches in height because control may be unacceptable.

## Application Timing and Weeds Controlled

Weeds Controlled		Additional Weeds Controlled
Up to 8-leaf stage or 4 inches in height; 2 inch rosette	Up to 4-leaf stage or 2 inches in height; 1 inch rosette	Up to 4 inches in height
buckwheat, wild buckwheat, tartary cocklebur, common fiddleneck, coast grape species jimsonweed kochia (2) lambsquarters, common lanceleaf sage mustard, blue nightshade, (black, cutleaf, Eastern black, hairy, silverleaf) pennycress, field pepperweed species shepherdspurse smartweed, (green, ladysthumb, Pennsylvania) sowthistle, annual starbur, bristly sunflower (1) tarweed, common	buffalobur burcucumber canola, volunteer chamomile, corn chamomile, false (scentless) chamomile, mayweed (dogfennel) cow cockle gromwell, corn grounself, common hemp sesbania knawel knotweed London rocket mallow, Venice morningglory, (tall, ivyleaf, pitted) mustard, tumble (Jim Hill) mustard, wild pigweed, redroot pigweed, spiny puncturevine radish, wild ragweed, common ragweed, giant starthistle, yellow thistle, Russian velvetleaf waterhemp, tall	bedstraw (cleavers) (1-4 whorls) flax, volunteer grape species lettuce, prickly mallow, common (1-6 leaf) puncturevine purslane, common
		<b>Weeds Suppressed<sup>†</sup></b>
		chickweed marshelder

1. For best control of sunflower, delay application until emerging seedlings are 4 inches in height.
2. Includes herbicide tolerant or resistant biotypes. Best control is achieved when weeds are at least 1 inch tall.

<sup>†</sup>**Suppression** is expressed as a reduction in weed competition (reduction in population or vigor) as compared to untreated areas. The degree of weed control and duration of effect may vary with weed size, density, application rate, coverage, and growing conditions before, during and after treatment.

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**Terms and Conditions of Use**

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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. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

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Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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**Inherent Risks of Use**

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by applicable law, all such risks shall be assumed by buyer.

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**Limitation of Remedies**

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To the extent permitted by applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to, at Dow AgroSciences' election, one of the following:

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- (2) Replacement of amount of product used.

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