



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 6, 2023

Annette Marine
Regulatory Assistant
Willowood LLC
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decision for Metolachlor and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Metolachlor on Pacific Salmonids
Product Name: WILLOWOOD METOLACHLOR 86.4EC
EPA Registration Number: 87290-81
Application Dates: 17-May-2021; 09-Sep-2021
Decision Numbers: 589416; 575865

Dear Annette Marine:

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

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Srijana Shrestha at shrestha.srijana@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure: Stamped Label

METOLACHLOR	GROUP	15	HERBICIDE
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Willowood Metolachlor 86.4EC

ABN: Willowood Metola 8EC

An herbicide for use in cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, soybeans, and tomatoes

Active Ingredient:	By Weight
Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide.....	86.4%
Other Ingredients:	13.6%
Total:	100.0%

Contains 8.0 lbs. of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
 (If you do not understand the label, find someone to explain it to you in detail.)

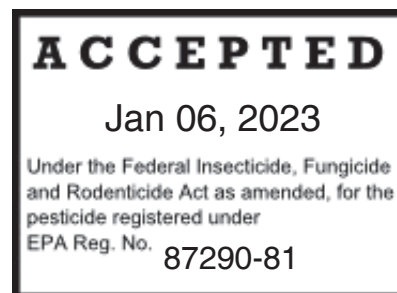
FIRST AID	
If Swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If In Eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for further treatment advice.
If Inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for treatment advice.
If On Skin Or Clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-Hour Medical Emergency Assistance (Human or Animal), call: 1-800-222-1222 . For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), call CHEMTREC: 1-800-424-9300 .	

[Optional referral statements when booklets and container labels are used:
 [See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

Manufactured By [For]:
 Willowood, LLC
 1887 Whitney Mesa Drive, Suite 9740
 Henderson, NV 89014-2069

EPA Reg. No.: 87290-81
EPA Est. No.: _____

Net Contents: _____ [Gallons/Liters]



**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)**Applicators and other handlers must wear:**

- Protective eyewear
- Long-sleeved shirt and long pants
- Socks and shoes

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.

ENGINEERING CONTROL STATEMENTS

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)]. When using this closed system, the mixers and loaders PPE requirements may be reduced or modified as specified in the WPS.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS**Users should:**

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

ENVIRONMENTAL HAZARDS

For terrestrial uses, 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 wash waters or rinsate.

Groundwater Advisory

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

Surface Water Advisory

Metolachlor may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of metolachlor/S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Non-Target Organism Advisory

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

Reporting Ecological Incidents:

To report ecological incidents, including mortality, injury, or harm to plants and animals, call [844-200-8246].

PHYSICAL AND CHEMICAL HAZARD

Do not mix or allow coming in contact with oxidizing agents.

MIXING/LOADING INSTRUCTIONS

Do not allow **Willowood Metolachlor 86.4EC** to back-siphon into wells, spill, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

Do not mix or load **Willowood Metolachlor 86.4EC** within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. Do not mix or load **Willowood Metolachlor 86.4EC** within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of **Willowood Metolachlor 86.4EC** 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 that the pad must be self-contained. The pad must 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.

DIRECTIONS FOR USE

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

Endangered Species Protection Requirements

It is a Federal offense to use any pesticide in a manner that results in an unauthorized “take” (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than 6 months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

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 possession of the user at the time of pesticide application.

Failure to follow the Directions for Use, Restrictions, and Precautions in this label can result in poor weed control, crop injury, and/or illegal residues.

Not for sale, use, or distribution in Nassau or Suffolk counties in New York. Aerial application in New York State is prohibited.

Do not make application of **Willowood Metolachlor 86.4EC** in windy conditions. Do not allow spray to overlap as crop injury can occur.

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-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Protective eyewear
- Long-sleeved shirt and long pants

PRODUCT INFORMATION

Willowood Metolachlor 86.4EC is an herbicide that may be used pre-plant surface-applied, pre-plant incorporated, or pre-emergence treatment in water or liquid fertilizer for control of listed annual grasses and broadleaf weeds in cotton, peanuts, pod crops, potatoes, safflower, grain/forage sorghum, soybeans, and tomatoes. Post-emergence applications of **Willowood Metolachlor 86.4EC** may be made on cotton and soybeans.

Tank mixtures are permitted only in states where products are registered. Observe all precautions and limitations on the labels of each State-registered product used in tank mixtures.

FOR ALL TANK MIXTURES: It is the pesticide user’s responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

USE PRECAUTION:

- Injury may occur following the use of **Willowood Metolachlor 86.4EC** under abnormally high soil moisture conditions during early development of the crop.

USE RESTRICTIONS:

- When directions specify a **Willowood Metolachlor 86.4EC** tank mixture with an atrazine-containing product, follow the use rates, instructions, and limitations on the respective atrazine product label.
- Do not use in nurseries, turf, or landscape plantings.
- Do not make application under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- Do not make application to impervious substrates such as paved or highly compacted surfaces.
- Do not use tail-water from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- If **Willowood Metolachlor 86.4EC** is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.
- If this product is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.
- Do not treat powdery dry or light Sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.

RESISTANCE MANAGEMENT

Willowood Metolachlor 86.4EC contains metolachlor which is classified as a Group 15 herbicide. Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Willowood Metolachlor 86.4EC** and other Group 15 herbicides. Weed species with acquired resistance to Group 15 herbicides may eventually dominate the weed population if Group 15 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Willowood Metolachlor 86.4EC** or other Group 15 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots, or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to Willowood LLC or their representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

APPLICATION INSTRUCTIONS**SOIL TEXTURES AND APPLICATION RATES**

When use rates are based on soil texture, classes are categorized as listed below:

Coarse-Textured	Medium-Textured	Fine-Textured
Sand, Loamy sand, Sandy loam	Loam, Silt loam, Silt	Sandy clay loam, Silty clay loam, Clay loam, Sandy clay, Silty loam, Silty clay, Clay

Coarse-Textured/Low Organic Matter Soils: Use the lower rate specified within the rate range.

Fine-Textured/High Organic Matter Soils: Use the higher rate specified within the rate range.

APPLICATION METHODS

Make application of **Willowood Metolachlor 86.4EC** pre-emergence alone, or in combination with labeled tank mix products following pre-plant incorporated herbicides when used according to label instructions and where such use is not prohibited on the respective labels.

Thoroughly clean sprayer/application device prior to making application of **Willowood Metolachlor 86.4EC**. Dispose of cleaning solution in a responsible manner. To avoid crop damage and/or clogging of the application device, do not use a sprayer or applicator contaminated with any other materials.

MIXING INSTRUCTIONS

Use water or liquid fertilizer as carrier and make application as a spray using the following mixing instructions:

- Fill the spray tank $\frac{1}{2}$ - $\frac{3}{4}$ full with water or liquid fertilizer.
- Add the specified amount of **Willowood Metolachlor 86.4EC**.
- Add the remaining carrier (water or liquid fertilizer).
- Continue agitation during tank preparation and throughout application to maintain a uniform mixture.

TANK MIX APPLICATIONS

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

Tank Mixtures:

- Fill the spray tank $\frac{1}{4}$ full with water, and start agitation. Add the tank mix partner product that contain active ingredients including 2,4,-D, atrazine, dicamba (dimethylamine salt of), clomazone, EPTC, ethafluralin, fluometuron*, imazapyr (ammonium salt of), imazaquin, linuron, metribuzin, pendimethalin, prometryn, simazine, trifluralin or premix products including metribuzin + chlorimuron-ethyl, potassium salt of dicamba + atrazine, metribuzin + sulfentrazone ensuring products disperse.
- Add **Willowood Metolachlor 86.4EC**.
- Add products containing the active ingredient paraquat, glyphosate or premix of glyphosate + 2,4-D, 2,4-dichlorophenoxyacetic acid, in the form of the form of its isopropylamine salt (if using these products).
- Add the remainder of water.

For tank mixtures with products including the following:

- 2,4,-D, atrazine, dicamba (dimethylamine salt of), clomazone, EPTC, ethafluralin, fluometuron*, imazapyr (ammonium salt of), imazaquin, linuron, metribuzin, pendimethalin, prometryn, simazine, trifluralin or,
- premix products including metribuzin + chlorimuron-ethyl, potassium salt of dicamba + atrazine, metribuzin + sulfentrazone, and liquid fertilizers can replace all or part of the water as carrier, except for an atrazine-containing product used post-emergence and sodium salt of bentazon-containing product post-emergence tank mixes. For tank mixtures with an atrazine-containing products, refer to the atrazine product label for additional mixing instructions.

For each mixture, check compatibility with liquid fertilizers before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

*Refer to the **Special Mixing Instructions** section for tank mixtures with a fluometuron-containing product, and atrazine or simazine + pendimethalin (ex. Prowl) under the appropriate tank mixture section.

Compatibility Test

When using liquid fertilizers and prior to any tank mixture, always check compatibility with herbicide(s) before use, as there is always a potential for product variability. Compatibility issues are most likely to result when mixing with complete suspension or liquid fertilizers. The use of commercial application equipment can improve compatibility. Use the procedure below to check for compatibility. This procedure is based on a spray volume of 25 gals./A. Make appropriate changes in the ingredients for other spray volumes.

1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
2. To **one** of the jars, add $\frac{1}{4}$ tsp. (1.2 milliliters) of a compatibility agent approved for this use such as Compex® or Unite® ($\frac{1}{4}$ tsp. is equivalent to 2 pts./100 gals. spray). Shake/stir gently to mix.
3. To **both** jars, add the appropriate amount of herbicide(s).

If more than one herbicide is used, add them separately in the order below:

- Dry herbicides first, flowables next, and emulsifiable concentrates last.
- After each addition, shake or stir gently to thoroughly mix.
- The appropriate amount of herbicides for this test is:
 - **Dry Herbicides:** For each pound to be applied per acre, add 1.5 level teaspoons to each jar.
 - **Liquid Herbicides:** For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

Note: For **Willowood Metolachlor 86.4EC** tank mixtures with an atrazine + a simazine, use $\frac{1}{3}$ - $\frac{1}{2}$ the amount of the atrazine product specified and the remainder as the simazine, depending on whether the 1:2 or 1:1 ratio of atrazine to simazine is to be applied.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix.
5. Let the mixtures stand 15 minutes.
6. After 15 minutes, check jars for chemical separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if a 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 adequate agitation is maintained.

If the mixtures are incompatible, using the procedure below may improve compatibility:

- Slurry the dry herbicide(s) in water prior to adding, or
- Add ½ of the compatibility agent to the fertilizer, and the other ½ to the emulsifiable concentrate or flowable herbicide before adding to the mixture.

Do not use the mixture if incompatibility is still observed.

APPLICATION TIMING

Application of **Willowood Metolachlor 86.4EC** alone or in some tank mixtures with other labeled herbicides may be made for weed control in certain crops at various times. See the specific crop section of the label to determine if application timings listed below are specified.

Pre-Plant Surface Applications:

See the individual crop to determine if early pre-plant surface application instructions are provided. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. 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.

- **45 days before Planting:** For minimum-tillage or no-tillage systems only, make application of **Willowood Metolachlor 86.4EC** alone, or with **Willowood Metolachlor 86.4EC** tank mixtures.
- **30-45 days before Planting:** Make split applications, with ⅔ the specified broadcast rate for the crop and soil texture applied initially and the remaining ⅓ at planting.
- **Less than 30 days before Planting:** Make split applications or a single application.

Pre-Plant Incorporated:

Make application of **Willowood Metolachlor 86.4EC** to the soil and incorporate into the top 2 inches of soil within 14 days prior to planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a pre-plant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, unless specified otherwise, make application and incorporate **Willowood Metolachlor 86.4EC** after bed formation.

Pre-Emergence Applications:

Make application of **Willowood Metolachlor 86.4EC** during planting (behind the planter) or after planting, but prior to weed or crop emergence.

Post-Emergence Applications:

For cotton and soybean application: One application of **Willowood Metolachlor 86.4EC** will provide pre-emergence control or partial control of the annual grasses and broadleaf weeds noted in the “WEEDS CONTROLLED” section of this label. **Willowood Metolachlor 86.4EC** alone will not provide control of weeds that have emerged, so it must be applied to a weed-free surface or in a tank mixture with products that are labeled for post-emergence weed control. If weeds are present at the time of application, tank-mix with a labeled post-emergence herbicide and observe all directions for use, precautions, and restriction on the label of the tank-mix partner. For additional post-emergence information, follow the crop specific label requirements identified on this label.

SPECIAL APPLICATION PROCEDURES

Pre-Plant Incorporated - California Only (Safflower, Pod Crops):

Apply a broadcast application of **Willowood Metolachlor 86.4EC** to the soil and thoroughly incorporate with a disk or similar implement set to till 4 - 6” deep. Till the soil in 2 different directions (cross-till) for more thorough incorporation. Crops may be planted on flat surface or on beds. Take care when forming beds so that only soil from the **Willowood Metolachlor 86.4EC** treated area is used. Do not bring untreated soil to the surface. If making application to pre-formed beds, incorporate **Willowood Metolachlor 86.4EC** with a tillage implement set to till 2 - 4” deep. Ensure that **Willowood Metolachlor 86.4EC** treated soil remains in the beds.

Pre-Emergence Applications - California Only (Safflower, Pod Crops):

Make application of **Willowood Metolachlor 86.4EC** after planting and water by sprinkler or flood irrigation within 7-10 days of treatment.

Fall Applications in the states of Iowa, Minnesota, North Dakota, South Dakota, Wisconsin, North of Route 20 in Nebraska, North of Route 136 in Illinois:

Make application of **Willowood Metolachlor 86.4EC** on medium- and fine-textured soils with more than 2.5% organic matter that will be planted to soybeans the following spring. The ground may be tilled prior to or after application. Do not make application to frozen ground. Do not exceed 2- to 3-inch incorporation depth if soil is tilled after treatment. If a spring application is made, the total rate of the fall application and the spring application combined must not exceed the maximum total rate for the specific crop or illegal residues can result.

GROUND APPLICATIONS

Make application of **Willowood Metolachlor 86.4EC** alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre unless otherwise specified.

Use sprayers that provide accurate and uniform application. For **Willowood Metolachlor 86.4EC** tank mixtures with wettable powder or dry flowable formulations, screens and strainers must not be finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}} \times \text{Broadcast Rate per Acre} = \text{Amount Needed per Acre of Field}$$

Low Carrier Volumes - Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, 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 must 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:

- maintain up to 35-40 PSI at the nozzles.
- provide sufficient agitation in tank to keep mixture in suspension.

