

66222-160

5/19/2009

1 of 15



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 19 2009

MAY 19 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Jane Rothwell
Makhteshim Agan of North America, Inc.
4515 Falls of Neuse Rd., Suite 300
Raleigh, NC 27609

Subject: Label Amendment – Additional Sites (Fallow Systems, Grass Grown for Seed,
Wheat, and Sorghum) & WSP for Rice Only
Revised Basic and Alternate CSFs
MANA Quinclorac 75
EPA Reg. No. 66222-160
Application Dated January 16, 2009
Resubmission Dated March 10, 2009

Dear Ms. Rothwell:

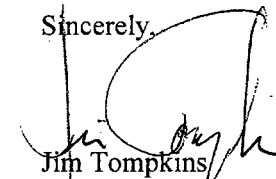
The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you make the following changes:

1. On page 2 under Volume, revise the name from "Ryzib 75DF" to "MANA Quinclorac 75".
2. On page 5 under Drift, revise the second bullet to read "Do not apply MANA Quinclorac 75 by ground when wind is greater than 10 mph by ground or 8 mph by air."
3. On page 7, revise the text to read "Refer to Table 2 in the ~~section~~ SPRAY ADDITIVES section of this label for additional requirements." in both instances.
4. On page 9, revise the text to read "Refer to the ~~section~~ FIELD AND HEDGE BINDWEED CONTROL DIRECTIONS section of this label for additional use directions."
5. On page 11, add the rice restriction "Do not apply in California or Florida."

The basic and alternate Confidential Statements of Formula (CSF) dated March 24, 2009 are acceptable, and will supercede all previously accepted CSFs.

The amended label supercedes all previously accepted labels. A stamped copy of the label is enclosed for your records. Submit one copy of final printed labeling incorporating the above changes before you release this product for shipment.

Sincerely,



Jim Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

MANA Quinclorac 75

ACTIVE INGREDIENT:	% BY WT.
Quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid:.....	75.0%
OTHER INGREDIENTS:	25.0%
	TOTAL: 100.0%
EPA Reg. No. 66222-160	EPA Est. No.

Manufactured for:
Makhteshim Agan of North America, Inc.
4515 Falls of Neuse Rd., Suite 300
Raleigh, NC 27609

Net Weight: _____ LBS.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF IN SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible. • 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. You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information.	

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)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as butyl rubber ≥ 14 mils, natural rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Keep and wash PPE separately from other laundry.

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

USER SAFETY RECOMMENDATIONS
<p>Users should:</p> <ul style="list-style-type: none"> • Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. • Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable, particularly where the watertable is shallow, may result in groundwater contamination. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of rinsate.

Note to Label Editor; Alternate language to appear on the rice only label-this note to label editor will not appear on final printed labeling: This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. For terrestrial uses do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark, except as specified on this label for use on rice. Keep out of lakes, ponds, and streams. Do not contaminate water by cleaning of equipment or disposal of rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. 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, and water is:

- Coveralls
- Chemical-resistant gloves such as butyl rubber ≥ 14 mils, natural rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow others to enter until sprays have dried.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees. Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the aerial drift reduction advisory information presented below.

Importance of Droplet Size

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

Controlling Droplet Size

- **Volume** -Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Apply Ryzib 75DF in 3-10 gallons of spray volume per acre.
- **Pressure** -Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE HIGHER FLOW RATE NOZZLES INSTEAD OF INCREASING PRESSURE.** Use a maximum of 40 psi (measured at the boom, not at the pump or in the line).
- **Number of Nozzles**-Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation**-Orienting nozzles so that the spray is released backward (the downward angle of the nozzles on fixed wing aircraft should not be greater than 20°) or parallel to the airstream on helicopters, will produce larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type**-Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Some nozzle examples are CP Lund or flat fans with angles of 25°-65°. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types. If using nozzle screens, do not use screens finer than the 50-mesh size as nozzle plugging is possible.
- **Boom Length**-For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height**-Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

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

Wind

Drift potential is lowest between wind speeds of 2-10 mph; however, many factors including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Do not apply MANA Quinclorac 75 when wind is blowing more than 8 mph. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

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

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This pesticide should 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, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry and well ventilated area. **DO NOT** store under wet conditions.

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

CONTAINER HANDLING:

Nonrefillable Container (flexible-bag-all weights): Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-fifty lbs. or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-greater than fifty lbs.): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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. 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 offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Foil Outer Packages of Water-Soluble Bags (WSB) only:

Nonrefillable 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.

Refillable Container: Refillable container. Refill this container with quinclorac only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

SPILL, FIRE, LEAK or OTHER EMERGENCY: In the event of a major spill, fire, leak, or other emergency, call Chemtrec at 1-800-424-9300, 24 hours.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and

all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc's. election, the replacement of product.

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Buctril[®] is a registered trademark of Bayer CropScience.

Peak[®] is a registered trademark of a Syngenta Group Company.

Fallowmaster[®], Landmaster[®], and Roundup[®] are registered trademarks of Monsanto Company.

Delavan[®] is a registered trademark of Garlock International Inc.

Tee Jet[™] is a trademark of Spraying Systems Company.

Basagran[®] is a registered trademark of BASF AG.

Bolero[®] is a registered trademark of Kumiai Chemical Industry Company.

Command[®] is a registered trademark of FMC Corporation.

Parazone is a registered trademark of Makhteshim Agan of North America, Inc.

NOTE TO LABEL EDITOR: THE SECTIONS BELOW ARE FOR PRODUCT NOT PACKAGED IN WATER-SOLUBLE BAGS. THIS STATEMENT WILL NOT APPEAR ON THE FINAL PRINTED LABEL

FOR WEED CONTROL IN FALLOW SYSTEMS, GRASS GROWN FOR SEED, PREPLANT WHEAT (SEE USE DIRECTIONS FOR GEOGRAPHIC LIMITATIONS), PREPLANT AND IN-CROP SORGHUM, AND NONCROP AREAS IN THE FOLLOWING STATES: CO, DE, ID, IL, KS, MD, MN, MO, MT, ND, NE, NM, NV, OK, OR, PA, SD, UT, WA, WY, VA, AND DESIGNATED COUNTIES OF TX

GENERAL INFORMATION

MANA Quinclorac 75 is a dry flowable formulation to be diluted with water prior to application using common agricultural spray equipment. When used as directed, MANA Quinclorac 75 will provide suppression or control of weed species listed in Table 1.

