

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Robert Avalos Loveland Products, Inc. P.O. Box 1286 Greeley, CO 80632

NOV -6 2013

Subject:

Notification; Per PR-Notice 98-10

Cadence LA NXT Herbicide EPA Reg. No. 34704-1082

Date Submitted: October 30, 2013

Dear Mr. Avalos:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated October 30, 2013 for the product referenced above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact me at (703) 306-0415 or davis.kable@epa.gov.

Sincerely,

Kable Bo Davis Product Manager 25

Herbicide Branch

Registration Division (7505P)

| Please read instructions on reverse | before completing forp | <u> </u> | · | orm Approved | 1. OMB 770-006 |) |
|--|---|----------------------|--|----------------------|-----------------------------|--|
| | United & | 2S | | | Registration | OPP Identifier Number |
| LEPA Enviro | onmental Pro | tection | Agency | | Amendment | |
| | Washington. | | | • | Other | |
| | | Applicat | ion for Pesticid | e - Sectio | n l | |
| 1. Company/Product Number | | | 2. EPA Pro | duct Manage | | 2 D |
| | 34704-1082 | | | Kable 'Bo' | Davis | 3. Proposed Classification |
| 4. Company/Product (Name) CADENC | E LA NXT HERBICIE | DE | PM# | 25 | | Mone Restricted |
| 5. Name and Address of App | licant (Include ZIP Co | ode) | | | | FRA Section 3(c)(3)(b)(i), my |
| Loveland Products Inc. | | | product is s | imilar or ider | ntical in composition | n and labeling to: |
| P.O. Box 1286 | | • | EPA Reg | g. No | | |
| Greeley, CO 80632-1286 | if this is a new addro | P55 | Product | Name | | |
| | ij imsisamen adan | | Section - II | | | |
| Amendment - Explain bel | ow. | | | nal printed la | bels in response to | |
| Resubmission in response | e to Agency letter da | ted | | Me Too" Appl | A | letter dated |
| ✓ Notification - Explain belo | | _ | | ther - Explain | | , |
| Explanation: Use additional page(s) if r | | nd Section II.) | , | | | |
| Loveland Products, Inc. is submitt disposal section contained in the | - | | lage was never meant to | | the label. | l language from the storage and |
| | | | NO/ | / -6 201 | 3 | |
| e e | | | | | | • |
| | hat it is a violation of 18 U. | S.C. Sec. 1001 to | willfully make any false state | ement to EPA. I fu | irther understand that if t | labeling or the confidential statement of this notification is not consistent with the actions 12 and 14 of FIFRA. |
| | | | Section - III | | | |
| 1. Material This Product Will E | Be Packaged In: | | | | | |
| Child Resistant Packaging | Unit Packaging | | Water Soluble Packaging 2. Type of Co | | f Container | |
| ☐ Yes* | ☐ Yes* | | ☐ Yes* | | ☐ Metal | |
| ✓ No | . ✓ No | | ☑ No | | ✓ Plastic | |
| * Certification must be submitted | If "Yes" Unit Packaging wgt. | No. per container | If "Yes" Package wgt | No. per container | Glass Paper Other | (Specify) |
| 3. Location of Net Contents | s Information | 4. Size(s) R | etailContainer | | 5. Location of | abel Directions |
| | tainer | 2. | 5 gal; 60 gal; 270 gal; bulk On Label On Label accompanying product | | | ccompanying product |
| 6. Manner in Which Label i | s Affixed to Product | · · | ☐ Lithograph ☐ Paper glued | ✓ Othe | self adhesive | |
| | | | Stenciled | | · | |
| | | | Section - IV | | | |
| | items directly below | | ation of individual to | be contacted | | ocess this application.) |
| Name Title Robert Avalos robert.avalos@cpsagu.com | | | Registrations Specialist Telephone No. (Include Art | | (970)[635-3955 | |
| Certifica | | | ation | • | | 6. Date Application Received |
| I certify that the statements I have made on this form and all at acknowledge that any knowingly false or misleading statement | | | ttachments thereto are | | | (Stamped) ုိင်ငံ |
| under applicable law. | | | | | | |
| 2. Signature | robert.avalos@cps 2013.10.30 15;45:2 | | 3. Title Reg | istrations Spe | cialist | , , , , , , , , , , , , , , , , , , , |
| 4. Typed Name | rt Avalos | | 5. Date | 10/30/2013 | | |
| | Robert Avalos robert.avalos@cpsagu.com | | | . 10/30/2013 | | |



October 30, 2013

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
Room S4900, One Potomac Yard
2777 S Crystal Drive
Arlington VA 22202

NOTIFICATION

NOV - 6 2013

Subject: Cadence LA NXT Herbicide (EPA Reg. No. 34704-1082)

Notification to remove seed disposal language

Dear Bo Davis,

Loveland Products, Inc. is submitting a notification for Cadence LA NXT Herbicide (EPA Reg. No. 34704-1082) to remove seed disposal language from the storage and disposal section contained in the product label. The seed disposal language was never meant to be included on the label. Enclosed are the following documents:

- 1. Application form 8570-1
- 2. 2 copies of the label with removal of seed disposal language.
- 3. 1 cd containing the revised and updated label.
- 4. Certification with Respect to label Integrity

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of 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 this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, 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.

If you have any questions, please contact me at (970) 685-3355 or by email: robert.avalos@cpsagu.com

robert.avalos@cpsagu.com 2013.10.30 15:45:12 -06'00'

Sincerely,

Robert Avalos

Registrations Specialist robert.avalos@cpsagu.com

Loveland Products, Inc.

Enclosures



RESTRICTED USE PESTICIDE

Due to Ground and Surface Water Concerns

For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

GROUP

15

HERBICIDES

Cadence LA NXT HERBICIDE

A preemergence herbicide for control of annual grasses and broadleaf weeds in field corn, production seed corn, silage corn, sweet corn, popcorn, Miscanthus or other non-food perennial bioenergy crops.

ACTIVE INGREDIENTS:

Contains 516 grams per liter or 4.3 pounds per gallon of acetochlor and 204 grams per liter or 1.7 pounds per gallon atrazine and related compounds.

Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.

