

Topramezone	GROUP	27	Herbicide
Acetochlor	GROUP	15	Herbicide

IMPACT

HERBICIDE **CORE**

For weed control in field corn, field corn grown for seed, and popcorn.

ACTIVE INGREDIENT:	% BY WT.
*Acetochlor	77.78%
**Topramezone.....	0.78%
INERT INGREDIENTS:	<u>21.44%</u>
TOTAL:	100.0%
*Contains 848 grams/liter or 7.08 pound/gallon Acetochlor.	
**Contains 8.5 grams/liter or 0.071 pound/gallon of Topramezone.	

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 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 SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
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, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
EMERGENCY INFORMATION	
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:	
For Medical Emergencies phone:	1-888-681-4261
For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®	1-800-424-9300
For Product Use Information phone: AMVAC®	1-888-462-6822

See inside for complete First Aid, Precautionary Statements, Directions for Use, Limited Warranty and Disclaimer, and state-specific crop and/or use site restrictions.

EPA Reg. No. 5481-648
Net Contents: _____

EPA Est. No. _____



AMVAC Chemical Corporation
4695 MacArthur Court, Suite 1200
Newport Beach, CA 92660 U.S.A.
1-888-462-6822

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye irritation. Do not get in eyes or on clothing. Wear appropriate protective eye wear as specified. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

APPLICATORS AND OTHER HANDLERS MUST WEAR:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves made of Barrier Laminate, or Butyl Rubber,
- Chemical-resistant footwear plus socks,
- Protective eyewear,
- Chemical-resistant headgear for overhead exposure and 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. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables exist, use detergent and hot water. Keep and wash personal protective equipment (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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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 or rinsate. Apply this product only as directed on the label.

Topramezone is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Acetochlor 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.

Acetochlor has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Use practices to minimize the potential for dissolved runoff and/or runoff erosion.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in a separately published AMVAC Supplemental Labeling.

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 requirement specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.

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

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 into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, are:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves made of Barrier Laminate, or Butyl Rubber,
- Chemical-resistant footwear plus socks,
- Protective eyewear,
- Chemical-resistant headgear for overhead exposure and chemical-resistant apron when cleaning equipment, mixing, or loading.

A. PRODUCT INFORMATION

Impact CORE is an emulsifiable concentrate (EC) herbicide that provides systemic control or partial control of many emerged broadleaf weeds and grasses combined with soil residual weed control in field corn (grown for grain, silage, or seed) and popcorn. Use this product on conventional and herbicide-resistant corn hybrids. AMVAC has not tested all inbred field corn lines for tolerance to this product. Before using this product, refer to seed company recommendations for use on inbred lines of field corn. This product contains two modes of action.

Susceptible weeds will stop growing soon after application while complete control of weeds may take several more days, depending on growing conditions, and weed species and size. When applied broadcast to emerged weeds as directed, this product will control or partially control the broadleaf weeds listed in Table 1 and the grass weeds listed in Table 2.

Impact CORE may be tank-mixed with other corn herbicides to provide both broader spectrum and residual weed control. Refer to Tank Mixes in the Crop Use Directions. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Applications of Impact CORE must also include recommended spray additives. Refer to Additives and Mixing Order for directions in this label.

Table 1. Annual broadleaf weeds controlled or partially controlled, and soil residual control rating, with Impact CORE applied postemergence.¹

Common Name	Scientific Name	Postemergence Control Rating ^{2,3}	Maximum Size (in)	Residual Control Rating ²
Amaranth, Palmer ⁴	<i>Amaranthus palmeri</i>	C	4	PC
Amaranth, Powell	<i>Amaranthus powellii</i>	C	4	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	---	---	PC
Burcucumber	<i>Sicyos angulatus</i>	C	4	---
Canola, volunteer	<i>Brassica</i> spp.	C	4	---
Carpetweed	<i>Molluga verticillata</i>	C	4	C
Chickweed, common	<i>Stellaria media</i>	C	2	---
Cocklebur, common	<i>Xanthium strumarium</i>	C	4	---
Dandelion	<i>Taraxacum officinale</i>	PC	4	---
Galinsoga, hairy	<i>Galinsoga ciliata</i>	C	4	---
Henbit	<i>Lamium amplexicaule</i>	C	3	PC
Horseweed (Marestail)	<i>Conyza canadensis</i>	C	4	---
Jimsonweed	<i>Datura stramonium</i>	C	4	PC
Kochia	<i>Kochia scoparia</i>	C	3	PC
Lambsquarters, common	<i>Chenopodium album</i>	C	4	PC
Mallow, common	<i>Malva neglecta</i>	C	2	PC