MANA Quinclorac 75 is a systemic herbicide. The weed foliage and roots absorb MANA Quinclorac 75 and translocate it throughout the weed. Treated weeds will show signs of leaf and stem curling or twisting, stunting, change color from green to white (chlorosis), finally to red, and become necrotic before finally dying. Annual plants treated with MANA Quinclorac 75 may not show symptoms for up to two weeks after application and up to three weeks for death of the weed. Perennial weeds treated with MANA Quinclorac 75 may not show symptoms for several weeks after application and the full effect occurring 3 to 6 months after application. Thorough coverage of emerged weeds with the MANA Quinclorac 75 spray is essential in order for the weed foliage to absorb the MANA Quinclorac 75. Control may be more difficult in fields where larger leaves cover smaller weeds preventing thorough spray coverage of the smaller weeds.

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than a total of 16 oz. of MANA Quinclorac 75 per acre per calendar year.
- Restricted Entry Interval (REI): 12 hours
- Crop Rotation Restrictions:
 - ❖ **Immediate replant allowed after crop failure:** Spring or winter wheat or grain sorghum
 - ❖ **Replant allowed 24 months after application:** alfalfa, clover, dry beans, flax, peas, lentils, safflower, solanaceous crops (listed below), and sugarbeets. A bioassay must be conducted before planting these crops.
 - ❖ **Replant allowed 309 days (10 months) after application:** all other crops
- To ensure adequate weed control, do not apply to weeds or grasses under stress due to lack of moisture, herbicide injury, mechanical injury or extreme temperatures.
- To prevent crop injury, do not apply to crops under stress due to hail damage, flooding, drought, injury from other herbicides, or widely fluctuating temperatures.
- Do not use recirculating sprayers, wiper applicators, or shielded applicators.
- MANA Quinclorac 75 is rainfast 6 hours after application.
- Do not apply through any type of irrigation equipment.
- Do not apply to irrigation ditches or areas that act as a channel for water entering cropland.
- Do not apply by ground in Arkansas in an area from one-mile west of Highway No. 1 to one-mile east of Highway No. 163 from the Craighead/Poinsett county line to the Cross/Poinsett county line. Do not apply by air in the entire state of Arkansas.
- **State Specific Restrictions:** Because there are additional state restrictions in Arkansas, contact the Arkansas Plant board or a representative for specific instructions about applying MANA Quinclorac 75 in Arkansas.

Drift (see additional precautions under Aerial Applications):

- Do not apply by air in states and counties listed in the **AERIAL APPLICATION** section of this label.
- Do not apply MANA Quinclorac 75 by ground when wind is greater than 10 mph by ground or 8 mph by air.
- Do not allow MANA Quinclorac 75 to drift onto other desirable plants, especially sensitive crops belonging to the following plant families:
 - ❖ *Solanaceae* (tomato, potato, tobacco, eggplant, peppers (Capsicum), among others)
 - ❖ *Umbelliferae* (celery, parsley, carrots, among others)
 - ❖ *Leguminosae* (alfalfa, green bean, among others)
 - ❖ *Convolvulaceae* (sweet potato, among others)
 - ❖ *Chenopodiaceae* (spinach, sugar beet, among others)
 - ❖ *Malvaceae* (okra, among others)
 - ❖ *Cucurbitaceae* (watermelon, cantaloupe, squash, pumpkin, among others)
 - ❖ *Compositae* (lettuce, sunflowers, among others)
 - ❖ *Linaceae* (flax)
- Do not allow spray containing MANA Quinclorac 75 to drift onto areas where tomatoes are to be planted, have been planted, or onto emerged tomatoes, as severe injury will occur.
- Do not use MANA Quinclorac 75 in tank mixes not specified on this label or Makhteshim Agan of North America, Inc. technical bulletins.
- Do not premix MANA Quinclorac 75 with fungicides, herbicides, insecticides, additives, or fertilizers as contamination of mixing equipment and movement of MANA Quinclorac 75 to off-site mixing areas can occur.

WEEDS CONTROLLED OR SUPPRESSED

When used as directed, MANA Quinclorac 75 will provide suppression or control of weed species listed in Table 1.

Table 1: Target Weeds

Weeds Controlled	Weeds Suppressed*
<p>Annual Grasses Barnyard Grass Crabgrass, large Foxtail, giant, green, yellow Junglerice Signalgrass, broadleaf</p> <p>Annual Broadleaves Bedstraw, catchweed (cleavers) Clovers Eclipta Lettuce, prickly Morningglory spp. Flax, volunteer Sesbania, hemp.</p> <p>Perennial Broadleaves Bindweed¹, field, hedge</p>	<p>Annual Broadleaves Alligatorweed Kochia Lambsquarters, common Ragweed, common, giant Sunflower, wild Thistle³, Russian Velvetleaf</p> <p>Perennial Broadleaves Dandelion Sowthistle³, perennial Spurge², leafy Thistle³, Canada</p>
<p>*Do not apply more than a total of 16.0 oz. of MANA Quinclorac 75 per acre per calendar year. Make applications at yellow bract (pre-bloom) or in the fall before first severe frost. For best performance to control these species, apply 8.0 oz. per acre of MANA Quinclorac 75 as a tank mix with 4-6 oz. per acre of Distinct[®] herbicide. Improved control is achieved by tank mixing MANA Quinclorac 75 with another herbicide that controls these listed species.</p>	
<p>¹ See additional use directions under FIELD AND HEDGE BINDWEED CONTROL DIRECTIONS section of this label.</p>	
<p>² Do not apply more than a total of 16.0 oz. of MANA Quinclorac 75 per acre per calendar year. Apply 8.0 – 16.0 oz. of MANA Quinclorac 75 per acre in non-crop areas for suppression and annual growth control. Make applications at yellow bract (pre-bloom) or in the fall before first severe frost. For best performance to control this species, apply 8.0 oz. per acre of MANA Quinclorac 75 as a tank mix with 4-6 oz. per acre of Distinct[®] herbicide.</p>	
<p>³ Do not apply more than a total of 16.0 oz. of MANA Quinclorac 75 per acre per calendar year. Apply 8.0 oz. of MANA Quinclorac 75 per acre for suppression and annual growth control. Make applications at rosette stage or bud stage and avoid application when seed stalk is bolting. For best performance on this species, tank mix 8.0 ounces per acre of MANA Quinclorac 75 with 4-6 ounces per acre of Distinct[®] herbicide.</p>	

