



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

October 29th, 2025

Leah Strayer
Regulatory Consultant for Loveland Products, Inc.
Pyxis Regulatory Consultant
535 Dock Street, Suite 211
Tacoma, WA 98402

Subject: Label Amendment - Registration Review Mitigation for Acetochlor
Product Name: CADENCE NXT HERBICIDE
EPA Registration Number: 34704-1083
Case Number: 481323
Application Date: September 21, 2021

Dear Leah Strayer:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Acetochlor Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may

distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Concepción Rodríguez by phone at 202-566-0820, or via email at rodriguez.concepcion@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. K. Muhammad-Perch', with a long, sweeping horizontal line extending to the right.

Maryam K. Muhammad-Perch, Team Lead
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

ACETOCHLOR**GROUP****15****HERBICIDE**

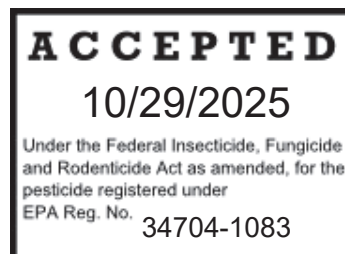
Cadence® NXT Herbicide

For use only on field corn, production seed corn, silage corn, sweet corn, popcorn, Miscanthus and other non-food perennial bioenergy crops

Active Ingredients:

acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide 75.9%
 Other Ingredients 24.1%
 Total 100.0%

Contains 839 grams/liter or 7.0 pounds/gallon active ingredient



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

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.)

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> • 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 ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • 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 do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. • Call a poison control center or doctor for further 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-XXXX
 EPA Est. No. 34704-MT-001
NET CONTENTS ____ GALS. (____ L)

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING

Causes Substantial but Temporary Eye and Skin Irritation • Harmful If Swallowed or Inhaled • May Cause Allergic Skin Reaction

Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of polyethylene or polyvinyl chloride
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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

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)(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.

Environmental Hazards

This product is toxic to fish. 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 contaminate water when disposing of equipment washwaters.

This chemical 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.

NON-TARGET ORGANISM ADVISORY: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

SURFACE WATER ADVISORY: This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of acetochlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

GROUNDWATER ADVISORY: Acetochlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Directions for Use

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (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 over short-sleeved shirt and short pants
- Chemical-resistant gloves made of polyethylene or polyvinyl chloride
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure.

RESISTANCE MANAGEMENT

For resistance management, **CADENCE NXT HERBICIDE** contains a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to **CADENCE NXT HERBICIDE** and other Group 15 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **CADENCE NXT HERBICIDE** or other Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available use the less resistance-prone partner at a rate that will control the target weeds equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation and that considers tillage or other mechanical control methods, cultural, biological and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
 - A spreading patch of non-controlled plants of a particular weed species.
 - Surviving plants mixed with controlled individuals of the same species.If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance contact Loveland Products, Inc. retailer, representative or call 1-888-574-2878.

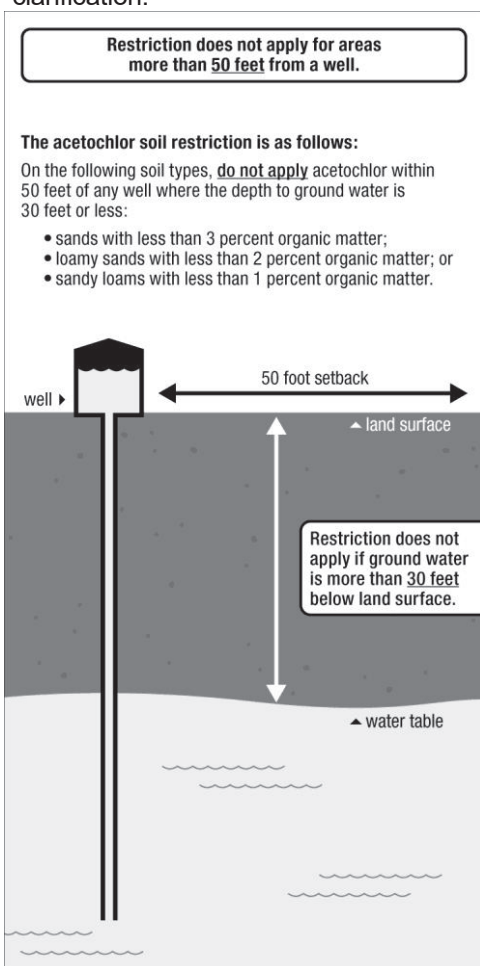
Product Information

Cadence® NXT Herbicide is for preplant, preemergence, or early postemergence use in corn and for weed control in *Miscanthus* and other non-food perennial bioenergy crops. Use of this product in corn is limited to field corn, production seed corn, silage corn, sweet corn, popcorn. Do not apply this product to any crop other than corn or for weed control in *Miscanthus* or other non-food perennial bioenergy crops.

