

84930-23

12/28/2010

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
 Registration
 Reregistration

(under FIFRA, as amended)

EPA Reg.

Number:

84930-23

Date of Issuance:

DEC 28 2010

Term of Issuance:

Unconditional

Name of Pesticide Product:

ARC-METOLAZINE
HERBICIDE

Name and Address of Registrant (include ZIP Code):

ARCANA, LLC
P.O. BOX 26
TIMNATH, CO 80547

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.

We cannot register your product based on your submitted draft labeling. However this product can be unconditionally registered in accordance with FIFRA section 3(c)(5) provided you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for registration review of your product under FIFRA section 3(g).
2. Add to the label the EPA Registration Number 84930-23, and the complete establishment number.
3. Make the following changes to the label:
 - a. Revise your Storage and Disposal Box according to PR Notice 2007 - 4, and add the batch number to all products in disposable containers.
 - b. Remove all references and use directions for popcorn. There are no established tolerances for

the use of the racemic form of metolachlor on popcorn. It is not addressed as an approved use in the metolachlor TRED (June 17, 2002). You can submit a request for appropriate tolerances, supported by field residue studies for metolachlor (racemic form) on popcorn grain and stover.

c. Correct all hyphenated words in the middle of sentences throughout label. This appears to be a copying error.

d. On page 3 of draft label, under "Mixing/Loading Instructions", change the last sentence at the end of the second paragraph to "... area containment imposed by the State where product is used must be observed."

Move the heading, "DIRECTIONS FOR USE", to the middle of page.

e. On page 4, put "AGRICULTURAL USE REQUIREMENTS" in a box.

Change "General Information", to "USE INFORMATION". Change "Note" to "PRECAUTIONS AND RESTRICTIONS", and move to the middle of page. Change the second sentence under "Note" to "For each tank mix partner used, refer to and follow the label precautionary statements, direction for use, geographic, and other restrictions. Follow the most restrictive language on the ARC-METOLAZINE HERBICIDE label, or the label of the tank mix partner." Under "Note", third sentence, add "other" before "...chemically related herbicides." Change the third sentence of the second paragraph under "Note" by removing the unnecessary space in the middle of the sentence, and add "for" before "...preplant", and "applications" before "...to Corn."

f. On page 9, change the heading "This Product Rate Limitations" to "Application and Seasonal Rate Limitations For Atrazine and Metolachlor". Add to the end of the first sentence under "This Product Rate Limitations", "...from this product and all tank mix partners containing atrazine." Add as the second paragraph under "This Product Rate Limitations", "For metolachlor, do not exceed a maximum seasonal application rate of 3.0 lbs ai metolachlor/acre/crop year from ARC-METOLAZINE HERBICIDE, and all tank containing metolachlor or S-metolachlor." Under "Note", add as the second sentence, "The amount of metolachlor active ingredient in this product is 2.4 lbs ai/ gallon (0.6 lb ai/quart)."

g. On page 10, change "Note" to "Precautions and Restrictions" and move to the center of page. Under "Note", add as the third sentence, "These limitations apply to ARC-METOLAZINE HERBICIDE plus all tank mix partners containing metolachlor or S-metolachlor." Change "B." to "If a tank mix partner containing metolachlor or S-metolachlor will be used, add the pounds of active ingredient in tank mix partners to the pounds in Step A above. The sum shall not exceed 1.6 lbs metolachlor and S-metolachlor on medium or fine-textured soils containing up to 3% organic matter, or 1.9 lbs metolachlor and S-metolachlor on fine-textured soils containing more than 3% organic matter."

h. On page 11, under "Rotational Crops", and in (1), change "Concep" to "Concep III". Provide the chemical identity of "Screen", and documentation for an established tolerance in sorghum for the chemical(s) in Screen. Otherwise remove from label.

i. Change all headings with "Notes" to "Precautions and Restrictions" from page 12 to the end of the label. Also move heading to the center of page.

j. On page 16, revise the pesticide CONTAINER DISPOSAL language to conform to PR-Notice 2007-4, as required by the Final Rule - "Pesticide Management and Disposal; Standards for Pesticide Containers and Containment". Under "CONTAINER DISPOSAL", change the first sentence to "Wastes resulting from the use of this product may be disposed of by using according to this product's label directions, or at an approved waste disposal facility."

k. Under "CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY", add "TO THE EXTENT CONSISTENT WITH APPLICABLE LAW" before "...All such risks shall be assumed by Buyer and User,..." in the second paragraph, before

Page 2 of 3
 "...Buyer and User assume the risk of any such use." Add the same language in the third

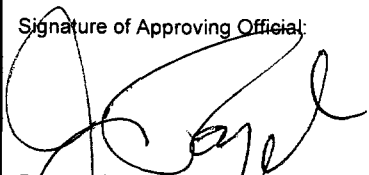
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paragraph before "...Buyer and User assume the risk of any such use.", and at the beginning of the second sentence in the fourth paragraph.

You will submit one copy of your revised final printed labeling before you release the product for shipment. A stamped copy of labeling Accepted with Comments is enclosed for your records. If you have any questions please contact Phil Errico at 703-305-6663/ errico.philip@epa.gov .

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Signature of Approving Official:



James A. Tompkins, Product Manager (25)
Herbicide Branch, Registration Division (7505P)

Date:

DEC 28 2010

EPA Form 8570-6

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RESTRICTED USE PESTICIDE

(Ground and Surface Water Concerns)

For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

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

ARC-METOLAZINE HERBICIDE

For weed control in Field Corn and Popcorn

ACTIVE INGREDIENTS:

Atrazine	33.1%
Atrazine Related Compounds	0.6%
Metolachlor.....	26.1%

OTHER INGREDIENTS: 40.2%

TOTAL:..... 100.0%

This product contains 3.1 pounds of Atrazine and related compounds per gallon and 2.4 pounds of Metolachlor active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

SHAKE WELL BEFORE USING

EPA Reg. No. 84930-

EPA Est. No. 19713-MS-001

Net Contents: _____

Manufactured For:
ARCANA, LLC
P.O. Box 26
Timnath, CO 8547

092010

**ACCEPTED
with COMMENTS
In EPA Letter Dated
DEC 28 2010**

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
84930-23**

FIRST AID

IF SWALLOWED:

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

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. Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

NOTE TO PHYSICIAN: If ingested, induce emesis or lavage stomach. Administration of an aqueous slurry of activated charcoal can be considered. Treat symptomatically.

