241-377 4/28/2011 1 of 12

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Registration Number:	Date of Issuance:
241-377	4-28-11

NOTICE OF PESTICIDE:
X Registration
X Reregistration
(under FIFRA, as amended)

Term of Issuance: Unconditional

Name of Pesticide Product: Lightning Herbicide

Name and Address of Registrant (include ZIP Code):
BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

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

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

EPA received a label amendment request submitted on 4-20-11. EPA grants this request under the authority of section 3(c)(5) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended. With this accepted labeling, all requirements set forth in the Reregistation Eligibility Decision (RED) for **imazapyr** have been satisfied. Therefore, EPA reregisters the product listed above. This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Submit one (1) copy of final printed labeling. Amended labeling will supersede all previously accepted labels. A copy of your label stamped "Accepted" is enclosed for your records. Products shipped after twelve (12) months from the date of this Notice or the next printing of your label, whichever occurs first, must bear the new revised label.

Signature of Approving Official:	Date:
Kable Bo Davis Product Manager 25 Herbicide Branch Registration Division (7505P)	4-28-11

EPA Form 8570-6

If you have any questions regarding this Notice, please contact Erik Kraft at 703-308-9358 or Kraft.Erik@epa.gov.

BASF
The Chemical Company

Lightning®

herbicide

FOR USE ON CLEARFIELD® CORN HYBRIDS ONLY

Active Ingredients:

imazethapyr: (+)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid]	52.5%
imazapyr: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-3-pyridinecarboxylic acid	17.5%
Other Ingredients:	30.0%
Total:	100.0%

One 12.8-oz bottle contains 0.42 pound of imazethapyr and 0.14 pound of imazapyr as the free acid.

EPA Reg. No. 241-377 **EPA Est. No.**

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.)

See inside for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

ACCEPTED
4-28-11
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 241-377

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

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Lightning®

herbicide

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Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID	
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• 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 swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING. Causes substantial but temporary eye injury. **DO NOT** get in eyes, on skin or on clothing. Harmful if swallowed or absorbed through skin.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for **Category A** on an EPA chemical-resistance category selection chart.

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

- Long-sleeved shirt and long pants
- Shoes plus socks
- Goggles or face shield (except for pilots)
- Chemical-resistant gloves (except for pilots)

See **Engineering Controls** for additional requirements.

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

Engineering Controls

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands with plenty of soap and water 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 plants. Drift and runoff may be hazardous to plants in water adjacent to treated areas. **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 washwater or rinsate. See **DIRECTIONS FOR USE** for additional precautions and requirements.

Groundwater Advisory and Proper Handling Instructions

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

This product may 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 or 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 specific 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.

DO NOT apply this product through any type of irrigation system.

Product must be used in a manner which will prevent back-siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsate.

Physical and Chemical Hazards

DO NOT store near oxidizers.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its 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 requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

This labeling must be in the user's possession during application.

Observe all cautions and limitations on this label and on the labels of products used in combination with **Lightning® herbicide**. **DO NOT** use **Lightning** other than in accordance with the instructions set forth on this label. The use of **Lightning** not consistent with this label may result in injury to crops.

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 **48 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

Pesticide Storage. Store in a secure, dry, well-ventilated area.

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 or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. 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.

Triple rinse containers too large to shake (capacity > 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it

back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. 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.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

CHEMTREC 1-800-424-9300
BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

PRODUCT INFORMATION

Apply **Lightning® herbicide** only on selected field corn hybrids (**CLEARFIELD®** corn) warranted by the seed company to possess resistance/tolerance to direct application of certain imidazolinone herbicides. **DO NOT** apply **Lightning** to corn hybrids that lack resistance/tolerance to imidazolinone herbicides. Contact your seed supplier, chemical dealer or BASF to obtain information regarding **CLEARFIELD** corn hybrids.

When applied as directed at the broadcast rate of 1.28 ounces per acre, **Lightning** will control or reduce competition from the weeds listed in **Table 1**.

NOTE: R = Reduced Competition.

DO NOT count cotyledon leaves when determining weed stage of growth.