Cadence NXT Herbicide may be applied to the surface or incorporated into the top 1 to 2 inch layer of soil. It is specified for control alone, or in tank mix combinations as indicated, for the weeds listed in the Target Weeds section of these use directions. Cadence NXT Herbicide controls weeds by interfering with normal germination and seedling development. Cadence NXT Herbicide will not control emerged weeds present at application.

Use Restrictions

- This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the ground water is shallow, may result in ground water contamination.
- **Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.**
- 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 percent organic matter. See the figure for additional clarification.



- 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.
- **Chemigation:** Do not apply this product through any type of irrigation system, unless otherwise directed by approved supplemental labeling in the possession of the user at the time of application.
- Do not use flood irrigation to apply or incorporate this product.
- This product must not be mixed or loaded within 50 feet of any wells including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.
- 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. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

- 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 must 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.
- 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.
- Do not apply Cadence NXT Herbicide to sweet corn as an early postemergence application.
- **Maximum Acetochlor Application Rates Per Calendar Year:**
Maximum annual acetochlor broadcast application rates for corn must not exceed 3.0 pounds active ingredient (3.4 pints Cadence NXT Herbicide) per acre. Note: One pint per acre Cadence NXT Herbicide delivers 0.875 pound active ingredient acetochlor per acre.

Rotational Crop Restrictions:

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

Rotational Crop	Timing or Interval
Field corn, seed corn, silage corn, popcorn, sweet corn, milo (sorghum) (1)	Immediately - 0 months after application
Wheat	4 months after application
Nongrass animal feeds such as alfalfa, clover, kudzu, lespedeza, lupin, sanfoin, trefoil, and <i>Vetch</i> spp.	9 months after application
Soybeans, corn (all types), cotton, milo (sorghum), tobacco, sugar beets, sunflowers, potatoes, barley,	Spring/next season following application

buckwheat, millet (pearl and proso), oats, rye, teonsinte triticale, wild rice, dried shelled bean group <i>Lupinus</i> spp. (including grain lupin, sweet lupin, and white lupin); <i>Phaseolus</i> spp. (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean, bean); <i>Vigna</i> spp. (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, and urd bean); broad bean (dry) chickpea, guar, lablab bean, lentil, pea (<i>Pisum</i> spp., includes field pea); pigeon pea	
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Number within parentheses (-) in the table refers to specific rotational crop requirements below:

- (1) If crop treated with Cadence NXT Herbicide is lost, field corn, seed corn, silage corn, popcorn, sweet corn, or milo (sorghum) may be replanted immediately. When replanting milo (sorghum) immediately, only use seed properly treated with seed protectant or safener; otherwise, rotation to milo (sorghum) may occur in Spring/next season. Do not exceed a total of 3.0 pounds per acre of active ingredient (3.4 pints Cadence NXT Herbicide), if additional product is applied.

Rotation to Non-food Winter Cover Crops

Following harvest of food crops treated with Cadence 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 NXT Herbicide. This prohibition does not apply to wheat, which may be planted 4 months following the last application of Cadence NXT Herbicide, or to nongrass animal feeds, which may be planted 9 months after the last application of Cadence NXT Herbicide.

Weed Resistance Management Guidelines

Acetochlor, the active ingredient in this product, is a Group 15 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 15 herbicides. Such resistant weed plants may not be effectively managed using Group 15 herbicides but may be effectively managed utilizing another herbicide 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.

MANDATORY SPRAY DRIFT MANAGEMENT

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select a nozzle and pressure that deliver medium or coarser droplets in accordance with the most current version of the American Society of Agriculture & Biological Engineers Standard 572 (ASAE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

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

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

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

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

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 spectrums in rotation, sequences, or mixtures.
2. Use the full recommended 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 treatment or tillage in combination with a preemergence 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 and Spray Volume

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 NXT Herbicide is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

Apply in a minimum broadcast spray volume of 10 gallons per acre using boom equipment for ground applications. Use low pressure nozzles designed for application of herbicides. Use sufficient operating pressure to produce the desired spray pattern for the nozzle (15 to 40 psi) and follow manufacturer's instructions for nozzle spacing and operating height to ensure uniform spray distribution at the soil surface. Use 50-mesh or coarser screens, if needed.