Common Name	Scientific Name	Postemergence Control Rating ^{2,3}	Maximum Size (in)	Residual Control Rating ²
Mallow, Venice	<i>Hibiscus trionum</i>	PC	2	---
Lettuce, prickly	<i>Lactuca serriola</i>	C	4	---
Morningglory spp.	<i>Ipomoea</i> spp.	PC	4	---
Mustard spp.	<i>Brassica</i> spp.	C	4	---
Nightshade, black	<i>Solanum nigrum</i>	C	4	PC
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C	4	PC
Nightshade, hairy	<i>Solanum sarrachoides</i>	C	4	PC
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C	4	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	4	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	4	C
Pigweed, tumble	<i>Amaranthus album</i>	C	2	C
Purslane, common	<i>Portulaca oleracea</i>	---	---	PC
Pusley, Florida	<i>Richardia scabra</i>	C	2	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	4	PC
Ragweed, giant	<i>Ambrosia trifida</i>	C	4	---
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	2	---
Sida, prickly (Teaweed)	<i>Sida spinosa</i>	C	2	PC
Smartweed, Ladysthumb	<i>Polygonum persicaria</i>	C	2	PC
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	2	PC
Sunflower, wild (common)	<i>Helianthus annuus</i>	C	4	---
Thistle, Canada	<i>Cirsium arvense</i>	PC	4	---
Thistle, Russian	<i>Salsola iberica</i>	C	2	---
Velvetleaf	<i>Abutilon theophrasti</i>	C	4	---
Waterhemp, common ⁴	<i>Amaranthus rudis</i>	C	4	PC
Waterhemp, tall ⁴	<i>Amaranthus tuberculatus</i>	C	4	PC

¹For best performance, apply Impact CORE before weeds exceed the maximum size listed in Table 1.

²C=control, PC=partial control, and --- =control poor or unknown.

³Tank-mixing atrazine at 0.25 to 0.5 lb active per acre with Impact CORE will enhance control of emerged broadleaf weeds.

⁴Populations of weed species exist that are known to be resistance to Group 27 herbicides. Impact CORE may not provide complete control of these herbicide-resistant biotypes. See **RESISTANCE-MANAGEMENT RECOMMENDATIONS** for best management practices to minimize effects of herbicide-resistant weeds.

Table 2. Annual grass weeds controlled or partially controlled, and soil residual control rating, with Impact CORE applied postemergence¹

Common Name	Scientific Name	Postemergence Control Rating ^{2,3,4}	Maximum Size (in)	Residual Control Rating ²
Barnyardgrass	<i>Echinochloa crus-galli</i>	C	3	C
Crabgrass, large	<i>Digitaria sanguinalis</i>	C	3	C
Crabgrass, smooth	<i>Digitaria ischaemum</i>	C	3	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	---	---	C
Cupgrass, prairie	<i>Eriochloa contracta</i>	---	---	C
Cupgrass, southwestern	<i>Eriochloa acuminata</i>	---	---	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	PC ⁵	3	PC
Foxtail, giant	<i>Setaria faberi</i>	C	3	C
Foxtail, green	<i>Setaria viridis</i>	C	3	C
Foxtail, yellow	<i>Setaria lutescens</i>	PC ⁵	3	C
Goosegrass	<i>Eleusine indica</i>	C	3	C
Johnsongrass (seedling)	<i>Sorghum halepense</i>	PC ⁵	3	PC
Millet, wild proso	<i>Panicum miliaceum</i>	C	3	PC
Millet, foxtail	<i>Setaria italica</i>	PC	3	PC
Oats, wild	<i>Avena fatua</i>	---	---	PC
Panicum, browntop	<i>Panicum fasciculatum</i>	---	---	C
Panicum, fall	<i>Panicum dichotomiflorum</i>	PC ⁵	3	C
Panicum, Texas	<i>Panicum texanum</i>	---	---	PC
Rice, red	<i>Oryza sativa</i>	---	---	C
Sandbur	<i>Cenchrus</i> spp.	---	---	PC
Shattercane	<i>Sorghum bicolor</i>	PC	3	---
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	PC ⁵	3	PC
Witchgrass	<i>Panicum capillare</i>	PC	3	C

¹For best performance, apply Impact CORE before weeds exceed the maximum size listed in Table 2.