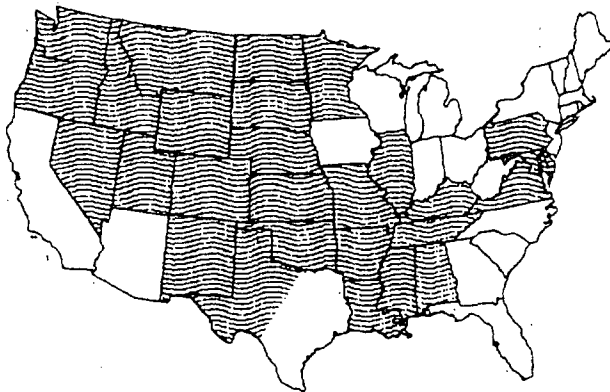
FIELD AND HEDGE BINDWEED CONTROL DIRECTIONS

Application of MANA Quinclorac 75 herbicide in the fall just prior to the first severe frost provides the most effective bindweed control. Make applications to bindweed plants that are actively growing and at least 4 inches long. Wait a minimum of 30 days for bindweed plants to regrow after tillage (if tillage is a part of the local postharvest practice) before making the MANA Quinclorac 75 application. If applied yearly at 5.3 – 8.0 oz. per acre in the fall, MANA Quinclorac 75 will provide long-term bindweed control. The higher rate is used when plants are large or densely populated. Refer to Table 2 in the **SPRAY ADDITIVES** section of this label for additional requirements.

MANA QUINCLORAC 75 HERBICIDE APPLICATION AREA

MANA Quinclorac 75 may be applied in the areas noted in Figure 1.

Figure 1. Application Regions for MANA Quinclorac 75



Texas: MANA Quinclorac 75 may be used in the following counties of Texas: Archer, Armstrong, Bailey, Baylor, Borden, Briscoe, Brown, Callahan, Carson, Castro, Childress, Clay, Cochran, Coke, Coleman, Collin, Collingsworth, Concho, Cooke, Cottle, Crosby, Dallam, Dawson, Deaf Smith, Denton, Dickens, Donley, Fisher, Floyd, Foard, Garza, Glasscock, Gray, Grayson, Hale, Hall, Hansford, Hardeman, Hartley, Haskell, Hemphill, Hockley, Hutchinson, Jack, Jones, Kent, King, Know, Lamb, Lipscomb, Lubbock, Lynn, McCulloch, Montague, Moore, Motley, Nolan, Chiltree, Oldham, Parmer, Potter, Randall, Roberts, Runnels, Schackelford,

Scurry, Sherman, Sterling, Stonewall, Swisher, Taylor, Terry, Throckmorton, Wheeler, Wichita, Wilbarger, Wise, Yoakum, and Young. **Prior to application of MANA Quinclorac 75, obtain and follow all Texas state requirements for such uses.**

APPLICATION INFORMATION

MANA Quinclorac 75 may be applied to the sites indicated in this section of the label by ground or aerial application equipment.

Make MANA Quinclorac 75 applications by broadcast or spot sprays when weeds are actively growing. Optimum results are achieved for most broadleaf weeds from application of MANA Quinclorac 75 when weeds are small. If the weeds become too large, adequate control may not be obtained. If weeds are not actively growing, irrigation prior to application may be required to ensure effective control.

Refer to the **GENERAL RESTRICTIONS AND LIMITATIONS** section and the **AERIAL APPLICATION** section for specific state and county restrictions.

GROUND APPLICATION (Broadcast)

Make applications of MANA Quinclorac 75 in properly calibrated ground equipment. Apply in 5-30 gallons of water per broadcast acre at pressures up to 30 psi (measured at the boom, not at the pump or in the line). For dense weed foliage, use the higher spray volumes.

Use only nozzles that will produce uniform spray patterns and thorough coverage. Place nozzles up to 20 inches apart. Select nozzles which are designed to produce minimal amounts of fine spray particles. Do not use controlled droplet applicator (CDA) nozzles which can cause erratic weed coverage and lead to inconsistent weed control. Do not use selective application equipment such as recirculating sprayers or wiper applicators. Recommended nozzles for drift reduction include Delavan® Raindrop Drift Reduction Flat Spray Tip, RF Tips, XR Tee Jet™ Extended range Flat Spray Tips, or other brands with similar capabilities.

Refer to Table 2 in the section **SPRAY ADDITIVES** section of this label for additional requirements.

AERIAL APPLICATION

Make applications of MANA Quinclorac 75 in properly calibrated aerial application equipment. Apply in 3-10 gallons of water per acre

Flaggers and other personnel working on the ground to help guide aerial applications must avoid contact with spray mist and must wear personal protective equipment and protective eyewear.

Refer to Table 2 in the section **SPRAY ADDITIVES** section of this label for additional requirements.

Do not apply MANA Quinclorac 75 by air in the following counties. The possible presence of endangered plant species in these counties might be impacted by aerial applications of MANA Quinclorac 75.

State	Counties
Arkansas	Do not apply MANA Quinclorac 75 by air in all counties
Colorado	Boulder, Delta, Garfield, Jefferson, La Plata, Mesa, Montezuma, Montrose, Morgan, Rio Blanco, San Miguel, Weld
Idaho	Idaho, Kootenai, Latah
Kansas	Allen, Anderson, Atchison, Bourbon, Coffey, Crawford, Douglas, Franklin, Jackson, Jefferson, Johnson, Leavenworth, Linn, Lyon, Miami, Neosho, Osage, Pottawatomie, Riley, Shawnee
Louisiana	Do not apply MANA Quinclorac 75 by air in all counties
Mississippi	Do not apply MANA Quinclorac 75 by air in all counties
Montana	Lake, Missoula
Nebraska	Box Butte, Cherry, Garden, Hall, Lancaster, Morrill, Seward, Sheridan
New Mexico	Chaves, Dona Ana, Eddy, San Miguel
North Dakota	Ransom, Richard
Oklahoma	Choctaw, Craig, Rogers
Oregon	Benton, Clackamas, Coos, Douglas, Harney, Klamath, Lane, Linn, Marion, Polk, Willamette, Washington, Yamhill
South Dakota	Bennett, Brookings, Brown, Clay, Coddington, Day, Deuel, Grant, Lincoln, Minnehaha, Moody, Roberts, Todd, Turner, Union, Yankton
Texas	Bandera, Brazos, Burleson, Coke, El Paso, Fort Bend, Freestone, Harris, Hays, Hudspeth, Jim Wells, Kerr, Kimble, Kleberg, Leon, Live Oak, Madison, Mitchell, Nueces, Pecos, Refugio, Robertson, Runnels, San Patricio, Starr, Uvalde, Washington
Utah	Cache, Carbon, Duchesne, Emery, Garfield, Kane, Salt Lake, San Juan, Sanpete, Sevier, Tooele, Uintah, Utah, Washington, Wayne, Weber
Washington	Chelan, Clark, Cowlitz, Island, Spokane