NOTIFICATION

NOV = 6 2013

CAUTION CAUTION

| • | FIRST AID | 66.6 | c e |
|---------------|---|---------------------------|-------------|
| If swallowed: | Call a poison control center or doctor immediately for treatment advice. | c | c |
| | Have person sip a glass of water if able to swallow. | ς ς ς ς ς ς ς ς | |
| | Do not induce vomiting unless told to do so by the poison control center or doctor. | 6 | |
| | Do not give anything by mouth to an unconscious person. | c c | |
| If inhaled: | Move person to fresh air | C C C C | |
| | • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable | ly by mouth-to-mout | th, if |
| | possible. • Call a poison control center or doctor for further treatment advice. | • | |
| If in eyes: | Call a poison control center or doctor for further treatment advice. Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. | · | <u></u> |
| If in eyes: | Call a poison control center or doctor for further treatment advice. Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. | | |
| If in eyes: | Call a poison control center or doctor for further treatment advice. Hold eye open and rinse slowly and gently with water for 15 to 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 in eyes: | Call a poison control center or doctor for further treatment advice. Hold eye open and rinse slowly and gently with water for 15 to 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. Take off contaminated clothing. | | |
| | Call a poison control center or doctor for further treatment advice. Hold eye open and rinse slowly and gently with water for 15 to 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. | | |

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA REG. NO. 34704-1082 EPA EST. NO. 34704-MT-001 NET CONTENTS 2.5 GAL (9.46 L)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt and long pants, socks and shoes.

Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow instructions for Category A on an EPA chemical-resistance selection chart.

Mixers, loaders, applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Chemical-resistant gloves such as polyethylene or polyvinylchloride
- Shoes plus socks
- A chemical-resistant apron when mixing/loading, cleaning up spills or cleaning equipment, or otherwise exposed to the concentrate

See Engineering Controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exists, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Engineering Controls: When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because an enclosed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

Acetochlor demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination.

Acetochlor has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

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.

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CADENCE® LA NXT HERBICDE EPA REG. NO. 34704-1082

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through www.atrazine-watershed info or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return unopened product to your point of purchase or contact Loveland Products, Inc. for a refund.

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 12 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.

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
- Chemical-resistant footwear plus socks
- · Protective eyewear

PRODUCT INFORMATION

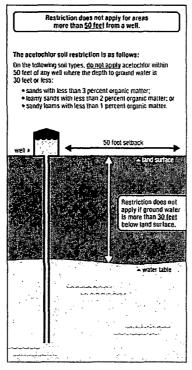
For use only on field corn, production seed corn, silage corn, sweet corn, popcorn, Miscanthus or other non-food perennial bioenergy crops. Corn in this label refers to: field corn, production seed corn, silage corn, sweet corn and popcorn.

Cadence® LA NXT herbicide may be applied to the surface or incorporated into the top 1 to 2 inch layer of soil. It may be used for control alone, or in tank mix combinations, for the weeds listed in the "Target Weeds" section of these use directions. Cadence LA NXT Herbicide controls weeds by interfering with normal germination and seedling development. Cadence LA NXT Herbicide of control emerged weeds present at application.

Use Restrictions

- Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.
- Do not use Cadence LA NXT Herbicide on any crop other than field corn, production seed corn, silage corn, popcorn, and Miscanthus or other non-food perennial bioenergy crops.
- Do not apply Cadence LA NXT Herbicide before pre-irrigation in irrigated areas.
- Do not allow Cadence LA NXT Herbicide to contaminate feed or food.

• On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1% organic matter. See the figure for additional clarification.



- This product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be applied by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.
- This product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. Additional State imposed requirements regarding well-head setbacks and operational area containment must be observed.

• Tile-Outletted Fields Containing Standpipes

To ensure protection of surface water from runoff through standpipes with tile-outlets in fields, one of the following restrictions must be used in applying this product to tile-outletted fields containing standpipes:

- 1. Do not apply this product within 66 feet of standpipes in tile-outletted fields.
- 2. Apply this product to the entire tile-outletted field and immediately incorporate it to a depth of 2 to 3 inches in the entire field.
- 3. Apply this product to the entire tile-outletted field under a no-till practice only when high crop residue management practices are used. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during or after crop harvest.
- Do not apply Cadence LA NXT Herbicide postemergence to sweet corn.
- Chemigation: Do not apply this product through any type of irrigation system unless otherwise directed by approved supplicmental labeling in possession of the user at the time of application.
- Do not use flood irrigation to apply or incorporate this product.

- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray
 mixtures or rinsates.
- Do not apply under conditions that favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
 - Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
 - Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.
 - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.
- Aerial Application: Do not apply this product using aerial application equipment unless otherwise directed by approved supplemental labeling in possession of the user at the time of application,
- Do not apply when wind conditions favor drift to non-target sites. To minimize spray drift to non-target areas:
- Use low-pressure application equipment capable of producing a large droplet spray.
- Do not use nozzles that produce a fine droplet spray.
- Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
- Keep ground-driven spray boom as low as possible above the target surface.
- Make application when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid application when gusts approach 15 mph.
- Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and/or high temperatures. Do not apply during inversion conditions.
- Flush sprayer with clean water after use.

Maximum Atrazine Application Rates Per Calendar Year:

- Maximum annual atrazine broadcast application rates for corn must be as follows:
 - If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 pounds active ingredient (contained in 4.7 quarts Cadence
 LA NXT Herbicide; however do not apply more than 2.7 quarts Cadence LA NXT Herbicide per maximum acetochlor rate restrictions
 below) per acre. If postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not
 exceed 2.5 pounds active ingredient per acre per calendar year. Note: 1.0 quart per acre Cadence LA NXT Herbicide delivers 0.425
 pound active ingredient atrazine per acre;
 - Apply a maximum of 2.0 pounds active ingredient (contained in 4.7 quarts Cadence LA NXT Herbicide; however do not apply more
 than 2.7 quarts Cadence LA NXT Herbicide per maximum acetochlor rate restrictions below) per acre if a single preemergence
 application is made on soils that are not highly erodible or on highly erodible soil if at least 30% of the soil is covered with plant
 residues; or
 - Apply a maximum of 1.6 pounds active ingredient (contained in 3.7 quarts Cadence LA NXT Herbicide; however do not apply more
 than 2.7 quarts Cadence LA NXT Herbicide per maximum acetochlor rate restrictions below) per acre as a single preemergence
 application on highly erodible soils if less than 30% of the soil is covered with plant residues; or 2.0 pounds active ingredient
 (contained in 4.7 quarts Cadence LA NXT Herbicide; however do not apply more than 2.7 quarts Cadence LA NXT Herbicide per
 maximum acetochlor rate restrictions below) per acre if only applied postemergence.