Dry Bulk Fertilizer: Cadence NXT Herbicide may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. Use at least 200 lb of dry bulk fertilizer per acre. See Appendix II for more details including which fertilizers are compatible.

Adding to Spray Tank

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either Cadence NXT Herbicide alone or in tank mix combinations. If water is used as the carrier, use clean water. All return lines to the spray tank must discharge below the liquid level.

Used Alone: If Cadence NXT Herbicide is used alone, add the specified amount to the spray tank before the tank is half filled, then add the rest of the water or fluid fertilizer. Provide sufficient agitation to ensure thorough mixing and to maintain a uniform spray mixture during application.

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

Water Carrier

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

- To start, add one-half of the required amount of water to the spray tank. Begin agitation.
- Products in water soluble packaging. Important: Allow time for complete dispersion.
- Wettable powders or dry flowables (slurry if specified by tank mix product label)
- Liquid flowables
- Cadence NXT Herbicide or other emulsifiable concentrates
- Suspension concentrates
- Urea ammonium nitrate (UAN) or ammonium sulphate (AMS), if required
- Compatibility agent if needed
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine
- Crop oil concentrate (COC) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume

Liquid Fertilizer Carrier

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

- To start, add one-half of the required amount of liquid fertilizer to the spray tank. Begin agitation.
- Compatibility agent if needed
- Products in water soluble packaging. Important: Products in water soluble packaging must be premixed with water (slurried) prior to addition to the spray tank.
- Wettable powders or dry flowables (slurry if specified by tank mix product label)
- Liquid flowables
- Cadence NXT Herbicide or other emulsifiable concentrates
- Suspension concentrates
- Ammonium sulphate (AMS), if tank mixing with glyphosate.
- Soluble liquids such as glyphosate, paraquat, or 2,4-D amine
- Crop oil concentrate (COC) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume.

Note: For all tank mixtures, maintain agitation during mixing and throughout application to ensure spray mixture remains uniformly suspended.

Application Timing and Methods

For the optimum period of effective weed control during the time most critical to corn production, preplant application of Cadence NXT Herbicide 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. Postemergence applications should occur prior to weed emergence or in tank mix combination with a product that controls emerged weeds.

Note: Do not apply Cadence NXT Herbicide to sweet corn as an early postemergence application.

Early Preplant Surface: On medium and fine textured soils (see Table 1) Cadence NXT Herbicide and certain tank mixtures may be applied up to 45 days before 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 NXT Herbicide and certain tank mixes may be mechanically incorporated into the top 2 inches of the soil with field cultivators, discs, or spring tooth harrows any time up to 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 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 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 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 equipment to incorporate the herbicide. Incorporation equipment should be run at a shallow depth to avoid disturbance of germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped after incorporation.

Postplant-Preemergence: Cadence NXT Herbicide may be applied 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 equipment to shallowly incorporate the herbicide. Incorporation equipment should be run at a shallow depth to prevent disturbance of the germinating corn. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

Banding-Preemergence: Cadence NXT Herbicide may be applied in a 10- to 14-inch band after corn planting but prior to emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by shallow incorporation using a rotary hoe or similar equipment. Do not disturb the germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

Early Postemergence: Cadence NXT Herbicide may be applied early postemergence to corn up to 11 inches tall. Application 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.

DO NOT apply postemergence to sweet corn.

DO NOT make postemergence applications using sprayable liquid fertilizer as the carrier because severe crop injury may occur.

Sprinkler Irrigation: Do not apply Cadence NXT Herbicide by sprinkler irrigation, unless otherwise directed by approved supplemental labeling in the possession of the user at the time of application. Use a sprinkler system to incorporate Cadence NXT Herbicide after application. After Cadence 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 soil low in organic matter, use no more than 0.5 inch of water. Do not use flood irrigation to apply or incorporate Cadence NXT Herbicide.