Use a minimum of 5 gals. of spray mixture per acre. Maximum sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

Note: Use low pressure nozzles to reduce drift and increase application accuracy. Take care when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Use nozzle screens used when specified by the manufacturer. Place nozzles on 20" centers, except flooding types which must be placed on 40" centers. When Flat Fan-type nozzles are used, use those with angles of 80° or 110°. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

AERIAL APPLICATIONS

Make application of **Willowood Metolachlor 86.4EC** with properly calibrated aerial equipment in 2 or more gallons of spray mixture per acre. Do not make application under conditions where uniform coverage cannot be obtained, or when excessive spray drift may occur. Avoid application to humans or animals. Flagmen or loaders should avoid inhalation of spray mist and prolonged skin contact. To avoid injury to sensitive crops from drift, aerial applications must adhere to the following **Mandatory Spray Drift Management section.**

The applicator is responsible for any loss or damage resulting from the application of **Willowood Metolachlor 86.4EC** in any manner not listed on this label. The applicator is responsible for following all State and local regulations and ordinances relative to spraying **Willowood Metolachlor 86.4EC.**

MANDATORY SPRAY DRIFT MANAGEMENT**Aerial Applications:**

- Do not release spray at a height greater than 10 ft. above the ground or vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Applicators are required to use a coarse or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- User must maintain a 15 foot (4.6 m) in-field downwind buffer (in the direction in which the wind is blowing) from the following areas:
 - Edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.
 - Threatened and endangered species critical habitat and/or species locations listed in Bulletins Live Two (<https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins>).

Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

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

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

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

BOOM HEIGHT – Ground Boom

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

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boomless Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

Sensitive Areas

Willowood Metolachlor 86.4EC must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

APPLICATION WITH IMPREGNATED DRY BULK GRANULAR FERTILIZERS

Willowood Metolachlor 86.4EC may be impregnated or coated on many dry bulk granular fertilizers and applied with the fertilizers to control weeds. Follow all directions for use restrictions and precautions on the **Willowood Metolachlor 86.4EC** label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

It is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture to comply with all individual State regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Space nozzles used to spray **Willowood Metolachlor 86.4EC** onto the fertilizer to provide uniform spray coverage. 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® FG or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Add absorptive materials only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results are obtained when a granule of 6/30 particle size or of a size similar to that of the fertilizer materials is used. Use less than 2% by weight of absorptive material. Do not use more than 5% absorptive material by weight.

Calculate the amount of **Willowood Metolachlor 86.4EC** to be used per ton of fertilizer by using the following formula:

2,000 / pounds of fertilizer desired per acre X number of pints **Willowood Metolachlor 86.4EC** required per acre = pints of **Willowood Metolachlor 86.4EC** per ton of fertilizer.

Application by Pneumatic (Compressed Air) Equipment: High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer can cause fertilizer mixtures to build up and/or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix ExxonMobil™ Aromatic 200 at a rate of 1 - 4 pts. per gallon of **Willowood Metolachlor 86.4EC**. Aromatic 200 is a noncombustible, nonflammable petroleum product that can be used in either a fertilizer blender or through direct injection systems. Do not use drying agents when using Aromatic 200.

If impregnating **Willowood Metolachlor 86.4EC** in a blender before application, substitute a drying agent for Aromatic 200 for a drier mixture. Add Agsorb® FG or another drying agent of 6/30 particle size. Do not use drying agents with On-The-Go impregnation equipment.

Precautions: Use mixtures of **Willowood Metolachlor 86.4EC** and Aromatic 200 on dry fertilizer only. Poor results or crop injury can occur if these mixtures are used in water or liquid fertilizer solutions for spraying applications.

Restrictions:

To avoid potential for explosion:

- Do not impregnate **Willowood Metolachlor 86.4EC** on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- Do not combine **Willowood Metolachlor 86.4EC** with a single superphosphate (1-20-0) or treble superphosphate (0-46-0).
- Do not use **Willowood Metolachlor 86.4EC** on straight limestone as absorption will not occur.
- Fertilizer blends containing limestone can be impregnated.

Application of Impregnated Dry Bulk Granular Fertilizer

Apply 200 to 700 pounds of the herbicide/fertilizer mixture per acre. 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. Non-uniform application results in unsatisfactory weed control. In areas where conventional tillage is practiced, incorporate the mixture shallowly into the soil. On fine- or medium-textured soils in areas where soil incorporation is not planned, (ex. reduced-tillage situations or in some conventional till situations), make application approximately 30 days prior to planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, apply approximately 14 days before planting.

Application Precaution: To avoid crop injury, do not use this product/fertilizer mixture on crops where bedding occurs.

CHEMIGATION - CENTER PIVOT IRRIGATION

Application of **Willowood Metolachlor 86.4EC** alone or in tank mixture with other herbicides on this label that are registered for center pivot application can be made in irrigation water pre-emergence (after planting but before weeds or crop emerge) at specified rates listed on this label. Make application of this product only through a center pivot irrigation system.

Do not make application of this product through any other type of irrigation system.

Crop injury, poor efficacy, and/or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Restriction: Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.

9. Meter into irrigation water during entire period of water application.
10. Apply in ½ - 1 inch of water. Use the lower water volume (½ inch) on coarse-textured soils and the higher volume (1 inch) on fine-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

Precaution For Center Pivot Applications: Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control can occur. Where sprinkler distribution patterns overlap excessively, crop injury can occur.

Note: For information on applying in lower volumes of carrier, see **Low Carrier Volumes - Broadcast Ground Application Only** section of this label.

CLEANING INSTRUCTIONS

- Do not use the same sprayer without thoroughly cleaning on sensitive crops; minute residues of **Willowood Metolachlor 86.4EC** in the tank can injure crops.
- Wash sprayer and spray equipment thoroughly with clean water immediately after use.
- Drain any remaining spray solution of **Willowood Metolachlor 86.4EC** from the spray tank and dispose of according to label disposal instructions.
- Rinse the spray tank and refill with water, adding 1 cup heavy-duty detergent per 20 gallons of water.
- Recycle this mixture through the equipment for 5 minutes, and spray out.
- Clean pump and nozzle screens thoroughly.
- Wash away any spray mixture from the outside of spray tank, nozzles, or spray rig.
- Dispose of all rinse water in compliance with local, State, and Federal guidelines.

Note: Certain states may have established rate limitations for atrazine 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.

Dry weather following pre-emergence application of **Willowood Metolachlor 86.4EC** or a tank mixture can reduce product efficacy.

Cultivate if weeds develop. 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.

WEEDS CONTROLLED

Application of **Willowood Metolachlor 86.4EC** made alone will provide control or partial control of the weeds listed below:

Barnyardgrass (Watergrass)	Galinsoga	Pigweed, Tumble
Beggarweed, Florida* ¹	Goosegrass	Purslane, Common*
Carpetweed	Johnsongrass, Seedling*	Pusley, Florida
Crabgrass	Millet, Foxtail	Rice, Red
Crowfootgrass	Millet, Wild Proso*	Ryegrass, Italian (<i>Lolium multiflorum</i>) ²
Cupgrass, Prairie	Nightshade, Eastern Black	Sandbur*
Cupgrass, Southwestern	Nightshade, Hairy*	Shattercane*
Cupgrass, Woolly*	Nutsedge, Yellow	Signalgrass (<i>Brachiaria</i>)
Eclipta*	Panicum, Fall	Sorghum, Volunteer*
Foxtail, Bristly	Pigweed (Palmar Amaranth)	Waterhemp, Common
Foxtail, Giant	Pigweed (Powell Amaranth)	Waterhemp, Tall
Foxtail, Green	Pigweed, Prostrate	Witchgrass
Foxtail, Robust (Purple, White)	Pigweed, Redroot	
Foxtail, Yellow	Pigweed, Smooth	

*Partial Control. See the **PRODUCT INFORMATION** section. Weed control is erratic due partially to variable weather conditions.

¹Florida Beggarweed: Make application of a minimum of 2 pts. per acre pre-emergence.

²For control of this weed, make application in fall using 1.67 pints of this product on medium soils and 2 pints of this product on fine soils.

To improve weed control:

1. To destroy germinating and emerged weeds, till moist soil thoroughly. If application of **Willowood Metolachlor 86.4EC** is made pre-plant incorporated, tillage may be used to incorporate **Willowood Metolachlor 86.4EC** if uniform 2-inch incorporation is achieved as specified in **Application Procedures**. application at planting or immediately after planting.
2. Plant crop into moist soil immediately following tillage. If product is to be used pre-emergence, make application at planting or immediately after planting.
3. Irrigate ½ - 1 inch of water with a sprinkler system, if available, within 2 days of application. Irrigate with ½ inch water volume on coarse-textured soils, and 1 inch on fine-textured soils. See the section on **Center Pivot Irrigation Application** for instructions with this application method.
4. If irrigation is impossible and rain does not occur within 2 days after planting and application, weed control may be reduced. Under these conditions, perform a shallow cultivation as soon as weeds emerge.

ROTATIONAL CROPS

Willowood Metolachlor 86.4EC Alone

(1) If a crop treated with **Willowood Metolachlor 86.4EC** alone is lost, any crop on this label may be replanted immediately. Do not make a second broadcast application of **Willowood Metolachlor 86.4EC**. If the original application was banded and the second crop is planted in the untreated row middles, make a second banded treatment.

Crop	Rotation Interval (Months)
Alfalfa	4
Barley, Oats, Rye, Wheat	4 ½
Clover	9
Tomatoes	6
All other crops	12

(2) Any crop on this label, in addition to barley, buckwheat, cabbage, milo, oats, peppers, rice, root crops, rye, tobacco, or wheat may be planted in the spring following treatment.

(3) Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to tobacco, cabbage, or peppers, may be planted in the spring. Clover may be seeded 9 months following application. All other rotational crops may be planted 12 months after a lay-by application.

Restrictions:

- Do not apply a second broadcast application of **Willowood Metolachlor 86.4EC**.
- Do not graze or feed forage or fodder from cotton to livestock.

To avoid injury to rotational Alfalfa or Clover:

- Do not apply more than 3 lbs. a.i. per acre (3 pints of this product) pre-emergence (including pre-plant surface, pre-plant incorporated, post-plant incorporated, etc.).
- Do not make lay-by or other post emergent applications of this product.

Willowood Metolachlor 86.4EC Tank Mixtures

For **Rotational Crops** restrictions for **Willowood Metolachlor 86.4EC** used in tank mixtures, see the statements/restrictions above for **Willowood Metolachlor 86.4EC** and refer to the respective product labels of any mixing partner(s) for additional statements/restrictions.

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

CROPS

COTTON

Willowood Metolachlor 86.4EC ALONE

Application:

Make application of **Willowood Metolachlor 86.4EC** pre-emergence only in AR, LA, MS, TN, and Bootheel of MO with use rates listed below by soil type:

Sandy loam: 0.75-1.0 pt./A (0.75 -1 lb. a.i./A)

Medium and Fine soils: 1.0-1.33 pts./A (1-1.33 lbs. a.i./A)

Make application of **Willowood Metolachlor 86.4EC** pre-plant incorporated or pre-emergence in NM, OK, and TX with use rates listed below by soil type:

Sandy loam: 1.0 pt./A (1 lb. a.i./A)

Medium soils: 1.0-1.33 pts./A (1 - 1.33 lbs. a.i./A)

Fine soils: 1.33 pts./A (1.33 lbs. a.i./A)

Make application of 0.75-1.33 pts./A (0.75-1.33 lbs. a.i./A) **Willowood Metolachlor 86.4EC** post-emergence to cotton and pre-emergence to weeds according to the State rate limitations in the **Post-Emergence** section.

Restriction: Do not use on sand and loamy sand.

Pre-Plant Incorporated (NM, OK, and TX Only):

Make application to the soil and incorporate into the top inch of soil immediately prior to planting, at planting, or after planting but prior to crop or weed emergence. Use a rolling cultivator or similar implement to uniformly incorporate not more than 1 inch deep. Use a pre-plant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. Wet the top of the bed where furrow irrigation is used. If the crop is to be planted on beds, apply and incorporate after bed formation. Plant cotton below the zone of incorporation; i.e., at least 1 inch on fine soils and 1.5 inches on coarse and medium soils. If incorporated before planting, use a planter that will result in a minimum of soil disturbance.

Note: For best performance on yellow nutsedge and suppression of seedling johnsongrass, make application of **Willowood Metolachlor 86.4EC** pre-plant incorporated at the maximum rate listed within the specified rate range for the soil texture, whether application is made alone or mixed with a prometryn-containing product.

Pre-Emergence: Make application to the soil surface at planting or after planting but prior to crop or weed emergence.

Post-Emergence: Make a broadcast application of **Willowood Metolachlor 86.4EC** over-the-top or directed to the soil surface, according to the rate and cotton height limitations listed below by State. Application prior to weed emergence or after clean cultivation to remove existing weeds is necessary because **Willowood Metolachlor 86.4EC** will not control weeds that have emerged. **Willowood Metolachlor 86.4EC** post-emergence may be applied over any previous registered herbicide treatment. In sprinkler-irrigated areas, sprinkler-irrigate after application with ½-1 inch of water (½ inch on coarse-textured soils to 1 inch on fine-textured soils) to incorporate **Willowood Metolachlor 86.4EC**. In furrow-irrigated areas, make application of **Willowood Metolachlor 86.4EC**, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2" or less), and then irrigate. In non-irrigated areas, if at least ½ inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of **Willowood Metolachlor 86.4EC**.

State Specific Restrictions:

VA, NC, SC, GA, FL, and AL: Make application at 1.0-1.33 pts./A (1 - 1.33 lbs. a.i./A) **Willowood Metolachlor 86.4EC** when cotton is 3-6" tall.

TN, AR, MS, MO, and LA: Make application at 0.75-1.33 pts./A (0.75 - 1.33 lbs. a.i./A) **Willowood Metolachlor 86.4EC** when cotton is 3-12" tall.

TX, OK, NM, AZ, CA, and Clay Soils in AR: Make application at 1.0 - 1.33 pts./A (1 - 1.33 lbs. a.i./A) **Willowood Metolachlor 86.4EC** when cotton is 3-12" tall but before August 1st.

Multiple Applications:

If weed pressure is high, for difficult to control species, or if re-infestation occurs, and a weed control program is used, multiple applications of **Willowood Metolachlor 86.4EC** are effective when used as part of the weed control program. Make application as a pre-plant incorporated or pre-emergence treatment and follow with an application post-emergence to cotton before weed emergence or after clean cultivation to remove existing weeds, because **Willowood Metolachlor 86.4EC** will not control weeds that have emerged. Cotton must be at least 3" tall at the post-emergence timing. Make application of **Willowood Metolachlor 86.4EC** post-emergence over a previous pre-plant or pre-emergence **Willowood Metolachlor 86.4EC** application as shown in the following table.