• Maximum Acetochlor Application Rates Per Calendar Year:

Maximum annual acetochlor broadcast application rates for corn must not exceed 3.0 pounds active ingredient (2.7 quarts Cadence LA NXT Herbicide) per acre. Note: 1.0 quart per acre Cadence LA NXT Herbicide delivers 1.075 pound active ingredient acetochlor per acre.

- Preharvest Interval: Do not apply Cadence LA NXT Herbicide within 60 days of harvest for field corn forage uses or 45 days for sweet
 corn forage uses.
- Postemergence applications of Cadence LA NXT Herbicide to corn must be made before the crop reaches 11 inches in height.

Use Precautions

- Failure to strictly follow label directions may result in exceeding the maximum annual atrazine use rates as stipulated by the convergence of the strictly follow label directions may result in exceeding the maximum annual atrazine use rates as stipulated by the convergence of the strictly follow label directions may result in exceeding the maximum annual atrazine use rates as stipulated by the convergence of the strictly follow label directions may result in exceeding the maximum annual atrazine use rates as stipulated by the convergence of the strictly follows have been strictly follows as stipulated by the convergence of the strictly follows have been strictly follows as the strictly follows are strictly follows as the strictly follows are strictly follows as the strictly follows are strictly follows.
- Note: This product contains atrazine and thus may not control weeds that are known or suspected to be trigizine resistant? Following many years of continuous use of atrazine and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by atrazine and related herbicides. Where this is known consucpected and weeds controlled by atrazine are expected to be present along with resistant biotypes, it is recommended that atrazine be used in the combinations or in sequence with other registered herbicides which are not triazines. If only resistant biotypes are expected to be present, use a registered non-triazine herbicide.
- Cadence LA NXT Herbicide should not be used on corn seed stock such as Breeders, Foundation, or Increase.
- Do not contaminate irrigation water used for crops other than corn or water used for domestic purposes.
- Cadence LA NXT Herbicide should not be stored near seeds, fertilizers, or foodstuffs.
- · All containers of Cadence LA NXT Herbicide should be kept tightly closed when not in use.

• Applied according to directions and under normal growing conditions, Cadence LA NXT Herbicide will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. Cadence LA NXT Herbicide used under these abnormal conditions could result in crop injury.

Rotational Crop Restrictions:

When tank mixing Cadence LA NXT Herbicide with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The following rotational crops may be planted following application of Cadence LA NXT Herbicide as indicated:

| Rotational Crop (1) | Timing or Interval |
|--|--|
| corn (2) | Immediately – 0 months after application |
| corn, cotton, sorghum, soybeans (3) (4) | Spring/next season following application |
| alfalfa, barley, dry beans (adzuki, kidney, lima, navy, or pinto), lupin (grain, | 15 months after application (5) |
| white, or white sweet), millet (pearl or proso), oats, peas (blackeyed, chick, | |
| cow, crowder, field, pigeon, or Southern), potatoes, rye, sugar beets, | |
| sunflower, tobacco, triticale, wheat, wild rice | |

Numbers within parentheses (-) in the table refer to specific rotational crop requirements below:

(1) Do not plant dry beans or peas, potatoes, small grains or small-seeded legumes, sugar beets, sunflower, or tobacco during the 15 months following application, or injury from atrazine may occur.

(2) If crop treated with Cadence LA NXT Herbicide is lost, field corn, seed corn, silage corn, popcorn, or sweet corn may be replanted immediately. Do not exceed a total of 3.0 pounds active ingredient per acre of acetochlor (2.7 quarts Cadence LA NXT Herbicide) if additional product is applied. If applied after June 10, do not rotate to crops other than corn or sorghum the next year or crop injury from atrazine may occur.

(3) Injury may occur to soybeans planted the year following application on soils having a calcareous subsurface layer and relatively high pH. In eastern parts of the Dakotas, Kansas, western Minnesota and Nebraska, do not rotate to soybeans if the rate applied was more than 2.0 pounds active ingredient equivalent of atrazine or soybean injury may occur.

(4) In the High Plains and Intermountain regions of the West where rainfall is sparse and erratic or irrigation is required, use only where corn or sorghum is to follow corn.

(5) Approved rotation crops list does not include any species of succulent beans or peas.

Rotation to Non-food Winter Cover Crops

Following harvest of food crops treated with Cadence LA NXT Herbicide, only non-food or non-feed winter cover crops (with the exception of wheat) may be planted. Do not graze or harvest rotational cover crops for food or animal feed for 18 months following the last application of Cadence LA NXT Herbicide. This prohibition does not apply to wheat, which may be planted 4 months following the last application of Cadence LA NXT Herbicide, or to nongrass animal feeds, which may be planted 9 months after the last application of Cadence LA NXT Herbicide.

Weed Resistance Management Guidelines

Acetochlor and atrazine, the active ingredients in this product, are Group 15 and Group 5 herbicides, respectively, based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 15 or Group 5 herbicides. Such resistant weed plants may not be effectively managed using Group 15 or Group 5 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, any herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your Loveland Products, Inc. representative, state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

Best Management Practices

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using full labeled rates and following directions for use is important to delay the selection for resistance. Scouting after a herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

General principles of herbicide resistance management:

- 1. Apply integrated weed management practices. Use multiple herbicide modes of action with overlapping weed spectrems in rotation, sequences, or mixtures.
- 2. Use the full specified herbicide rate and proper application timing for the hardest to control weed species present in the field

- 3. Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
- 4. Monitor site and clean equipment between sites.

For annual cropping situations also consider the following:

- Start with a clean field and control weeds early by using a burndown herbicide treatment or tillage in combination with a soil-applied residual herbicide as appropriate.
- Use cultural practices such as cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness.
- Use new commercial seed that is as free of weed seed as possible.

Report any incidence of repeated non-performance of this product on a particular weed to your Loveland Products, Inc. representative, local retailer, or county extension agent.

APPLICATION DIRECTIONS - CORN

Carriers

Liquids: Either water or liquid fertilizers such as solutions, slurries or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility test with these must be done **before combining** in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if Cadence LA NXT Herbicide is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

Dry Bulk Fertilizer: Cadence LA NXT Herbicide may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. See Appendix II for directions and restrictions including which fertilizers are compatible.