SPRAY ADDITIVES

The use of spray additive(s) with MANA Quinclorac 75 is required in order to achieve consistent weed control. Methylated seed oil (MSO) is the recommended spray additive with MANA Quinclorac 75. Crop oil concentrates may also be used with MANA Quinclorac 75. Enhanced efficacy can be achieved by addition of a nitrogen fertilizer source (AMS or UAN) but cannot be used in place of methylated seed oil or crop oil concentrate. Refer to **Table 2. Spray Additive Rate Per Acre** section below for spray additive rates. Consult your local Makhteshim Agan of North America, Inc. representative for recommendations for your area.

Table 2. Spray Additive Rate per Acre

Spray Additive	Amounts to use for Aerial Applications	Amounts to use for Ground Applications
Methylated Seed Oil	1.0 – 2.0 pints ²	1.0 – 2.0 pints ²

Crop Oil Concentrate	2.0 pints	2.0 pints
AMS, Liquid ¹	1.5 quarts	--
AMS, Solid ¹	--	2.5 pounds
UAN Solution ¹	0.5 gallons	0.5 - 1 gallons

¹Optional

²For best grass control, use at least 1.5 pints/acre of methylated seed oil.

Methylated Seed Oil or Crop Oil Concentrate:

A methylated seed oil or crop oil concentrate must meet all of the following criteria:

- Contain either a petroleum or vegetable oil base, and
- be nonphytotoxic, and
- contain only EPA-exempt ingredients, and
- provide good mixing results from the **Compatibility Test for Tank Mixtures** section of this label, and
- be successful in local experience.

Suitable products will vary in their exact composition, but vegetable and petroleum oil concentrates should contain emulsifiers that provide good mixing quality. Better results have been proved with highly refined vegetable oils than with unrefined vegetable oils.

For additional information, see **Compatibility Test for Tank Mixtures** section of this label.

For bindweed control in Oklahoma, New Mexico and the designated counties of Texas, addition of methylated seed oil plus AMS is mandatory when MANA Quinclorac 75 is applied alone.

Nitrogen Fertilizer Sources:

1. **Urea ammonium nitrate (UAN):** These products are 28%, 30% or 32% nitrogen solutions. If including UANs in spray tanks, do not use brass or aluminum spray nozzles.
2. **Ammonium sulfate (AMS):** AMS may be substituted for UAN. Use high-quality AMS (spray grade) to avoid plugging of nozzles. Other sources of nitrogen are not as effective as the ones mentioned above. Makhteshim Agan of North America, Inc. does not recommend applying AMS if applied in less than 10 gallons per acre because of potential problems with precipitation in reduced volumes. Use AMS only if it has been demonstrated to be successful in local experience. Because most nitrogen solutions are mildly corrosive to galvanized, mild steel, and brass spray equipment, rinse the entire spray system with water soon after use. To avoid plugging of spray nozzles: 1) Use high-quality AMS; 2) Use an AMS which is readily soluble in water and contains no insoluble materials. Local sources of high-quality, fine, feed-grade AMS may be better than fertilizer grade. Low-quality AMS may contain material that will not readily dissolve, which could result in nozzle tip plugging. 3) To determine AMS quality, perform a jar test adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If any undissolved sediment is observed, pre-dissolve the AMS in water and filter before adding it to the spray tank. If the AMS is added directly to the spray tank, add slowly while agitating. Adding the mix too quickly may clog outlet lines.

Nonionic Surfactant:

A nonionic spray surfactant (80%) may only be used when MANA Quinclorac 75 is tank mixed with other products that prohibit the use of oil additives. Reduced weed control from MANA Quinclorac 75 plus the nonionic surfactant may result. Use at the nonionic surfactant rate of 1 quart per 100 gallons of water (0.25% vol./vol.). If a nonionic surfactant is used with MANA Quinclorac 75, a nitrogen fertilizer source must be used as well.

TANK MIXTURES WITH MANA QUINCLORAC 75

Other registered products such as those listed below may be tank mixed with MANA Quinclorac 75. Before using other products in combination with MANA Quinclorac 75, read and follow the restrictions and limitations and directions for use on all products' labels. The most restrictive labeling applies to tank mixes.

Makhteshim Agan of North America, Inc. does not recommend using tank mixes other than those listed on Makhteshim Agan of North America, Inc. labeling. Physical incompatibility, reduced weed control, or crop injury may result from mixing MANA Quinclorac 75 with other pesticides, additives, or fertilizers. Local agricultural authorities may be a source of information when using other than Makhteshim Agan of North America, Inc. recommended tank mixes.

For suppression of weeds listed in Table 1, use the following herbicides as tank mixes with MANA Quinclorac 75. When mixing MANA Quinclorac 75 as a tank mix, use a rate of 5.3-8.0 oz. per acre of MANA Quinclorac 75.