State	Multiple Willowood Metolachlor 86.4EC Applications to Cotton	
	Pre-Plant Incorporated or Pre-Emergence Pts./A	Post-Emergence and Height Pts./A
MS, LA, TN, AR, MO	0.75 – 1.33 (0.75 - 1.33 lbs. a.i.) (Pre-Emergence only)	0.75 – 1.33 (0.75 - 1.33 lbs. a.i.) to 3-12" Cotton
TX, OK, NM	1.0 – 1.33 (1 - 1.33 lbs. a.i.)	1.0 – 1.33 (1 - 1.33 lbs. a.i.) to 3-12" Cotton before Aug. 1 st
NC & VA	1.0 – 1.33 (1 - 1.33 lbs. a.i.) (Pre-Emergence only)	1.0 – 1.33 (1 - 1.33 lbs. a.i.) to 3-12" Cotton

In sprinkler-irrigated areas, sprinkler irrigate after application with ½ - 1" of water (½" on coarse-textured soils to 1" on fine-textured soils) to incorporate **Willowood Metolachlor 86.4EC**. In furrow-irrigated areas, make application of **Willowood Metolachlor 86.4EC**, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2" or less), and then irrigate. In non-irrigated areas, if at least ½" rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of **Willowood Metolachlor 86.4EC**.

Note: For best performance on yellow nutsedge and suppression of seedling johnsongrass, make application of **Willowood Metolachlor 86.4EC** pre-plant incorporated, pre-emergence, or post-emergence to cotton and pre-emergence to weeds at the maximum rate listed within the specified rate range for the soil texture, whether application is made alone or in combinations. Do not apply more than a total of 2.0 pts./A (2 lbs. a.i.) on coarse soils or 4 pts./A (4 lbs. a.i.) of **Willowood Metolachlor 86.4EC** on medium and fine soils during a growing season. These treatments may be made over previous registered herbicide treatments.

Restrictions:

- Do not make application of **Willowood Metolachlor 86.4EC** on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed.
- Do not make broadcast applications of **Willowood Metolachlor 86.4EC** to cotton planted in furrows more than 2" deep to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2", but band width must not exceed the width of the bottom of the furrow.
- To avoid concentration in the furrow and potential injury, do not make application of **Willowood Metolachlor 86.4EC** post-emergence until after first "knifing" or cultivation to level soil surface for in furrow planted cotton.
- Do not make application over-the-top in fluid fertilizer or any other adjuvant, surfactant, oil, or other pesticide not listed in the cotton section of this label or crop injury may occur.
- Do not graze or feed forage or fodder from cotton to livestock.
- Do not make application on Taloka silt loam.
- Do not use in Gaines County, TX.

Willowood Metolachlor 86.4EC COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mixture with Glyphosate for Use on Roundup® Ready Cotton Only

Make application of this product as a tank mixture with a glyphosate-containing product in water post-emergence directed or post-emergence over-the-top for control of weeds that have emerged as listed on the glyphosate label and for residual pre-emergence

weed control of the weeds listed on this label. See **Post-Emergence** under the **Cotton – Willowood Metolachlor 86.4EC ALONE** section for use rates and timings of this product and follow the glyphosate label for specified use rates, application method, application timing, restrictions, and additional use information.

Restrictions:

- Do not add fertilizer additives, surfactants and spray adjuvants or pesticides to this tank-mixture if it is to be applied post-emergence-over-the-top to cotton or crop injury may result.
- Do not use on Sand or Loamy sand soils in Gaines County, TX.
- Do not apply this tank-mixture post-emergence to any variety of cotton unless it is designated Roundup Ready and unless the Glyphosate formulation being used States it may be used on Roundup Ready Cotton.
- Do not apply Glyphosate post-emergence over-the-top to cotton past the growth stage limit as specified on the Glyphosate label.

Precaution:

- Post-emergence over-the-top applications of this tank-mixture may cause temporary injury such as necrotic spotting on the exposed cotton leaves, which will not affect normal plant development.

Tank Mixture with Glufosinate Ammonium (ex. Ignite®) for Use on LibertyLink Cotton

Make application of this product as a tank-mixture with a glufosinate ammonium-containing product in water post-emergence directed or post-emergence over-the-top for control of emerged weeds as listed on the glufosinate ammonium label and residual pre-emergence weed control of the weeds listed on this label. See **Post-Emergence** under the **Cotton – Willowood Metolachlor 86.4EC ALONE** section for the use rates and timings of this product and follow the glufosinate ammonium label for specified use rates, application method, application timing, restrictions, and additional use information.

Restrictions:

- Do not add fertilizer additives, surfactants and spray adjuvants or other pesticides to this tank-mixture if it is to be applied post-emergence over-the-top to cotton or crop injury may result.
- Do not apply this tank-mixture post-emergence to any variety of cotton unless it is designated tolerant.
- Do not apply glufosinate ammonium post-emergence over-the-top to cotton beyond early bloom stage.
- Do not use in Gaines County, TX on Sand or Loamy sand soils.
- Do not apply glufosinate ammonium to genetically modified Cotton in Florida, South of Tampa (Florida Route 60) or in Hawaii, except for test plots or breeding nurseries.

Precaution:

- Post-emergence over-the-top applications of this tank-mixture may cause temporary injury such as necrotic spotting on the exposed cotton leaves, which will not affect normal plant development.

Tank Mixture with Prometryn Product

Make application of **Willowood Metolachlor 86.4EC** tank mixtures with a prometryn-containing product pre-plant incorporated or pre-emergence in water or fluid fertilizer. When fluid fertilizer is used as a carrier for **Willowood Metolachlor 86.4EC**, either alone or in combination with prometryn, mix only the amount that will be sprayed in one operation. Do not allow mixtures to stand without agitation. Only water may be used as a carrier for post-emergence directed application.

In addition to those weeds controlled by **Willowood Metolachlor 86.4EC** alone, **Willowood Metolachlor 86.4EC + Prometryn**, applied pre-plant incorporated or pre-emergence, controls the following weeds:

Annual Morningglory	Junglerice	Mustard	Ragweed
Groundcherry	Lambsquarters	Prickly Sida (teaweed)	Shallow-germinating seeds
Hairy Nightshade	Malva	Purslane	of Cocklebur and Coffeeweed
			Wild Oats

As a post-emergence directed application, prometryn provides post-emergence control and residual control of weeds on its label, while **Willowood Metolachlor 86.4EC** provides residual control of weed species on its label. **Willowood Metolachlor 86.4EC** will not control weeds that have emerged.

Pre-Plant Incorporated or Pre-Emergence:

Make application of **Willowood Metolachlor 86.4EC + Prometryn**, either pre-plant incorporated or pre-emergence, using the appropriate rate from the **Willowood Metolachlor 86.4EC + Prometryn – Cotton (NM, OK, TX)** table. Plant cotton below the zone of incorporation; i.e., at least 1" on fine soils and 1½" on coarse and medium soils. If incorporated before planting, use a planter that will result in a minimum soil disturbance.

Willowood Metolachlor 86.4EC + Prometryn– Cotton (NM, OK, TX)

Do not use on sand, loamy sand soils.

USE AREAS	SOIL TEXTURE	BROADCAST RATES PER ACRE	
		WILLOWOOD METOLACHLOR 86.4EC	Prometryn-Containing product
OK, and Blacklands and Gulf Coast of TX	Loams	0.85 - 1.33 pts. (0.85-1.33 lbs. a.i.)	Refer to product label
	Clays	1.33 pts. (1.33 lbs. a.i.)	
Rio Grande Valley of TX	Loams	0.85 - 1.33 pts. (0.85-1.33 lbs. a.i.)	Refer to product label
	Clays	1.33 pts. (1.33 lbs. a.i.)	
NM; High Plains, Rolling	Sandy loam	0.85 - 1.0 pt. (0.85-1 lb. a.i.)	Refer to product label

Plains, Edwards Plateau of TX; and Southwest TX	Loams	0.85 - 1.33 pts. (0.85-1.33 lbs. a.i.)	
	Sandy clay loam	1.33 pts. (1.33 lbs. a.i.)	
	Other clay soils	1.33 pts. (1.33 lbs. a.i.)	

Post-Emergence-Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and MO): A tank mix **Willowood Metolachlor 86.4EC** with prometryn in water may be made post-emergence in cotton to control emerged weeds listed on the prometryn label and residual pre-emergence control of weeds controlled by **Willowood Metolachlor 86.4EC** and prometryn or applied after cultivation for residual pre-emergence control. These treatments may be made over previous registered treatments, including **Willowood Metolachlor 86.4EC**; however, the maximum label rate of any product must not be exceeded. **Do not make application over-the-top of cotton.**

Make application of **Willowood Metolachlor 86.4EC** + Prometryn in a minimum of 20 gals. of spray volume per acre. Observe and follow the directions, limitations, restrictions, and precautions on the prometryn label when prometryn is applied as a post-emergence directed application. See the directions, limitations, and precautions for use of **Willowood Metolachlor 86.4EC** under the **Cotton-Willowood Metolachlor 86.4EC Alone-Post-Emergence** section.

Restrictions:

- Do not make broadcast applications of **Willowood Metolachlor 86.4EC** + Prometryn to cotton planted in furrows deeper than 2". Band applications may be made to cotton planted in furrows deeper than 2", but band width must not exceed the width of the bottom of the furrow.
- Do not make application on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed.
- Do not graze or feed forage or fodder from cotton to livestock.
- Do not make application to glandless cotton varieties.
- Do not make application on Taloka silt loam.
- Do not use in Gaines County, TX.
- Do not make application in cut areas of newly leveled fields, or in areas of excess salt.
- See the prometryn label for additional instructions and limitations.

Tank Mixture with Fluometuron Products

Tank mix **Willowood Metolachlor 86.4EC** + a Fluometuron-containing product pre-emergence to provide control of weeds controlled by **Willowood Metolachlor 86.4EC** alone, and those as listed on the fluometuron label. This combination controls spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Make application to the soil surface at planting or after planting but prior to crop or weed emergence, using the appropriate rates from the **Willowood Metolachlor 86.4EC + Fluometuron** table. Make application of the tank mixture post-emergence to cotton but pre-emergence to weeds, or make application post-emergence to both cotton and broadleaf weeds for control of weeds on the fluometuron label. Make application as a directed, semi-directed, or over-the-top spray. **Willowood Metolachlor 86.4EC** will not control emerged weeds but will provide pre-emergence control of species on its label.

Mixing Instructions: Incompatibility can result when tank mixing **Willowood Metolachlor 86.4EC** with fluometuron. To avoid incompatibility, follow the instructions below:

- Fill the spray tank ¼ full with water or fluid fertilizer and start agitation.
- Add fluometuron product and allow it to become dispersed.
- Add X-77 at 0.5% volume/volume final spray (4 pts./100 gals.).
- Add **Willowood Metolachlor 86.4EC**.
- Add the remaining water or fluid fertilizer.
- Agitate during tank preparation and application to maintain a uniform mixture.

Restriction:

- Do not use fluid fertilizer as a carrier for post-emergence applications.

Willowood Metolachlor 86.4EC + Fluometuron - Cotton

Do not use on sand, loamy sand soils.

USE AREAS	SOIL TEXTURE	BROADCAST RATES PER ACRE	
		WILLOWOOD METOLACHLOR 86.4EC	Fluometuron-Containing Product
AR, LA, MS, TN and Bootheel of MO	Sandy loam	0.75 - 1.0 pt. (0.75-1 lb. a.i.)	Refer to product label
	Loam, silt, silt loam	1.0 - 1.33 pts. (1-1.33 lbs. a.i.)	
	Fine	1.0 - 1.33 pts. (1 -1.33 lbs. a.i.)	
Eastern OK, Gulf Coast, Rio Grand Valley and Eastern TX	Sandy loam	0.85 - 1.0 pt. (0.85-1 lb. a.i.)	Refer to product label
	Loam, silt, silt loam	1.0 - 1.33 pts.(1-1.33 lbs. a.i.)	
	Fine	1.33 pts. (1.33 lbs. a.i.)	

Post-Emergence: Make application of this tank mixture post-emergence to cotton but pre-emergence to weeds or post-emergence to both cotton and weeds for control of weeds on the fluometuron label. Make application as a directed, semi-directed, or over-the-top spray. **Willowood Metolachlor 86.4EC** will not control emerged weeds but will provide pre-emergence control of species on its label. Make application when cotton is in the 3-12" stage. When rate ranges are given for fluometuron, use the higher rate specified within the use rate range when making application post-emergence to weeds that are 2" or less. These treatments may be made over previous registered treatments, including **Willowood Metolachlor 86.4EC**, provided the maximum label rate of any product is not exceeded.

Restrictions:

- Do not make application **Willowood Metolachlor 86.4EC** + Fluometuron on sand or loamy sand soils, or in areas where water is likely to “pond” over the bed.
- Do not make broadcast applications of **Willowood Metolachlor 86.4EC** + Fluometuron to cotton planted in furrows more than 2” deep to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2”, but band width must not exceed the width of the bottom of the furrow.
- The use of fluometuron following the use of a systemic insecticide at planting may result in crop injury.
- Do not use on Taloka silt loam.
- Do not feed treated forage or gin trash to livestock or graze treated areas.
- Do not use in Gaines County, TX.

See the Fluometuron-containing product label(s) for further instructions, restrictions, precautions, and limitations.

Tank Mixture of Willowood Metolachlor 86.4EC or Willowood Metolachlor 86.4EC + Fluometuron with Paraquat or Glyphosate for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems when cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides paraquat or glyphosate may be added to a tank mix of either **Willowood Metolachlor 86.4EC** or **Willowood Metolachlor 86.4EC** + Fluometuron. When used as directed, the paraquat portion of the tank mixture controls most weeds that have emerged and suppresses many perennial weeds. Glyphosate combinations will provide control of emerged annual and perennial weeds when applied as directed on the glyphosate label. The **Willowood Metolachlor 86.4EC** and **Willowood Metolachlor 86.4EC** + Fluometuron portion of the tank mixture provides pre-emergence control of the weeds listed on this label in the **Willowood Metolachlor 86.4EC** and **Willowood Metolachlor 86.4EC + Fluometuron** sections, respectively.

See the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions, and all other precautions and limitations. See the **Mixing Instructions** under the **Tank Mixture with Fluometuron** section.

Application Instructions:

Make application before, during, or after planting, but prior to cotton emergence. Make application at 0.85-1.0 pt./A **Willowood Metolachlor 86.4EC** on sandy loams, medium-, and fine-textured soils. See the fluometuron product label for cotton use rates.

Add Paraquat or Glyphosate at the following broadcast rates:

Paraquat: See the paraquat product label for a list of weeds controlled, use rates and other use directions. Add surfactant at 1 or 2 pints per 100 gallons of spray mixture with 75% or greater or 50 to 74% non-ionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

Restriction:

- Do not apply combinations that contain paraquat in suspension-type liquid fertilizers as the activity of paraquat will be reduced.

Glyphosate: Refer to the glyphosate label for weeds controlled, use rates, and other use directions.

Precautions:

- Heavy rains that occur soon after application can result in crop injury, especially in poorly drained areas, where water stands for several days, or where the seeding slit has not been properly closed.