Adding to Spray Tank

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Cadence LA NXT Herbicide alone or with tank mix combinations. If water is used as the carrier, use clean water.

Used Alone: When Cadence LA NXT Herbicide is used alone, add the specified amount to the spray tank when the tank is half filled with carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Tank Mixed: If a tank mixture is used, it is recommended that a compatibility test be done before actual tank mixing. See Appendix I for details on the procedure for such a test.

Once compatibility is confirmed for the tank mix, fill the tank half full of carrier. Start and continue agitation throughout mixing. All return lines to the spray tank must discharge below the liquid level. Add components in the following order of formulation:

- If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank.
 Agitate during the procedure.
- If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when the flowable is diluted with water before adding to the tank.
- · Add Cadence LA NXT Herbicide next.
- Add ammonium sulfate then Makaze® herbicide, Salvo® herbicide (not for use on production seed corn, or silage corn), and a
 nonionic surfactant last, if needed.
- Complete filling the sprayer tank and continue agitation.
- Batches should be mixed and applied the same day.

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

Volume

Liquid: Use a minimum of 10.0 gallons per acre in broadcast boom equipment for ground applications. Example 200 pounds of dry bulk fertilizer per acre. See Appendix II for directions and restrictions.

Pressure

If liquid carriers are used, the pressure at the nozzle should be 15 to 40 psi to ensure good distribution in the spray pattern. Use appropriate nozzles and 50-mesh or coarser screens, if needed. Maintain sufficient agitation to ensure the mixture is suspended in the spray tank.

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Application Timing and Methods

For the optimum period of effective weed control during the time most critical to corn production, preplant applications of Cadence LA NXT Herbicide should occur as close as possible to planting. Preemergence applications should occur as close as possible to planting, but prior to weed emergence; this product will not control emerged weeds present at application..

Early Preplant Surface: On medium and fine textured soils (see Table 1), Cadence LA NXT Herbicide may be applied up to 45 days prior to planting field corn or silage corn. Split applications can be made 30 to 45 days prior to planting with 60 percent of the specified broadcast rate applied initially and the remaining 40 percent applied at planting. Applications made less than 30 days prior to planting can be made either as a split or as a single application. If weeds are present at the time of application, apply this product in a tank mixture with an appropriate contact herbicide. Observe directions for use, precautions, and restrictions on the label of the contact herbicide. During the planting operation, be careful not to move untreated soil to the surface or move treated soil out of the row, as weed control may be reduced.

Preplant Incorporation: Cadence LA NXT Herbicide and certain tank mixes may be mechanically incorporated in the top 2 inches of the soil with field cultivators, discs, or spring tooth harrows at any time within 14 days prior to planting. Improper incorporation, excessive crop residues, or poor soil tilth may result in erratic, streaked or otherwise unsatisfactory weed control. Do not mix Cadence LA NXT Herbicide deeper than 2 inches into the soil and avoid moving or shaping soil after incorporation, as weed control may be reduced.

Preemergence Surface: Cadence LA NXT Herbicide and certain tank mixes may be applied to the soil surface as a broadcast or banded application. Precipitation or sprinkler irrigation of at least 0.25 inch is required to bring Cadence LA NXT Herbicide into contact with germinating seeds. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe, or similar device, to incorporate the herbicide. The device used should be run at a shallow depth to prevent disturbing the corn seed. Do not remove Cadence LA NXT Herbicide from the weed control zone or dilute it with untreated soil. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

Postplant-Preemergence: Cadence LA NXT Herbicide may be applied immediately after planting but prior to corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe, or similar device, to shallowly incorporate the herbicide. The device used should be run at a shallow depth to prevent disturbing the corn seed. Do not remove Cadence LA NXT Herbicide from the weed control zone or dilute it with untreated soil. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

Banding-Preemergence: Cadence LA NXT Herbicide may be applied in a 10 to 14 inch band after corn planting but prior to corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar device to incorporate the herbicide. The device used should be run at a shallow depth to prevent disturbing the corn seed. Do not remove Cadence LA NXT Herbicide from the weed control zone or dilute it with untreated soil. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

Early Postemergence: Cadence LA NXT Herbicide may be applied early postemergence to corn up to 11 inches tall. Applications must be made prior to weed seedling emergence or in a tank mixture with a herbicide that controls the emerged weeds. Read and follow restrictions and directions on tank mix product labels.

Note: Do not make postemergence applications using sprayable liquid fertilizer as the carrier because severe crop injury may occur.

Note: Do not apply Cadence LA NXT Herbicide postemergence to sweet corn.

Sprinkler Irrigation: Do not apply Cadence LA NXT Herbicide through sprinkler irrigation systems unless otherwise directed by approved supplemental labeling in possession of the user at the time of application. A sprinkler system may be used to incorporate Cadence LA NXT Herbicide after application. After Cadence LA NXT Herbicide has been applied, a sprinkler irrigation system set to deliver 0.25 to 0.75 inch of water per acre may be used to incorporate the product. Using more than 0.75 inch of water could result in reduced performance. On sandy soils low in organic matter, use no more than 0.5 inch of water. Do not use flood irrigation to apply or incorporate Cadence LA NXT Herbicide.

Planting

Planting should be done as close to the time of application of Cadence LA NXT Herbicide as possible. This allows Cadence LA NXT Herbicide to provide effective weed control during the time it is most critical in the production of corn.

Cultivation

Cultivation should be delayed as long as possible. If weeds emerge, a shallow cultivation or rotary hoeing will generally result in improved weed control. If Cadence LA NXT Herbicide was incorporated, cultivate to a depth of less than half the depth of incorporation. If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

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Soil Texture

The use rate of Cadence LA NXT Herbicide is determined by soil texture which must be determined prior to application. Soils are grouped into three textural classes (coarse, medium and fine), as outlined in Table 1.

Table 1: Soil Texture Groupings for Cadence LA NXT Herbicide Use Rate Selection.

| Coarse | Medium | Fine | |
|------------|-----------------|-----------------|---|
| Sand | Loam | Silty clay loam | ^ |
| Loamy sand | Silt loam | Clay loam | • |
| Sandy loam | Silt | Sandy clay | |
| , | Sandy clay loam | Silty clay | |
| | ,,, | Clay | |

Use Rates for Conventional Tillage Systems

Table 2: Cadence LA NXT Herbicide Use Rates by Soil Texture Content in Conventional Tillage Systems.