²C=control, PC=partial control, and --- =control poor or unknown.

³Tank-mixing atrazine at 0.25 to 0.5 lb active per acre with Impact CORE will enhance control of emerged grass weeds.

⁴Impact CORE minimum use rate of 30 fl oz/A is required for grass weeds listed as C=Control. When rates below 30 fl oz/A are applied, a tank mixture of Impact CORE and glyphosate is recommended.

⁵Impact CORE use rate of 40 fl oz/A is required for control of this grass weed.

1. Mode of Action

Impact CORE contains the active ingredients topramezone (HPPD inhibitor, Group 27) and acetochlor (very long chain fatty acid inhibitor, Group 15). Topramezone is absorbed by leaves, roots, and shoots and is translocated to the growing points of sensitive weeds, and controls weeds by inhibiting carotenoid biosynthesis. Temperatures and moisture conditions which favor active plant growth and development are important for optimum topramezone activity. Acetochlor is a root and shoot growth inhibitor that controls susceptible weed germinating seedlings before or shortly after they emerge from soil. Acetochlor requires adequate soil moisture for optimum activity and provides residual control of sensitive weeds. If an activating rainfall does not occur within 7 days following application of Impact CORE, degree of residual weed control will be affected.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that Impact CORE contains a Group 27 (Topramezone) and a Group 15 (Acetochlor) herbicide. Any weed population may contain plants resistant to Group 27 and Group 15 herbicides. The resistant individuals may quickly dominate the weed population if these herbicides are used repeatedly in the same fields. Follow appropriate resistance-management strategies.

To delay herbicide resistance, take as many as possible of the following steps:

- Rotate the use of **Impact CORE** or other Group 27 or 15 herbicides within a growing season sequence or among growing seasons with different effective herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from different effective herbicide groups if such use is permitted at rates that will control the target weed(s). Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient to use.
- Adopt a diversified weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation. Consider tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates, precision fertilizer application methods and timings to favor the crop and not the weeds), biological (e.g., weed-competitive crops or varieties or cover crops) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistant individuals. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. Prevent weed seed production in the affected area by an effective alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean crop seed.
- If a weed population continues to survive after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different effective mode of action (MOA), if available.
- Contact your local extension specialist, certified crop advisors, and/or AMVAC representative for additional pesticide resistance-management and/or integrated weed-management recommendations for specific

crops and weed biotypes. Also, for more information on Weed Resistance Management, visit the Herbicide Resistance Action Committee (HRAC) on the web at <http://www.hracglobal.com>.

- For further information or to report suspected herbicide resistance, contact AMVAC at 1-888-462-6822.

2. Best Management Practices

Apply herbicides using proper application techniques, including application timing and appropriate spray volumes for thorough coverage of weeds. Use full rates of Impact CORE and any additional herbicides in tank mixtures, or when using herbicidal and crop rotation strategies. In addition, the following practices should be followed:

- Use cultural (e.g., crop rotation) and mechanical (e.g., tillage) weed management tactics.
- Use crops with herbicide-resistant (HR) traits and/or HR trait stacks for more efficient crop and MOA rotation.
- Correctly identify weeds and know where the weeds are in your fields.
- Start with clean fields. Tillage or a burndown herbicide program can control emerged weeds prior to planting.
- Clean equipment to prevent the spread of weeds seeds.
- Use residual herbicides in pre-emergence and early post-emergence applications.
- Scout fields soon after herbicide application to identify escaped weeds, population shifts, and herbicide resistant biotypes.
- Closely monitor problem areas in fields with difficult-to-control weeds or dense weed populations.
- Control weed escapes by spot herbicide applications, rope wicking, cultivation or hand removal of weeds, or other techniques to stop weed seed production and the accumulation of seeds in the soil bank. Stopping weed seed development will decrease weed populations from year to year and help prevent major weed shifts.