- 2,4-D
- Atrazine
- Buctril® (bromoxynil)
- Buctril® Atrazine (bromoxynil + atrazine)
- Clarity® (dicamba)
- Cyclone®, Parazone® (paraquat)
- Distinct® (diflufenzopyr + Dicamba)
- Fallowmaster® (glyphosate + Dicamba)
- Frontier® (dimethenamid)
- Guardman® Max (dimethenamid-P + atrazine)
- Landmaster® (glyphosate + 2,4-D)
- Marksman® (Dicamba + atrazine)
- Outlook® (dimethenamid-P)
- Peak® (prosulfuron)
- Roundup® RT (glyphosate)
- Roundup® Ultra (glyphosate)
- Weedmaster® (Dicamba + 2,4-D)

Compatibility Test for Tank Mixtures

Carry out this test using a one-quart jar. Add the ingredients in the order listed below. To calculate the amount to add to a one quart jar, use the following guidelines:

- For dry products applied at 1 lb. per acre, add 2 teaspoons to a one-quart jar. For MANA Quinclorac 75 at the 5.3 oz. rate, use 1 teaspoon. For MANA Quinclorac 75 at the 8.0 oz. rate, use 1.5 teaspoon.
- For liquid products applied at 1 pint per acre, add 1 teaspoon to a one-quart jar.
- 1. **Water:** For a spray volume of 20 gallons per acre, add 3.3 cups (800 ml) of water. Adjust the rates if other spray volumes are planned. Use water from the intended source.
- 2. **Water-soluble packages:** Slit one of the bags just wide enough for a teaspoon to remove the sample. If compatible, use the opened bag first when preparing a tank mix solution. Boron-containing fertilizers can be incompatible with water-soluble bags. Include water-soluble bags if a boron fertilizer is intended to be used. Cap the jar and invert 10 times.
- 3. **Water-Dispersible (WG) Products (such as dry flowables (DF) including MANA Quinclorac 75, wettable powders (WP), suspension concentrates (SC), or suspoemulsions):** Cap the jar and invert 10 times.
- 4. **Water-soluble products:** Cap the jar and invert 10 times.
- 5. **Emulsifiable concentrates, methylated seed oil, or crop oil concentrate:** Cap the jar and invert 10 times.
- 6. **Water-soluble additives, including AMS or UAN:** Cap the jar and invert 10 times.

Let the test mixture stand for 15 minutes and then evaluate for uniformity and stability. The spray solution should not have free oil on the surface or fine particles that precipitate to the bottom or thick (clabbered) texture. Do not use any spray solution that could clog spray nozzles.

DIRECTIONS FOR MIXING MANA QUINCLORAC 75

Before mixing MANA Quinclorac 75 with other products, conduct a compatibility test to determine if the spray solution is stable. Follow the directions in the section **Compatibility Test for Tank Mixtures** section of this label.

1. Use only spray tanks that have been cleaned prior to use.
2. Add ¾ the amount of required water to the spray tank while agitating.
3. If an inductor system is used, rinse thoroughly after addition of each component.

Add products to the spray tank in the following order

- ❖ water-soluble pouches; allow the pouches to dissolve before agitation or adding the next component.
- ❖ water dispersible products including MANA Quinclorac 75 (dry flowables, wettable powders, suspension concentrates or suspoemulsions).
- ❖ water-soluble products
- ❖ Emulsifiable concentrates (including oil concentrates)
- ❖ Water-soluble additives (AMS or UAN)

Add the remaining amount of water to the tank and agitate to ensure a uniform distribution.

Continue agitation until spraying is completed. If the spray solution is allowed to settle, reagitate thoroughly to resuspend the mixture and then continue spray operations.

Cleaning of Spray Equipment

Ensure that spray equipment is properly and thoroughly cleaned before and after applying MANA Quinclorac 75. Use a strong detergent or commercial sprayer cleaner and follow the manufacturer's directions for use.

CROP SPECIFIC INFORMATION

Crop-Specific Restrictions and Limitations

- Do not allow livestock to graze in treated areas.
- Do not harvest hay from treated areas within 309 days after application.
- Do not feed treated grasses, forage hay, silage, straw, seed or seed screenings to livestock.
- Do not apply to water or to areas where surface water is present.
- Do not apply to irrigated ditches or areas that act as a channel for water entering cropland.

GRASSES GROWN FOR SEED

Apply MANA Quinclorac 75 at 5.3 oz per acre for control of annual grasses and broadleaf weeds (see Table 1) in the listed grasses grown for seed. Apply MANA Quinclorac 75 for bindweed control after grass seed is harvested and the hay is removed, but before the first severe frost. Refer to the section **FIELD AND HEDGE BINDWEED CONTROL DIRECTIONS** section of this label for additional use directions. Other registered products such as those listed below may be tank mixed with MANA Quinclorac 75. Before using other products in combination with MANA Quinclorac 75, read and follow the restrictions and limitations and directions for use on all products' labels. The most restrictive labeling applies to tank mixes.

Cool Season Grasses	Warm Season Grasses
Bromegrass; smooth, meadow, smooth X meadow cross	Bermudagrass
European Dunegrass	Bluestem; big, little, sand
Fescue; fine, tall	Gramma; blue, side-oats
Junegrass	Sandreed; prairie
Kentucky Bluegrass	Switchgrass
Quackgrass	
Needlegrass; green	
Orchardgrass	
Ryegrass; annual, Indian, perennial	
Wheatgrass; bluebunch, crested, fairway, fairway X crested cross, intermediate, pubescent, Siberian, slender, tall, thickspike, western, bluebunch X quack cross	
Wildrye; Altai, basin, beardless, Dahurian, mammoth, Russian	

FALLOW SYSTEMS OR PRE-PLANT WHEAT OR PRE-PLANT SORGHUM

DO NOT use on preplant wheat in the following states: ID, MT, NV, OR, UT, WA or WY

Apply MANA Quinclorac 75 at 5.3 oz. per acre in fallow areas or preplant wheat (see state restrictions above) or preplant grain sorghum to control annual grasses and broadleaf weeds (see Table 1). For bindweed control with MANA Quinclorac 75, refer to the section of this label entitled **FIELD AND HEDGE BINDWEED CONTROL DIRECTIONS** for additional use directions.

If MANA Quinclorac 75 is applied as a preplant treatment in wheat, be sure that the wheat is planted at least 1" deep. Crop injury could occur if the wheat is planted in shallow (<1" deep) soil especially if the wheat is subject to drought or other conditions that lead to plant stress.

Fallow Tank Mixes: Other registered products such as those listed below may be tank mixed with MANA Quinclorac 75. Before using other products in combination with MANA Quinclorac 75, read and follow the restrictions and limitations and directions for use on all products' labels. The most restrictive labeling applies to tank mixes.