The following use rates are for preplant incorporated, preemergence, and early postemergence applications (see Application Timing and Methods). Apply this product before weeds reach the 2-leaf stage and the corn is no more than 11 inches in height. Consult Table 3 if reduced- or no-till applications are made or the product is applied more that 14 days prior to planting under conventional tillage.

| Soil Texture | Broadcast Rate Per Acre (Quarts)* | |
|--------------|-----------------------------------|--|
| Coarse | 1.8 | |
| Medium | 1.8 to 2.3 | |
| Fine | 2.0 to 2.3 | |

^{*}Use the higher rate in the rate range in areas of heavy weed infestation.

Note: In areas of heavy weed infestations, use up to 2.7 quarts per acre on medium- and fine-textured soils.

Use Rates for Reduced Tillage Systems or Early Preplant Applications in Conventional Tillage Systems

Cadence LA NXT Herbicide may be used in reduced and no-till systems and in early preplant applications in conventional tillage systems. Single applications may be made up to 30 days prior to planting or after planting but before crop emergence. Optimal weed control will be obtained when applications are made as close to planting as possible but before crop emergence. If weeds are emerged at time of application, apply a labeled burndown herbicide such as Makaze, Gramoxone®, or Salvo (not for use on production seed corn, or silage corn) with Cadence LA NXT Herbicide.

Table 3: Cadence LA NXT Herbicide Use Rates* (quarts per acre) by Soil Texture in Reduced and No-till Systems, or Table 3: Cadence LA NXT Herbicide Use Rates by Soil Texture in Reduced and No-till Systems or Conventional Tillage Systems when Applications are made more than 14 days Prior to Planting

| Soil Text | re Broadcast Rate Per Acre (Quarts)* | |
|-----------|--------------------------------------|--|
| Coarse** | 1.8 | |
| Medium | 2.3 | |
| Fine | 2.3 | |

^{*}In areas of heavy weed infestation, use up to 2.7 quarts per acre on medium- and fine-textured soils. Rates are for single applications. Split applications may be used; apply 60% of the specified rate up to 45 days before planting and the remaining 40% at or immediately following planting but before crop emergence.

Band Applications

For band applications, use row and bandwidth measurements (inches) to calculate the amount of Cadence LA NXT Herbicide to be applied per acre as follows:

| Band width in inches | Х | Rate per acre for a | = | Amount of Cadence I | _A NXT Herbicid്റ് | 6666 |
|----------------------|---|---------------------|---|---------------------|--------------------|------|
| Row width in inches | | broadcast treatment | | to apply per acre | | Ĺ |

Weeds Controlled

Cadence LA NXT Herbicide applied as directed in this label will provide control or partial control the weeds listed in Table 4. Additional weeds may be controlled with tank mixes. See the "Tank Mix Combinations" section of this label for tank mix directions. Always consult the tank mix product labels for specific use rates and directions. Always follow the most restrictive label when tank mixing Cadence LA NXT Herbicide with another product. Cadence LA NXT Herbicide may be tank mixed with any other registered corn product as long as compatibility is verified and it is not prohibited by the label of the tank mix product. Note: This product contains atrazine and thus may not control weeds that are known or suspected to be triazine resistant.

^{**}Do not apply more than 14 days prior to planting on coarse textured soils.

Table 4: Weeds Controlled or Partially Controlled by Cadence LA NXT Herbicide at Specified Use Rates,

| | C = Control | | C = Control |
|---------------------------------|----------------------|-----------------------|----------------------|
| Grasses and Sedges | PC = Partial Control | Broadleaves | PC = Partial Control |
| Barnyardgrass | C | Beggarweed, Florida | С |
| Craborass spp. | С | Carpetweed | С |
| Crowfootgrass | С | Cocklebur (3) | С |
| Cupgrass, southwestern | C | Galinsoga | _ C |
| Cupgrass, woolly (1) | C | Groundcherry, annual | C |
| Foxtail, giant | C | Groundcherry, cutleaf | C |
| Foxtail, green | С | Henbit | C - |
| Foxtail, robust (purple, white) | C | Jimsonweed | C |
| Foxtail, yellow | C | Kochia | C |
| Goosegrass | C | Lambsquarters, common | C |
| Johnsongrass, seedling | PC | Morningglory spp. (3) | C |
| Millet, foxtail | С | Mustard spp. | C |
| Millet, wild proso | PC | Nightshade, black | C |
| Nutsedge, yellow (2,3) | C | Nightshade, hairy | C |
| Oat, wild | | Pigweed spp. | C |
| Panicum, browntop | <u>C</u> | Purslane, common | С |
| Panicum, fall | C | Pusley, Florida | C |
| Panicum, Texas (4) | C | Ragweed, common | C |
| Rice, red | C | Ragweed, giant | PC |
| Sandbur, field | PC | <u>Sicklepod</u> | C |
| Shattercane | PC | Sida, prickly | С |
| Signalgrass, broadleaf (4) | <u>C</u> | Smartweed spp. | C |
| Sprangletop, red | <u> </u> | Sunflower, common | PC . |
| Wheat, volunteer | C | Velvetleaf (3) | C |
| Witchgrass | C | Waterhemp, tall | C |

- (1) Apply 2.7 quarts of Cadence LA NXT Herbicide per acre to control this weed; control can be erratic, especially under dry conditions. Control escaped weeds with cultivation or application of an appropriate registered postemergence herbicide.
- (2) Preplant incorporate for improved control.
- (3) Use the higher rate in the specified application rate range. Activity may be reduced under dry conditions or following early (more than 14 days) preplant applications. Additional atrazine and/or sequential herbicides may be needed for complete control.
- (4) Best control is achieved when Cadence LA NXT Herbicide is applied within 5 days of planting and rainfall occurs shortly after application or mechanical incorporation is used to activate the herbicide. If rainfall does not occur within 7 days after application, shallow cultivation will enhance activity. Excessive rainfall after application may reduce control. Under adverse weather conditions and/or heavy infestations, a cultivation or follow-up herbicide application may be needed.

TANK MIX COMBINATIONS

When tank mixing or sequentially applying atrazine or simazine or products containing either active ingredient to corn, the total pounds of simazine and/or atrazine applied (pound active ingredient per acre) must not exceed 2.5 pounds of active ingredient per year.

