Ms. Karen S. Stumpf Agricultural Division CIBA-GEIGY Corporation F.O. Box 18300 Greensboro, NC 27419

Dear Ms. Stumpf:

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Subject: Medal Herbicide EPA Registration No. 100-688 Application Dated January 13, 1993 Request To Amend Labeling To Add New Tank Mixtures and Remove Tank Mixtures, and To Include Other Absorptive Materials and Use of Aromatic 200 To Minimize Buildup in the Application Equipment

PM 23

The proposed master label submitted with your application of January 13, 1993 has been reviewed and found acceptable under the Pederal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended provided:

1. That you submit 5 copies of final printed labeling before releasing the product for shipment.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA, Section 6(e). Your release for shipment of the product constitutes acceptance of this condition.

A stamped copy of the master label is enclosed for your records.

Sincerely yours,

Joanne I. Miller Product Manager (23) Fungicide-Herbicide Branch Registration Division (H7505C)

100-688 3 FEB 1993

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Enclosure Ewilson: Diskette #NC1: 02-02-93

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DRAFT MEDAL MASTER LABEL ALL REGISTERED USES FOR MEDAL

(Front Cover of Removable Booklet)

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Herbicide

For weed control in corn, cotton, nonbearing citrus, nonbearing grapes, peanuts, pod crops, potatces, safflowers grain or forage sorghum, soybeans, stone fruits and tree nuts

Inert Ingredients:		14.98
Total:	ACCEPTED with Contract is In Long Letter Daugh	100.0%
2 1/2 Gallons U.S. Standard Measure	3 FEB 1993	
VERD OUR OF DEACH OF CUILINEN	$\begin{array}{c} \mathbf{U}_{\mathbf{r},\mathbf{r}}(\mathbf{s}_{\mathbf{r}},\mathbf{r}_{\mathbf{r}}) = \mathbf{v}_{\mathbf{r},\mathbf{r}}(\mathbf{s}_{\mathbf{r}},\mathbf{r}_{\mathbf{r}}) = \mathbf{U}_{\mathbf{r},\mathbf{r}}(\mathbf{s}_{\mathbf{r}},\mathbf{r}_{\mathbf{r}}) = \mathbf{U}_{\mathbf{r},\mathbf{r}}(\mathbf{s}_{\mathbf{r}},\mathbf{r}) = \mathbf{U}_{\mathbf{r},\mathbf{r}}(\mathbf{s},\mathbf{r}) = \mathbf{U}_{\mathbf{r},\mathbf{r}}(\mathbf{s},\mathbf{r}) = \mathbf{U}_{\mathbf{r},\mathbf{r}}(\mathbf{r}) = \mathbf$	
KEEP OUT OF REACH OF CHILDREN.	100-199 Kg. No.	
CAUTION	600	
EPA Reg. No. 100-688		
Medal® trademark of CIBA-GEIGY U.S. Patent No. 3,937,730	Corporation for metol	achlor
See additional precautionary statements and directions for use inside booklet.		
©1993 CIBA-GEIGY Corporation		
Agricultural Division CIBA-GEIGY Corporation Greensboro, North Carolina 27	410	

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DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

<u>IMPORTANT</u>: Read the entire <u>Directions for Use</u> and the <u>Conditions of Sale and Warranty</u> before using this product. If terms are not acceptable, return the unopened product container at once.

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Conditions of Sale and Warranty

The <u>Directions for Use</u> of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

CIBA-GEIGY warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the <u>Directions for Use</u> subject to the inherent risks referred to above. <u>CIBA-GEIGY makes no other express or</u> implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall CIBA-GEIGY or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. CIBA-GEIGY and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing <u>Conditions of Sale and Warranty</u>, which may be varied only by agreement in writing signed by a duly authorized representative of CIBA-GEIGY.

DIRECTIONS FOR USE

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

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

Do not apply this product in such a manner as to directly or through drift e.pose workers or other persons except those knowingly involved in the application. The area being treated must be vacated by unprotected persons.