- **2,4-D**
- **Clarity**[®] (dicamba)
- **Distinct**[®] (diflufenzopyr + dicamba)
- **Fallowmaster**[®] (glyphosate + dicamba)
- **Landmaster**[®] (glyphosate + 2,4-D)
- **Roundup**[®] RT (glyphosate)
- **Roundup**[®] Ultra (glyphosate)

In-Crop Sorghum

Apply MANA Quinclorac 75 to grain sorghum at 5.3-8.0 oz. per acre for control of annual grasses and broadleaf weeds. Time applications to occur preemergence to postemergence (to 12 inch tall sorghum). For optimum annual grass control, MANA Quinclorac 75 (5.3-8.0 oz. per acre) should be applied in a tank mix with atrazine (0.5-1.0 pound a.i. per acre) when weeds are less than 2" tall.

Do not use liquid fertilizer as a carrier for postemergence applications of MANA Quinclorac 75 to grain sorghum.

In Oklahoma, New Mexico, and in the designated counties in Texas, do not apply more than 8.0 oz. of MANA Quinclorac 75 per acre to in-crop sorghum.

Tank Mixes: Other registered products such as those listed in Table 3 may be tank mixed with MANA Quinclorac 75. Before using other products in combination with MANA Quinclorac 75, read and follow the restrictions and limitations and directions for use on all products' labels. The most restrictive labeling applies to tank mixes.

Table 3. Tank Mix Use Rate per Acre with MANA Quinclorac 75

Herbicide Tank Mix Partner	Fallow and Preplant Wheat	Preplant Sorghum	Postemergence Sorghum
2,4-D	0.375 – 1.0 lb ai	0.375 – 1.0 lb. ai	0.125 – 0.5 lb ai
atrazine	--	0.5 – 1.0 lb ai	0.5 – 1.0 lb. ai
Clarity [®]	4 – 16 oz.	4.16 oz.	8 oz.
Fallowmaster [®]	22 – 44 oz.	22 – 44 oz.	--
Landmaster [®]	32 – 54 oz.	32 – 54 oz.	--
Peak [®]	--	--	0.25 oz.
Roundup Ultra [®] and RT [®]	12 – 32 oz.	12 – 32 oz.	--
Buctril [®]	--	--	16 oz.
Buctril [®] /Atrazine	--	--	32 oz.
Guardsman Max [®]	--	--	40 – 64 oz.

NONCROP AREAS

(Roadsides, Fencelines and Rights-of-Way)

Noncrop areas that may be treated with MANA Quinclorac 75 include fence lines, roadsides, highway medians, utilities, railroad and pipeline rights-of-way. MANA Quinclorac 75 controls certain weeds in the Noxious Weed Control Programs, Districts or Areas when applied by broadcast application or as spot treatments. Refer to Table 1 for weeds controlled. For annual weeds, use 5.3 – 8.0 oz. of MANA Quinclorac 75 per acre or for perennial weeds, use 8.0 – 16.0 oz. per acre. Do not exceed a total of 16.0 oz. of MANA Quinclorac 75 per acre per calendar year. For bindweed control with MANA Quinclorac 75, refer to the section of this label entitled **FIELD AND HEDGE BINDWEED CONTROL DIRECTIONS** for additional use directions.

NonCrop Tank Mixes: Other registered products such as those listed below may be tank mixed with MANA Quinclorac 75. Before using other products in combination with MANA Quinclorac 75, read and follow the restrictions and limitations and directions for use on all products' labels. The most restrictive labeling applies to tank mixes.

- **2,4-D**
- **Clarity**[®] (dicamba)
- **Distinct**[®] (diflufenzopyr + dicamba)
- **Roundup**[®] RT (glyphosate)
- **Roundup**[®] Ultra (glyphosate)

NOTE TO LABEL EDITOR: THE FOLLOWING DIRECTIONS ARE FOR PRODUCT PACKAGED IN WATER-SOLUBLE PACKETS-THIS STATEMENT WILL NOT APPEAR ON THE FINAL PRINTED LABEL

GENERAL INFORMATION-RICE

MANA Quinclorac 75 may be used in dry-seeded, water-seeded, and Clearfield® rice plantings and production cultures to control weeds. MANA Quinclorac 75 is a dry flowable formulation to be diluted with water prior to application using common agricultural spray equipment. The water-soluble bags contain one pound of product and can be added directly to the spray tank.

Rice is tolerant to MANA Quinclorac 75 when used according to the use directions on this label and when typical growing conditions exist. Under adverse weather conditions or if a higher rate results from spray overlap (or other sources), leaf twisting, buggy whipping, or other abnormal growth characteristics may be observed. Note that broadcast or water-seeded rice seeds sitting on the soil surface that come in direct contact with MANA Quinclorac 75 will be most sensitive and exhibit these abnormal growth characteristics. These symptoms are typically short lived and rice usually recovers without a significant stand loss or other injury.

MANA Quinclorac 75 is individually packaged in one-pound units in a translucent water-soluble bag contained within an outer package. Do not open the water-soluble bags. Do not allow the inner bag to become wet before adding to spray or nurse tank. Do not handle the inner bag with wet hands or wet gloves. Rough handling may cause breakage. Do not store at temperatures below 32°F (0°C). Allow to warm above 50°F (10°C) before normal use. Cooler water temperatures increase the time needed for the inner bag to dissolve completely.

Determine the number of water-soluble bag(s) to make up the necessary spray suspension. **Where dosages are expressed as fractions of pounds, prepare the tank mix to the lower of the nearest whole water-soluble bag.** Fill the spray or nurse tank ½ full with water. Open the outer wrapper of this product and immediately dump required contents into spray tank. If possible, direct the fill water over the top of the water-soluble bags. Allow the water-soluble bag(s) to dissolve completely. Depending on the water temperature and agitation, the water-soluble bags should be completely dissolved within approximately 3 to 5 minutes from the time they were added to the spray tank. Start hydraulic or mechanical agitation. Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the product. Fill the spray tank with the remainder of the water. Add tank mix partners in this order: all products in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to fully disperse before adding the next product. Maintain sufficient agitation while adding the remainder of the water and until all of the mixture has been applied. Maintain agitation during storage in nurse or supply tank or application.