PRECAUTIONARY STATEMENTS

Hazards To Humans And Domestic Animals

Caution: Harmful if absorbed through skin. Harmful if swallowed. Avoid contact with skin, eyes, or clothing. This product may cause skin sensitization reactions in some people.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for Category A in an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, flaggers and other handlers must wear: Coveralls over short pants and short-sleeved shirt, chemical-resistant gloves such as polyethylene or polyvinyl chloride, chemical-resistant footwear plus socks, a chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate, and chemical resistant headgear for overhead exposure.

See engineering controls for additional requirements.

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.

ENGINEERING CONTROLS

Mixers and loaders supporting aerial applications must use a closed system that meets the requirements for dermal protection listed in the WPS for Agricultural Pesticides [40 CFR 170.240(d)(4)] and must:

- wear the PPE required above for mixers and loaders,
- wear protective eyewear if the system operates under pressure, and
- be provided and have immediately available for use in an emergency, such as a spill or equipment breakdown: chemical-resistant footwear.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS Standard for Agricultural Pesticides [40 CFR 170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators, however, they need not wear chemical-resistant gloves when using an enclosed cockpit. Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the WPS Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection.

When applicators use enclosed cabs in a manner that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(4-5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

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

Ground Water Advisory

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

Surface Water Advisory

Metolachlor has the potential to contaminate surface water through ground spray drift. Under some conditions, metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surfacewater.

Mixing/Loading Instructions

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment. This product must not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional requirements regarding well-head setbacks and operational area containment imposed by State must be observed.

This product must not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

Tile-Outletted Terraced Fields Containing Standpipes

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

- 1) Do not apply this product within 66 feet of standpipes in tile-outletted terraced fields.
- 2) Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2 to 3 inches in the entire field.
- 3) Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine

whether the use of this product is prohibited in your watershed. AWIC can be accessed through www.atrazine-watershed.info, or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Arcana LLC for a refund.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted- entry interval (REI) of 24 hours.

Exception: If the product is 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 any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposures

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND USE PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

Note: Not for sale, use, or distribution in Nassau County or Suffolk County, New York.

GENERAL INFORMATION

This product is a selective herbicide recommended before planting, before or after emergence (see directions) for control of most annual grasses and broadleaf weeds in Field corn and Popcorn. This product may also be tank-mixed with other herbicides specified on this label for weed control in conventional, minimum-till, and no-till Corn.

Note: Tank mixtures are permitted only in those states where the tank mix partner is registered. Refer to and follow the label of each tank mix product used for precautionary statements, directions for use, geographic and other restrictions. Following many years of continuous use of atrazine (one of the ingredients in this product), and products chemically related to atrazine, biotypes of some of the weeds listed on this label which are controlled by the atrazine component have been reported to develop resistance to this and chemically related herbicides. Where this is known or suspected, and weeds controlled by this product are expected to be present along with resistant biotypes, we recommend the use of this product in combination or in sequence with registered herbicides which do not contain triazines. Consult with your State Agricultural Extension Service for specific recommendations.

This product alone or in tank mixture with Atrazine, Balance®, Metolachlor, or Simazine may be applied early preplant, preplant surface, preplant incorporated, or preemergence on Corn, in water or fluid fertilizer. Apply postemergence treatments of this product to Corn, alone or in combination, using water only as the carrier. This product may be applied in tank mix combination with Gramoxone Inteon,

Landmaster BW, or Glyphosate with or without the above herbicides preplant surface or preemergence to Corn.

This product may be applied in water by aircraft. Applications in fluid fertilizer should be only by ground equipment.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

Do not apply this product through any type of irrigation system.

Do not apply under conditions which 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,

- 1) Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- 2) Do not apply to impervious substrates such as paved or highly compacted surfaces.
- 3) Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least one-half inch of rainfall has occurred between application and the first irrigation.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.

Dry weather following preemergence application of this product or a tank mixture may reduce effectiveness.

Cultivate if weeds develop in conventional tillage Corn.

Observe all use precautions and limitations on the label of each product used in tank mixtures. Always follow the more restrictive labeling directions when tank-mixing products.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.

MIXING INSTRUCTIONS

Shake 2.5 gallon jugs well or thoroughly recirculate larger containers and bulk tanks before using. This product is a liquid that may be mixed with water or fluid fertilizer and applied as a spray. This product may also be sprayed onto dry bulk granular fertilizer and applied with the granular fertilizer.

Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with this product and used to control weeds in Corn.

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

No single facility may impregnate fertilizer with this product for more than 30 days per calendar year. The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the user (applicator) of the dry bulk fertilizer that: Applicators must wear long-sleeved shirt, long pants, shoes, and socks; and, the restricted-entry interval is 24 hours.