Restrictions:

- Do not make application of **Willowood Metolachlor 86.4EC** + fluometuron + glyphosate in tank mixture because of compatibility issues. See the fluometuron label(s) and the **Tank Mixture with Fluometuron** section of this label for further instructions, use precautions and limitations.
- Do not use in Gaines County, TX.

See the fluometuron product label(s) and the **Tank Mixture with Fluometuron** section of this label for further instructions, restrictions, precautions, and limitations.

Make application in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

Tank Mixture with MSMA, MSMA + Prometryn, or MSMA + Fluometuron

Tank mix **Willowood Metolachlor 86.4EC** with MSMA in water and apply post-emergence control of emerged weeds listed on the MSMA product label and residual pre-emergence control of weeds controlled by **Willowood Metolachlor 86.4EC**. The addition of prometryn or fluometuron will add control of weed species on their respective product labels.

Post-Emergence-Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and Bootheel of MO): Make application of **Willowood Metolachlor 86.4EC** + MSMA post-emergence-directed to 3-12” cotton according to the directions, limitations, restrictions and precautions on the MSMA product label, as well as the directions, limitations, and precautions for use of **Willowood Metolachlor 86.4EC** in the section for **Cotton-Willowood Metolachlor 86.4EC Alone-Post-emergence**. These treatments can be made over previous registered treatments, including **Willowood Metolachlor 86.4EC**; however, the maximum label rate of any product must not be exceeded. Fluometuron or prometryn may be added to the **Willowood Metolachlor 86.4EC** + MSMA tank mixture according to the respective

label directions for application to 3 - 12" cotton. When these mixtures are used, follow the mixing instructions for **Willowood Metolachlor 86.4EC + Prometryn or Fluometuron** and then add the MSMA product.

Restrictions:

- Do not use **Willowood Metolachlor 86.4EC** in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with **Willowood Metolachlor 86.4EC** on cotton.
- Do not make application after first cotton bloom.

PEANUTS

Willowood Metolachlor 86.4EC ALONE

Make application of **Willowood Metolachlor 86.4EC** pre-plant incorporated, post-plant incorporated, pre-emergence, or lay-by using the rates listed below.

Pre-Plant Incorporated or Pre-Emergence: Follow instructions for use of **Willowood Metolachlor 86.4EC** alone under **Application Instructions**.

Post-Plant Incorporated: Make application and shallowly incorporate **Willowood Metolachlor 86.4EC** into the soil after planting but prior to peanut germination. Keep incorporation depth and incorporating implements above the seed or seed will be damaged.

Lay-By: Make application of **Willowood Metolachlor 86.4EC** to the soil immediately after the last normal cultivation.

Make application of **Willowood Metolachlor 86.4EC** alone, pre-plant incorporated, post-plant incorporated, pre-emergence, or lay-by at a broadcast rate of 1.0-1.33 pts./A in the Southeast and 0.85-1.33 pts./A in NM, OK, and TX.

Florida beggarweed in the Southeast (Partial Control): Make application at 1.33-2.0 pts./A pre-emergence.

Note: Application of **Willowood Metolachlor 86.4EC** alone can be made as directed after any of the following pre-plant incorporated herbicides when used according to label instructions:

Benfluralin): 3-4 qts./A Trifluralin): 1 pt./A
Ethalfuralin: 0.85-3 pts./A Imazethapyr): 0.25 pt./A Pendimethalin: 1-2 pts./A

Restrictions:

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Pre-Harvest Interval (PHI): Do not make application within 90 days of harvest.

Willowood Metolachlor 86.4EC COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mixture with Benfluralin (ex. Balan®)

Willowood Metolachlor 86.4EC + Benfluralin tank mixture applied pre-plant incorporated controls those weeds listed under **Willowood Metolachlor 86.4EC Applied Alone** and those weeds as listed on the benfluralin label.

Apply 1.0-1.33 pts./A (1-1.33 lbs. a.i.) of **Willowood Metolachlor 86.4EC** + label rate of benfluralin-containing product in a minimum of 10 gals. of spray volume per acre for ground application or in a minimum of 5.0 gals. of spray volume per acre for aerial application. Follow the procedures for benfluralin on the benfluralin product label for soil preparation and incorporation of this tank mix. Make application and incorporate **Willowood Metolachlor 86.4EC** + Benfluralin up to 14 days before planting.

Note: Follow all restrictions and precautions on the benfluralin product label.

Multiple Applications

When weed pressure is high or when difficult to control species are expected, **Willowood Metolachlor 86.4EC** is most effective when used as noted below:

Southeast Only (AL, FL, GA, NC, SC, and VA)

1st Application: Make application of **Willowood Metolachlor 86.4EC** pre-plant incorporated as directed under **Peanuts-Willowood Metolachlor 86.4EC Alone** or make application of **Willowood Metolachlor 86.4EC** + Benfluralin pre-plant incorporated as directed previously in this section. See the respective section for weeds controlled.

2nd Application: Make application at 1.0-2.0 pts./A **Willowood Metolachlor 86.4EC** any time from pre-emergence up to "ground cracking" for extended control of weeds not yet emerged. See the **Willowood Metolachlor 86.4EC Applied Alone** section for a list of weeds controlled.

3rd Application: Make application of **Willowood Metolachlor 86.4EC** at lay-by as directed under **Peanuts-Willowood Metolachlor 86.4EC ALONE**. Use only when late germinating weeds are expected to be a problem. See the **Willowood Metolachlor 86.4EC Applied Alone** section for a list of weeds controlled.

Restrictions:

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Pre-Harvest Interval (PHI): Do not make application within 90 days of harvest.
- Do not make application of more than the equivalent of 2.66 pts. (2.66 lbs. a.i.) of **Willowood Metolachlor 86.4EC** per acre during any one year.

Southwest Only (NM, OK, TX)

1st Application: Make application of **Willowood Metolachlor 86.4EC** pre-plant incorporated or pre-emergence or at-cracking as directed previously in this section. See the respective section for weeds controlled.

2nd Application: Make application of **Willowood Metolachlor 86.4EC** at lay-by as directed under **Peanuts-Willowood Metolachlor 86.4EC Alone** on this label. Use only when late germinating weeds are expected to be a problem. See the **Willowood Metolachlor 86.4EC Applied Alone** section for a list of weeds controlled.

Restrictions:

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Pre-Harvest Interval (PHI): Do not make application within 90 days of harvest.
- Do not make application of more than the equivalent of 2.67 pts. of **Willowood Metolachlor 86.4EC** per acre during any one year.
- Do not use **Willowood Metolachlor 86.4EC** after peanuts have emerged.

Tank Mixture or Sequentially with Imazethapyr

The tank mixture or sequential treatment of **Willowood Metolachlor 86.4EC** and an imazethapyr-containing product controls all weeds controlled by **Willowood Metolachlor 86.4EC** alone and by imazethapyr alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and to the imazethapyr product label for weeds controlled by imazethapyr. See the respective labels for application methods, timing, rates, restrictions, and precautions; and use in accordance with the more restrictive label. **Willowood Metolachlor 86.4EC** will not control emerged weeds.

Restriction:

- Do not exceed the maximum specified label rate of either product.

Tank Mixture with Ethalfluralin (ex. Sonalan)

The tank mixture controls all weeds controlled by **Willowood Metolachlor 86.4EC** alone and by the ethalfluralin-containing product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and to the ethalfluralin product label for weeds controlled by ethalfluralin. Make application of **Willowood Metolachlor 86.4EC + Ethalfluralin** pre-plant incorporated, using the appropriate rate from the **Willowood Metolachlor 86.4EC + Ethalfluralin -Peanuts Willowood Metolachlor 86.4EC + Ethalfluralin -Peanuts** table. Follow soil preparation procedures for Ethalfluralin. See the Peanut **Ethalfluralin /Willowood Metolachlor 86.4EC** Tank Mixture label for incorporation specifications.

Willowood Metolachlor 86.4EC + Ethalfluralin - Peanuts

USE AREAS	SOIL TEXTURE	BROADCAST RATES PER ACRE	
		WILLOWOOD METOLACHLOR 86.4EC	Ethalfluralin-Containing Product
Southeast	Coarse Medium Fine	1.0 - 1.33 pts. (1-1.33 lbs. a.i.)	Refer to product label
NM, OK, TX	Course Medium Fine	0.85 - 1.33 pts. (0.85-1.33 lbs. a.i.)	Refer to product label
Observe and follow all use directions, limitations, restrictions, precautions, and instructions regarding application to peanuts on the Willowood Metolachlor 86.4EC and ethalfluralin product labels.			

Tank Mixture with Pendimethalin

Application of **Willowood Metolachlor 86.4EC** + a pendimethalin-containing product made pre-plant incorporated provides control of all weeds listed as controlled by **Willowood Metolachlor 86.4EC** alone plus field sandbur, johnsongrass from seed, lambsquarters, kochia, annual spurge, and other species on the pendimethalin product label. Make application of **Willowood Metolachlor 86.4EC + Pendimethalin** by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1 - 2" of soil before planting and within 7 days of application, using a finishing disk or similar implement capable of providing uniform incorporation. If peanuts will be planted on beds, make application and incorporate after bed formation. See the **Incorporation** instructions of the respective labels for additional directions.

Make application of **Willowood Metolachlor 86.4EC + Pendimethalin** pre-plant incorporated using the appropriate rates from the **Willowood Metolachlor 86.4EC + Pendimethalin -Peanuts** table.

Willowood Metolachlor 86.4EC + Pendimethalin - Peanuts

USE AREAS	SOIL TEXTURE	BROADCAST RATES PER ACRE	
		WILLOWOOD METOLACHLOR 86.4EC + Pendimethalin-Containing Product	
NM, OK, TX	Sandy, loamy sand	0.85 pt. (0.85 lb. a.i.) + Refer to product label	
	Sandy loam	0.85 - 1.0 pt. (0.85-1 lb. a.i.) + Refer to product label	

	Fine	1.33 pts. (1.33 lbs. a.i.) + Refer to product label
Other Peanut-Growing States	Sandy, loamy sand	1.0 - 1.33 pts. (1-1.33 lbs. a.i.) + Refer to product label
	Sandy loam	1.0 - 1.33 pts. (1-1.33 lbs. a.i.) + Refer to product label
	Fine	1.33 pts. (1.33 lbs. a.i.) + Refer to product label
Observe and follow all use directions, limitations, restrictions, precautions, and instructions regarding application to peanuts on the Willowood Metolachlor 86.4EC and Pendimethalin product labels.		

Tank Mixture or Sequentially with Paraquat

Application of **Willowood Metolachlor 86.4EC** + a product containing paraquat made at ground cracking or sequentially will provide control or suppress small (1 - 6") emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Willowood Metolachlor 86.4EC Applied Alone** section of this label. Make application at 11 fl. oz./A of paraquat with the appropriate **Willowood Metolachlor 86.4EC** rate from the **Peanuts-Willowood Metolachlor 86.4EC Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of **Willowood Metolachlor 86.4EC** + paraquat may be made 28 days after ground cracking. (See the **Peanuts-Willowood Metolachlor 86.4EC Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second paraquat application may be made in all peanut growing areas, if needed. See the respective labels and follow all directions, limitations, and restrictions for each product.

Tank Mixture or Sequentially with Paraquat + Bentazon

Adding bentazon to the **Willowood Metolachlor 86.4EC** + paraquat mixture will provide improved control of prickly sida, cocklebur, smartweed, and bristly starbur. **Willowood Metolachlor 86.4EC** + paraquat + bentazon applied at ground cracking or sequentially will provide control or suppression of small (1-6") emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Willowood Metolachlor 86.4EC Applied Alone** section of this label. Make application at 1 pt./A of bentazon + 11 fl. oz./A of paraquat with the appropriate **Willowood Metolachlor 86.4EC** rate from the **Peanuts-Willowood Metolachlor 86.4EC Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of **Willowood Metolachlor 86.4EC** + paraquat + bentazon may be made 28 days after ground cracking. (See the **Peanuts-Willowood Metolachlor 86.4EC Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second paraquat + bentazon application may be made in all peanut growing areas, if needed. See the respective labels and follow all directions, limitations, and restrictions for each product.

Tank Mixture or Sequentially with Paraquat + 2,4-DB

Adding 2,4-DB to the **Willowood Metolachlor 86.4EC** + Paraquat mixture will provide improved control of sicklepod, morningglory, and cocklebur. **Willowood Metolachlor 86.4EC** + Paraquat + 2,4-DB applied at ground cracking or sequentially will provide control or suppression of small (1-6") emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Willowood Metolachlor 86.4EC Applied Alone** section of this label. Make application at 11 fl. oz./A of Paraquat + 8-16 fl. oz./A (0.125-0.25 lb./A) of 2,4-DB with the appropriate **Willowood Metolachlor 86.4EC** rate from the **Peanuts-Willowood Metolachlor 86.4EC Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of **Willowood Metolachlor 86.4EC** + Paraquat + 2,4-DB may be made 28 days after ground cracking. (See the **Peanuts-Willowood Metolachlor 86.4EC Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second Paraquat + 2,4-DB application may be made in all peanut growing areas, if needed. See the respective labels and follow all directions, limitations, and restrictions for each product.

Tank Mixture or Sequentially with Bentazon

Application of **Willowood Metolachlor 86.4EC** + Bentazon made at ground cracking or sequentially will provide control of species on the bentazon product label and provide residual control of species listed in the **Willowood Metolachlor 86.4EC Applied Alone** section of this label. Make application at 1-2 pts./A of bentazon in 20 gals./A, depending on weed species and stage of growth as specified on the bentazon product label, with the appropriate **Willowood Metolachlor 86.4EC** rate from the **Peanuts-Willowood Metolachlor 86.4EC Alone** section. A second application of the combination may be made before peanut pegging. (See the **Peanuts-Willowood Metolachlor 86.4EC Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second bentazon application may be made in all peanut growing areas, if needed. See the respective labels and follow all directions, limitations, and restrictions for each product.

Tank Mixture or Sequentially with Bentazon + 2,4-DB

Application of **Willowood Metolachlor 86.4EC** + Bentazon + 2,4-DB made at ground cracking or sequentially will provide control of species on the bentazon label and on the 2,4-DB labels, especially morningglories. Make application at 1.5-2 pts./A of bentazon + 8 fl. oz./A of 2,4-DB in 20 gals./A, depending on weed species and stage of growth as specified on the bentazon label, with the appropriate **Willowood Metolachlor 86.4EC** rate from the **Peanuts-Willowood Metolachlor 86.4EC Alone** section. A second application of the combination may be made before peanut pegging. (See the **Peanuts-Willowood Metolachlor 86.4EC Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second bentazon + 2,4-DB application may be made in all peanut growing areas, if needed. See the respective labels and follow all directions, limitations, and restrictions for each product.