General Restrictions and Limitations

- Do not apply more than 0.67 pound of MANA Quinclorac 75 per acre per application. **Note: You may not use this product if treating less than 2 acres.**
- Do not apply more than 0.67 pound of MANA Quinclorac 75 per acre per season. **Note: You may not use this product if treating less than 2 acres.**
Do not apply MANA Quinclorac 75 to rice that is heading.
- **Preharvest Interval (PHI):** Do not apply MANA Quinclorac 75 within 40 days of harvest.
- **Crop Rotation Restrictions:**
 - ❖ Rice: In case of crop failure, only rice may be immediately replanted to fields treated with MANA Quinclorac 75.
 - ❖ Eggplants and tobacco: do not plant for 12 months after application to treated fields.
 - ❖ Tomatoes and carrots: do not plant for 24 months after application to treated fields.
 - ❖ Other Crops: Do not plant any other crop (other than rice) for 309 days (10 months) after application to treated fields.
- **State Specific Restrictions:** Because there are additional state restrictions in Arkansas, contact the Arkansas Plant board or a representative for specific instructions about applying MANA Quinclorac 75 in Arkansas.
In Arkansas, MANA Quinclorac 75 must not be applied in an area from one mile west of Highway #1 to one mile east of Highway #163 from the Craighead – Poinsett County line to the Cross – Poinsett County line. No aerial application is allowed in the area of Poinsett County one mile west of Highway #1 to two miles west of Highway #1 and one mile east of Highway #163 to Ditch #10, from the Craighead – Poinsett County line to the Cross-Poinsett county line.
- **Soil Restrictions:**
 - ❖ Do not use MANA Quinclorac 75 on precision-cut fields until the second rice crop as injury can occur.
 - ❖ Do not use MANA Quinclorac 75 on sand and loamy sand soils.
 - ❖ Do not apply to rice fields with a history of poor water-holding capacity (porous subsoil), as erratic weed control may result.
 - ❖ Do not apply MANA Quinclorac 75 on any rice soil that does not have an impermeable hard pan to provide good water holding capacity.
- **Drift Concerns:**
 - ❖ Do not allow MANA Quinclorac 75 to drift outside the intended target areas.
 - ❖ Ground application: Do not apply when wind speed is greater than 10 mph.
 - ❖ Aerial application: Do not apply when wind speed is greater than 8 mph.
- **Temperature Inversions:** Do not apply MANA Quinclorac 75 when air temperatures exceed 90°F.
- Do not use rice straw or processing byproducts (such as chaff, hulls, etc.) as soil amendments or mulch for high-value crops such as bedding stock, vegetable transplants, or ornamental and fruit trees.
- Do not use treated rice fields for the aquaculture of edible fish and *Crustacea* (crayfish).
- Do not use water from rice cultivation after a MANA Quinclorac 75 application to irrigate any crop other than rice.
- Do not apply this product through any type of irrigation system.

Water Management (Irrigation and Flood Water)

To ensure optimum weed control with MANA Quinclorac 75, use proper irrigation practices including effective flush irrigation to maintain moist soil conditions and timely establishment of permanent floodwater.

MANA Quinclorac 75 is a systemic herbicide. The weed foliage and roots absorb MANA Quinclorac 75 and translocates it throughout the weed. Treated weeds will show signs of leaf and stem curling or twisting, stunting, change color from green to white (chlorosis), finally to red, and become necrotic before finally dying. Weeds are controlled only when moist soil conditions exist which help the weeds absorb MANA Quinclorac 75. Therefore, the soil must be kept moist to maintain weed control. If the soil becomes dry and weeds emerge after a MANA Quinclorac 75 application, flush-irrigate the treated field to reactivate the residual activity of the MANA Quinclorac 75 while weeds are small (1" or less).

An additional application of MANA Quinclorac 75 may be made as needed, but do not exceed more than 0.67 pound per acre per season (see **General Restrictions and Limitations** section of this label for further limitations). In water-seeded rice plantings and in pinpoint flood culture, drain all water from the rice field and ensure seedling rice has at least two leaves before applying MANA Quinclorac 75. Injury may occur in rice seedlings without 2 leaves. For more consistent weed control, form floodwater levees before making a MANA Quinclorac 75 application. Although MANA Quinclorac 75 provides residual weed control, if the levee soil becomes dry, erratic weed control may result.

Do not apply MANA Quinclorac 75 if heavy rain is expected. If heavy rain does occur after the application, drain any excess water from the rice field to avoid possible rice injury.

APPLICATION INFORMATION

MANA Quinclorac 75 may be applied to rice fields to control barnyardgrass, propanil-resistant barnyardgrass, other annual grasses, and certain broadleaf weeds.

Application Equipment: Both ground and air applications are permitted; however, whenever possible make applications by ground application.

Do not make spray applications when wind speed is greater than 10 mph (ground) or 8 mph (air), when air temperatures exceed 90°F, or when environmental conditions exist for temperature inversions.

Use only nozzles that will produce uniform spray patterns and thorough coverage. Select nozzles designed to produce minimal amounts of fine spray particles. Always use drift control agents and apply only when wind and other weather conditions do not favor spray drift beyond the rice field borders.

Ground Application

Whenever possible, make applications of MANA Quinclorac 75 using ground spray equipment.

Do not apply when wind speed is greater than 10 mph.

For preplant/preemergence or delayed preemergence, apply MANA Quinclorac 75 in 10-40 gallons of water per broadcast acre at pressures between 25-40 psi.

For postemergence applications, apply Quinclorac in 10-20 gallons of water per broadcast acre at pressures between 25-40 psi.

Air Application

If application with ground spray equipment is not possible, application by aircraft is allowed as long as the aerial applicator understands the risks and assumes the liability associated with accidental spray drift from aerial application. Do not make spray applications when wind speed is greater than 8 mph, when air temperatures exceed 90°F, or when environmental conditions exist for temperature inversions.

Apply MANA Quinclorac 75 in a minimum of 5 gallons of water per acre at a minimum pressure of 40 psi.

Do not allow MANA Quinclorac 75 to drift outside of the intended target areas.

No aerial application is allowed in the area of Poinsett County one mile west of Highway #1 to two miles west of Highway #1 and one mile east of Highway #163 to Ditch #10, from the Craighead-Poinsett County line to the Cross-Poinsett county line.

Soil Applications: Apply MANA Quinclorac 75 to the soil surface before, during, or after planting of dry-seeded rice. Once activated by rainfall or irrigation, the roots of susceptible grasses and broadleaf weeds uptake the herbicide and results in commercially acceptable weed control before weed competition reduces rice productivity. Use rates for MANA Quinclorac 75 will depend on soil texture and clay content for optimum weed control. Refer to Table 1 for application rates for heavier soil textures and higher clay content soil types.