Fall Application - For use only in Iowa, Minnesota, North Dakota, South Dakota, Wisconsin, north of Route 91 in Nebraska, and north of Route 136 in Illinois. Following soybean harvest, apply to soybean stubble after September 30, when the sustained soil temperature at 4-inch depth is less than 55°F, but before ground freezes. Use on medium- and fine-textured soils with greater than 2.5% organic matter. Only corn may be planted the following spring.

Ground may be tilled before or after application. Do not exceed 2-inch incorporation depth if tilled after application.

If a spring application is made, the total rate of the fall plus spring application must not exceed the maximum labeled rate for corn grown on that soil.

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 NXT Herbicide was incorporated, cultivate to a depth of less than half the depth of incorporation.

If cultivation is necessary due to soil crusting or compaction, 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.

Soil Texture and Organic Matter

The use rate of Cadence NXT Herbicide is determined by a combination of two factors, soil texture and organic matter, which must be determined prior to application. Different soil textures are grouped into three textural classes (coarse, medium, and fine) as outlined in Table 1. Soil texture and organic matter content of the soil may be determined from soil survey information and/or by laboratory analysis and must be known in order to select the proper rate from Table 2.

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

Coarse	Medium	Fine
Sand Loamy Sand Sandy Loam	Loam Silt Loam Silt Sandy Clay Loam	Silty Clay Loam Clay Loam Sandy Clay Silty Clay Clay

Use Rates for Conventional Tillage Systems

Table 2: Use Rates for Cadence NXT Herbicide by Soil Texture and Organic Matter Content in Conventional Tillage Systems.

The following use rates are for preplant incorporated, preemergence, and early postemergence applications (see Application Timing and Methods). Consult Table 3 if reduced or no-till applications are made or application is made more than 14 days prior to planting under conventional tillage.

	Broadcast Rate Per Acre (Pints)*	
	Soil Organic Matter Content	
Soil Texture	Less than 3%	3% or more**
Coarse	1.25 – 1.75	1.75
Medium	1.75 – 2.25	1.75 – 2.25
Fine	1.75 – 2.25	2.25 – 2.75

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

**On soils with 6 to 10 percent organic matter, use 2.5 to 3.4 pints per acre. On soils with more than 10 percent organic matter, use 3.4 pints per acre.

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

Cadence NXT Herbicide may be used in reduced and no-till systems or as an early preplant application (more than 14 days prior to planting) in conventional tillage systems. Single applications may occur up to 30 days before planting but prior to weed emergence; application on coarse soils should not be made

more than 14 days prior to planting. Optimal weed control will be obtained when applications are made as close as possible to planting but before weeds emerge. Split applications of Cadence NXT Herbicide may be used; apply 60% of the recommended rate prior to weed emergence and up to 45 days before planting and the remaining 40% at or immediately following planting but before crop emergence. If weeds are present at application, it is recommended that a burndown herbicide such as paraquat (Gramoxone), glyphosate (Durango DMA), or 2,4-D be tank mixed with Cadence NXT Herbicide.

Table 3: Use Rates for Cadence NXT Herbicide 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 Texture	Broadcast Rate Per Acre (Pints)*
Coarse	1.50 – 2.00
Medium	2.25 – 2.75
Fine	2.75 – 3.00

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

Band Applications

This product may be applied as a band treatment. Use the following formulas below to determine the appropriate rate and volume per treated acre.

Band width in inches

$$\frac{\text{Broadcast rate}}{\text{Row width in inches}} \times \text{Band width in inches} = \text{Band rate per treated acre}$$

Band width in inches

$$\frac{\text{Broadcast volume}}{\text{Row width in inches}} \times \text{Band width in inches} = \text{Band volume per treated acre}$$

Weeds Controlled

Cadence NXT Herbicide, applied as directed in this label, will provide control or partial control of the weeds listed in Table 4. Partially controlled weeds will be severely stunted, or experience reduced height, vigor, or population compared to untreated areas. Depending on the infestation level or density, a follow-up treatment with another registered herbicide may be needed to provide complete control.

Additional weeds may be controlled with tank mixes. See the Tank Mix Combinations section for specified tank mix combinations and additional weeds controlled.