When applying this product with dry bulk granular fertilizers, follow all directions for use and use precautions on this product label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray this product onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® F.G. or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of six/thirtieth particle size or a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate the amount of this product to be used by the following:

$$\begin{array}{r}
 \frac{2000}{\text{lbs. of}} \\
 \text{fertilizer per} \\
 \text{acre}
 \end{array}
 \times
 \begin{array}{r}
 \text{Quarts of} \\
 \text{this} \\
 \text{product} \\
 \text{per acre}
 \end{array}
 =
 \begin{array}{r}
 \text{Quarts of this} \\
 \text{product per} \\
 \text{ton of} \\
 \text{fertilizer}
 \end{array}$$

Pneumatic (Compressed Air) Application

High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixtures to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix this product with Exxon Aromatic 200 at a rate of 2 to 2.5 pts./gal. of this product. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

Notes: (1) Mixtures of this product and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications. (2) When impregnating this product in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb F.G. or another drying agent of six/thirtieth particle size is recommended. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

Use Precautions: To avoid potential for explosion, (1) Do not impregnate this product on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not combine this product with a single superphosphate (0-20-0) or treble superphosphate (0-46-0). (3) Do not use this product on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Application

Apply 200 to 700 lbs. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury or injury to subsequent rotational crops. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/ fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

Use Precautions: (1) To help avoid rotational crop injury, make applications as early as possible, since this product impregnated onto dry bulk granular fertilizers can be expected to last longer in the soil than when this

product is applied as a spray in water or fluid fertilizer. (2) To avoid potential crop injury, do not use the herbicide/fertilizer mixture on crops where planting beds are to be formed.

Application in Water or Fluid Fertilizers

This Product Alone: Fill the spray tank one-half to three-quarters full with water or fluid fertilizer, add the proper amount of this product, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform suspension.

Tank Mixtures: This product may be tank mixed with the following herbicides provided the specific product tank mixed is registered for use on the sites listed on this label.

Fill the spray tank one-half to three-quarters full with water or fluid fertilizer, add the proper amount of this product then add Atrazine, Balance, Banvel, Linuron, or Simazine; next add Metolachlor; then add Gramoxone Inteon, Touchdown, Landmaster BW, or Glyphosate, depending on the tank mix combination desired; and finally, add the rest of the water or fluid fertilizer. Only water may be used with this product plus Liberty® Herbicide when applied postemergence to Corn designated as tolerant to Liberty (glufosinate); and with Glyphosate when applied postemergence to Corn designated as tolerant to Roundup Ultra. Provide sufficient agitation during mixing and application to maintain a uniform suspension.

Compatibility Test: A jar test is recommended before tank mixing to ensure compatibility of this product with other pesticides. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients.

Note: Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, always check compatibility with pesticide(s) before use. Incompatibility of tank mixtures is more common with suspensions of fertilizer and pesticides.

Test Procedures

- 1) Add 1 pt. of carrier (fertilizer or water) to each of 2 one-quart jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
- 2) To one of the jars, add 0.25 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex®, MIX™ (0.25 tsp. is equivalent to 2 pts./100 gals. spray). Shake or stir gently to mix.
- 3) To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
- 4) After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 to 30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry pesticide(s) in water before addition, or (B) add one-half of the compatibility agent to the fertilizer or water and the other one-half to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is observed, do not use the mixture.
- 5) After compatibility testing is complete, dispose of any pesticide wastes in accordance with the directions in the Storage and Disposal section at the end of this label.

Soil Texture Information

COARSE	Sand, Loamy sand, Sandy loam
MEDIUM	Loam, Silt loam, Silt
FINE	Sandy clay loam, Silty clay loam, Clay loam, Sandy clay, Silty clay, Clay

Application Procedures

Ground Application: Use sprayers that provide accurate and uniform application. Screens in nozzles and in suction and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to: (1) maintain 35 to 40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Unless otherwise specified, use a minimum of 10 gals. of spray mixture per acre. Rinse sprayer thoroughly with clean water immediately after use.

For band applications, calculate amount to be applied per acre as follows:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Amount needed per acre of field}$$

Low Carrier Application (Broadcast Ground Application Only): Use spray nozzles, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, John Deere 4700 Sprayer, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35 to 40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Maintain uniform travel speed while spraying. Rinse sprayer thoroughly with clean water immediately after each use.

Note: Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate-controlling devices to spray the material within the rated working pressure and flow ranges of the nozzle selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips. **Aerial Application (for This Product Alone):** Use aerial application only where broadcast applications are specified. Apply a minimum of 1 gal. of water for each 1 gal. of this product applied per acre, but for rates below 1 gal./A, use in sufficient water to equal 2 gals./A of total spray. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply this product by aircraft at a minimum upwind distance of 400 ft. from sensitive plants. Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1) The distance of the outermost nozzles on the boom must not exceed three-fourths the length of the wingspan or rotor.
- 2) Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

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

The applicator must be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** section below.

Spray Drift Reduction Advisory Information

Information on Droplet Size

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

Controlling Droplet Size

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

• **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures.

For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

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

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

• **Nozzle Type** - Use a nozzle type that is designed for the intended application.

With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than three-quarters of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

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

Swath Adjustment

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

Wind

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

Temperature and Humidity

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

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

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

THIS PRODUCT APPLIED ALONE — CORN (FIELD, POP)

Early Preplant, Preplant Surface-Applied, Preplant Incorporated, or Preemergence

Weeds Controlled			Weeds Partially Controlled**
Barnyardgrass (watergrass)	Foxtail millet	Pigweed	Sandbur
Browntop panicum	Galinsoga	Prairie cupgrass	Seedling johnsongrass
Carpetweed	Giant foxtail	Red Rice	Shattercane
Chickweed	Giant Ragweed*	Signalgrass	Sicklepod
Cocklebur*	Goosegrass	(<i>Brachiaria</i>)*	Volunteer sorghum
Common purslane	Green foxtail	Smartweed	Woolly cupgrass
Common ragweed	Henbit	Southwestern cupgrass	
Crabgrass	Jimsonweed	Velvetleaf*	
Crowfootgrass	Lambsquarters	Waterhemp	
Fall panicum	Morningglory	Witchgrass	
Florida pusley	Mustards	Yellow foxtail	
	Nightshades	Yellow nutsedge*	

* Control of these weeds can be erratic, especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA registered postemergence herbicide. On fine textured soils, only partial control can be expected.