Table 1. Weeds Controlled

	POSTEMERGENCE	
Broadleaf Weeds	**Leaf Stage** (up to)	**Maximum Height** (inches)
Alligator weed	4	1-3
Anoda, spurred	2	1-2
Artichoke, Jerusalem	8	6-10
Bindweed, field	R	1-3
Buckwheat, wild	4	1-3
Buffalobur	4	1-3
Bristly starbur	2	1-2
Carpetweed	4	1-3
Cocklebur, common	8	1-8
Jimsonweed	4	1-3
Knotweed	4	1-3
Kochia (non-ALS resistant)	4	1-3

Table 1. Weeds Controlled *(continued)*

	POSTEMERGENCE	
Broadleaf Weeds	**Leaf Stage** (up to)	**Maximum Height** (inches)
Lambsquarters, common	4	1-3
Marshelder	4	1-3
Milkweed, honeyvine	4	1-3
Morningglory		
entireleaf	2	1-2
ivyleaf	4	1-3
pitted	2	1-2
smallflower	4	1-3
tall	4	1-3
Mustard sp.	4	1-3
Nightshade		
black	4	1-3
Eastern black	4	1-3
hairy	4	1-3
Pigweed		
Palmer	4	1-3
prostrate	8	1-8
redroot	8	1-8
smooth	8	1-8
spiny	8	1-8
Ragweed		
common	R	1-3
giant	4	1-3
Sage, barnyard	R	1-3
Sicklepod*	4	1-3
Sida, prickly	4	1-3
Smartweed		
ladysthumb	4	1-3
Pennsylvania	4	1-3
Spurge		
prostrate	4	1-3
spotted	4	1-3
Sunflower	4	1-3
Velvetleaf	4	1-3
Venice mallow	4	1-3
Thistle, Canada	R	1-3

*Additional applications of other broadleaf herbicides may be necessary to control subsequent flushes of sicklepod.

	POSTEMERGENCE	
Annual Grass and Sedge Weeds	**Leaf Stage** (up to)	**Maximum Height** (inches)
Barnyardgrass	3	1-3
Crabgrass		
large	3	1-3
smooth	3	1-3
Cupgrass, woolly	3	1-3

Table 1. Weeds Controlled *(continued)*

Annual Grass and Sedge Weeds	POSTEMERGENCE Leaf Stage (up to)	POSTEMERGENCE Maximum Height (inches)
Foxtail		
giant	6	1-6
green	3	1-3
yellow	3	1-3
Goosegrass	3	1-3
Johnsongrass		
seedling	6	1-8
rhizome	R	8-16
Millet, wild proso	3	1-3
Nutsedge		
purple	R	1-3
yellow	R	1-3
Panicum, fall	3	1-3
Quackgrass	3	1-3
Red rice	3	1-3
Ryegrass, Italian	3	1-6
Sandbur, field	3	2
Shattercane	6	1-8
Signalgrass, broadleaf	4	1-8
Sorghum almum	6	1-3
Volunteer corn (non-**CLEARFIELD®** corn)	8	1-12
Wild oat	6	1-8
Witchgrass	3	1-3

Mode of Action

Lightning® herbicide kills weeds by root and/or foliar uptake and rapid translocation to the growing points. Adequate soil moisture is important for optimum **Lightning** activity. When adequate soil moisture is present, **Lightning** will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

Herbicide Resistance

Naturally occurring biotypes* of some of the weeds listed on this label may not be effectively controlled by this and/or other products with the ALS/AHAS enzyme inhibiting mode of action. Other herbicides with the ALS/AHAS enzyme inhibiting mode of action include the imidazolinones (e.g. **Pursuit® herbicide**, **Scepter® herbicide**, **Raptor® herbicide**, etc.), the sulfonylureas (e.g. **Accent®**, **Classic®**, **Permit®**, **Steadfast®**, **Spirit® herbicides**, etc.) the sulfonamides (e.g. **Python® herbicide**, etc.) and the pyrimidyl benzoates (e.g. **Staple® herbicide**, etc.). If naturally occurring biotypes are present in a field which are resistant to this herbicide, **Lightning** should be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

*A weed biotype is a naturally occurring individual within a given species that has a slightly different, but distinct genetic makeup from other plants.

Lightning is active against many broadleaf and grass weed species. For long-term weed management, use two herbicides with different modes of action to reduce the potential for weed resistance.

Crop Tolerance

Crops growing under stressful environmental conditions can exhibit various injury symptoms which may be more pronounced if herbicides are used. Corn plants treated with **Lightning** may exhibit yellowing on new growth. Such effects occur infrequently and are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

Use of **Lightning** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Under some conditions (such as heavy texture soil, high organic matter, low pH or low rainfall) **Lightning** may cause injury to subsequent planted crops. See the **ROTATIONAL CROPS** section of this label for rotation intervals to sensitive crops.