Tank Mixture or Sequentially with Bentazon + Acifluorfen

Application of **Willowood Metolachlor 86.4EC** + Bentazon + Acifluorfen made at ground cracking through 2 expanded tetra foliate leaves or **Willowood Metolachlor 86.4EC** applied according to the directions for **Peanuts Willowood Metolachlor 86.4EC Alone** and followed with an at-cracking through post-emergence treatment of Bentazon + Acifluorfen as specified on its label will provide control of species on the Bentazon and Acifluorfen labels and provide residual control of species listed in the **Willowood Metolachlor 86.4EC**

Applied Alone section of this label. **Willowood Metolachlor 86.4EC** will not control weeds that have emerged. See the **Peanuts-Willowood Metolachlor 86.4EC Alone** section and the bentazon and acifluorfen product labels and follow all directions, limitations, and restrictions for each product.

POD CROPS

Pod crops, including garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English; southern peas, including blackeye, pinkeye, crowder), pinto beans, snap beans (green, wax, string), lentils, and lupines (sweet, white, white sweet, and grain).

Willowood Metolachlor 86.4EC ALONE

Make application of **Willowood Metolachlor 86.4EC**, either pre-plant incorporated or pre-emergence, using the appropriate rate listed below.

Pre-Plant Incorporated or Pre-Emergence: Follow instructions for use of **Willowood Metolachlor 86.4EC** alone under **Application Instructions**.

Coarse soils (<3% organic matter): Make application at 1.0-1.33 pts./A (1-1.33 lbs. a.i.).

Coarse soils (>3% organic matter): Make application at 1.33 pts./A (1.33 lbs. a.i.).

Medium soils: Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i.).

Fine soils (<3% organic matter): Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i.).

Fine soils (>3% organic matter): Make application at 1.67-2 pts./A (1.67-2 lbs. a.i.).

Restrictions:

- Do not use on English peas in northeastern U.S.; other areas only make pre-emergence applications.
- Do not cut for hay within 120 days following an **Willowood Metolachlor 86.4EC** application.
- Do not make application of more than 3.0 pts./A (3 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** during any one crop year.

Willowood Metolachlor 86.4EC COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Restriction:

- When making application of **Willowood Metolachlor 86.4EC** in combination on pod crops, do not cut for hay within 120 days following application.

Tank Mixture and Sequential Applications with EPTC-Beans (Green or Dry)

This mixture controls all weeds controlled by **Willowood Metolachlor 86.4EC** alone and by EPTC containing products alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section of this label for weeds controlled by **Willowood Metolachlor 86.4EC** alone and to the EPTC product label for weeds controlled by the EPTC containing product.

Pre-Plant Incorporated: Follow instructions for use of **Willowood Metolachlor 86.4EC** alone under **Application Instructions**.

Sequential: Make application of EPTC product alone pre-plant incorporated as specified on that label. Follow with a pre-emergence application of **Willowood Metolachlor 86.4EC** at rates specified for **Willowood Metolachlor 86.4EC** alone, during planting (behind the planter), or after planting but prior to crop or weed emergence.

See the **PRODUCT INFORMATION** section of this label and refer to the EPTC containing product label for weather, cultural practices, and all other restrictions, precautions and limitations that affect performance of these products.

Make application of Eptam 7E with **Willowood Metolachlor 86.4EC** as specified. See the EPTC product label for rate information and limitations depending on geographical area and for species and varietal restrictions.

Coarse soils (<3% organic matter): Make application at 0.85 pt./A (0.85 lb. a.i.).

Coarse soils (>3% organic matter): Make application at 1.0 pt./A (1 lb. a.i.).

Medium soils (<3% organic matter): Make application at 1.0 pt./A (1 lb. a.i.).

Medium soils (>3% organic matter): Make application at 1.33 pts./A (1.33 lbs. a.i.).

Fine soils (<3% organic matter): Make application at 1.33 pts./A (1.33 lbs. a.i.).

Fine soils (>3% organic matter): Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i.).

Restriction:

- Do not exceed 3.5 pts./A (3.5 lbs. a.i.) of Eptam 7E on small white beans or green beans grown on coarse-textured soils.

Tank Mixture with Trifluralin-Beans (Dry-Kidney, Navy, Pinto, etc.; Lima; and Snap)

Application of **Willowood Metolachlor 86.4EC** + a trifluralin-containing product tank mix made pre-plant incorporated will provide control of those weeds listed under **Willowood Metolachlor 86.4EC Applied Alone** and those weeds listed for trifluralin alone on the trifluralin product label. **Willowood Metolachlor 86.4EC** + Trifluralin may be applied by ground or by aerial equipment and

incorporated up to 14 days before planting. Follow the instructions on this label and on the respective trifluralin product label using equipment that provides uniform 2" incorporation.

Make application of **Willowood Metolachlor 86.4EC** + Trifluralin tank mix using the appropriate **Willowood Metolachlor 86.4EC** rate specified for **Willowood Metolachlor 86.4EC** alone, and the trifluralin rate from the Dry Beans, and the Lima and Snap Beans sections of the respective trifluralin product label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

Note: Observe and follow all restrictions and precautions on the respective trifluralin product label and in the **Pod Crops-Willowood Metolachlor 86.4EC Alone** section of this label.

POTATOES

Willowood Metolachlor 86.4EC ALONE

Make application of **Willowood Metolachlor 86.4EC**, either incorporated, pre-emergence, or after hilling/lay-by, according to directions specified below to control weeds listed under the **PRODUCT INFORMATION** section. Use the lower rate within the specified rate range (when a rate range is listed) on soils relatively coarse-textured or low in organic matter; use the higher rate within the specified rate range on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil.

Incorporated: Make application of **Willowood Metolachlor 86.4EC** at 1.0-2.0 pts./A (1-2 lbs. a.i.) to the soil and incorporate into the top 3" before planting using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices must not bring untreated soil to the surface. Post-plant incorporated application may be made any time after planting to drag-off but prior to potato emergence. Use an implement that evenly distributes **Willowood Metolachlor 86.4EC** in the top 2" of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

Pre-Emergence: Make application of **Willowood Metolachlor 86.4EC** at 1.0-2.0 pts./A (1-2 lbs. a.i./A), either after planting as a pre-emergence, delayed pre-emergence, after drag-off or hilling treatment, but prior to weed emergence. Up to 2.75 pts./A (2.75 lbs. a.i.) of **Willowood Metolachlor 86.4EC** alone may be used where soil organic matter is between 6% and 20%.

After Hilling/Lay-By: Make application at 1.67 pts./A (1.67 lbs. a.i.) of **Willowood Metolachlor 86.4EC** after hilling/at lay-by to control **Willowood Metolachlor 86.4EC** sensitive species for remainder of the growing season. This application will not provide control of weeds that have emerged. Application may be made over a previous **Willowood Metolachlor 86.4EC** application, but do not apply more than 3.7 pts./A (3.7 lbs. a.i.) of **Willowood Metolachlor 86.4EC** in a single crop season.

Restrictions:

- Do not use on sweet potatoes or yams.
- Do not use on muck or peat soils. If cool, wet soil conditions occur after application, **Willowood Metolachlor 86.4EC** may delay maturity and/or reduce yield of Superior and other early maturing potato varieties.
- Do not apply both as a pre-emergence and an incorporated treatment.
- Pre-Harvest Interval (PHI): Potatoes treated with **Willowood Metolachlor 86.4EC** must not be harvested within 60 days after the at-planting to drag-off application or within 40 days after a lay-by application.
- Do not use in Kern County, CA.

Willowood Metolachlor 86.4EC COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mixture with Metribuzin

In addition to those weeds that are controlled by **Willowood Metolachlor 86.4EC** alone, application of **Willowood Metolachlor 86.4EC** made in tank mix combination with, or sequentially with, any of the registered metribuzin formulations, will also provide control of the following broadleaf weeds: hemp sesbania, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

Application of **Willowood Metolachlor 86.4EC** made in tank mix combination with, or sequentially with, any of the registered metribuzin formulations, partially controls cocklebur, hairy nightshade, and jimsonweed.

Application of **Willowood Metolachlor 86.4EC** at 1.0-2.0 pts./A (1-2 lbs. a.i.) plus the labeled metribuzin use rate may be used pre-emergence through after last hilling. Apply 1.0-1.33 pts./A (1-1.33 lbs. a.i.) of **Willowood Metolachlor 86.4EC** on coarse soils and 1.33-2.0 pts./A (1.33-2 lbs. a.i.) on other soil textures. Within this rate range, use the lower rate within the specified rate range on soils relatively coarse-textured or low in organic matter; use the higher rate within the specified rate range on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. **Willowood Metolachlor 86.4EC** will not control emerged weeds.

See the metribuzin product label(s) for precautionary statements, restrictions, application information, and weeds controlled.

Precaution:

- Make post-emergence applications to potatoes only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion.

Restrictions:

- Do not use **Willowood Metolachlor 86.4EC** + Metribuzin potatoes in Kern County, CA.
- Do not make application to sweet potatoes or yams.
- Pre-Harvest Interval (PHI): Do not harvest potatoes treated with **Willowood Metolachlor 86.4EC** in tank mixture with metribuzin within 60 days after application.
- Pre-Harvest Interval (PHI): Do not harvest potatoes within 40 days after a lay-by application of **Willowood Metolachlor 86.4EC**.
- Do not use this tank mixture on muck or peat soils.

Willowood Metolachlor 86.4EC + Linuron Tank Mixture (East of Rocky Mountains)

Make application of **Willowood Metolachlor 86.4EC** in a tank-mix combination with any of the registered linuron formulations as a pre-emergence broadcast application to potatoes. Make application to the soil surface after planting and prior to crop emergence or after final drag-off according to the rates specified in the **Willowood Metolachlor 86.4EC + Linuron-Potatoes (East of Rocky Mountains)** table.

Willowood Metolachlor 86.4EC + Linuron-Potatoes (East of Rocky Mountains)

SOIL TEXTURE	SOIL TEXTURE	BROADCAST RATES PER ACRE	
		WILLOWOOD METOLACHLOR 86.4EC	Linuron*
1 - 3% Organic Matter	Coarse (Sandy loam)	1.0 pt.(1 lb. a.i.)	Refer to product label
	Medium (Loam, silt loam, silt)	1.33 pts.(1.33 lbs. a.i.)	
3 - 5% Organic Matter	Coarse (Sandy loam)	1.33 pts. (1.33 lbs. a.i.)	Refer to product label
	Medium (Loam, silt loam, silt)	1.67 - 2.0 pts. (1.67-2 lbs. a.i.)	

*Use equivalent rates - 1 pt. of Linuron L = 1 lb. of Linuron DF - when using Linuron L or Linuron DF

Restriction:

- Do not make application on sands or loamy sands and do not incorporate or spray over the top of emerged potatoes.

See the **PRODUCT INFORMATION** section of this label and to the Lorox label for precautionary statements, restrictions, application instructions, and weeds controlled.

Tank Mixture with Pendimethalin)

In addition to the weeds that are controlled by **Willowood Metolachlor 86.4EC** alone, this tank mixture with a pendimethalin-containing product controls kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the pendimethalin product label. Make application of **Willowood Metolachlor 86.4EC** + Pendimethalin pre-emergence, pre-emergence incorporated, or early post-emergence, according to the specific directions and use rates on the pendimethalin product label, and in the **Willowood Metolachlor 86.4EC + Pendimethalin-Potatoes** table.

Willowood Metolachlor 86.4EC + Pendimethalin-Potatoes

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	WILLOWOOD METOLACHLOR 86.4EC + Pendimethalin*	
<3% Organic Matter Coarse Medium Fine	1.0 - 1.33 pts. (1-1.33 lbs. a.i.) + Refer to product label	
	1.33 pts. (1.33 lbs. a.i.) + Refer to product label	
	1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label	
3 - 5% Organic Matter Coarse Medium Fine	1.0 - 1.33 pts. (1-1.33 lbs. a.i.) + Refer to product label	
	1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label	
	1.67 - 2.0 pts. (1.67-2 lbs. a.i.) + Refer to product label	

*Use equivalent rates of active ingredient when using other formulations of pendimethalin.

See the **Willowood Metolachlor 86.4EC** and Pendimethalin labels and observe and follow all directions, timings, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

Tank Mixture with Pendimethalin + EPTC

In addition to the weeds that are controlled by **Willowood Metolachlor 86.4EC** alone, this tank mixture will control those species on the pendimethalin and EPTC containing product labels. See the **Willowood Metolachlor 86.4EC** + pendimethalin labels for rates of those products and add EPTC product at label rates, depending on geographical area. Refer to the respective **Willowood Metolachlor 86.4EC**, pendimethalin, and EPTC product labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

SAFFLOWER**Willowood Metolachlor 86.4EC ALONE**

Pre-Plant Incorporated or Pre-Emergence: Follow instructions for use of **Willowood Metolachlor 86.4EC** alone under **Application Instructions**.

Coarse soils (<3% organic matter): Make application at 1.0-1.33 pts./A (1-133 lbs. a.i./A).

Coarse soils (>3% organic matter): Make application at 1.33 pts./A (1.33 lbs. a.i./A).

Medium soils: Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A).

Fine soils (<3% organic matter): Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A).

Fine soils (>3% organic matter): Make application at 1.67-2.0 pts./A (1.67-2 lbs. a.i./A).

GRAIN OR FORAGE SORGHUM - SEED TREATED WITH CONCEP® OR SCREEN®

Willowood Metolachlor 86.4EC ALONE

Make application of **Willowood Metolachlor 86.4EC** either pre-plant surface, pre-plant incorporated, or pre-emergence, using the appropriate rate specified below. Make application of **Willowood Metolachlor 86.4EC** alone only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

Pre-Plant Surface-Applied: See the instructions for use of **Willowood Metolachlor 86.4EC** under **Application Instructions**. For minimum-tillage or no-tillage systems only, application of **Willowood Metolachlor 86.4EC** may be made up to 45 days prior to planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting with $\frac{2}{3}$ of the broadcast rate applied initially and the remaining $\frac{1}{3}$ at planting. Make application at 1.50 pts./A of **Willowood Metolachlor 86.4EC** on medium soils or 1.67 pts./A on fine soils. Treatments less than 30 days prior to planting may be made either as a split or single application. Make application at 1.33 pts./A of **Willowood Metolachlor 86.4EC** on coarse soils not more than 2 weeks before planting. Under dry conditions, irrigate following application to move **Willowood Metolachlor 86.4EC** into the soil.

Pre-Plant Incorporated or Pre-Emergence: See the instructions for use of **Willowood Metolachlor 86.4EC** under **Application Instructions**. Make broadcast application as follows:

Coarse soils: 1.0-1.33 pts./A (1-1.33 lbs. a.i./A)

Medium soils: 1.33-1.50 pts./A (1.33-1.5 lbs. a.i./A)

Fine soils: 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A)

Precautions:

- If sorghum seed is not properly treated with Concep or Screen, **Willowood Metolachlor 86.4EC** will severely injure the crop.
- Under high soil moisture conditions before sorghum emergence, injury may result following the use of **Willowood Metolachlor 86.4EC**. The crop will typically outgrow this effect.