Reentry Statement

Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must inform workers of areas or fields that may not be entered without specific protective clothing until sprays have dried, and appropriate actions to take in case of accidental exposure, as described under Precautionary Statements on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAUTION. Area treated with Medal on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes or skin with plenty of water. Call physician if irritation persists. Remove and wash contaminated clothing before reuse."

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

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A. <u>General Information</u>

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Observe all precautions and limitations on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank mix partner is registered.

Medal is a selective herbicide recommended as a preplant surface-applied, preplant incorporated, or preemergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in nonbearing citrus, corn, cotton, nonbearing grapes, peanuts, pod crops, potatoes, safflowers, grain or forage sorghum, soybeans, stone fruits and tree nuts.

<u>Note</u>: Do not use in nurseries, turf, or landscape plantings.

Where directions specify a Medal tank mixture with AAtrex formulations, other brands of atrazine may be used. Follow the rates, recommendations, and limitations on the AAtrex or respective atrazine product label, if other brands of atrazine are used.

<u>Note</u>: Certain trates 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.

If Medal is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

Dry weather following preemergence application of Medal or a tank mixture may reduce effectiveness. Cultivate if weeds develop.

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

Precaution: Injury may occur following the use of Medal...;, under abnormally high soil moisture conditions during early development of the crop.

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1. Soil Textures and Herbicide Rates

Where rates are based on coarse-, medium-, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

<u>Coarse</u>	Medium	<u>Fine</u>
Sand Loamy sand Sandy loam	Loam Silt Silt loam	Silty clay loam Sandy clay loam Silty clay Sandy clay Clay loam Clay

Within rate ranges in the rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

Note: Medal may be applied preemergence alone, or in combination with tank mix partners specified on this label, following preplant incorporated herbicides when used according to their label iscommendations, provided that such use is not prohibited on the respective labels.

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

2. <u>Mixing Instructions</u>

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<u>Medal Alone</u>: Mix Medal with water or fluid fertilizer and apply as a spray. Fill the spray tank one-half to three-fourths full with water or fluid fertilizer, add the proper amount of Medal, then add the rest of the water or, fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Tank Mixtures: Fill the spray tank one-fourth full with water, and start agitation; add 2,4-D, AAtrex®, Balan®,',',', Banvel®, Basagran®, Bladex@*, Butyrac®, Butoxone®, Canopy&, Caparol® 4L, Command®, Cotoran®, Eptam®, Gemini®, Lexche*, Lorox®, Lorox Plus®, Preview®, Princep®, Prowl®, Pursuit®, AAtrex + Princep, Scepter®, Sencor®, Sonalan®, Starfire® or Treflan®, and allow it to become dispersed, then add Medal,' then add Gramoxone® Extra or Roundup® if these products, ar9 being used, and finally the rest of the water. For tark.',; mixtures with AAtrex, Banvel, Bladex, Canopy, Caparol 4L,

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Command, Cotoran*, Eptam, Gemini, Lexone, Lorox, Lorox Plus, Preview, Princep, Prowl*, Pursuit, AAtrex + Princep, Scepter, Sencor, Sonalan, Starfire or Treflan, fluid fertilizers may replace all or part of the water as carrier, except in the AAtrex postemergence and the Banvel postemergence tank mixes. For tank mixtures with AAtrex, see additional mixing instructions on the AAtrex label. For each mixture check compatibility with fluid fertilizer, as described below, before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

*See <u>Special Mixing Instructions</u> for tank mixtures with Bladex, Cotoran, and with AAtrex or Princep plus Prowl under the appropriate tank mixture section.

<u>Compatibility Test</u>: Since liquid fertilizers can vary, even within the same analysis, always <u>check compatibility</u> with herbicide(s) each time before use. Le especially careful when using <u>complete</u> suspension or fluid fertilizers as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals. per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure

- 1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
- 2. To <u>one</u> of the jars add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts. per 100 gals. spray). Shake or stir gently to mix.
- 3. To <u>both</u> jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with 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 follows:

Dry herbicides:

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For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

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Liquid herbicides: For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

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<u>Note</u>: For Medal tank mixtures with AAtrex + Princep, use 1/3-1/2 the amount of AAtrex specified above and the remainder as Princep, depending on whether the 1:2 or 1:1 ratio of AAtrex to Princep is to be applied.