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

Grasses and Sedges	C = Control PC = Partial Control	Broadleaves	C = Control PC = Partial Control
barnyardgrass	C	beggarweed, Florida	PC
crabgrass spp.	C	carpetweed	C
crowfootgrass	C	galinsoga	C
		groundcherry, cutleaf	PC
		henbit	C
		jimsonweed	PC
cupgrass, prairie	C	kochia	PC
cupgrass, southwestern	C	lambsquarters, common (5)	C
cupgrass, woolly (1)	C	nightshade, black	C
foxtail, bristly	C	nightshade, hairy	C

foxtail, giant	C	pigweed spp.	C
foxtail, green	C	purslane, common	C
foxtail, robust (purple, white)	C	pusley, Florida	C
foxtail, yellow	C	ragweed, common (5)	C
goosegrass	C	sida, prickly	PC
		smartweed spp.	PC
johnsongrass, seedling	PC	starbur, bristly	PC
		velvetleaf	PC
millet, foxtail	PC	waterhemp, common	C
millet, wild proso (2)	PC	waterhemp, tall	C
nutsedge , yellow (3)	C		
oats, wild	PC		
panicum, browntop	C		
panicum, fall	C		
panicum, Texas (4)	PC		
rice, red	C		
sandbur, field	PC		
Shattercane (2)	PC		
signalgrass, broadleaf (4)	C		
sprangletop, red	C		
wheat, volunteer	PC		
witchgrass	C		

1. Use 3.0 to 3.4 pints per acre applied alone or in tank mixtures for best results. Control may be erratic, especially under dry conditions. Control escaped weeds with cultivation or application of a registered postemergence herbicide.
2. Use 3.0 to 3.4 pints per acre.
3. Use 2.5 to 3.4 pints per acre applied alone or in tank mixtures and apply preplant incorporated only for control on medium- and fine-textured soils.
4. Best control is achieved when Cadence 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 it does not rain within 7 days of application, shallow cultivation will enhance activity. Excessive rainfall after application may reduce control. Under adverse weather conditions and/or heavy infestations, cultivation or application of a registered postemergence herbicide may be needed.
5. Use the higher rate in the application rate range.

Tank Mix Combinations

Additional weeds may be controlled with tank mixes of Cadence NXT Herbicide and other products labeled for use on field corn, production seed corn, silage corn, sweet corn and popcorn. Tank mix combinations may be used in conventional, reduced, or no-till systems and may be applied by the same methods and at the same application timing as Cadence NXT Herbicide herbicide unless otherwise specified in the tank mix product label.

Cadence NXT Herbicide may be tank mixed with any other herbicide labeled for use on corn provided the compatibility of the tank mix is verified by a jar test and tank mixing with Cadence NXT Herbicide is not prohibited by the label of the tank mix product. The compatibility of a tank mixture can be determined by mixing the ingredients of the herbicide mixture in their relative proportions in a glass jar as described for fluid fertilizer mixtures in Appendix I by substituting water for fluid fertilizer. Refer to the label of the tank mix product for applicable use directions, precautions and limitations, including additional weeds controlled. Do not exceed application rates on the respective product labels. 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 used.

When tank mixing Cadence 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.

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

Use of Spray Adjuvants

Cadence NXT Herbicide is a preemergence herbicide for which spray adjuvants have little or no influence on performance. However, several herbicides used in tank mixtures with Cadence NXT Herbicide require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants recommended on the label of the tank mix product and approved for use in growing crops. Surfactants and/or low rate liquid fertilizers (28%, 30% or 32% UAN) or ammonium sulfate (AMS) adjuvants may be used with tank mixes applied preplant or preemergence to the crop.

Preemergence Tank Mix Combinations

Cadence NXT Herbicide may be tank-mixed with Aim EC, atrazine, Balance Pro, Balance Flexx, Banvel, Callisto, Callistro Xtra, Clarity, Distinct, Durango DMA, Hornet WDG, Linex 4L, Lorox DF, Marksman, Princep, Python WDG, Resource, SureStart (do not exceed a total of 3.0 lbs ai acetochlor per acre per year), or 2,4_D 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.