Soil Insecticide Information

All soil insecticides registered for use on corn, including labeled banded or infurrow applications, may be used in combination with **Pioneer®** imidazolinone-resistant (IR) corn hybrids and **Lightning**.

BASF recommends that terbufos and phorate in banded applications may be used in combination with **Lightning** on imidazolinone-tolerant (IT) corn hybrids.

DO NOT use terbufos when **Lightning** will be applied to imidazolinone-tolerant corn hybrids. BASF has not tested all hybrids in which the imidazolinone-tolerance trait is claimed and cannot be responsible for factors which are beyond its control, such as growing conditions, environmental conditions, grower practices and the specific genetics of each hybrid tolerance to herbicide and insecticide applications.

Cultivation

For maximum weed control, cultivate 7-10 days following **Lightning** application. This timely cultivation will enhance residual weed control, especially under dry conditions.

Cleaning Spray Equipment

To avoid injury to sensitive crops, drain and clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions and then triple rinse the equipment before and after applying **Lightning**.

Application Instructions

Lightning is effective in controlling annual weeds in conservation tillage as well as in conventional production systems. Apply **Lightning** as a postemergence treatment to **CLEARFIELD** corn when crop and weeds are actively

growing. For optimal weed control, apply **Lightning® herbicide** before weeds exceed labeled height.

Lightning Application Use Area, Rate and Timing

- Apply **Lightning** at a broadcast rate of 1.28 ounces per acre. At this broadcast rate, one bottle of **Lightning** will treat 10.0 acres of **CLEARFIELD®** corn.
- **Lightning** can be applied postemergence (including spike stage) on **CLEARFIELD** corn hybrids.
- **Lightning** must be applied with drop nozzles (i.e. post-directed onto weeds) under the following conditions: if the corn is greater than 20 inches tall or corn has 6 or more leaf collars (V6), whichever is the more restrictive, or if the crop canopy prevents adequate weed coverage.

Delaying a **Lightning** application for 48 hours from the time temperatures increase above 50° F (i.e. after air temperatures have remained below 50° F for 10 or more hours) will improve weed control and reduce the potential for crop response. Unusually cool temperatures (50° F or less) reduce photosynthesis and transpiration and thus reduce the uptake and translocation (and effectiveness) of **Lightning** in weeds.

Lightning should be applied a minimum of one hour before rainfall or overhead irrigation.

Ground Application Methods and Equipment

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre. A spray pressure of 20 to 40 psi is recommended. **DO NOT** apply when wind velocity is greater than 10 mph. (See **SENSITIVE CROP PRECAUTIONS** section for application guidelines near sensitive crops.)

To ensure thorough coverage a minimum of 10 gallons of water per acre is recommended when applying **Lightning** to minimum till or no-till **CLEARFIELD** corn. Use higher gallonage for fields with dense vegetation or heavy crop residues. Flat-fan nozzle tips are recommended for post-emergence applications.

Avoid overlaps when spraying.

Aerial Application Methods and Equipment

Uniformly apply with properly calibrated aerial equipment in 5 or more gallons of water per acre. Addition of a nonionic surfactant **AND** fertilizer solution is required for optimum weed control; apply a nonionic surfactant at the rate of 1 quart per 100 gallons of spray solution **OR** a crop oil concentrate at the rate of 1.25 gallons per 100 gallons of spray solution, **AND** a liquid fertilizer at the rate of 1.25 gallons per 100 gallons of spray solution.

To avoid injury to sensitive crops from drift, aerial applicators must adhere to the following SPECIAL AERIAL USE DIRECTIONS AND PRECAUTIONS.

Spray Drift Requirements

Aerial Applications

- Applicators are required to use a coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet. Applicators are required to use a very coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for *release heights above 10 feet. Applicators must consider* the effects of nozzle orientation and flight speed when determining droplet size.
- Applicators are required to use upwind swath displacement.
- The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.
- Applications with wind speeds less than 3 mph and with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

Ground Boom Applications

- Applicators are required to use a nozzle height below 4 feet above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater.
- Applications into temperature inversions are prohibited.
- Applications with wind speeds greater than 10 mph are prohibited.