3. Insecticide Information

Impact CORE does not cause interaction with soil-applied insecticides. It may be used sequentially with soil-applied insecticides or in combination with foliar-applied insecticides registered for use in corn. Follow the directions for use on the insecticide label.

B. ADDITIVES

Postemergence applications of Impact CORE require the addition of an adjuvant and a nitrogen fertilizer source to achieve optimum weed control. AMVAC recommends the use of a product which has been reviewed and approved by the Council of Producers & Distributors of Agrotechnology (CPDA) Adjuvant Certification Committee.

ADJUVANTS:

- **Impact CORE alone** – Use methylated seed oil (MSO) at 1-2 qt/100 gallons of water (0.25% to 0.5% v/v) or high surfactant methylated oil concentrate (HSMOC) at 1-2 pt/100 gallons of water (0.125% to 0.25% v/v). Use a higher rate of adjuvant during periods of hot, dry weather and during periods of moisture stress. The use of oil-based adjuvants increases the potential for leaf burn following application, however, corn development and yield are not affected.

OR

- **Tank Mixtures with Impact CORE** – Use nonionic surfactant (NIS) at 1 qt/100 gallons of water (0.25% v/v). NIS is recommended when tank-mixing Impact CORE with glyphosate-containing herbicides. Oil-based adjuvants (MSO, HSMOC) may be used in tank mixtures with Impact CORE, however, use of these adjuvants can cause leaf burn within a few days after treatment. Corn development and yield are not affected.

AND

NITROGEN FERTILIZER SOURCE:

Add spray grade ammonium sulfate (AMS) at 1.5 to 2.5 pounds/A or urea ammonium nitrate (UAN, 28-34%) at 1.25 to 2.5 gallons per 100 gallons of water (1.25% to 2.5% v/v). Use higher rates during periods of hot, dry weather and during periods of moisture stress. A liquid AMS product which delivers an equivalent amount of ammonium sulfate per acre may be used. Commercial liquid solutions of AMS contain approximately 3.4 pounds of AMS/gallon.

C. MIXING INSTRUCTIONS

1. Tank-Mixing Information

Impact CORE may be applied in tank-mix combinations with labeled rates of other products labeled for the application method and timing to corn. The tank-mix partner must be used in accordance with the label restrictions and precautions. No label dosage rates may be exceeded. Do not mix Impact CORE with any product prohibited for tank mixtures. Refer to the specific crop section for rates and other restrictions.

Impact CORE is formulated to mix readily in water. Prior to adding Impact CORE to the spray tank, ensure that the spray tank is thoroughly clean, particularly if a herbicide with the potential to injure corn was previously used.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the restrictions, precautions and directions for use on all included product labels. Users must follow the most restrictive directions and precautionary statements of each product in the tank mixture.

Impact CORE is recommended to be used sequentially or tank mixed with other herbicides as part of a complete weed control program. Tank-mix recommendations are for use only in states where the sequential or tank-mix product and application site is registered. Refer to Crop Use Directions for more details and for specific tank-mix restrictions. Read and follow the applicable Restrictions and Directions for Use on all products included in any tank-mix. The most restrictive labeling applies to tank mixes. Do not use liquid fertilizer as a carrier for postemergence applications of Impact CORE. Use only water as a carrier.

2. Tank-Mixing Order Instructions

Following are mixing order guidelines for Impact CORE either alone or with other components, including spray adjuvants:

- a. Water – Fill spray tank $\frac{1}{2}$ to $\frac{3}{4}$ full using clean water and begin agitation.
- b. If included, add water-soluble PVA packets to tank and thoroughly mix. Ensure PVA packets are completely mixed in spray tank before proceeding.
- c. Add water-soluble additives, including dry and liquid fertilizers such as AMS.