For all applications, do not exceed the maximum rate of acetochlor as specified in the Maximum Acetochlor Application Rates Per Calendar Year section of this label.

Use of Spray Adjuvants

Cadence LA NXT Herbicide is a preemergence herbicide for which spray adjuvants have little or no effect on performance. However, several herbicides used in tank mixtures with Cadence LA NXT Herbicide require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants specified on tank mix product labels and approved for agricultural crop use. Adjuvants and/or low rate liquid fertilizers (28%, 30% or 32% UAN) or ammonium sulfate (AMS) may be used with tank mixes applied preplant or preemergence to the crop. Note: Do not use liquid fertilizer as the carrier when Cadence LA NXT Herbicide is applied postemergence to corn under environmental stress conditions may result in significant crop injury and should be avoided if the risk of crop injury is unacceptable.

Preemergence Tank Mix Combinations

Tank mix combinations may be used in either conventional, reduced or no-till systems and be applied by the same methods and at the same timings as Cadence LA NXT Herbicide unless otherwise specified in the tank mix product label.

Cadence NXT may be tank-mixed with Aim EC, atrazine, Balance® Pro, Balance Flexx, Callisto®, Callisto Xtra, Distinct®, Hornet® WDG, Linex® 4L, Lorox® DF, Makaze®, Marksman®, Princep®, Python® WDG, Resource®, Rifle®, Salvo (not for use on production seed corn, or silage corn), Stealth® (not for use on silage corn) or Strut® for preemergence use in corn. Ensure that specific product being used in the tank mixture is registered for preemergence application to corn. Read and follow label directions of all products in the tank mixture; the most restrictive label directions apply. When tank mixing Cadence LA NXT Herbicide with atrazine, do not exceed the maximum allowable rate of atrazine in your county or state. In some atrazine management areas, atrazine is more restricted. Consult your county extension office or state university for further information.

Conventional Tillage Corn (Cadence LA NXT Herbicide Plus):

| Comments |
|---|
| Preplant surface, preplant incorporated, preemergence. If emerged weeds are greater than |
| 1.5 inches tall at the time of application, add an appropriate postemergence herbicide. |
| Longer growing season areas |
| High rainfall areas |
| Heavy broadleaf weed pressure |
| Not labeled in all states; refer to the Balance Pro label for precautionary statements, use |
| directions, and geographic and other restrictions. |
| For use in field corn only. |
| Refer to the use rates section of the Cadence LA NXT Herbicide label for minimum use |
| rates. |
| Tank mix 1.0 pt/A for enhanced grass and nutsedge control. |
| Tank mixing 3.0 to 4.0 oz/A Hornet WDG herbicide provides consistent control of |
| velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of |
| these species. Will also provide improved control of cocklebur, common ragweed, giant |
| ragweed, common sunflower and jimsonweed. |
| Provides improved crabgrass or fall panicum control. |
| Tank mixing 0.8 to 1.0 oz/A Python WDG herbicide provides consistent control of |
| velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of |
| these species. |
| |

[†] Formulations that are not listed may be used: Perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions and limitations.

Reduced or No-Tillage Corn (Cadence LA NXT Herbicide Plus):

| Tank Mix Herbicide † | Comments | | |
|-----------------------|---|---------------------|--|
| Atrazine 4L | Longer growing season areas | | |
| | High rainfall areas | | |
| | Heavy broadleaf weed pressure | | |
| | If emerged weeds are greater than 1.5 inches tall at the time of appl | ication, add an | |
| , | appropriate postemergence herbicide. | , | |
| Cadence NXT Herbicide | Enhanced grass and nutsedge control. | | |
| Gramoxone Inteon® | Control annuals, suppress perennials. | | |
| Makaze | Burndown existing weeds | | |
| Roundup WeatherMAX® | | | |
| Touchdown® | | | |
| Pendimax® / Stealth | Preemergence to early postemergence (up to 3" tall corn) but before 1" tall. | weeds are more than | |
| Princep 4L | Provides improved crabgrass or fall panicum control. | ι ε ε ε ε ε | |
| Marksman | Apply preplant or preemergence in reduced/ no-till systems for burndown of existing | | |
| Rifle/Strut | weeds. | 000000 | |
| | Preemergence on all soils; medium and fine textured with >2% OM. | £ | |
| Salvo | Burndown existing weeds. | , | |

[†] Formulations that are not listed may be used: Perform compatibility test and check the product label for directions and precautions.

Cadence LA NXT Herbicide plus Burndown Herbicide Tank Mixtures

In reduced or no-tillage corn Gramoxone Inteon, Makaze, Roundup WeatherMAX, Touchdown, and/or Salvo (not for use on production seed corn or silage corn) can be tank mixed with Cadence LA NXT Herbicide to burn down existing weeds. Burndown herbicides should be applied to emerged weeds when they are small; weeds less than 6 inches in height are easiest to control. Consult the burndown product labels for further information on weeds controlled.

Postemergence Tank Mix Combinations

Cadence LA NXT Herbicide may be applied before, with, or following the use of one or more of the following herbicides for postemergence use in corn: Accent®, Aim EC, atrazine, Balance Flexx, Basis®, Basis Gold®, Beacon®, Buctril®, Buctril\(^\text{atzzine}\), Callisto Xtra, Capreno\(^\text{B}\), Distinct, Hornet WDG, Impact\(^\text{B}\), Liberty\(^\text{B}\), Lightning\(^\text{B}\), Linex 4L, Lorox DF, Marksman, Peak\(^\text{B}\), Permit\(^\text{R}\), Princep, Pendimax, Pursuit\(^\text{R}\), Resource, Rifle, Salvo (not for use on production seed corn, or silage corn), Spirit\(^\text{R}\), Steadfast\(^\text{B}\), Stealth (not for use on silage corn), or Strut. Refer to the tank mix product label(s) regarding use directions, precautions and restrictions, and the list of weeds controlled. Cadence LA NXT Herbicide may be tank mixed with any product approved for use on corn unless it is prohibited on the tank mix product label. Ensure that specific product being used in the tank mixture is registered for postemergence application to corn. Read and follow label directions of all products in the tank mixture; the most restrictive label directions apply. **Note:** DO NOT use liquid fertilizer as the carrier when Cadence LA NXT Herbicide is applied postemergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with Cadence LA NXT Herbicide tank mixes applied postemergence to corn under environmental stress conditions may result in significant crop injury and should be avoided if the risk of crop injury is unacceptable.