4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

3. <u>Application Procedures</u>

Application Timing

Medal alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the given crop section of the label to determine if application timings listed below are recommended.

Preplant Surface-Applied: For minimum-tillage or (1)no-tillage systems only, Medal alone and some Medal tank mixtures may be applied up to 45 days before planting certain crops. Use caly split applications, for treatments made 30-45 days before planting, with 2/3 the ecommended broadcast rate for the crop and,), soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single . application. Refer to individual crop to determine, if early preplant surface application is recommended." 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.

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- (2) <u>Preplant Incorporated</u>: Apply Medal to the soil and incorporate into the top 2 inches of soil within 14 days before planting using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant 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, apply and incorporate Medal after bed formation unless specified otherwise.
- (3) <u>Preemergence</u>: Apply Medal during planting (behind the planter) or after planting, but before weeds or crops emerge.

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Special Application Procedures - California Only (Corn, Safflower, Pod Crops): Preplant Incorporated: Broadcast Medal to the soil and thoroughly incorporate with a disk or similar implement set to till 4-6" deep. For more thorough incorporation, till the soil in two different directions (cross-till). Crops may be planted on flat surface or on beds. Caution should be used when forming the beds that only soil from the Medal treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate Medal with a tillage implement set to till 2-4" deep. Care should be taken during tilling to keep the tilled (Medal treated) soil on the beds. <u>Preemergence</u>: Apply Medal after planting. Water with sprinkles or flood irrigation within 7-10 days.

<u>Ground Application</u>: Apply Medal 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 Medal tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no 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:

<u>band width in inches</u>	broadcas			*****
row width in inches X	per acre	<pre>= per acre field</pre>	of;''''	, , , , , , , , , , , , , , , , , , , ,
			, , , , , , , , , , , , , ,	* * * * * * * * * *
Low Carrier Application	(Broadcast	Ground Applicatio	n Onlyl	

Use sprayers such as Melroe Spra-Coupe, Hagia, John Deere Hi-Cycle^T or Willmar Air Ride® that provide accurate and YANT

uniform application. <u>Only water may be used as a carrier</u>. Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100mesh be used with some nozzles. Use a pump with capacity to (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

<u>Note</u>: Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

<u>Aerial Application</u>: Apply Medal in water alone or in tank mixtures with AAtrex, Lorox, Lexone, or Sencor in a minimum total volume of 2 gals. per acre by aircraft. Medal may also be applied in combination with Prowl, Balan or Treflan. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Medal alone or Medal + AAtrex by aircraft at a minimum upwind distance of 400 ft. from sensitive plants, or apply Medal + Lexone, Sencor, or Lorox at a minimum upwind distance of 300 ft. from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged, ..., contact with skin and should wash thoroughly before eating and at the end of each day's operation.

<u>Center Pivot Irrigation Application</u>: Medal alone or in tank mixture with other herbicides on this label which are registered for center pivot application may be applied in irrigation water preemergence (after planting but before,, weeds or crop emerge) at rates recommended on this label... Apply this product only through a center pivot irrigation ; system. Do not apply this product through any other type... of irrigation system. Crop injury, lack of effectiveness,

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or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers or other experts. 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. 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.

Operating Instructions

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- 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 backflow.
- 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 its 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

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sufficient agitation to keep the herbicide in suspension.

- 9. Meter into irrigation water during entire period of water application.
- 10. Apply in 1/2-1 inch of water. Use the lower water volume (1/2 inch) on coarser-textured soils and the higher volume (1 inch) on finc*r*-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide belo the effective zone in the soil.

<u>Precaution for center pivot applications: Where sprinkler</u> <u>distribution patterns do not overlap sufficiently, unac-</u> <u>ceptable weed control may result. Where sprinkler distri-</u> <u>bution patterns overlap excessively, crop injury may</u> <u>result</u>.

4. Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with Medal alone or selected Medal tank mixtures which are registered for preplant incorporated or preplantsurface application which are used to control weeds in crops on the Medal label and are not prohibited from use on dry bulk granular fertilizers.