- d. Add water-dispersible products such as wettable powders, dry flowables, suspension concentrates, or suspo-emulsions.
- e. Add water-soluble products.
- f. Add Impact CORE, other emulsifiable concentrates, and oil-based adjuvants such as MSO.
- g. Fill the remainder of the tank with water.
- h. Maintain adequate and continuous agitation during the entire application of the tank contents.

3. Compatibility Testing for Components

If mixing Impact CORE with pesticide products not listed on this label, test the compatibility of the intended tank mixture prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 15 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

- a. Place 20 fl oz of water from the source that will be used to prepare the spray solution in a clear 1-quart jar.
- b. For each pound of a dry tank-mix partner to be applied per acre, add 1.5 teaspoons to the jar.
- c. For each 16 fl oz of a liquid tank-mix partner to be applied per acre, add 0.75 teaspoon to the jar.
- d. For each 16 fl oz of Impact CORE to be applied per acre, add 0.75 teaspoon to the jar.
- e. After adding all the ingredients, place a lid on the jar and tighten securely. Invert 10 times to mix.
- f. Let the mixture stand for 15 minutes and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank-mix partners are not compatible, do not use the mixture in a spray tank.
- g. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the Storage and Disposal section of this label.

D. APPLICATION INSTRUCTIONS

Impact CORE must be applied to both emerged weeds and corn. Apply as a broadcast application to provide control of emerged weeds as well as residual control of susceptible, emerging weed seedlings. Apply Impact CORE by ground and refer to Crop-specific Information section for application restrictions.

Make postemergence applications of Impact CORE when weeds do not exceed size shown in Tables 1 and 2 and are actively growing. An adjuvant is required for best performance on emerged weeds; refer to **Additives** section for details. Depending on growing conditions, emerged, susceptible weeds may take 14 to 21 days for complete control. Herbicidal activity on emerged weeds may be delayed or reduced under extended cloudy and/or cooler weather conditions, or when weeds are under drought and/or heat stress conditions.

Impact CORE provides soil residual control of susceptible weeds. If activating rainfall is not received within 7 days after application, residual weed control may be reduced.

Avoid disturbing (e.g., cultivation) treated areas for at least 7 days following an application of Impact CORE to allow maximum herbicide absorption and weed control. Avoid deep cultivation that will move dormant weed seeds upward in the soil where seeds can germinate.

The applicator is responsible for any loss or damage that results from spraying Impact CORE in a manner other than recommended in this label.

Restrictions: If native plant communities exist within 30 feet downwind of the application, a 30-foot downwind spray buffer must be maintained between the application and those native plant communities. The applicator must follow all applicable state and local regulations and ordinances regarding spraying.

1. Ground Application Methods and Equipment

Apply Impact CORE with properly calibrated ground equipment in a minimum of 10 or more gallons of water per acre. Use water volumes of 15 gallons or more per acre when treating larger weeds and/or dense weed infestations. Slower application speeds generally result in more uniform coverage of targeted area and better performance.

2. Cleaning Spray Equipment

To avoid injury to sensitive crops, clean all equipment using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions. Triple rinse tanks and spray booms before and after applying this product.

After using Impact CORE triple rinse the spray equipment, including use of a commercial tank cleaner, before using the equipment for a new application. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

3. Spray Coverage

Thoroughly cover emerged weeds with spray droplets to achieve optimum and consistent control. Dense leaf canopies can prevent adequate spray coverage resulting in poor weed control. Use nozzles and pressures that generate medium to coarse size spray droplets. Use spray volumes which ensure coverage of emerged weeds with Impact CORE to maximize performance. Avoid using nozzles that produce very coarse, extremely coarse or ultra-coarse spray droplets, as this will result in unsatisfactory weed control.

4. Spray Drift Restrictions

APPLICATORS ARE RESPONSIBLE FOR AVOIDING SPRAY DRIFT AT AND ADJACENT TO THE APPLICATION SITE.

Do not apply when weather conditions favor spray drift to adjacent sensitive crops and vegetation. Spray droplets intercepted by susceptible plants from drift may cause plant injury. Make applications when wind speeds are approximately between 2 and 10 mph to avoid spray drift from treated areas. Do not apply when winds are gusty, during temperature inversions, or when conditions will favor movement of spray particles away from the desired spray target. Avoid spraying during conditions of low humidity and/or high temperatures. Consider using agriculturally approved drift-reducing additives in accordance with product labels.