Foliar Applications:

When MANA Quinclorac 75 is applied to target grass and broadleaf weed foliage in dry-seeded and water-seeded rice, the leaves and stems partially uptake the herbicide. After this foliar application, the rice must be flushed to ensure root absorption of MANA Quinclorac 75. The combination of leaf, stem and root absorption of MANA Quinclorac 75 results in commercially acceptable weed control.

Some residual weed control activity occurs from the herbicide reaching the soil surface and moving into the soil from rainfall or irrigation. The lower use rates most often control smaller weeds while the higher use rates are needed for larger weeds. Refer to Table 1 for foliar application use rates which will provide commercially acceptable control of susceptible weeds based on weed size or growth stage.

Table 1. Timing and Application Rate Table (see **General Restrictions and Limitations** section of this label for further limitations):

Weed Species	Soil Applications (Rate per Acre)		Foliar Application (Rate per Acre)		
	Light-textured sandy loams	Medium-textures silts, loams, silt loams, sandy clay loams	Heavy-textured, such as silty clays, silty clay loams, clay loams, clays, gumbo and buckshot	Small weeds controlled and short-term soil residual	Larger weeds controlled and long-term soil residual
Annual Grasses Barnyardgrass, Broadleaf signalgrass, Junglerice, Large crabgrass	0.33-0.44 pound	0.50 pound	0.67 pound	0.40-0.50 pound up to 2 inches	0.40-0.67 pound up to 3 inches
Broadleaf Weeds Eclipta, Jointvetches species -Indian -Northern Morningglory species - cypressive - entireleaf - ivyleaf - palmleaf - pitted - purple moonflower - tall, (Common) Sesbania, hemp	0.33-0.44 pound	0.50 pound	0.67 pound	0.40-0.50 pound up to 2 leaves	0.50-0.67 pound up to 3 leaves
Alligatorweed (partial control)*	n/a	n/a	n/a	0.67	n/a

* Rice must be in at least the 2-leaf stage. For best control, establish permanent flood within 2 days after MANA Quinclorac 75 application.

ADDITIVES

For postemergence applications only, add 2 pints of crop oil concentrate per acre to spray tank solutions of MANA Quinclorac 75 for improved leaf and stem uptake and enhanced weed control.

Drift Control Products. Always add a drift control agent to the spray solution to affect spray droplet size and other characteristics and to reduce the potential of off-target accidental spray drift.

DIRECTIONS FOR MIXING MANA QUINCLORAC 75

1. Use only spray tanks that have been cleaned prior to use.
2. Add ¾ the amount of required water to the spray tank while agitating. Maintain constant agitation throughout mixing and application.
3. If an inductor is used, rinse it thoroughly after the component has been added.

Add products to the spray tank in the following order

- ❖ **water-soluble pouches (such as MANA Quinclorac 75)-allow the pouches to dissolve before agitation or adding the next component.**
- ❖ **water dispersible products (such as wettable powders, suspension concentrates or suspo-emulsions).**
- ❖ **water-soluble products**
- ❖ **Emulsifiable concentrates**
- ❖ **Water-soluble additives**

Add the remaining amount of water to the tank and agitate to ensure a uniform distribution. Continue agitation until spraying is completed. If the spray solution is allowed to settle, re-agitate thoroughly to resuspend the mixture and then continue spray operations.

Cleaning of Spray Equipment

Ensure that spray equipment is properly and thoroughly cleaned before and after applying MANA Quinclorac 75. Use a strong detergent or commercial sprayer cleaner and follow the manufacturer's directions for use.

Cleaning Spray Equipment

All mixing equipment and all spray equipment should be thoroughly cleaned before and after mixing and applying MANA Quinclorac 75.

GENERAL TANK MIXING INFORMATION

Other registered products such as those listed below may be tank mixed with MANA Quinclorac 75 to provide control of a broader spectrum of annual grasses and broadleaf weeds in rice. Before using other products in combination with MANA Quinclorac 75, read and follow the restrictions and limitations and directions for use on all products' labels. The most restrictive labeling applies to tank mixes. Table 2 below describes some weed situations where tank mixing is appropriate.

Table 2. Tank Mixes

Weed	Tank Mix Information ⁴
Cocklebur	MANA Quinclorac 75: 0.33-0.67 pound & Basagran® herbicide: 1.5-2.0 pints
Dayflower	MANA Quinclorac 75: 0.33-0.67 pound & Basagran® herbicide: 1.5-2.0 pints
Hemp Sesbania	MANA Quinclorac 75: 0.33-0.67 pound & Blazer® herbicide: 0.5-1.0 pint ¹ OR MANA Quinclorac 75: 0.33-0.67 pound & Command® 3ME: 0.8-1.6 pints
Sprangletop	MANA Quinclorac 75: 0.33-0.67 pound & Bolero® 8 EC herbicide: 0.5-1.0 pint ² OR MANA Quinclorac 75: 0.33-0.67 pound & Prowl® H ² O herbicide: 1.5 to 2.0 pints ³ OR MANA Quinclorac 75: 0.33-0.67 pound & Command® 3ME: 0.8-1.6 pints
Yellow Nutsedge	MANA Quinclorac 75: 0.33-0.67 pound & Basagran® herbicide: 1.5-2.0 pints
Morningglory	MANA Quinclorac 75: 0.33-0.67 pound & Command® 3ME: 0.8-1.6 pints
Heavy infestations of broadleaf weeds	MANA Quinclorac 75: 0.33-0.67 pound & Storm® herbicide: 1.5 pints
For weeds and grasses not controlled by MANA Quinclorac 75	MANA Quinclorac 75: 0.33-0.67 pound & Propanil: 2 to 4 pounds a.i.
¹ Apply tank mix after rice has reached the 3-leaf stage. ² Apply tank mix to the soil surface 1-5 days before rice emergence. ³ Apply this tank mix to the soil surface after planting, before rice emerges, and before sprangletop emerges. ⁴ Where dosages are expressed as fractions of pounds, prepare the tank mix to the lower of the nearest whole water-soluble bag.	

ACCEPTED
with COMMENTS
in EPA Letter Dated

MAY 19 2009

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

66222-160