Conventional Tillage (Cadence NXT Herbicide Plus):

Tank Mix Herbicide [†]	Comments
Atrazine 4L	<ul style="list-style-type: none"> May be applied 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 Provides control or partial control of cocklebur, giant ragweed, annual ground cherry, jimsonweed, kochia, morningglory spp., mustard spp., sicklepod, and velvetleaf Use in areas with heavy broadleaf weed pressure
Hornet WDG	<ul style="list-style-type: none"> Tank mix with 4 – 5 oz/acre of Hornet® WDG herbicide to provide consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species. Also provides improved control of cocklebur, common ragweed, giant ragweed, common sunflower and jimsonweed.
Princep 4L	<ul style="list-style-type: none"> Provides improved crabgrass or fall panicum control.
Python WDG	<ul style="list-style-type: none"> Tank mix with 0.8 – 1.33 oz/acre of Python® WDG herbicide to provide 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 NXT Herbicide Plus):

Tank Mix Herbicide [†]	Comments
Atrazine 4L	<ul style="list-style-type: none"> Provides control or partial control of cocklebur, giant ragweed, annual ground cherry, jimsonweed, kochia, morningglory spp., mustard spp., sicklepod, and velvetleaf If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide Use in areas with heavy broadleaf weed pressure

Balance Pro	<ul style="list-style-type: none"> • Not labeled in all states; refer to Balance Pro label for precautionary statements, directions for use, geographic and other use restrictions • For use in field corn only • Refer to use rate section for minimum use rates of Cadence NXT Herbicide
Gramoxone Max	<ul style="list-style-type: none"> • Control annuals, suppress perennials
Makaze Roundup WeatherMax Touchdown	<ul style="list-style-type: none"> • Apply preplant for burndown of existing weeds • Weeds less than 6 inches tall are easiest to control with burndown herbicides applied in combination with Cadence NXT Herbicide. • Always add ammonium sulphate (AMS) to tank mixes prior to addition of glyphosate (8.5 to 17 lb per 100 gal of spray).
Pendimax® Stealth	<ul style="list-style-type: none"> • Preemergence to early postemergence to corn up to 3 inches tall, but before weeds are more than 1 inch tall.
Princep 4L	<ul style="list-style-type: none"> • Provides improved control of crabgrass and fall panicum
Marksman Rifle/Strut	<ul style="list-style-type: none"> • Apply preplant or preemergence in reduced/ no-till systems for burndown of existing weeds.
Salvo	<ul style="list-style-type: none"> • Burndown existing weeds

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

Postemergence Tank Mix Combinations

Cadence NXT Herbicide can be applied to corn up to 11 inches tall. Cadence 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, Accent Gold, Aim EC, atrazine, Balance Flexx, Basis, Basis Gold, Beacon, Bladex, Buctril, Buctril/atrazine, Callisto, Callistra Xtra, Capreno, Distinct, Halex GT, Hornet WDG, Impact, Laudis, Liberty, Lightning, Linex 4L, Lorox DF, Makaze, Marksman, Peak, Permit, Princep, Pendimax, Pursuit, Resource, Rifle, Salvo, Shotgun, Spirit, Status, Steadfast, Stealth or Strut. Refer to the label of the tank mix product for applicable directions for use, precautions and restrictions, and a list of weeds controlled. Cadence NXT Herbicide may be tank mixed with any product approved for use on corn unless it is prohibited by 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 NXT Herbicide is applied postemergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with Cadence NXT Herbicide tank mixes applied postemergence to corn under environmental stress conditions may result in significant crop injury and should not be used if the risk of crop injury is unacceptable.

When tank mixing, read and follow label use directions and precautions of the tank mix product and follow additional use directions in the following table:

Postemergence Tank Mixes (Cadence NXT Herbicide Plus):

Tank Mix Herbicide	Rate	Comments
Aim EC	0.5 oz/A	<ul style="list-style-type: none"> • Always add a NIS at 0.25% v/v.
Atrazine	0.5 to 2.0 lb AI/A	<ul style="list-style-type: none"> • May be applied preplant surface, preplant incorporated, preemergence or early postemergence to corn up to 8 inches tall. If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide. <p>Note: The maximum atrazine application rate per</p>