** Control may be improved by following these suggested procedures:

- 1) Apply up to the maximum single application rate in Table 1 for your given soil texture and rate limitation based on your soil conservation practices.
- 2) **Thoroughly till moist soil** to destroy germinating and emerged weeds. If this product is to be applied preplant incorporated, this tillage may be used to incorporate this product if uniform 2-inch incorporation is achieved as recommended under **Application Procedures**.
- 3) Plant crop into moist soil **immediately after tillage**. If this product is to be used preemergence, apply at planting or immediately after planting.
- 4) If available, sprinkler irrigate within 2 days after application. Apply one-half to 1 inch of water. Use lower water

volume (one-half inch) on coarse-textured soils and higher volume (1 inch) on fine-textured soils.

5) If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

This Product Rate Limitations

When tank mixing or sequentially applying Atrazine or products containing Atrazine to Corn, do not exceed an application rate of 2.0 pounds active ingredient of Atrazine for any single application, and the total pounds of Atrazine applied (lbs. a.i./A) must not exceed 2.5 pounds of the active ingredient Atrazine per acre per year.

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or greater setbacks) which are different from the label, the more restrictive/protective requirements must be followed.

Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

Note: For purposes of calculating total atrazine active ingredient applied, this product contains 3.1 lbs. of the active ingredient Atrazine per gallon (0.775 lb. a.i./qt.)

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

• **On Highly Erodible Land (as defined by the Natural Resource Conservation Service)** If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 2.5 qts. of this product /A as a single broadcast spray. Refer to "B" in tables following. If the soil coverage with plant residue is less than 30% at planting, a maximum of 2.0 qts. of this product /A may be applied as a single pre-emergence application. Refer to "A" in tables following.

• **On Land Not Highly Erodible** Apply a maximum of 2.5 qts. of this product /A as a single broadcast spray. Refer to "B" in tables following.

FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to Corn emergence, apply a maximum of 2.5 qts. of this product /A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. of the active ingredient atrazine per acre per calendar year.

Application Timings and Procedures

Early Preplant: Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply two-thirds the recommended rate of this product as a split treatment 30 to 45 days before planting and the remainder at planting, using the rates in Table 1. Applications made less than 30 days prior to planting may be as either a split or single treatment. Use the lower rate for light expected weed infestations and the higher rate for heavy expected weed infestations. On coarse-textured soils, apply 2.0 qts. of this product/A not more than 2 weeks prior to planting. The above procedure may be followed if Atrazine, Metolachlor, or Simazine is used in tank mixtures with this product. Tank mixtures with Balance may be applied up to 14 days before planting field Corn. Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present at the time of treatment, apply in a tank-mixture combination with a contact herbicide (for example, Gramoxone Inteon or Glyphosate). Observe directions for use, use precautions, and restrictions on the label of the contact herbicide.

On medium and fine textured soils with minimum or no-tillage systems in DE, MD, MI, NY, OH, PA, VA, and WV, early preplant applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., Atrazine, Beacon®, Banvel, Basagran®, bromoxynil (Brominal® or Buctril®), Exceed®, Marksman®, or 2,4-D. If the postemergence treatment includes the herbicide used early preplant, do not exceed the labeled rate for Corn on a given soil texture. Observe all directions for use, use precautions, and limitations on the label of the postemergent herbicide.

This product may be used according to the above directions to control Winter Wheat planted as a cover crop in IN, KY, and OH, in addition to providing residual weed control. The Wheat must be less than 6 inches tall (preferably still in a dormant or semi-dormant state coming out of Winter) at the time of application. Depending on rainfall, 10 to 20 days may be required to completely kill the Wheat. In the event that adequate rainfall does not occur, control of the Winter Wheat may be unsatisfactory and the application of a contact herbicide (i.e., Gramoxone Inteon, Touchdown or Glyphosate) may be required before planting the crop.

This product may be applied in the Fall, as a single application, for control of the Winter weeds listed on this label within the eco-fallow (no-till) production areas of NE and KS, where Wheat (or other small grain cereals) will be rotated to Corn. The application must be made to untilled Wheat stubble in the Fall following Wheat harvest, but

before soil freeze-up. The ground must remain untilled through the establishment of the Corn crop. Fall application should not be applied to frozen ground, and this is restricted to IA, MN, ND, SD, WI and portions of NE and IL. On medium and finetextured soils following final seedbed preparation in the Blacklands and Gulf Coast areas of TX, an early preplant application of this product at 1.6 to 1.9 qts./A may be made 30 to 45 days before planting. Grass suppression of 2 to 3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting, and avoid moving the soil during the planting operation. A follow-up application of Metolachlor may be needed in fields with a history of heavy grass pressure. Apply after planting, but before Corn and grass weeds emerge.

Notes: (1) If a follow-up application of Metolachlor is needed, do not exceed a total of 1.6 lbs. of Metolachlor per acre, including the preplant application of this product on medium- or fine-textured soils. On fine-textured soils with more than 3% organic matter, do not exceed 1.9 lbs. of Metolachlor.

To determine the total pounds of Metolachlor per acre, use the following 2-step method:

- A. Determine the pounds of Metolachlor applied as this product (1 qt. = 0.6 lb. of metolachlor); then,
 - B. If Metolachlor, is to be used, add the pounds a.i. to be applied in these products to the pounds in Step A above.
- (2) To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

Table 1: This Product – Early Preplant Application

Soil Texture***	Single Application of this product	Split Application of This Product*	
		30 to 45 DBP**	At Planting
COARSE Sand, Loamy sand, Sandy loam	2.0 qts./A	DO NOT APPLY	
MEDIUM Loam, Silt loam, Silt	A. 2.0 qts./A	1.4 qts./A	0.6 qt./A
	B. 2.0 to 2.5 qts./A	1.4 qts./A to 1.7 qts./A	0.6 qt./A to 0.8 qt./A
FINE Sandy clay loam, Silty clay loam, Clay loam, Silty clay, Sandy clay, Clay	A. 2.0 qts./A	1.4 qts./A	0.6 qt./A
	B. 2.5 qts./A	1.7 qts./A	0.8 qt./A
* Split applications can be made less than 30 days before planting			
** DBP - Days before planting.			
*** Do not use on peat or muck soils.			