Restrictions:

- Do not use **Willowood Metolachlor 86.4EC** on sorghum grown under dry mulch tillage.
- Except for the split pre-plant surface treatment, do not make more than one application per year.

Willowood Metolachlor 86.4EC COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Application of **Willowood Metolachlor 86.4EC** tank mixtures with an atrazine-containing product may be made in water or fluid fertilizer. Make application of **Willowood Metolachlor 86.4EC** in tank mixtures only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

IMPORTANT: FOR TANK MIXTURES WITH ATRAZINE – If application of **Willowood Metolachlor 86.4EC** is made in tank mixture with an atrazine-containing product, all the restrictions and rate limitations on the atrazine product label must be followed if the label directions are more restrictive/protective than those on this label. In addition, if the atrazine-containing product is/must be applied at rates lower than those listed on this label, broadleaf weed control may be affected. See the atrazine product label for weeds controlled at the reduced rates.

Precautions:

- Applications of **Willowood Metolachlor 86.4EC** + an atrazine-containing product on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury.
- If sorghum seed is not properly treated with Concep or Screen, **Willowood Metolachlor 86.4EC** + an atrazine-containing product may severely injure the crop.
- Under high soil moisture conditions before sorghum emergence, injury may result following the use of **Willowood Metolachlor 86.4EC** + an atrazine-containing product. The crop will typically outgrow this effect.

Restrictions:

- Do not use **Willowood Metolachlor 86.4EC** + an atrazine-containing product on sorghum grown under dry mulch tillage.
- Do not apply more than one application per year Except for the split pre-plant surface treatment.

Tank Mixture with ATRAZINE

In addition to the weeds controlled by **Willowood Metolachlor 86.4EC** alone, **Willowood Metolachlor 86.4EC** + an atrazine-containing product also controls the following broadleaf weeds when applied either pre-plant surface, pre-plant incorporated, or pre-emergence:

Cocklebur	Hairy Nightshade	Morningglory	Smartweed
Common Purslane	Lambsquarters	Ragweed	Velvetleaf

Pre-Plant Surface-Applied: See the instructions for use of **Willowood Metolachlor 86.4EC** under **Application Instructions**. For minimum-tillage or no-tillage systems only, application of **Willowood Metolachlor 86.4EC** + an atrazine-containing product may be made up to 45 days before planting in IA, IL, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days before planting with $\frac{2}{3}$ of the broadcast rate applied initially and the remaining $\frac{1}{3}$ at planting. Make application as follows:

Medium soils with >1.5% organic matter: 1.50 pts./A (1.5 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + 1.7 - 2 lbs./A of an atrazine 90 DF product*

Fine soils with <1.5% organic matter: 1.50 pts./A (1.5 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + 1.7 - 2 lbs./A of an atrazine 90 DF product

Fine soils with >1.5% organic matter: 1.50 pts./A (1.5 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + 1.7 - 2 lbs./A of an atrazine 90 DF product

* Use equivalent rates when using an atrazine 4L product. One lb. of an atrazine 90DF product = 1.8 pts. of an atrazine 4L product.

Treatments less than 30 days before planting may be made either as a split or single application. Under dry conditions, irrigate after treatment to move **Willowood Metolachlor 86.4EC** + Atrazine product into the soil.

Restrictions:

- Do not use on coarse soils.
- Do not use on medium soils with <1.5% organic matter.

Pre-Plant Incorporated or Pre-Emergence: See the instructions for use of **Willowood Metolachlor 86.4EC** under **Application Instructions**. Make application as follows:

Medium soils with >1.5% organic matter: 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC** + 1.3 lbs./A of an atrazine 90 DF product *

Fine soils with <1.5% organic matter: 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC** + 1.3 lbs./A of an atrazine 90 DF product

Fine soils with >1.5% organic matter: 1.2-1.33 pts./A (1.2-1.33 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + 1.6 - 1.8 lbs./A of an atrazine 90 DF product

* Use equivalent rates when using an atrazine 4L product. One lb. of an atrazine 90DF product = 1.8 pts. of an atrazine 4L product.

Restrictions:

- Do not use on coarse soils.
- Do not use on medium soils with <1.5% organic matter.
- Do not use in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blacklands areas.
- Do not make application as pre-plant incorporated in AZ or the Imperial Valley of CA.

Tank Mixture of Willowood Metolachlor 86.4EC or Willowood Metolachlor 86.4EC + Atrazine, with Paraquat, Glyphosate + 2,4-D premix) for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems when sorghum (seed treated with Concep or Screen) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides paraquat, Glyphosate, or 2,4-D may be tank mixed with **Willowood Metolachlor 86.4EC** or **Willowood Metolachlor 86.4EC** + an atrazine-containing product. In minimum-tillage and no-tillage systems, mix with paraquat for control of most emerged annual weeds and suppression of perennial weeds; or with 2,4-D for suppression of emerged field bindweed and control or suppression of annual weeds; or with glyphosate for control of most emerged annual and perennial weeds. See the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

The **Willowood Metolachlor 86.4EC** or **Willowood Metolachlor 86.4EC** + atrazine-containing product portion of the tank mixture will provide pre-emergence control of the weeds listed on this label under the respective sections.

Application Instructions: Make application before, during, or after planting, but prior to sorghum emergence, at the appropriate rates listed under **Grain or Forage Sorghum-Willowood Metolachlor 86.4EC Alone** or **-Willowood Metolachlor 86.4EC Combinations-Willowood Metolachlor 86.4EC + Atrazine**, respectively. Refer to the respective paraquat, 2,4-D or glyphosate product label(s) for specified use rates, application timing, restrictions, and other product information.

Add paraquat, glyphosate + 2,4-D or glyphosate:

Paraquat:

See the paraquat product label for weeds controlled, use rates and other use directions. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This application will not control weeds taller than 6".

Glyphosate + 2,4-D: See the glyphosate and 2,4-D product labels for weeds controlled, rates for specific weeds, and other information concerning use.

Glyphosate: See the glyphosate product label for weeds controlled, rates, and other use directions.

Make application in a minimum of 20 gals. of water per acre with conventional spray equipment.

SOYBEANS

Willowood Metolachlor 86.4EC ALONE

Make application of **Willowood Metolachlor 86.4EC**, either pre-plant surface-applied, pre-plant incorporated, pre-emergence, or post-emergence using the appropriate rate specified below.

Pre-Plant Surface-Applied, Pre-Plant Incorporated, Pre-Emergence: Follow instructions for use of **Willowood Metolachlor 86.4EC** alone under **Application Instructions**.

Post-Emergence: Follow the **Tank Mixture** instructions under **Post-Emergence Applications**.

Pre-Plant Surface-Applied

Fall Application (Apply after September 30th in MN, ND, SD, WI and North of Route 30 in IA; Apply after October 15th north of Route 91 in NE and South of Route 30 in IA; Apply after October 15th north of Route 136 in IL): In all locations, make application to crop stubble after harvest when the sustained soil temperature at a 4" depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67-2.0 pts./A on medium-textured and 2.0 pts./A on fine-textured soils. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2-3". Minimize furrow and ridge formation in the tillage operations.

Note: If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for soybeans or illegal residues may occur.

Restriction:

- Do not make application to frozen ground.

Use on medium and fine soils with minimum-tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. Make application at 2/3 the labeled rate of **Willowood Metolachlor 86.4EC** (1.67 pts./A on medium soils and 2.0 pts./A on fine soils) as a split treatment 30-45 days before planting and the remainder at planting. Applications made less than 30 days before planting may be as either a split or single treatment. Make application at 1.33 pts./A on coarse soils not more than 2 weeks before planting.

Pre-Plant Incorporated or Pre-Emergence: Make application of **Willowood Metolachlor 86.4EC** as listed below:

Coarse soils with <3% organic matter: 1.0-1.33 pts./A (1-1.33 lbs. a.i./A)

Coarse soils with >3% organic matter: 1.33 pts./A (1.33 lbs. a.i./A)

Medium soils: 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A)

Fine soils with <3% organic matter: 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A)

Fine soils with >3% organic matter: 1.67-2.0 pts./A (1.67-2 lbs. a.i./A)

Note: This product may be used on soybeans up to 2.75 pints per acre as a pre-plant surface applied, pre-plant incorporated, or pre-emergence treatment on soils having an organic matter content between 6-20%.

Restriction:

- Do not exceed 2.75 pints (2.75 lbs. a.i.) per acre on soybeans during any one year.

Post-Emergence:

- From emergence up through the 5th trifoliolate leaf stage*:** Make application at 1.0-1.33 pts./A (1-1.33 lbs. a.i.) as a post-emergence treatment to soybeans from emergence up through the 5th trifoliolate leaf stage. **Willowood Metolachlor 86.4EC** will not control weeds that have emerged so it must be applied to a weed-free surface or in a tank mixture with products that provide post-emergence control of weeds present at the time of application. *Not for use in California.

Restrictions:

- Pre-Harvest Interval (PHI): Make post-emergence applications at least 90 days before harvest.
- Do not make application of more than 1.33 pts./A (1.33 lbs. a.i./A) post-emergence.
- Do not graze or feed treated forage or hay from soybeans to livestock following a post-emergence application.
- Do not make a post-emergence application of **Willowood Metolachlor 86.4EC** if a pre-plant surface, pre-plant incorporated, or pre-emergence application of metolachlor products have already been made.

Willowood Metolachlor 86.4EC COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Water or fluid fertilizer may be used as carrier for **Willowood Metolachlor 86.4EC** in combination with Sencor, Lexone, Lorox, Lorox Plus, Gemini, Canopy, Preview, Pursuit, Scepter, Sonalan, or Command.

Note: For all the following combinations, application of **Willowood Metolachlor 86.4EC** may be made up to 2.5 pts./A on soils having an organic matter content between 6-20%.

Restriction:

- Do not make application of more than 2.75 pts./A (2.75 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** during any one year.

Pre-Plant/Pre-Emergence Applications**Tank Mixture with Metribuzin**

In addition to those weeds that are labeled as controlled by **Willowood Metolachlor 86.4EC** alone, application of **Willowood Metolachlor 86.4EC** + a metribuzin-containing product, when made as directed, controls the following broadleaf weeds:

Hairy Nightshade	Prickly Sida	Velvetleaf
Hemp Sesbania	Ragweed	Venice Mallow
Lambsquarters	Smartweed	Wild Mustard

Application of **Willowood Metolachlor 86.4EC** + Metribuzin, when made as directed, partially controls cocklebur and jimsonweed.

Make application of **Willowood Metolachlor 86.4EC** and a metribuzin-containing product pre-plant incorporated or pre-emergence using the appropriate rates from the **Willowood Metolachlor 86.4EC + Metribuzin-Soybeans** table.

Pre-Plant Incorporated or Pre-Emergence: Follow instructions for use of **Willowood Metolachlor 86.4EC** alone under **Application Procedures**.

Sequential: Make application of **Willowood Metolachlor 86.4EC** alone pre-plant Incorporated, as specified in the **Willowood Metolachlor 86.4EC + Metribuzin-Soybeans** table for this tank mixture. Follow with a pre-emergence application of metribuzin during planting (behind the planter) or after planting but prior to weed or soybeans emergence. See the metribuzin product label for planting details and soybean variety restrictions.

Willowood Metolachlor 86.4EC + Metribuzin-Soybeans

Do not use on muck or peat with >20% organic matter.

SOIL TEXTURE**	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Metribuzin-Containing Product*
0.5 - <3% Organic Matter Coarse: Loamy sand (>2% organic matter), sandy loam Medium Fine Mississippi Delta only (Silty clay, clay)	0.85 - 1.0 pt. (0.85-1 lbs. a.i.) + refer to product label 1.0 - 1.33 pts. (1-1.33 lbs. a.i.) + refer to product label 1.33 pts. (1.33 lbs. a.i.) + refer to product label 1.33 pts. (1.33 lbs. a.i.) + refer to product label
>3% Organic Matter Coarse: Loamy sand (>2% organic matter), sandy loam Medium Fine Mississippi Delta only (Silty clay, clay)	1.0 pt. (1 lb. a.i.) + refer to product label 1.33 pts. (1.33 lbs. a.i.) + refer to product label*** 1.33 - 1.67 pts.(1.33-1.67 lbs. a.i.) + refer to product label 1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + refer to product label

*When using Metribuzin 4 DF or Metribuzin 4L formulations, multiply lbs. of DF by 1.5 to convert to pts./A.
 **Do not use this tank mixture pre-emergence or the sequential treatment on all sand and on loamy sand with <2% organic matter. Do not use the tank mixture pre-plant incorporated on any sand, loamy sand, or sandy loam.
 ***Use 0.5 lb./A if application is made pre-plant incorporated.

Precaution:

- Heavy rains soon after application can cause crop injury, especially in poorly drained areas where water stands for several days.

Restriction:

- Do not use the tank mix or sequential application on soil with <0.5% organic matter or on alkaline soil with a pH >7.4.

Tank Mixture with Linuron Containing Product

In addition to those weeds listed as controlled by **Willowood Metolachlor 86.4EC** alone, application of **Willowood Metolachlor 86.4EC** + a linuron-containing product, made pre-emergence, will provide control of lambsquarters, prickly sida, ragweed, smartweed, Venice mallow, and wild mustard.

Application of **Willowood Metolachlor 86.4EC** + a linuron-containing product, when made as directed, partially controls cocklebur, jimsonweed, morningglory, and velvetleaf.

Pre-Emergence: Make application during planting (behind planter) or after planting, but prior to weed or soybean emergence. See the linuron product label for planting details. Make application with the appropriate rates from the **Willowood Metolachlor 86.4EC + Linuron-Soybeans** table.

Precaution:

- Do not use on soil with less than 0.5% organic matter to avoid crop injury.

Willowood Metolachlor 86.4EC + Linuron-Soybeans

Important: Do not use on muck or peat with >20% organic matter.

SOIL TEXTURE*, **	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Linuron***

0.5 - <3% Organic Matter Coarse Medium Fine	0.85 pt. (0.85 lbs. a.i.) + Refer to product label 1.0 pt. (1 lb. a.i.) + Refer to product label 1.33 pts. (1.33 lbs. a.i.) + Refer to product label
>3% Organic Matter Coarse Medium Fine	1.0 pt. (1 lb. a.i.) + Refer to product label 1.33 pts. (1.33 lbs. a.i.) + Refer to product label 1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label
*Do not use on sand, gravelly soils, or exposed subsoils. **Do not use on loamy sand except in the northeastern U.S. on loamy sand with >1% organic matter. ***Use equivalent rates when using Linuron 4L or Linuron DF formulations. One pint of Linuron 4L = 1 lb. of Linuron DF.	