Applicator is responsible for any loss or damage that results from spraying **Lightning** in a manner other than recommended in this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regard to spraying

SENSITIVE CROP PRECAUTIONS

Lightning may cause injury to desirable trees and plants, particularly cotton, flowers, fruit trees, grapes, ornamentals, potatoes, sugar beets, sunflowers, tobacco, tomatoes and other broadleaf plants when contacting their roots, stems or foliage. These plants are most sensitive to **Lightning** during their development or growing stage.

FOLLOW THE PRECAUTIONS LISTED BELOW WHEN USING **Lightning**:

- **DO NOT** treat areas where either possible downward movement into the soil or surface washing may cause contact of **Lightning** with roots of desirable plants such as trees and shrubs.
- Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. **DO NOT** spray near sensitive plants if wind is gusty or in excess of 10 mph and moving in the direction of nearby sensitive crops. However, always make applications when there is some air movement to determine the direction and distance of possible spray drift. Leave an adequate buffer zone between area to be treated and sensitive plants. Coarse sprays are less likely to drift out of the target area than fine sprays.
- Use coarse sprays to avoid potential herbicide drift. Select nozzles which are designed to produce minimal amounts of fine spray particles such as Spraying Systems XR flat fans. A spray pressure of 20 psi and

spray volume at or above 20 GPA is recommended to reduce drift to sensitive crops.
- Agriculturally approved drift-reducing additives may be used.
- To avoid injury to desirable plants, equipment used to apply **Lightning® herbicide** should be thoroughly cleaned (see **CLEANING SPRAY EQUIPMENT**) before reusing to apply any other chemicals.

Additives

Ground, postemergence applications of **Lightning** require the addition of an adjuvant **AND** a nitrogen fertilizer source **OR** a basic blend*.

ADJUVANTS

- **Surfactants**. Use a nonionic surfactant containing at least 80% active ingredient. Apply the surfactant at the rate of 1 quart per 100 gallons (0.25% volume/volume [v/v]). An organo-silicone surfactant may be used in place of a nonionic surfactant.

OR

- **Crop Oil Concentrate**. Instead of a surfactant, a petroleum-based or vegetable seed-based oil concentrate or methylated seed oil may be beneficial under the following conditions.

  1. Hot, arid environmental conditions when weeds may be under stress and less susceptible to herbicide applications
  2. For improved control in heavy infestations of weeds such as woolly cupgrass, large crabgrass, and field sandbur, or when approaching maximum labeled heights

Apply crop oil concentrates or methylated seed oils at the rate of 1 gallon per 100 gallons (1% v/v).

AND

NITROGEN FERTILIZER SOURCE

Recommended nitrogen-based fertilizers include liquid fertilizers (such as 28%N, 32%N or 10-34-0) at the rate of 1 to 2 quarts per acre. Use the higher rate when weeds are under moisture or temperature stress. Instead of a liquid fertilizer, spray grade ammonium sulfate may be used at the rate of 2.5 pounds per acre.

*Alternatively, the use of proprietary "basic blend" products that contain both a nonionic surfactant and a nitrogen source that provide equivalent spray additive activity to those additives mentioned above may be used with **Lightning**. Other premixes containing a surfactant and a nitrogen source may be used as long as performance and rate guidelines for surfactant and nitrogen amounts are met.

Mixing Order

DO NOT use liquid fertilizer as a carrier (use water only) for postemergence applications of **Lightning**.

WATER

1. Fill the spray tank 1/2 to 3/4 full with clean water.
2. Add the required amount of **Lightning** to the spray tank while agitating.
3. After the **Lightning** has visibly dispersed, add spray additives and fill the remainder of the tank with water. An antifoam agent may be added if needed.

TANK MIX PREPARATION

When tank mixing **Lightning** with recommended herbicides, add the other herbicides and other components in the following order, while agitating:

1. Fill spray tank 1/2 to 3/4 full with clean water.
2. Add **Lightning** and thoroughly mix.
3. Add other aqueous solution products.
4. Add other soluble packet products and thoroughly mix.
5. Add WP (wettable powder), DG (dispersible granule), DF (dry flowable), or LF (liquid flowable) formulations.
6. Add EC (emulsifiable concentrate) products.
7. Add surfactant to the spray tank.
8. Add liquid fertilizer.
9. While agitating, fill the remainder of the tank with water.

Tank Mixing Information

When **Lightning** is used in combination with another herbicide, refer to the respective label for rates, spray additives, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. No label dosages may be exceeded.