		year for corn is 2 lb active if applied only postemergence or 2.5 lb active if pre- and postemergence applications are made.												
Buctril Buctril/atrazine Shotgun herbicide	1.5 pt/A 2.0 pt/A 2.0 – 3.0 pt/A	<ul style="list-style-type: none"> Refer to tank mix product labels for applicable use directions, precautions and restrictions. 												
Distinct	4.0 to 6.0 oz/A	<ul style="list-style-type: none"> Always add a NIS at 0.25% v/v and 1.25% UAN. Can be applied up to corn up to 10 inches tall. 												
Exceed	1.0 oz/A	<ul style="list-style-type: none"> Always add crop oil concentrate at 1% v/v. See label for Exceed for geographic restrictions. 												
Hornet WDG	2.0 – 5.0 oz/A	<ul style="list-style-type: none"> Always add NIS at 0.25% v/v or COC at 1% v/v. 												
Liberty	16.0 – 28.0 oz/A	<ul style="list-style-type: none"> For use on Liberty tolerant corn only. Apply to grass and broadleaf weeds up to 6 inches tall. Do not add additional surfactant. 												
Lightning	1.28 oz/A	<ul style="list-style-type: none"> For use on Clearfield corn only. Use an NIS at 25%v/v and a liquid nitrogen fertilizer at 1 to 2 qt per acre or ammonium sulfate at 2.5 lb per acre. 												
Pendimax / Stealth	1.8 to 3.6 pt/A	<ul style="list-style-type: none"> Apply preemergence or apply early postemergence to corn up to 3 inches tall, but before weeds are more than 1 inch tall. 												
Pursuit 2.5L Pursuit 70DG	4.0 fl oz/A 1.4 fl oz/A	<ul style="list-style-type: none"> Use only on Clearfield varieties. Apply preplant incorporated, preplant surface, preemergence or early postemergence to weeds up to 3 inches tall. 												
Marksman Rifle Strut	2.0 to 3.5 pt/A 0.5 to 1.0 pt/A 0.5 to 1.0 pt/A	<ul style="list-style-type: none"> Early postemergence up to 8 inches tall corn on all soils. If grasses are more than 2-leaf stage, combine with another herbicide to control these weeds. 												
Resource	4.0 – 6.0 oz/A	<ul style="list-style-type: none"> Apply to weeds less than 5 inches tall. Add a crop oil concentrate at 1 to 2 pt/acre and either 28% nitrogen at 2% v/v or ammonium sulfate at 2.5 lb/acre. May cause some burn or spotting to corn leaves. 												
Salvo	See label	<ul style="list-style-type: none"> Apply preplant surface or preemergence to control emerged broadleaf weeds in corn. 												
Spirit	1.0 oz/A	<ul style="list-style-type: none"> Always add crop oil concentrate at 1% v/v. See label for Spirit for geographic restrictions. 												
Accent 75WDG Basis Beacon 75WDG Steadfast	0.25 to 0.6 oz/aA 0.25 to 0.6 oz/A 0.76 oz/A 0.76 oz/A	<ul style="list-style-type: none"> Minimum Cadence NXT Herbicide use rates (pt/acre): <table border="1"> <thead> <tr> <th>Soil</th> <th><3%OM</th> <th>3% or more OM</th> </tr> </thead> <tbody> <tr> <td>Coarse</td> <td>1.25</td> <td>1.25</td> </tr> <tr> <td>Medium</td> <td>1.25</td> <td>1.25 – 1.75</td> </tr> <tr> <td>Fine</td> <td>1.25</td> <td>1.25 – 1.75</td> </tr> </tbody> </table> Always add NIS at 0.25% (v/v) and, in addition if applied under dry conditions, add 4% (v/v) clear liquid fertilizer. Banvel, Clarity, Marksman, Buctril, Buctril/atrazine may be added to this mixture to provide burndown and residual control of broadleaf weeds. 	Soil	<3%OM	3% or more OM	Coarse	1.25	1.25	Medium	1.25	1.25 – 1.75	Fine	1.25	1.25 – 1.75
Soil	<3%OM	3% or more OM												
Coarse	1.25	1.25												
Medium	1.25	1.25 – 1.75												
Fine	1.25	1.25 – 1.75												

Basis Gold	14.0 oz/A	<ul style="list-style-type: none"> Minimum Cadence NXT Herbicide use rates (pt/acre): <table> <tr> <td>Soil</td><td><3%OM</td><td>3% or moreOM</td></tr> <tr> <td>Coarse</td><td>1.25</td><td>1.25</td></tr> <tr> <td>Medium</td><td>1.25</td><td>1.25 – 1.75</td></tr> <tr> <td>Fine</td><td>1.25</td><td>1.25 – 1.75</td></tr> </table> Always add COC at 1.0% v/v or, under dry arid conditions, add COC at 2.0% v/v plus 2 qt/acre of 28% liquid nitrogen or 2 lb/acre of ammonium sulfate. Banvel, Clarity, Marksman, Buctril, or Tough may be added to this mixture to provide burndown and residual control of broadleaf weeds. 	Soil	<3%OM	3% or moreOM	Coarse	1.25	1.25	Medium	1.25	1.25 – 1.75	Fine	1.25	1.25 – 1.75
Soil	<3%OM	3% or moreOM												
Coarse	1.25	1.25												
Medium	1.25	1.25 – 1.75												
Fine	1.25	1.25 – 1.75												

Miscanthus and Other Non-food Perennial Bioenergy Crops

For weed control in Miscanthus and other non-food perennial bioenergy crops, apply Cadence NXT Herbicide herbicide at 1.3-1.7 pints per acre after the crop has been transplanted or after fully emerged to a height of at least 2-3 inches.