Tank Mixture with Trifluralin Containing Product

Application of **Willowood Metolachlor 86.4EC** + a trifluralin-containing product tank mix made pre-plant incorporated will provide control of those weeds listed under the **Willowood Metolachlor 86.4EC Applied Alone** section and those weeds listed on the trifluralin product label. Application of **Willowood Metolachlor 86.4EC** + trifluralin may be made by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the procedures on the trifluralin and **Willowood Metolachlor 86.4EC** product labels using equipment that provides uniform 2-inch incorporation.

Make application of **Willowood Metolachlor 86.4EC** + trifluralin tank mix, using the appropriate rate from the **Soybeans-Willowood Metolachlor 86.4EC Alone** section of this label and the trifluralin alone section of the trifluralin label for the specific soil texture/organic matter classification and weed species expected.

To control DNA-resistant goosegrass* and other species on the respective labels where the soil organic matter is 3% or less, make application with the rate listed in the **Willowood Metolachlor 86.4EC + Trifluralin -Organic Matter Content Less Than 3%** table.

Willowood Metolachlor 86.4EC + Trifluralin -Organic Matter Content Less Than 3%

Observe and follow all restrictions and precautions on the respective trifluralin product label and in the **Soybeans-Willowood Metolachlor 86.4EC Alone** section of this label.

SOIL TEXTURE	BROADCAST RATES PER ACRE*
	WILLOWOOD METOLACHLOR 86.4EC + Trifluralin-Containing Product**
<3% Organic Matter Coarse Medium Fine	0.85 - 1.0 pt. (0.85-1 lb. a.i.) + Refer to the product label 1.0 pt. (1 lb. a.i.) + Refer to the product label 1.33 pts. (1.33 lbs. a.i.) + Refer to the product label
*Where a range of rates is given for Willowood Metolachlor 86.4EC , use the minimum rate within the specified rate range where DNA-resistant goosegrass is the predominant species. **Use comparable rates when Trifluralin MTF or Trifluralin 5 is used. Multiply pts. of Trifluralin E.C. by 1 for Trifluralin MTF and by 0.8 for Trifluralin 5.	

Tank Mixture with Imazaquin Containing Product

This tank mixture will provide control of all weeds that are listed for control by **Willowood Metolachlor 86.4EC** alone and by an imazaquin-containing product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the imazaquin product label for weeds controlled by imazaquin. See the imazaquin label for geographical locations where this tank mixture may be made.

Make application of **Willowood Metolachlor 86.4EC** + Imazaquin pre-plant incorporated or pre-emergence using rates in the **Willowood Metolachlor 86.4EC + Imazaquin -Soybeans** table. Follow use directions under **Application Instructions** on the imazaquin label. For Pre-Plant Incorporated Applications, make application and incorporate within 30 days before planting. Observe and follow all other restrictions, precautions, and limitations on the imazaquin product labels.

Willowood Metolachlor 86.4EC + Imazaquin -Soybeans

Do not use on muck or peat with >20% organic matter.

SOIL TEXTURE	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Imazaquin-Containing Product
<3% Organic Matter Coarse Medium Fine	0.85 pt. (0.85 lb. a.i.) + Refer to product label 1.0 pt. (1 lb. a.i.) + Refer to product label 1.33 pts. (1.33 lbs. a.i.) + Refer to product label
>3% Organic Matter Coarse Medium Fine	1.0 pt. (1 lb. a.i.) + Refer to product label 1.33 pts. (1.33 lbs. a.i.) + Refer to product label 1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.)* + Refer to product label
*If heavy weed infestations are expected, use the higher rate within the specified rate range of Willowood Metolachlor 86.4EC .	

Restrictions:

- Pre-Harvest Interval (PHI): Do not make application within 90 days of harvest.
- Do not graze or feed treated soybean forage, hay, or straw to livestock.

Tank Mixture with Linuron Containing Product

This tank mixture will provide control of all weeds that are listed as controlled by **Willowood Metolachlor 86.4EC** alone and by a linuron-containing product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the linuron product label for weeds controlled by linuron.

Make application of **Willowood Metolachlor 86.4EC** + Linuron pre-emergence after planting, but prior to soybeans emergence, using rates in the **Willowood Metolachlor 86.4EC+ Linuron-Soybeans** table. Observe and follow all use directions, limitations, restrictions, precautions, information regarding application to soybeans, and rotational restrictions on the **Willowood Metolachlor 86.4EC** and linuron product labels.

Willowood Metolachlor 86.4EC+ Lorox Plus-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Linuron-Containing Product
0.5%-3% Organic Matter	
Coarse	0.85 pt. (0.85 lb. a.i.) + Refer to product label
Medium	1.0 pt. (1 lb. a.i.) + Refer to product label
Fine	1.33 pts. (1.33 lbs. a.i.) + Refer to product label

Restriction:

- Do not make application to sand, or to any soil <0.5% organic matter, or to any soil with pH >6.8.

Tank Mixture with Prodiamine + Isoxaben Premix Product

This tank mixture will provide control of all weeds that are listed as controlled by **Willowood Metolachlor 86.4EC** alone and by the Prodiamine + Isoxaben product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the Prodiamine + Isoxaben product label for weeds controlled by Prodiamine + Isoxaben product. Make application of **Willowood Metolachlor 86.4EC** + Prodiamine + Isoxaben product pre-emergence after planting, but prior to soybeans emergence, using rates in the **Willowood Metolachlor 86.4EC + Prodiamine + Isoxaben -Soybeans** table.

Note: Observe and follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the **Willowood Metolachlor 86.4EC** and Prodiamine + Isoxaben product labels.

Willowood Metolachlor 86.4EC + Prodiamine + Isoxaben -Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Prodiamine + Isoxaben-Containing Product (60 DF)
0.5% -3% Organic Matter	
Coarse (Sandy loam only)	0.85 pt. (0.85 lb. a.i.) + Refer to product label
Medium	1.0 pt. (1 lb. a.i.) + Refer to product label
Fine	1.33 pts. (1.33 lbs. a.i.) + Refer to product label

Restriction:

- Do not make application to sand or loamy sand, or to any soil <0.5% organic matter, or to any soil with pH >7.0, except as in the directions for use on the Prodiamine + Isoxaben product label.

Tank Mixture with Metribuzin + Chlorimuron (ex. Canopy®)

This tank mixture will provide control of all weeds that are listed as controlled by **Willowood Metolachlor 86.4EC** alone and by the Metribuzin + Chlorimuron product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the Metribuzin + Chlorimuron label for weeds controlled by Metribuzin + Chlorimuron. Make a pre-plant incorporated or pre-emergence application using the appropriate rates from the **Willowood Metolachlor 86.4EC + Metribuzin + Chlorimuron -Soybeans** table.

Pre-Plant Incorporated: Make application within 2 weeks of planting. Uniformly incorporate into the top 1 - 2" of soil prior to planting soybeans.

Pre-Emergence: Make application after planting, but prior to soybeans emergence.

Observe and follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the **Willowood Metolachlor 86.4EC** and Metribuzin + Chlorimuron labels.

Willowood Metolachlor 86.4EC + Canopy-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Metribuzin + Chlorimuron-Containing Product
<3% Organic Matter	
Coarse	0.85 pt. (0.85 lbs. a.i.) + *
Medium	1.0 pt. (1 lb. a.i.) + *
Fine	1.33 pts. (1.33 lbs. a.i.) + *
>3% Organic Matter	
Coarse	1.0 pt. (1 lb. a.i.) + *

Medium Fine	1.33 pts. (1.33 lbs. a.i.) + * 1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + *
*Refer to the Metribuzin + Chlorimuron label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.	

Restriction:

- Do not make application to sand, or to any soil <0.5% organic matter, or to any soil with pH >7.0, except as in the directions for use on the Metribuzin + Chlorimuron label.

Tank Mixture with Metribuzin + Chlorimuron Premix Product

This tank mixture will provide control of all weeds that are listed as controlled by **Willowood Metolachlor 86.4EC** alone and by Metribuzin + Chlorimuron-containing product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the Metribuzin + Chlorimuron (ex. Preview) label for weeds controlled by Metribuzin + Chlorimuron. Make a pre-plant incorporated or pre-emergence application, using the appropriate rates from the **Willowood Metolachlor 86.4EC + Metribuzin + Chlorimuron (Preview®) -Soybeans** table.

Pre-Plant Incorporated: Make application within 2 weeks of planting. Uniformly incorporate into the top 1 - 2" of soil prior to planting soybeans.

Pre-Emergence: Make application after planting, but prior to soybeans emergence.

Note: Observe and follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the **Willowood Metolachlor 86.4EC** and Metribuzin + Chlorimuron labels.

Willowood Metolachlor 86.4EC + Metribuzin + Chlorimuron (Preview®)-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	WILLOWOOD METOLACHLOR 86.4EC + Metribuzin + Chlorimuron (PREVIEW®)*	
0.5 - 3% Organic Matter Coarse Medium Fine	0.85 pt. (0.85 lbs. a.i.) + Refer to product label 1.0 pt. (1 lb. a.i.) + Refer to product label 1.33 pts. (1.33 lbs. a.i.) + Refer to product label	
3 - 5% Organic Matter Coarse Medium Fine	1.0 pt. (1 lb. a.i.) + Refer to product label 1.33 pts. (1.33 lbs. a.i.) + Refer to product label 1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label	
*Refer to the Metribuzin + Chlorimuron (Preview®) label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.		

Restriction:

- Do not make application to sand, or to any soil <0.5% organic matter, or to any soil with pH >6.8.

Tank Mixture with Clomazone (ex. Command)

Before applying, read and strictly follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the **Willowood Metolachlor 86.4EC** and clomazone-containing product labels.

This tank mixture will provide control of all weeds that are listed as controlled by **Willowood Metolachlor 86.4EC** alone and by clomazone alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the clomazone product label for weeds controlled by clomazone. Make application of **Willowood Metolachlor 86.4EC** + a clomazone-containing product pre-plant incorporated, using rates in the **Willowood Metolachlor 86.4EC + Clomazone-Soybeans** table. Observe and follow all clomazone application instructions as to use rates, incorporation interval, geographical location, equipment operation, soil moisture conditions, etc. on the registered clomazone product label.

Willowood Metolachlor 86.4EC + Clomazone-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE		
	WILLOWOOD METOLACHLOR 86.4EC +	Clomazone-Containing Product	
		Northern Region	Southern Region
0.5 - 3% Organic Matter Coarse Medium Fine	0.85 pt. (0.85 lbs. a.i.) 1.0 pt. (1 lb. a.i.) 1.33 pts. (1.33 lbs. a.i.)	Refer to product label	Refer to product label
>3% Organic Matter Coarse Medium Fine	1.0 pt. (1 lb. a.i.) 1.33 pts. (1.33 lbs. a.i.) 1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.)		

Tank Mixture with Ethalfluralin Containing Product

This tank mixture will provide control of all weeds that are listed as controlled by **Willowood Metolachlor 86.4EC** alone and by an ethalfluralin-containing product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the ethalfluralin label for weeds controlled by ethalfluralin. Make application of **Willowood Metolachlor 86.4EC** and ethalfluralin pre-plant incorporated using the appropriate rates from the **Willowood Metolachlor 86.4EC + Ethalfluralin-Soybeans** table.

Pre-Plant Incorporated: Follow soil preparation procedures for ethalfluralin. See the ethalfluralin and **Willowood Metolachlor 86.4EC** Tank Mixture sections of respective product labels for incorporation specifications.

Sequential: Make application of ethalfluralin alone pre-plant incorporated as specified on the ethalfluralin label. Follow with a pre-emergence application of **Willowood Metolachlor 86.4EC** during planting (behind the planter) or after planting but prior to emergence of weeds or soybeans.

Willowood Metolachlor 86.4EC + Ethalfluralin-Soybeans

Do not use on muck or peat with >20% organic matter.

SOIL TEXTURE	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Ethalfluralin-Containing Product
<3% Organic Matter Coarse Medium* Fine	1.0 - 1.33 pts. (1-1.33 lbs. a.i.) + Refer to product label
	1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label
	1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label
>3% Organic Matter Coarse Medium* Fine	1.33 pts. (1.33 lbs. a.i.) + Refer to product label
	1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label
	1.67 - 2.0 pts. (1.67-2 lbs. a.i.) + Refer to product label
*For eastern black nightshade on these soils, make application of ethalfluralin product at 3 pts./A on medium-textured soils and 3.5 pts./A on fine-textured soils, and follow with 2 incorporation passes.	

Observe and follow all use directions, limitations, restrictions, precautions, and information regarding application to soybeans on the **Willowood Metolachlor 86.4EC** and ethalfluralin product labels.

Tank Mixture with Imazethapyr

This tank mixture will provide control of all weeds listed as controlled by **Willowood Metolachlor 86.4EC** alone and by an imazethapyr-containing product alone. See the **Willowood Metolachlor 86.4EC Applied Alone** section for weeds controlled by **Willowood Metolachlor 86.4EC** and refer to the imazethapyr label for weeds controlled by imazethapyr. See the imazethapyr label for geographical locations where this tank mixture may be applied and additional application information.

Make application of **Willowood Metolachlor 86.4EC** + imazethapyr early pre-plant, pre-plant incorporated, or pre-emergence after planting using rates in the **Willowood Metolachlor 86.4EC + Imazethapyr-Soybeans** table. Application may be made in water or liquid fertilizer. Observe and follow all use directions under Soil Applications on the imazethapyr product label. For early pre-plant and pre-plant incorporated applications, make application within 30 days before planting.

Note: Observe and follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the **Willowood Metolachlor 86.4EC** and imazethapyr product labels.

Willowood Metolachlor 86.4EC + Imazethapyr-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE
	WILLOWOOD METOLACHLOR 86.4EC + Imazethapyr-Containing Product
<3% Organic Matter Coarse Medium Fine	0.85 pt. (0.85 lb. a.i.) + Refer to product label
	1.0 pt. (1 lb. a.i.) + Refer to product label
	1.33 pts. (1.33 lbs. a.i.) + Refer to product label
>3% Organic Matter Coarse Medium Fine	1.0 pt. (1 lb. a.i.) + Refer to product label
	1.33 pts. (1.33 lbs. a.i.) + Refer to product label
	1.33 - 1.67 pts. (1.33-1.67 lbs. a.i.) + Refer to product label

Sequential: Make application of **Willowood Metolachlor 86.4EC** early pre-plant, pre-plant incorporated, or pre-emergence after planting at 0.85 pt./A (0.85 lbs. a.i./A) on coarse soils and 1.0 pt./A (1 lb. a.i./A) on medium- and fine-textured soils. Follow with a sequential post-emergence application of imazethapyr to control weeds that have emerged according to the imazethapyr label. **Willowood Metolachlor 86.4EC** will improve the consistency and level of control from imazethapyr on most grass species. See the imazethapyr post-emergence label for a list of weeds controlled, application use rate, and growth stage limitations.