When tank mixing, refer to the tank mix product label and follow the additional use directions given in the following table. Cadence LA NXT Herbicide can be applied to corn up to 11inches tall.

| Postemergence Tank Mixes (Ca Tank Mix Herbicide | Rate | Comments |
|--|--------------------|--|
| Aim herbicide | 0.3 oz/A | Always add a NIS at 0.25% v/v. |
| Atrazine | 0.5 to 2.0 lb Al/A | Preplant surface, preplant incorporated, preemergence or early postemergence (up to 8" tall corn). If emerged weeds are greater than 1.5" tall at the time of application, add an appropriate postemergence herbicide. Note: The maximum atrazine application rate for corn is 2.5 lb atrazine Al/A/ |
| | | calendar yr. |
| Buctril | 1.5 pt/A | Refer to product label for use directions. |
| Buctril / atrazine | 2.0 pt/A | Refer to label for Shotgun herbicide for timing and use |
| Shotgun® herbicide | 2.0 to 3.0 pt/A | directions. |
| Distinct | 4.0 to 6.0 oz/A | Always add a NIS at 0.25% v/v and 1.25% UAN. Can be applied up to 10" corn. |
| Hornet WDG | 2.0 to 5.0 oz/A | Always add NIS at 0.25% v/v or COC at 1% v/v. |
| Liberty | 16.0 to 28.0 oz/A | For use on Liberty tolerant corn only. Apply to grass and broadleaves up to 6" tall. Do not add additional surfactant. |
| Lightning | 1.28 oz/A | For use on Clearfield® corn only. Use a NIS at 25% v/v and a liquid nitrogen fertilizer at 1.0 to 2.0 qt/A or ammonium sulfate at 2.5 lb/A. |
| Marksman | 2.0 to 3.5 pt/A | Early postemergence up to 8" tall corn on all soils. If grasses |
| Rifle | 0.5 to 1.0 pt/A | are more than 2-leaf stage, combine with another herbicide |
| Strut | 0.5 to 1.0 pt/A | to control these weeds. |
| Pendimax / Stealth | 1.8 to 3.6 pt/A | Preemergence to early postemergence (up to 3" tall corn) but before weeds are more than 1" tall. |
| Pursuit 2.5L | 4.0 fl oz/A | Use only on Clearfield varieties. |
| Pursuit 70DG | 1.4 fl oz/A | Apply preplant surface, preplant incorporated, preemergence or early postemergence (up to 3" tall weeds). |
| Resource | 4.0 to 6.0 oz/A | Apply to weeds less than 5" tall. Add a crop oil concentrate at 1.0 to 2.0 pt/A and either 28% nitrogen at 2% v/v or ammonium sulfate at 2.5 lb/A. May cause some burn or spotting to corn leaves |
| Salvo | See Label | Apply preplant surface or preemergence to control emerged broadleaf weeds in corn. |
| Spirit | 1.0 oz/A | Always add crop oil concentrate at 1% v/v. See label for geographic restrictions. |
| Accent 75WDG | 0.25 to 0.6 oz/A | Minimum Cadence LA NXT Herbigide use rates (gts/A): |
| Basis | 0.25 to 0.6 oz/A | Soil (The State of St |
| Beacon 75WDG | 0.76 oz/A | |
| Steadfast | 0.75 oz/A | Medium 1.8 |
| | | Always add NIS at .25% (v/v); and in addition if applied in dry conditions, add 4% (v/v) clear liquid fertilizer. Buctril, Buctril/atrazine, Marksman, Rifle, or Stiutiniay be |
| | | added to this mixture to provide burndown and residual control of broadleaf weeds. |

Postemergence Tank Mixes (Cadence LA NXT Herbicide Plus) cont'd:

| Tank Mix Herbicide | Rate | Comments |
|--------------------|-----------|---|
| Basis Gold | 14.0 oz/A | Minimum Cadence LA NXT Herbicide use rates (gts/A): |
| | | <u>Soil</u> |
| | | Coarse 1.8 |
| | | Medium 1.8 |
| | | Fine 2.0 |
| | | Always add crop oil concentrate at 1.0% v/v or under dry arid |
| | | conditions, 2.0% v/v and 28% liquid nitrogen at 2.0 qt/A or |
| | | ammonium sulfate at 2.0 lb/A. |
| | | Buctril, Marksman, Rifle, Strut, or Tough herbicide may be |
| | | added to this mixture to provide burndown and residual |
| | | control of broadleaf weeds. |

Miscanthus and Other Non-food Perennial Bioenergy Crops

For weed control in Miscanthus and other non-food perennial bioenergy crops, apply Cadence LA NXT Herbicide at 1.0 to 1.4 quarts per acre after the crop has been transplanted or after fully emerged to a height of at least 2 to 3 inches.

Up to 2 applications of Cadence LA NXT Herbicide may be made each year. The total amount of this product applied each year must not exceed 2.7 quarts per acre.

Restrictions:

 Do not allow the Miscanthus or other non-food perennial bioenergy crop treated with Cadence LA NXT Herbicide to be grazed or used as animal feed.

APPENDIX I

Procedure for Testing the Compatibility of Cadence LA NXT Herbicide and Tank Mixes with Fluid Fertilizers.

Since fluid fertilizers vary, the following procedure is suggested for determining whether Cadence LA NXT Herbicide may be combined with a specific fluid fertilizer for spray tank application.

Materials Needed:

- Cadence LA NXT Herbicide and any tank mix products.
- · Fluid fertilizer to be used.
- Adjuvant for fertilizer tank mix: Use any adjuvant cleared for use on growing crops under 40 CFR 180.1001 to improve the
 compatibility of Cadence LA NXT Herbicide with fluid fertilizers. The adjuvant that provides the best emulsification depends on the
 specific fertilizer under consideration.
- Two 1.0 quart, wide mouth glass jars with lid or stopper.
- Measuring spoons (a 25.0 milliliters pipette or graduated cylinder provides more accurate measurement).
- Measuring cup, 8.0 ounces (257 milliliters).