Ground application equipment must be properly maintained and calibrated using appropriate carriers. Wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

Sensitive Areas: Apply the pesticide when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, and known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Do not apply where possible drift to unprotected persons, or to food, forage, or crops that might be damaged and thus rendered unfit for sale, use, or consumption can occur.

E. RESTRICTIONS

- **Do Not** apply more than 40 fl oz of Impact CORE per acre per year.
- **Do Not** apply Impact CORE to corn which is greater than 11 inches in height.
- **Do Not** use liquid fertilizer as a carrier for postemergence applications.

1. Rotational Crop Restrictions

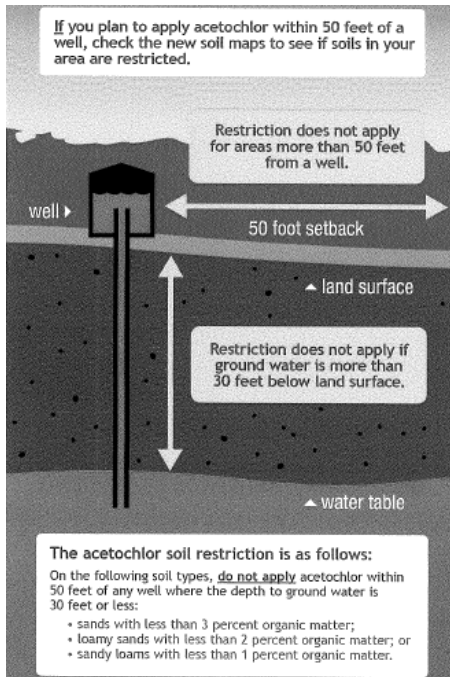
The following rotational crops may be planted after uniformly applying Impact CORE at labeled application rates. Do not plant earlier than the specified interval, as crop injury may occur. Avoid over-applications by minimizing overlaps of spray swaths and by switching off spray boom when turning (end rows). In the event of a crop loss due to weather or other causes, any corn type can be replanted at any time following an application of Impact CORE. If Impact CORE was tank-mixed with other herbicides, the label replanting restrictions for these herbicides must be followed.

Rotational Crop	Rotational Interval (Months after application)
Corn (field, seed, sweet and pop) ¹	0
Wheat	4
Barley, Oat, Rye, Millet	9
Alfalfa	9
Grain Sorghum	9
Grass grown for seed	9
Cotton	10
Peanut	10
Potato	10
Soybean	10
Sunflower	10
All other crops not listed above	18

¹ If crop treated with this product is lost, immediate re-planting of corn types listed may result in temporary crop injury.

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



This product must not be mixed or loaded or used within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, 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 percent 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 percent 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 sites. States may have in effect additional requirements regarding well head setbacks and operational area containment.

Do not flood irrigate to apply or incorporate this product.

Product must be used in a manner that will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

Do not apply this product through any type of irrigation system, unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.

Disposal of excess pesticide, spray mixtures or rinsate should be according to label use instructions or according to the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office.

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.

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 miles per hour). Do not apply when wind velocity exceeds 15 miles per hour. Avoid application when gusts approach 15 miles per hour.

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.

Use of this product not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

Flush sprayer with clean water after use.

F. CROP-SPECIFIC USE DIRECTIONS

Impact CORE is for use in corn only. Impact CORE may be applied for control of emerged weeds and residual control of susceptible, emerging weed seedlings after crop planting. Target application to broadleaf and grass weeds which do not exceed the maximum size shown in Tables 1 and 2 under Product Information section.

1. Corn (field corn, seed corn, popcorn)

Impact CORE may be applied to field corn, seed corn and popcorn including both conventional and herbicide-resistant hybrids of these corn types. Apply from corn emergence up to 11-inch tall corn.

Impact CORE may be used in tank mixtures or sequential applications with other products that are registered for use in corn. If Impact CORE is tank mixed with other herbicides, follow the label restrictions for the most restrictive of the tank-mix products. Ensure that the respective tank-mix products are registered for use on the specific corn types being treated, as not all corn products are registered on seed corn and popcorn.