A. Do not exceed this rate on highly erodible land with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank-mix partner or an application of a postemergence herbicide may be needed.

B. Use these rates for all other applications.

Use Precaution: Do not graze or feed forage from treated areas for 60 days following application.

Preplant Surface, Preplant Incorporated, or Preemergence: Apply this product preplant surface, preplant incorporated, or preemergence, using the appropriate rates from Table 2.

Preplant Surface: Apply uniformly to the soil surface within 14 days before planting. Where applications are made to coarse soils more than 7 days before planting, use the rates in Table 1.

Preplant Incorporated: Apply to the soil and incorporate into the top 2 inches of the soil within 14 days before planting, using a finishing disk, finishing harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use the preplant incorporated method if furrow irrigation is used or when a period of dry weather after application is expected. If crop is to be planted on beds, apply and incorporate after bed formation.

Preemergence: Apply to the soil surface at planting (behind the planter) or after planting, but before weeds or crop emerge.

Table 2: This Product - Preplant Surface, Preplant Incorporated, or Preemergence Application

Soil Texture	Broadcast Rate of This Product Per Acre	
	Less Than 3% Organic Matter	3% Organic Matter or Greater
COARSE Sand, Loamy sand, Sandy loam	1.3 qts.	1.6 qts.
MEDIUM Loam, Silt loam, Silt	1.6 qts.	2.0 qts.
FINE Sandy clay loam, Silty clay loam, Clay loam, Silty clay, Sandy clay, Clay	2.0 qts.	A. 2.0 qts.
		B. 2.0 to 2.5 qts.*
Muck or peat soils (more than 20% organic matter)	DO NOT USE	
*For Cocklebur, Yellow nutsedge, and Velvetleaf control on fine-textured soils above 3% organic matter: Apply 2.5 qts. of this product per acre.		

A. Do not exceed this rate on highly erodible land with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank-mix partner or an application of a postemergence herbicide may be needed.

B. Use this rate for all other applications.

Notes: (1) In the event of escape of annual weeds following an early preplant, preplant surface, preplant incorporated, or preemergence treatment of this product applied alone or in combination, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., Atrazine, Accent®, Banvel, Basagran, Beacon, Brominal, Buctril, Exceed, Marksman, or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the labeled rate for Corn on a given soil texture. (2) Brominal or Buctril may be applied postemergence alone or in tank mix combination with Atrazine. Do not exceed 1.2 lbs. of the active ingredient atrazine per acre in tank mix combination with Brominal or Buctril postemergence. Refer to the Atrazine, Brominal, and Buctril labels for specific rates and precautions. (3) If Atrazine or another product containing atrazine is used postemergence following application of this product do not exceed a total of 2.5 lbs. of atrazine a.i./A per year. (4) Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burn-down activity. If larger weeds are present, add a contact herbicide as noted in the **This Product Combinations** section of this label.

Use Precaution: Do not graze or feed forage from treated areas for 60 days following application.

Rotational Crops

Do not rotate to food or feed crops other than those listed below:

(1) If treated crop is lost due to poor germination, hail, flood, insects, etc., Corn may be replanted immediately or Sorghum may be replanted immediately, provided the seed has been properly treated with Concep or Screen. Do not make a second broadcast application. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Corn, Sorghum, Soybeans, Cotton, or Peanuts may be planted the Spring following treatment. Do not graze or feed forage or fodder from Cotton to livestock, or illegal residues may result. (3) Injury may occur to Soybeans planted the year following application on soils having a calcareous surface layer. (4) In Eastern parts of the Dakotas, KS, Western MN, and NE, do not rotate to Soybeans for 18 months following application if the rate applied to Corn or Sorghum was more than 2 pounds of atrazine or equivalent band application rate, or Soybean injury may occur. (5) If applied after June 10, do not rotate with crops other than Corn or Sorghum the next year, or crop injury may occur. (6) In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when Corn or Sorghum is to follow Corn or Sorghum, or a crop of untreated Corn or Sorghum is to precede other rotational crops. (7) Do not plant Sugar beets, Tobacco, vegetables (including Dry beans), Spring-seeded small grains, or small-seeded Legumes the year following application or injury may occur.

Postemergence Broadcast Application

Weeds Controlled			Weeds Partially Controlled
Barnyardgrass (watergrass)	Giant foxtail	Pigweed	Yellow nutsedge
Cocklebur	Green foxtail	Prickly sida	
Common ragweed	Jimsonweed	Purslane	
Crabgrass	Kochia	Smartweed	
Crowfootgrass	Lambsquarters	Velvetleaf	
Fall panicum	Morningglory	Waterhemp	
Flixweed	Mustard	Yellow foxtail	

Application: Apply early postemergence, using the appropriate rate from Table 3. Apply this treatment before grass and broadleaf weeds pass the 2-leaf stage and before Corn reaches 12 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control. Occasional Corn leaf burn may result, but this should not affect later growth or yield. Do not apply postemergence in fluid fertilizer, or severe crop injury may occur.

Table 3: Postemergence Broadcast Application

Soil Texture	Broadcast Rate of This Product Per Acre
COARSE Sand, Loamy sand, Sandy loam	1.6 qts.
MEDIUM Loam, Silt loam, Silt	2.0 qts.
FINE Sandy clay loam, Silty clay loam, Clay loam, Silty clay, Sandy clay, Clay	2.0 to 2.5 qts.*

*For better residual control of Cocklebur, Velvetleaf, and Yellow nutsedge on fine- textured soils above 3% organic matter, apply 2.5 qts. of this product per acre.

Notes: (1) If this product has been applied early preplant, preplant surface, preplant incorporated, or preemergence, do not exceed an application rate of 2 pounds atrazine active ingredient of atrazine for any single application, and the total pounds of atrazine (lbs. a.i./A) must not exceed 2.5 pounds of atrazine active ingredient per acre per year. (2) If Atrazine or Atrazine plus Metolachlor tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit this product early post application not to exceed a total of 2.5 lbs. of atrazine active ingredient or 3.75 lbs. of the active ingredient in Metolachlor products or its component in this product per acre on a Corn crop, or illegal residues may result.