Restrictions and Limitations

- Only one application of **Lightning** may be made during the growing season.
- **If replanting** is necessary in a field previously treated with **Lightning**, the field may be replanted only to **CLEARFIELD®** corn. Rework the soil no deeper than the treated zone. **DO NOT** apply a second treatment of **Lightning**. In the event of a crop loss due to weather, **CLEARFIELD** corn seed hybrids can be replanted following an application of **Lightning**. If **Lightning** was tank mixed with other herbicides, the label restrictions for these herbicides must also be followed.
- **DO NOT** apply **Lightning** within 45 days of corn harvest (silage, fodder, or grain).
- **DO NOT** graze or feed treated corn forage, silage, fodder, or grain for at least 45 days after an application of **Lightning**.
- More restrictive crop growth stage limitations of tank mix partners must be followed.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** apply in a greenhouse.
- Not for use in California.
- In New York, not for sale or use on Long Island.

ROTATIONAL CROPS

Use of **Lightning® herbicide** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. The following rotational crops may be planted after applying **Lightning** at the specified rate in corn. Rotational crops must not be planted earlier than the specified intervals; this will help avoid crop injury.

Time after Lightning Application	Crop(s) to be Grown
Anytime	**CLEARFIELD®** corn hybrids
Four months	Rye, Wheat
Eight and one-half months	Field corn, Field corn grown for seed[1]
Nine months	Soybeans
Nine and one-half months	Alfalfa, Edible beans and peas, Peanuts, Tobacco
Eighteen months	Barley, Cotton[1], Lettuce, Oats, Popcorn, Safflower, Sorghum, Sunflowers, and Sweet corn
Twenty-six months	Potatoes
Forty months[2]	All crops not listed elsewhere in **ROTATIONAL CROPS**

[1]In Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, or Virginia **ONLY**, cotton may be planted 9.5 months after a **Lightning** application if more than 16 inches of rainfall and/or irrigation is received following application of **Lightning** through October of the application year.

[2]Following forty months after a **Lightning** application, and before planting any crop not listed in **ROTATIONAL CROPS**, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls, and include variations in soil such as type and pH. If no crop injury is evident in the test strip, rotational crop may be planted the following year.

Only rotational crops harvested at maturity may be used for feed or food.

BASF recommends that products containing imazethapyr (**Pursuit® herbicide** and **Pursuit® Plus EC herbicide**) should not be applied to **CLEARFIELD** corn the same year as **Lightning** or injury to followcrops may occur.

If the field is limed to adjust pH prior to planting rotational crops not listed in **ROTATIONAL CROPS**, apply the lime at least 12 months prior to planting the rotational crop.

ADDITIONAL ROTATIONAL CROP INFORMATION

- If corn is furrow irrigated, till the soil prior to planting winter wheat or barley. The beds should be broken up and the soil mixed with tillage equipment set to cut 4- to 6-inches deep.
- Corn inbred lines: Due to the proprietary nature of seed production, BASF has not been given access to the inbred data. Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in fields treated with **Lightning** the previous year. Because growing conditions, environmental conditions, and grower practices are beyond the control of BASF, **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALL RISKS AND CONSEQUENCES ASSOCIATED WITH PLANTING SEED CORN INBREDS INTO FIELDS TREATED PREVIOUSLY WITH LIGHTNING SHALL BE ASSUMED BY THE USER.**

Crop-specific Information

CLEARFIELD Corn

Lightning can be applied postemergence (including spike stage) on **CLEARFIELD** corn hybrids.

Tank Mixes

Recommended tank mix postemergence applications with **Lightning** are:

Clarity®*
Distinct®*
G-Max Lite™
Guardsman Max®
Marksman®*
Outlook®
Prowl®
2,4-D*
atrazine*
Banvel®*
Banvel®-k + atrazine*
Bicep II Magnum®
Bicep Lite II Magnum®
Buctril®
Buctril® + atrazine*
Callisto®
Dual II Magnum®
FulTime®
Harness®
Harness® Xtra
Shotgun®*
Status®
Sterling®*
Sterling Plus®*
Stinger®
Surpass®
TopNotch®

*Use of crop oil concentrate or methylated seed oils in tank mixes with **Lightning** with 2,4-D, atrazine, **Banvel, Banvel-k + atrazine, Buctril + atrazine, Clarity, Distinct, Marksman, Shotgun, Sterling,** or **Sterling Plus herbicides** may result in crop injury if applied during periods of cold, wet weather or hot and/or humid weather. Under these environmental conditions, the use of a nonionic surfactant is recommended.