Tank Mixture with Metribuzin (ex. Lexone, Sencor); Imazaquin (ex. Scepter); Linuron (ex. Lorox, Lorox Plus); Prodiamine + Isoxaben (ex. Gemini); Metribuzin + Chlorimuron (ex. Canopy, Preview); or Imazethapyr (ex. Pursuit) plus Paraquat (ex. Gramoxone Extra) or Glyphosate (ex. Roundup) for Minimum-Tillage or No-Tillage Systems

The contact herbicides paraquat or glyphosate may be added to a tank mix of either **Willowood Metolachlor 86.4EC** + Metribuzin, **Willowood Metolachlor 86.4EC** + Imazaquin, **Willowood Metolachlor 86.4EC** + Linuron (ex. Lorox), **Willowood Metolachlor 86.4EC** + Linuron (ex. Lorox Plus), **Willowood Metolachlor 86.4EC** + Prodiamine + Isoxaben (ex. Gemini), **Willowood Metolachlor 86.4EC** + Metribuzin + Chlorimuron (ex. Canopy), **Willowood Metolachlor 86.4EC** + Metribuzin + Chlorimuron (ex. Preview), or **Willowood Metolachlor 86.4EC** + Imazethapyr (ex. Pursuit) in minimum-tillage or no-tillage systems where soybeans are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues. When used as directed, the paraquat portion of the tank mixture will provide control of most weeds that have emerged and suppression of many perennial weeds. Glyphosate combinations will provide control of emerged annual and perennial weeds when applied as directed on the glyphosate product label. The **Willowood Metolachlor 86.4EC** + Metribuzin (ex. Sencor / Lexone), Imazaquin (ex. Scepter), Linuron (ex. Lorox, Lorox Plus), Prodiamine + Isoxaben (ex. Gemini), Metribuzin + Chlorimuron (ex. Canopy, Preview), or Imazethapyr (ex. Pursuit) portion of the tank mixture provides pre-emergence control of the weeds listed on this label in the tank mixture section for **Willowood Metolachlor 86.4EC** + Metribuzin (ex. Sencor/Lexone), **Willowood Metolachlor 86.4EC** + Imazaquin (ex. Scepter), **Willowood Metolachlor 86.4EC** + Linuron (ex. Lorox), **Willowood Metolachlor 86.4EC** + Linuron (ex. Lorox Plus), **Willowood Metolachlor 86.4EC** + Prodiamine + Isoxaben (ex. Gemini), **Willowood Metolachlor 86.4EC** + Metribuzin + Chlorimuron (ex. Canopy), **Willowood Metolachlor 86.4EC** + Metribuzin + Chlorimuron (ex. Preview), and **Willowood Metolachlor 86.4EC** + Imazethapyr (ex. Pursuit), respectively.

See the label of each product used in combination and observe and follow the planting details, soybean variety restrictions, information regarding application to soybeans, geographical restrictions, application timing, use rates and all other precautions and limitations. Refer to information below for application information on Paraquat (ex. Gramoxone Extra) or Glyphosate (ex. Roundup), **Willowood Metolachlor 86.4EC** + Metribuzin (ex. Sencor / Lexone), **Willowood Metolachlor 86.4EC** + Imazaquin (ex. Scepter), **Willowood Metolachlor 86.4EC** + Linuron (ex. Lorox), **Willowood Metolachlor 86.4EC** + Linuron (ex. Lorox Plus), **Willowood Metolachlor 86.4EC** + Prodiamine + Isoxaben (ex. Gemini), **Willowood Metolachlor 86.4EC** + Metribuzin + Chlorimuron (ex. Canopy), **Willowood Metolachlor 86.4EC** + Metribuzin + Chlorimuron (ex. Preview), and **Willowood Metolachlor 86.4EC** + Imazethapyr (ex. Pursuit), respectively.

Application: Make application before, during, or after planting, but prior to soybean emergence.

Add Paraquat or Glyphosate:

Paraquat:

Refer to the paraquat product label for weeds controlled, specified use rates and other use directions. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This application will not control weeds taller than 6".

Restriction: Do not make application of combinations that contain Gramoxone Extra in suspension type liquid fertilizers as the activity of paraquat will be reduced.

Glyphosate: Refer to the glyphosate product label for weeds controlled, use rates, and other use directions.

Make application in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

Willowood Metolachlor 86.4EC + Metribuzin (ex. Lexone / Sencor) + Paraquat (ex. Gramoxone Extra) or Glyphosate (ex. Roundup)
Loamy sand >2% organic matter: Make application at 1.0 pt. / A of **Willowood Metolachlor 86.4EC** + Metribuzin (ex. Sencor or Lexone DF).

Medium soils: Make application at 1.33 pts./A of **Willowood Metolachlor 86.4EC** + Metribuzin (ex. Sencor or Lexone DF).

Fine soils: Make application at 1.33-1.67 pts./A of **Willowood Metolachlor 86.4EC** + Metribuzin (ex. Sencor or Lexone DF).

Refer to the metribuzin product label for weeds controlled, specified use rates and other use directions.

If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days or where the seeding slit has not been properly closed.

Restriction:

- Do not use this tank mixture on soil with <0.5% organic matter, on alkaline soil with a pH >7.4, or on all sand and loamy sand with <2% organic matter to avoid crop injury.

Willowood Metolachlor 86.4EC + Imazaquin (ex. Scepter) + Paraquat (ex. Gramoxone Extra) or Glyphosate (ex. Roundup)

Coarse soils: Make application at 1.0 pt./A of **Willowood Metolachlor 86.4EC** + Imazaquin.

Medium soils: Make application at 1.33 pts./A of **Willowood Metolachlor 86.4EC** + Imazaquin.

Fine soils: Make application at 1.67 pts. /A of **Willowood Metolachlor 86.4EC** + Imazaquin.

Refer to the imazaquin product label for weeds controlled, specified use rates and other use directions.

Restrictions:

- Pre-Harvest Interval (PHI): Do not make application within 90 days of harvest.
- Do not graze or feed treated soybean forage, hay, or straw to livestock.

Willowood Metolachlor 86.4EC + Linuron (ex. Lorox) + Paraquat (ex. Gramoxone Extra) or Glyphosate (ex. Roundup)

Coarse soils: Make application at 1.0 pt./A of **Willowood Metolachlor 86.4EC** + Linuron.

Medium soils: Make application at 1.33 pts./A of **Willowood Metolachlor 86.4EC** + Linuron.
Fine soils: Make application at 1.33-1.67 pts./A of **Willowood Metolachlor 86.4EC** + Linuron.

Refer to the linuron product label for weeds controlled, specified use rates and other use directions.

Restrictions:

- Do not use on soil with <0.5% organic matter.
- Do not use on loamy sand except in the northeastern U.S.
- Do not use loamy sand with >1% organic matter.
- Do not use on sand, gravelly soils, or exposed subsoils.

Willowood Metolachlor 86.4EC + Linuron + Paraquat) or Glyphosate Containing Product

Use only soils with 0.5-3% organic matter. Do not make application to sand or to any soil with pH >6.8.

Coarse soils: Make application at 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC** + Lorox Plus 60DF.

Medium soils: Make application at 1.33 pts./A (1.33 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Lorox Plus.

Fine soils: Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Lorox Plus.

Refer to the respective product label for weeds controlled, specified use rates and other use directions.

Willowood Metolachlor 86.4EC and Prodiamine + Isoxaben Premix + Paraquat or Glyphosate Containing Product)

Use only where soils have 0.5-3% organic matter. Do not make application to sand or loamy sand, or to any soil <0.5% organic matter, or to any soil with pH >7.0, except as specified on the Prodiamine + Isoxaben (Gemini) label.

Coarse soils (sandy loam only): Make application at 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC** + Gemini 60DF.

Medium soils: Make application at 1.33 pts./A (1.33 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Gemini.

Fine soils: Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Gemini.

Refer to the respective product label for weeds controlled, specified use rates and other use directions.

Willowood Metolachlor 86.4EC and Metribuzin + Chlorimuron Premix + Paraquat or Glyphosate Containing Product

Use only where soils have 0.5-5% organic matter. Do not make application to sand, or to any soil with <0.5% organic matter, or to any soil with pH >7.0, except as specified on the Metribuzin + Chlorimuron label. See the Metribuzin + Chlorimuron **premix** label for appropriate use rate according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

Coarse soils (except sand): Make application at 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC**.

Medium soils: Make application at 1.33 pts./A (1.33 lbs. a.i./A) of **Willowood Metolachlor 86.4EC**.

Fine soils: Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A) of **Willowood Metolachlor 86.4EC**.

Refer to the respective product label for weeds controlled, specified use rates and other use directions.

Willowood Metolachlor 86.4EC and Metribuzin + Chlorimuron Premix + Paraquat or Glyphosate Containing Product

Use only where soils have 0.5-5% organic matter. Do not make application to sand, or to any soil with <0.5% organic matter, or to any soil with pH >6.8.

Coarse soils (except sand): Make application at 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC** + Preview.

Medium soils: Make application at 1.33 pts./A (1.33 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Preview.

Fine soils: Make application at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Preview.

Refer to the respective product label for weeds controlled, specified use rates and other use directions.

Willowood Metolachlor 86.4EC + Imazethapyr + Paraquat or Glyphosate

Coarse soils: Make application at 1.0 pt./A (1 lb. a.i./A) of **Willowood Metolachlor 86.4EC** + Pursuit.

Medium soils: Make application at 1.33 pts./A (1.33 lbs. a.i.) of **Willowood Metolachlor 86.4EC** + Pursuit.

Fine soils: Make application at 1.67 pts./A (1.67 lbs. a.i./A) of **Willowood Metolachlor 86.4EC** + Pursuit.

Refer to the respective product label for weeds controlled, specified use rates and other use directions.

Post-Emergence Applications (except California)

Tank Mixture with Glyphosate Products

Willowood Metolachlor 86.4EC at 1.0-1.33 pts./A (1-1.33 lbs. a.i./A) may be tank mixed with glyphosate products at labeled rates and applied from emergence up through the 5th trifoliate leaf stage of Roundup Ready or glyphosate-tolerant soybeans. **Willowood Metolachlor 86.4EC** alone will not provide control of weeds that have emerged. Use this treatment only on soybeans designated for use with glyphosate (e.g., Roundup Ready, or glyphosate-tolerant soybeans). The glyphosate product must be registered for post-emergence use in Roundup Ready or glyphosate-tolerant soybeans.

Tank Mixture with Glufosinate Ammonium (Liberty) Products

Willowood Metolachlor 86.4EC at 1.0-1.33 pts./A (1-1.33 lbs. a.i./A) may be tank mixed with glufosinate products at labeled rates and applied from emergence up through the 5th trifoliolate leaf stage of soybeans. **Willowood Metolachlor 86.4EC** alone will not control emerged weeds. Use this treatment only on soybeans designated for use with glufosinate (e.g., LibertyLink). The use of adjuvants such as COC or UAN with **Willowood Metolachlor 86.4EC** may result in temporary crop injury.

Restrictions:

- Do not make application of more than 1.33 pts./A (1.33 lbs. a.i.) post-emergence.
- Do not graze or feed treated forage or hay from soybeans to livestock following a post-emergence application.
- Observe and follow the tank mix product label for adjuvant instructions.
- Pre-Harvest Interval (PHI): Make post-emergence application at least 90 days prior to harvest.

TOMATOES

Transplanted Tomatoes: Application of **Willowood Metolachlor 86.4EC** may be made pre-plant incorporated or pre-plant before transplanting. If the latter method is used, keep soil disturbance to a minimum during transplanting. Application may also be made post-directed to transplants after the first settling rain or irrigation. Make application in a minimum of 20 gallons of water per acre and minimum contact with tomato plants when application is made post-directed. **Willowood Metolachlor 86.4EC** will not provide control of weeds that have emerged. In bedded transplanted tomatoes, make application of **Willowood Metolachlor 86.4EC** pre-plant non-incorporated to the top of the pressed bed, as the last step, before laying plastic. Application of **Willowood Metolachlor 86.4EC** may also be made to treat row-middles in bedded tomatoes, as long as the total amount of **Willowood Metolachlor 86.4EC** does not exceed the maximum allowed per crop.

Seeded Tomatoes: Application of **Willowood Metolachlor 86.4EC** may be made post-directed to direct seeded tomatoes. Tomato plants must be at least 4" tall at the time of application and the product must be applied in a minimum of 20 gallons of water per acre. Minimize spray contact with tomato plants. **Willowood Metolachlor 86.4EC** will not provide control of weeds that have emerged.

Tomato Use Rates:

Coarse soils: Make application of **Willowood Metolachlor 86.4EC** at 1.0-1.33 pts./A (1-1.33 lbs. a.i./A) if organic matter content is <3% or 1.33 pts./A (1.33 lbs. a.i./A) if the organic matter is >3%.

Medium soils: Make application of **Willowood Metolachlor 86.4EC** at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A).

Fine soils: Make application of **Willowood Metolachlor 86.4EC** at 1.33-1.67 pts./A (1.33-1.67 lbs. a.i./A) if organic matter content is <3% or 1.67-2.0 pts./A (1.67-2 lbs. a.i./A) if the organic matter content is >3%. Make application by ground application only.

Precautions:

- **Willowood Metolachlor 86.4EC** may damage transplants that have been weakened for any reason. To prevent damage, plant only healthy transplants.
- In transplanted tomatoes, if application of **Willowood Metolachlor 86.4EC** is made pre-plant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower use rate within the specified rate range for the given soil type, or damage may result.
- For row middle applications where tomatoes are grown on sandy soils and when high soil moisture conditions can exist (ex. low binding and high evaporation conditions), as can be found in the States of Florida, Georgia, Maryland, and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by the following:
 - Incorporating the **Willowood Metolachlor 86.4EC** immediately after application.
 - Making application of **Willowood Metolachlor 86.4EC** 7 or more days prior to transplanting (but only after the beds have been formed).
 - Minimizing the application of **Willowood Metolachlor 86.4EC** onto the plastic of the bed
 - Any combination of the above.

Restrictions:

- Apply by ground application only.
- Pre-Harvest Interval (PHI): Do not make application of **Willowood Metolachlor 86.4EC** within 90 days of tomato harvest.
- Do not exceed the maximum label rate for the soil texture per year.
- Do not make application of more than 1 post-emergence application per year.
- Do not make application to varieties or cultivars with unknown tolerance to **Willowood Metolachlor 86.4EC**.
- Do not plant when wet, cool, or unfavorable growing conditions exist.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: This product may be stored at temperatures down to 30°F below 0°F.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA region office for guidance.

CONTAINER HANDLING:

Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 gals.): Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into

application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Plastic and Metal Containers (Capacity Greater Than 5 gals.): Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities. Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Non-refillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Offer for recycling, if available, or dispose empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with this herbicide only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by State and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with this herbicide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Non-refillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

IMPORTANT: READ BEFORE USE

CONDITION 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 unopened product container at once. By using the product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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