Up to two applications of Cadence NXT Herbicide herbicide may be made each year. The total amount of this product applied each year must not exceed 3.4 pints per acre.

Restrictions:

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

Appendix I

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

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

Materials Needed:

- Cadence 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 NXT Herbicide with fluid fertilizers. The adjuvant that provides the best emulsification depends upon the specific fertilizer under consideration.
- Two 1 quart, wide mouth glass jars with lid or stopper
- Measuring spoons (a 25 ml pipette or graduated cylinder provides more accurate measurement)
- Measuring cup, 8 oz (257 ml)

Procedure:

- Pour a pint (about 473 ml) of the fluid fertilizer into each of the quart jars.
- Add Cadence 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 1/2 teaspoon per pound of product per acre to be applied. ECs should be added at the rate of 1/2 teaspoon for each pint per acre to be applied. Premixing the wettable powders in 1 oz of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
- Add 1/2 teaspoon (2 ml) adjuvant to one of the jars, label it as "with," and mix. The rate of 1/2 teaspoon per pint is equal to 3 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 undisturbed 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 separate 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 one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3 pints per 100 gallons of fluid fertilizer. Foaming may be minimized by using 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

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

When applying Cadence 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 use rates, soil texture, application methods, and rotational restrictions. Use a minimum of 200 lb of dry bulk fertilizer per acre.

Approved Dry Fertilizer Ingredients for Use with Cadence NXT Herbicide (1)

Fertilizer	N	P	K
Ammonium Phosphate-Sulfate	16	20	0
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Monoammonium Phosphate	11	56	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Urea (2)	45	0	0

- (1) Do not impregnate on fertilizers containing ammonium nitrate, potassium nitrate, or sodium nitrate.
- (2) 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 pesticides on dry fertilizers, use suitable mixers equipped with suitable spraying equipment. The spray nozzles should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. Cadence 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 NXT Herbicide may also be impregnated on dry bulk fertilizer in the field while the fertilizer is being spread using a pneumatic applicator equipped to impregnate herbicides.

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

		Cadence NXT Herbicide Rate (pints/acre)		
		2.0	2.25	2.75
Fertilizer Rate (lbs/acre)	Acres Covered (per ton)	Pints Cadence NXT Herbicide per Ton of Fertilizer		
200	10.0	20.0	22.5	27.5
300	6.7	13.4	15.0	18.4
400	5.0	10.0	11.3	13.8
500	4.0	8.0	9.0	11.0
600	3.3	6.6	7.4	9.1
700	2.9	5.8	6.5	8.0

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

$$\frac{\text{Cadence NXT Herbicide rate (pints/acre)} \times 2000}{\text{Pounds of fertilizer/acre}} = \text{Pints of Cadence NXT Herbicide per ton of fertilizer}$$

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 (Oil-Dri Corporation). 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 NXT Herbicide on ammonium sorbate nitrate, potassium nitrate, or sodium nitrate fertilizer or fertilizer blends. Do not impregnate on a single (0-20-0) or triple (0-46-0) super phosphate. Do not attempt to impregnate Cadence NXT Herbicide on agricultural limestone as the herbicide will not be adequately absorbed.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not store near oxidizing agents.

PESTICIDE STORAGE: Store only in original container in locked storage areas. If a spill occurs, visible puddles or drops should be covered with a dry absorbent such as clay, sawdust, lime or soda ash. Sweep up and dispose of in a permitted disposal facility. Avoid cross-contamination with other pesticides and fertilizers during handling and storage. Do not store near heat or open flame. Protect from temperatures below 0 degrees F. Not for use or storage in or around the home.

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

CONTAINER DISPOSAL: 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 ¼ 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 ¼ 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 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. Offer for recycling or reconditioning, if available, 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 – 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY
BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. To the extent consistent with applicable law the buyer or user of this product assumes all such inherent risks.

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