Use Precautions: Do not use on peat or muck soils. Do not graze or feed for- age from treated areas for 60 days following application.

Rotational Crops: Follow the preceding crop rotation instructions for **This Product - Early Preplant, Preplant Surface-Applied, Preplant Incorporated, or Preemergence.**

Postemergence-Directed Application

This product may be applied at 1.3 to 2.5 qts./A in a minimum of 15 gals. of water as a postemergence directed treatment to extend control of weeds listed in the **Early Preplant, Preplant Surface-Applied, Preplant Incorporated, Pre-emergence, or Postemergence Broadcast section.** Apply using the appropriate rate from Table 4.

For best results, apply this product to weed-free soil following use of a preplant surface, preplant incorporated, or preemergence herbicide, or following a lay-by cultivation. If weeds have emerged at the time of this product application, apply before grass and broadleaf weeds exceed the 2-leaf stage. Application to weeds larger than the 2-leaf stage will generally give unsatisfactory control. Apply to Corn not exceeding 12 inches in height. Minimize contact with Corn leaves. Do not apply postemergence in fluid fertilizer, or severe crop injury may occur.

Use Precautions: To avoid possible illegal residues, do not graze or feed for- age from treated areas for 60 days following application. Do not use on peat or muck soils.

Table 4: Postemergence Directed Application

Soil Texture	Broadcast Rate of This Product Per Acre
COARSE Sand, Loamy sand, Sandy loam	1.3 qts.
MEDIUM Loam, Silt loam, Silt	2.0 qts.
FINE Sandy clay loam, Silty clay loam, Clay loam, Silty clay, Sandy clay, Clay	2.0 to 2.5 qts.*

*For better residual control of Cocklebur, Velvetleaf, and Yellow nutsedge on fine-textured soils above 3% organic matter, apply 2.5 qts. of this product per acre.

Notes: (1) If this product has been applied early preplant, preplant surface, preplant incorporated, or preemergence, do not exceed an application rate of 2.0 pounds of Atrazine active ingredient for any single application, and the total pounds of Atrazine applied (lbs. a.i. per acre) must not exceed 2.5 pounds of Atrazine active ingredient per acre per year. (2) If Atrazine or Atrazine plus Metolachlor tank mixtures have been applied preplant surface, preplant incorporated, or preemergence, limit the post-directed application of this product not to exceed a total of 2.5 lbs. of Atrazine active ingredient or 3.75 lbs. of the active ingredient in Metolachlor product or its component in this product per acre on a Corn crop, or illegal residues may result.

THIS PRODUCT IN TANK MIXTURE*

Always follow label instructions for tank-mix products when mixing with this product. Do not graze or feed forage from treated areas for 30 days following application.

*When tank-mixing this product with Atrazine formulations, refer to **This Product Rate Limitations** section of this label. Do not exceed the following:

On highly erodible land with less than 30% plant residue cover prior to crop emergence	1.6 lbs. of atrazine a.i.
On other land prior to crop emergence	2.0 lbs. of atrazine a.i.
Postemergence applications only - any land	2.0 lbs. of atrazine a.i.
Preemergence + postemergence applications	2.5 lbs. of atrazine a.i.

When tank-mixing or sequentially applying Atrazine or products containing Atrazine to Corn, do not exceed an application rate of 2.0 pounds of Atrazine active ingredient for any single application, and the total pounds of Atrazine active ingredient applied (lbs. a.i./A) must not exceed 2.5 pounds of Atrazine active ingredient per acre per year.

Tank Mixture with Atrazine, Metolachlor, Simazine or Balance — Conventional Tillage

Note: Check the compatibility of this product tank mixtures with Balance before mixing in spray tank by using the procedure described under **Application in Water or Fluid Fertilizers**.

Atrazine (4L or 90DF): Add up to 1 qt. of Atrazine 4L (1.1 lbs. 90DF) per acre to the rate of up to 2 qts.

recommended in Table 2 and 0.5 qt. of Atrazine 4L (0.6 lb. of Atrazine 90DF) to the 2.5 qts. rate of this product in Table 2 in the Southeastern U.S. where high rainfall can shorten the duration of control of broadleaf weeds, and in all areas where heavy infestations of Cocklebur, Morningglory, Velvetleaf, or other broadleaf weeds claimed are expected. **Metolachlor:** Add up to one-third pint of Metolachlor per acre to the rate of this product recommended in Table 2 when heavy infestations of Yellow nutsedge, Sandbur, or seedling Johnsongrass are expected.

Simazine (4L or 90DF): Add up to 1 qt. of Simazine 4L (1.1 lbs. of 90DF) per acre to the rate of this product recommended in Table 2 where heavy infestations of Crabgrass or Fall panicum are expected or additional control of certain broadleaves is desired.

Balance (Field Corn Only): The tank mixture of this product plus Balance provides control of weeds listed on this product's label, certain weed biotypes resistant to ALS-inhibitor herbicides and to triazine herbicides, velvetleaf, and others on the respective product labels. Balance will contribute to the control of problem grass and other broadleaf species on its label. Application may be pre-plant (surface applied up to 14 days before to planting), preplant incorporated, or preemergence in conventional tillage, conservation tillage, and no-till systems. **Refer to Table 1: This Product – Early Preplant Application** for the early preplant application rate (8 to 14 days before planting), or refer to **Table 2** for the appropriate rate for preplant (surface applied 0 to 7 days before planting), preplant incorporated, or preemergence application. Refer to the **Application Procedures** and **Tank Mix Directions** on the Balance label, but to reduce the potential for injury from Balance contact with Corn, use 1 oz./A of Balance on coarse-textured soils and 1 to 1.5 oz./A on medium and fine-textured soils in conventional, conservation, and no-tillage systems. For early preplant applications 8 to 14 days before planting, add 0.5 oz./A of

Balance to the rates of Balance described previously.