2. Application Rates

Impact CORE application rate varies by soil texture and percent organic matter as specified in Table 3. Follow rate ranges listed in this table for best control of emerged weeds and germinating weeds after application. Up to two sequential applications of Impact CORE may be made during a growing season. Applications must be separated by 14 days or more and must not exceed a cumulative total of 40 fl oz/A per year.

Table 3. Application rate ranges to control or partially control target weed by soil texture and percent organic matter.

Soil Texture	Organic Matter Content	
	Less than 3% (fl oz/A)	3% or greater (fl oz/A)
Coarse (sand, loamy sand, sandy loam)	20-24	22-28
Medium (silt, silt loam, loam, sandy clay loam)	28-34	28-34
Fine (sandy clay, silty clay, silty clay loam, clay loam, and clay)	30-36	34-40

3. Application Timing

- **Field Corn and Popcorn** – Impact CORE may be applied from spike stage of corn up to 11-inch tall corn.
- **Preharvest Interval (PHI)** – Do not make applications to field corn or popcorn within 45 days of corn harvest (silage, fodder or grain).

4. Tank Mixes

Impact CORE may be tank mixed or applied sequentially to corn with other herbicides to broaden the spectrum of weed control and/or extend the length of residual control. Atrazine (Photosystem II inhibitor, Group 5 herbicide) is known to enhance the activity of herbicides containing an HPPD-inhibitor (Group 27) such as Impact CORE. Atrazine may be tank mixed with Impact CORE at 0.25 to 0.5 lb active atrazine per acre for enhanced control of emerged broadleaf and grass weeds. Higher rates of atrazine will provide additional residual weed control. To enhance control of emerged grass weeds, Impact CORE may be tank-mixed with glyphosate-containing herbicides. Follow adjuvant recommendations specified in the ADDITIVES section of this label.

5. Sequential Uses

Impact CORE may be applied at rates specified in Table 3 as the second pass in a planned two-pass sequential program in corn. If using other acetochlor-containing herbicides in a sequential program, do not apply more than 3 lb active of acetochlor per acre during the season.

6. Crop Tolerance

Apply Impact CORE during favorable growing conditions for optimum crop tolerance and weed control. Crops under stressful growing conditions are more likely to show injury from any herbicide application. Rarely, corn plants under stressful growing conditions and treated with Impact CORE may show transient leaf bleaching. Leaf burn can also occur under warm, humid conditions at application. Use of additional herbicides and/or oil-based adjuvants in the tank mixture may increase potential for foliar burn. These symptoms are infrequent and temporary; crop growth and development are not affected.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container, including application in accordance with label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

CONTAINER HANDLING:

FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state, and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 5-GALLON CAPACITY: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one 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. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state, and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT CONTAINERS: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container. To clean this container before final disposal, empty the remaining contents from this container into application equipment or a tank-mix. 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. Then offer this container for recycling, if available.

FOR ALL TRANSPORT CONTAINERS AS DEFINED IN 40 CFR 156.3: Emptied container retains vapor and product

residue. Observe all precautions stated on this label until the container is cleaned, reconditioned, or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; and (b) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions. THIS WARRANTY DOES NOT EXTEND TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

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[optional marketing statements]

Impact CORE provides reliable postemergence and residual control of key grasses and broadleaf weeds in corn
Impact CORE is flexible with an application window from weed emergence to 11 inch tall corn
Impact CORE can be tank mixed with atrazine to improve postemergence and residual control
Impact CORE provides the proven crop safety of Impact and the reliable residual control of acetochlor for a broad spectrum, early post herbicide that can be the core of a farmers herbicide program
Impact CORE utilizes two well-known and reliable modes of action to offer broad spectrum activity on key grasses and broadleaf weeds in corn
Impact CORE has a unique formulation

Impact CORE has superior control of emerged grasses compared to many leading HPPD product mixes
Not all HPPDs are created equal, the Impact® Herbicide component is recognized as THE STANDARD IN CORN SAFETY® Impact CORE can be used as an early post complete herbicide program or as part of a sequential herbicide program offering a grower flexibility in managing challenging weed problems in less than ideal weather conditions

SPECIMEN