Procedure:

- 1. Pour a pint (about 473 milliliters) of the fluid fertilizer into each of the quart jars.
- 2. Add Cadence LA NXT Herbicide and any tank mix combination to the jars. The order of addition is wettable powders first with mixing, followed by flowables with mixing and the ECs last. The rate of wettable powders and dry flowables is 1.5 teaspoon per pound of product per acre to be applied. ECs should be added at the rate of 0.5 teaspoon for each pint per acre to be applied. Premixing the wettable powders in 1.0 ounce of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
- 3. Add 0.5 teaspoon (2.0 milliliters) adjuvant to one of the jars, label it as "with" and mix. The rate of 0.5 teaspoon perspint is equal to 3.0 pints of adjuvant per 100 gallons of fluid fertilizer.
- 4. Close both jars with lids or stoppers and mix the contents by turning the jars upside down 10 times.
- 5. Inspect the surface and body of the mixtures:
 - (a) Immediately after completing the jar inversions
 - (b) After allowing the jars to stand quietly for 30 minutes
 - (c) And then again after turning the jars upside down 10 times after the 30 minute inspection.

Evaluation:

If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture séparáte after 30 minutes, but readily remix uniformly with 10 jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the mixture without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3.0 pints per 100 gallons of fluid fertilizer. Foaming may be minimized by using only moderate agitation. If non-dispersible oil, sludge, or clumps of solids form in the mixtures, the combination should not be used.

APPENDIX II

Dry Bulk Fertilizer Impregnation

Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 500 tons of bulk fertilizer can be impregnated per day. No single facility may impregnate fertilizer with this product for more than 30 days per calendar year.

The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the user (applicator) of the dry bulk fertilizer that:

- · Applicator must wear long-sleeved shirt, long pants, shoes, and socks
- The restricted entry interval is 12 hours.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the Cadence LA NXT Herbicide or Cadence LA NXT Herbicide plus atrazine.

Dry bulk fertilizers (Table 5) may be impregnated with this product or the tank mixtures of this product plus atrazine on corn. This product and these tank mixtures must be applied with 200 to 450 pounds of dry bulk fertilizer per acre and shallowly incorporated within 14 days prior to planting. On medium- and fine-textured soils in areas where incorporation is not planned (i.e., reduced tillage situations or in some conventional tillage situations), applications can be made up to 30 days before planting to allow moisture to move the herbicide-fertilizer mixture into the soil. On coarse-textured soils, applications can be made up to 14 days prior to planting. When applying Cadence LA NXT Herbicide alone or in tank mixes with dry bulk fertilizers, follow all directions for use and precautions on the respective tank mix product labels regarding rates, soil type, application methods and rotational restrictions. Refer to the table for broadcast rate per acre to determine the application rate per acre for the herbicide treatment to be applied.

Table 5: Approved Dry Fertilizer Ingredients for Use with Cadence LA NXT Herbicide.

| Fertilizer | N | Р | K | |
|----------------------------|------------|----|----|--|
| Ammonium Phosphate-Sulfate | 16 | 20 | 0 | |
| Ammonium Sulfate | <u>2</u> 1 | 0 | 0 | |
| Diammonium Phosphate | 18 | 46 | 0 | |
| Monoammonium Phosphate | 11 | 56 | 0 | |
| Potassium Chloride | 0 | 0 | 60 | |
| Potassium Sulfate | 0 | 0 | 52 | |
| Urea † | 45 | 0 | 0 | |

† Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

For impregnating the pesticides on dry fertilizers, use an appropriate mixer equipped with suitable spraying equipment. The spray nozzles should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. The Cadence LA NXT Herbicide should be sprayed uniformly onto the fertilizer using a fine spray pattern. Tank mix components may be applied as separate ingredients with powders and dry flowables added first or they may be mixed in a slurry in the proper ratio and added jointly. Cadence LA NXT Herbicide may also be impregnated on the go and applied with pneumatic applicators.

The following table provides a reference to determine the amount of Cadence LA NXT Herbicide to be mixed per ton of dry bulk fertilizer for a range of herbicide and fertilizer rates per acre.

Table 6. Cadence LA NXT Herbicide Fertilizer Impregnation Rate Conversions.

| Fertilizer Rate (lbs/acre) | Acres Covered (per ton) | Quarts of Cadence LA NXT Herbicide per Ton of Fertilizer to Delivers. | | | | |
|----------------------------|-------------------------|---|--------------|---------------------|------|--|
| , | | 1.5 qts/acre | 1.8 qts/acre | 2.3 qts/acre | | |
| 200 | 10.0 | 15.0 | 18.0 | 23.0 | ί, ί | |
| 250 | 8.0 | 12.0 | 14.4 | 18.4 | C | |
| 300 | 6.7 | 10.1 | 12.1 | 15.400000 | ¢. | |
| 350 | 5.7 | 8.6 | 10.3 | 13.1 ^c c | | |
| 400 | 5.0 | 7.5 | 9.0 | 11.500000 | | |
| 450 | 4.5 | 6.8 | 8.1 | 10.4 | | |
| | | | | | | |

To determine the amount of Cadence LA NXT Herbicide needed for other fertilizer rates, use the following formula:

<u>Cadence LA NXT Herbicide rate (quarts/acre) X 2000</u> = Pounds of fertilizer/acre

Quarts of Cadence LA NXT Herbicide per ton of fertilizer

If the herbicide/fertilizer mixture is too wet, use of a drying agent is required to provide a dry, free-flowing mixture. For mixtures to be used in spinning-disc applicators, Micro-Cel® E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying

agent. Mixtures to be used in pneumatic applicators should use Micro-Cel E or Agsorb® 16/30 RVM-MS granular clay. The drying agents should be added separately and uniformly to the prepared pesticide/fertilizer mixture, in a quantity that is sufficient to provide a suitable free-flowing mixture. Generally, less than 2% Micro-Cel E or 5% Agsorb 16/30 RVM-MS by weight is required.

Precaution: To avoid potential for explosion, do not impregnate Cadence LA NXT Herbicide on ammonium sorbate nitrate, potassium nitrate, or sodium nitrate fertilizer or fertilizer blends. Do not impregnate on single (0-20-0) or triple (0-46-0) super phosphate. Do not impregnate on agricultural limestone because the Cadence LA NXT Herbicide will not be absorbed.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature should not exceed 125 °F. If storage temperature for bulk of this product is below 32 °F, the material should not be pumped until its temperature exceeds 32 °F. Protect against direct sunlight.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

CONTAINER HANDLING:

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: 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.

For packages greater than 5 gallons and less than 56 gallons: 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. For packages greater than 56 gallons: 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 percent 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.

For refillable containers: 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 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-124-9300.

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