Observe all applicable directions, use precautions, and limitations on this label and Balance labels when applying these products in tank mix combination in states where Balance is registered. Where difficult species and/or severe weed populations are expected, use the maximum rates of this product and Balance where rate ranges are listed for this tank mixture.

Tank Mixture of This Product Alone or This Product + Atrazine, Balance, Metolachlor, or Simazine with Gramoxone Inteon, Landmaster BW, Touch-down, or Glyphosate for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where Corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Inteon, Landmaster BW, Touchdown, or Glyphosate should be tank mixed with this product alone or with this product plus Atrazine, Balance, Metolachlor, or Simazine. When used as directed, the Gramoxone Inteon portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Landmaster BW, Touchdown, or Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on its label. The tank mixture portion of this product provides preemergence control of the weeds listed on this label in **This Product Alone** section. The addition of Atrazine, Balance, Metolachlor, or Simazine offers the advantage indicated for each under **Tank Mixture with Atrazine, Metolachlor, Simazine, or Balance – Conventional Tillage** section.

Application: Apply before, during, or after planting, but before Corn emerges, at the appropriate rate in Table 5. Up to 1 qt. of Atrazine 4L (1.1 lbs. of 90DF) per acre may be added to the rate of up to 2 qts. recommended in Table 5 and 0.5 qt. of Atrazine 4L (0.6 lb. Atrazine 90DF) to the 2.5 qts. rate of this product recommended in Table 5; or 1 to 2 ozs. of Balance (refer to **Tank Mixture with Balance** for specific rate), or one-third pint of Metolachlor, or 1 qt. of Simazine 4L (1.1 lbs. of 90DF) per acre may be added to the rate of this product recommended in Table 5. Add Gramoxone Inteon, Landmaster BW, Touchdown, or Glyphosate at labeled rates.

Tank mixtures with Balance can be used only on field Corn. Apply in 20 to 60 gallons of water per acre with conventional spray equipment. **Tank Mixture of This Product Alone or This Product + Atrazine, or Balance, with 2,4-D or 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where Corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, this product may be applied in combination with Atrazine or Balance. When used as directed, the tank mixture portion of this product provides preemergence control of the weeds listed on this label in the **This Product Alone** section. The addition of Atrazine or Balance offers the advantage indicated for each under **Tank Mixture with Atrazine, Metolachlor, Simazine, or Balance – Conventional Tillage** section.

Application: Apply this product before, during, or after planting, but before Corn emerges, at the appropriate rate in Table 5. Up to 1 qt. of Atrazine 4L (1.1 lbs. of Atrazine 90DF) per acre may be added to the rate of up to 2 qts. recommended in Table 5 and 0.5 qt. of Atrazine 4L (0.6 lb. Atrazine 90DF) to the 2.5 qts. rate of this product recommended in Table 5; or 1 to 2 ozs. of Balance (refer to **Tank Mixture with Balance** for specific rate), per acre may be added to the rate of this product in Table 5.

Where heavy crop residues exist, add an appropriately labeled 2,4-D amine or low volatile ester to the spray tank last and apply in a minimum of 25 gals. of carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore are recommended instead of water. Add a surfactant at 1 to 2 qts./100 gals. of diluted spray, or another surfactant cleared for use on growing crops at its recommended rate. Apply before weeds exceed 3 inches in height. If Alfalfa is present, add Banvel to the spray mixture at 0.33 to 0.5 pt./A and apply before Alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., Bromegrass, Orchardgrass, Rye, or Timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone Inteon at the label recommended rate in place of, or in addition to, 2,4-D, as indicated above. Do not apply Gramoxone Inteon in suspension-type liquid fertilizer. Observe all directions for use, use precautions, and limitations on the respective product labels when applying these products in tank mix combination.

Note: Do not exceed a total of 2.5 lbs. of atrazine active ingredient per acre per calendar year.

Table 5: This Product for Minimum Tillage or No Tillage Application

Soil Texture	Broadcast Rate of This Product Per Acre
COARSE Sand, Loamy sand, Sandy loam	1.6 qts.
MEDIUM Loam, Silt loam, Silt	2.0 qts.
FINE Sandy clay loam, Silty clay loam, Clay loam, Silty clay, Sandy clay, Clay	A. 2.0 qts.
	B. 2.0 to 2.5 qts.*
Muck or peat soils	DO NOT USE

*For Cocklebur, Yellow nutsedge, and Velvetleaf control on fine-textured soils above 3% organic matter, apply 2.5 qts. of this product per acre.

- A. Do not exceed this rate on highly erodible land with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank mix partner or an application of a postemergence herbicide may be needed.
- B. Use this rate for all other applications.

Tank Mixture with Linuron for Control of Lambsquarters and Pigweed

For prolonged control of Lambsquarters and Pigweed in DE, MD, NJ, NY, PA, VA, and WV, this product may be applied preemergence in combination with Linuron. Apply this product according to the rates in Table 2 and Linuron according to the following rates:

Soil Texture	Broadcast Rate Per Acre
Sandy loam (1 to 3% organic matter)	0.67 lb. Linuron*
Sandy loam (3 to 6% organic matter)	1.0 lb. Linuron*
Medium- and fine-textured soils (1 to 6% organic matter)	1.0 lb. Linuron*
*When using Linuron 4L or Linuron DF, use equivalent rates. One pt. of Linuron 4L equals 1 lb. of Linuron DF.	

Follow instructions and use precautions on this product and Linuron labels when tank-mixing these products.

Rotational Crops: Follow the crop rotation instructions in the section – **This Product Alone.**

Tank Mixture with Mesotrione (Callisto™) - For Use in Field Corn, Production Seed Field Corn, Field Corn Grown for Silage, and Yellow Popcorn For preemergence control of weeds in Corn, this product may be applied in combination with mesotrione. Apply this product according to the rates in Table 2 of This product label and mesotrione at a rate 5.0 to 6.0 fl. ozs./A.