DO NOT use **Lightning** in combination with products containing flumetsulam, thifensulfuron or rimsulfuron (e.g. **Accent®, Basis®, Basis® Gold, Hornet®, Python®, Steadfast® herbicides**).

Sequential Herbicide Combinations and Uses

Lightning controls many grass species. However, when heavy grass pressure is anticipated, a soil surface application of any grass herbicide underlay (such as **Guardsman Max, G-Max Lite, Prowl, Outlook, Dual II Magnum, Harness,** or **Surpass**) is recommended. **Lightning** may also be used in sequential programs with registered burn-down herbicides.

Table 2. Pests Listed in This Label

Common Name	Scientific Name
Alligatorweed	*Alternanthera philoxeroides*
Anoda, spurred	*Anoda cristata*
Artichoke, Jerusalem	*Helianthus tuberosus*
Barnyardgrass	*Echinochloa crus-galli*
Buckwheat, wild	*Polygonum convolvulus*
Buffalobur	*Solanum rostratum*
Bristly starbur	*Acanthospermum hispidum*
Carpetweed	*Mollugo verticillata*
Crabgrass, large	*Digitaria longiflorai*
Crabgrass, smooth	*Digitaria ischaemum*
Cocklebur, common	*Xanthium pensylvanicum*
Cupgrass, woolly	*Eriochloa villosa*
Bindweed, field	*Convolvulus arvensis*
Foxtail, giant	*Setaria faberi*
Foxtail, green	*Setaria viridis*
Foxtail, yellow	*Setaria lutescens*
Goosegrass	*Eleusine indica*
Jimsonweed	*Datura stramonium*
Johnsongrass, (seedling, rhizome)	*Sorghum halepense*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Mallow, Venice	*Hibiscus trionum*
Marshelder	*Iva xanthifolia*
Milkweed, honeyvine	*Ampelamum albidus*
Millet, wild proso	*Panicum milaceum*
Morningglory, entireleaf	*Ipomoea hederacea* var. *integruscula*
Morningglory, ivyleaf	*Ipomoea hederifolia*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, small white (pitted)	*Ipomoea lacunosa*
Morningglory, tall (common)	*Ipomoea purpurea*
Mustard	*Brassica* sp.
Nightshade, Eastern black	*Solanum ptycanthum*
Nightshade, black	*Solanum nigrum*
Nightshade, hairy	*Solanum sarrachoides*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, Palmer	*Amaranthus palmer*
Pigweed, prostrate	*Amaranthus blitoides*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Pigweed, spiny	*Amaranthus albus*
Quackgrass	*Agropyron repens*
Ragweed, common	*Ambrosia artemisifolia*
Ragweed, giant	*Ambrosia trifida*
Red rice	*Oryza sativa*
Ryegrass, Italian	*Lolium multiflorum*
Sage, barnyard	*Salvia*, sp.

Table 2. Pests Listed in This Label *(continued)*

Common Name	Scientific Name
Sandbur, field	*Cenchrus incertus*
Shattercane	*Sorghum bicolor*
Sicklepod	*Cassia obtusifolia*
Sida, prickly	*Sida spinosa*
Signalgrass, broadleaf	*Bracharia platyphylla*
Smartweed, Pennsylvania	*Polygonum pensylvanicum*
Smartweed, ladysthumb	*Polygonum persicaria*
Sorghum almum	*Sorghum almum*
Spurge, prostrate	*Chamaesyce humistrata*
Spurge, spotted	*Euphorbia maculata*
Sunflower, volunteer	*Helianthus* sp.
Sunflower, wild (common)	*Helianthus annuus*
Thistle, Canada	*Cirsium arvense*
Velvetleaf	*Abutilon theophrasti*
Wild oats	*Avena fatua*
Witchgrass	*Panicum capillare*

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF. 1108

Uses with Other Products (Tank Mixes)

If this product is used in combination with any other product except as specifically recommended in writing by BASF Corporation, then to the extent consistent with applicable law, BASF Corporation shall have no liability for any loss, damage or injury arising out of its use in any such combination not so specifically recommended. If used in combination recommended by BASF Corporation, to the extent consistent with applicable law, the liability of BASF Corporation shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the BASF Corporation product in such combination use, and in any event, to the extent consistent with applicable law, shall be limited to return of the amount of the purchase price of the BASF Corporation product.

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