Observe all directions for use, use precautions, and limitations on the respective product labels when applying these products in tank mix combination. Observe the most restrictive directions for use, use precautions, and restrictions on the labels for the two products involved in this tank mix.

TANK MIXTURE FOR POSTEMERGENCE SALVAGE WEED CONTROL IN FIELD CORN ONLY

For postemergence control of weeds in specific types of field Corn, the combinations listed below with this product may be used. Full season weed control from early preplant, preplant incorporated, or preemergence treatments can lead to maximum yield potential under competition-free conditions. However, if control of emerged weeds is needed, a postemergence program as listed below can be used to provide residual control for the remainder of the season.

Notes: (1) Follow all label directions, instructions, use precautions, and limitations for each product. (2) Do not use fluid fertilizer with these mixtures or Corn injury may occur. (3) For each tank mixture with this product, apply only to the specific field Corn type specified on the tank mix product label. (4) In-row weed control may be reduced because of lack of coverage when applied to Corn over 4 inches tall. (5) Postemergence applications to Corn must be made before crop reaches 12 inches in height.

A. This Product + Liberty Herbicide: Postemergence Use in LibertyLink® Corn or Corn Warranted as Being Tolerant to Liberty Herbicide – The tank mixture of this product + Liberty Herbicide can be applied postemergence to weeds and Corn from seed designated as LibertyLink or Corn warranted as being tolerant to Liberty Herbicide. Liberty provides postemergence control of a broad spectrum of grass and broadleaf weeds and this product provides residual control of grasses and broadleaf weeds listed in the label section **This Product Applied Alone – Weeds Controlled.** For the proper rate of this product applied postemergence with Liberty, refer to Table 2 and use the minimum rate per soil texture for season-long residual control. Refer to the Liberty label for the Liberty postemergence application rate according to weed species and their maximum height at the time of postemergence application. Where multiple weed species are present, use the highest Liberty rate recommended to control the species and growth stages present.

Follow all applicable use directions, limitations, use precautions, and information regarding application to Corn on this product and Liberty Herbicide label.

B. This Product + Touchdown, Roundup UltraMax for Postemergence Application to Corn with Roundup Ready® Gene – The tank mixture of this product + Touchdown, Roundup UltraMax can be applied postemergence to weeds and to Corn designated as containing the Roundup Ready Gene. Application may be applied postemergence to Roundup Ready Corn up to 12 inches in height. This mixture will provide postemergence control of weed species on the Roundup UltraMax label and also residual control of weed species on this product label. Use the minimum rate of this product postemergence with Roundup UltraMax in Roundup Ready Corn as specified

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in Table 2 of this label according to soil texture. Refer to the **Supplemental Labeling of Touchdown or Roundup UltraMax for Postemergence Application to Corn with the Roundup Ready Gene** and to each product label and follow all appropriate use directions application procedures, use precautions, and limitations. Apply 24 to 32 fl. ozs./A of Roundup UltraMax for control of labeled broadleaf and grass weeds. Refer to the Roundup Ultra- Max label for directions to control problem species.

Follow all applicable use directions, limitations, use precautions, and information regarding application to Corn on this product and the Touchdown or Roundup Ultra labels, and on the **Supplemental Labeling of Roundup UltraMax for Postemergence Application to Corn with the Roundup Ready Gene**. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

C. This Product + Exceed – Apply 1.33 to 1.75 qts./A of this product + 1 oz./A of Exceed to corn that is 4 to 12 inches tall. The application may be broadcast, semi-directed, or directed. The rate of this product is based on soil texture, with 1.33 qts./A on coarse, and 1.75 qts./A on medium and fine soils. Do not use on peat or muck soils. Add a non-ionic surfactant at 0.25% v/v.

This mixture is effective for control of many annual broadleaf weeds and some grasses. A few instances of broadleaf weed control antagonism have been observed with this combination. Control of certain annual grasses can be improved with the addition of Accent.

D. This Product + Exceed + Accent – Apply the same rates of this product and Exceed as mentioned above. Add Accent at one-third oz./A for more effective control of certain annual grasses. Apply to field Corn between 4 and 12 inches. Add a non-ionic surfactant at 0.25% v/v. The use of fertilizer or crop oil concentrate with this combination may cause injury to corn.

E. This Product + Spirit™ – Spirit herbicide at 1 oz./A can be substituted in place of Exceed in the above combinations in field Corn only.

Note: Do not use fertilizer or crop oil concentrate with these mixtures or injury to field Corn may occur. The combination of this product with other products for postemergence weed control in Corn is generally not recommended. **These combinations may cause injury and/or weed control concerns that would not exist when the products are used separately.** A certain inherent risk is involved with the various combinations of these products used postemergence in corn. [It should be noted that early preplant, preplant incorporated or preemergence control of these weeds would usually provide more timely weed control resulting in higher yields than total postemergence treatments.]

Mixing Order

Add these products (Tank Mixtures C, D, and E) to the tank mix in the following order:

1. Products in water-soluble bags should be added first.
2. This Product
3. Additives

Use Precautions: (1) Follow all label instructions, use precautions, and rotational restrictions for individual products when making these applications to field Corn. When this product is applied after June 10, crop injury may occur the following year if you rotate to crops other than Corn or Sorghum. (2) In-row weed control may be reduced because of lack of coverage when applied to Corn over 4 inches tall. (3) Do not graze or feed forage from treated areas for 60 days following application.

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

PESTICIDE STORAGE: Storage should be under lock and key in a ventilated room and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Do not stack containers over 2 pallets high. Move containers by handles or cases. Do not move containers from one area to another unless they are securely sealed. Keep containers tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed and fertilizer to avoid contamination. Avoid contamination with oxidizing materials. Store in original containers only. If the contents are leaking or material is spilled, follow these steps:

1. Contain spill. Absorb with a material such as sawdust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer contents, as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ARCANA LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ARCANA LLC and Seller harmless for any claims relating to such factors.

ARCANA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ARCANA LLC, and Buyer and User assume the risk of any such use. ARCANA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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