When applying Medal or Medal mixtures with dry bulk granular fertilizers, follow all cirections for use and precautions on the respective product labels regarding target crops, rates per acre, soil texture, application methods (including timing of application), and rotational crops.

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

Prepare the herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Medal and Medal mixtures onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material such as Agsorb® or Celatom MPr', 79®, or similar granular clay or diatomaceous earth materials, to obtain a dry free-flowing mixture. Absorptive, materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of

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6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

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Calculate amounts of Medal, AAtrex, AAtrex + Princep, Bladex, Princep, Sencor, Lexone, or Sonalan by the following formula:

<u>2,000</u> pts./A of liquid pts. of liquid or lbs. of X or flowable product = flowable product per fertilizer per acre

<u>2,000</u> lbs./A of dry lbs. of dry product lbs. of X product = per ton of fertilizer fertilizer per acre

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<u>Pneumatic (Compressed Air) Application (Medal Alone)</u>: High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix Medal with Exxon Aromatic 200 at a rate of 1-4 pts./gal. of Medal. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 20J may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

Notes: (1) Mixtures of Medal and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid Fertilizer solutions for spraying applications. (2) When impregnating Medal in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or drying agents of 6/30 particle size are recommended. (3) Drying agents are; not recommended for use with On-The-Go impregnation equipment.

Precautions: To avoid potential for explosion. (1) Do not impregnate Medal or Medal mixtures on ammonium nitrate, potassium nitrate or sodium nitrate either alone or in blends with other fertilizers. (2) Do not use Medal or Medal mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone, " can be impregnated.

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<u>Application</u>

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

Precaution: To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where bedding occurs.

в. Medal Applied Alone

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1. Weeds Controlled

> barnyardgrass (watergrass) crabgrass crowfootgrass signalgrass fall panicum foxtail millet qiant foxtail goosegrass

green foxtail prairie cupgrass witchgrass red rice (Brachiaria)

southwestern cupgrass yellow foxtail <u>vellow nutsedge</u> carpetweed Eastern black nightshade Florida pusley galinsoga piqweed

<u>Weeds Partially Controlled</u>*: common purslane, Florida beg-garweed**, hairy nightshade, sandbur, seedling johnsongrass, shattercane, Texas panicum***, volunteer sorghum, wild proso millet.

*See General Information section. Control of these weeds can be erratic due partially to variable weather conditions. Control may be improved by following these suggested procedures:

Thoroughly till moist soil to destroy germinating and, 1. emerged weeds. If Medal is to be applied preplant incorporated, this tillage may be used to incorporate. Medal if uniform 2 inch incorporation is achieved as recommended under Application Procedures.

 Plant crop into moist soil <u>immediately after tillage</u>.
 If Medal is to be used preemergence, apply at planting or immediately after planting.

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- 3. If available, <u>sprinkler irrigate</u> within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1/2 inch) on coarse textured soils and higher vo'ume (1 inch) on finer textured soils. Also, refer to the section on <u>Center Pivot Irrigation Appli-</u> <u>cation</u> for this method of applying Medal.
- 4. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

**For partial control of this weed, use a minimum of 2 pts./A and apply preemergence.

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***For partial control of this weed, use a minimum of 2 pts./A and apply through a center pivot irrigation system.

2. Rotational Crops: Medal Alone: (1) If crop treated with Medal alone is lost, any crop on this label may be replanted immediately. Do not make a second broadcast application of Medal. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Barley, oats, rye, or wheat may be planted 4 1/2 months following treatment; alfalfa may be planted 4 months following application. Tomatoes may be planted 6 months following application. (3) Any crop on this label in addition to root crops, tobacco, barley, buckwheat, milo, oats, rice, rye, wheat, cabbage, peppers, stone fruits, or tree nuts may be planted in the spring following treatment. Clover may be seeded 9 months following application. Do not graze or feed forage or fodder from cotton to livestock. All other rotational crops may be planted 12 months after application. (4) Following a lay-by treatment or multiple treatments applied the previous season, any crop on th's label in addition to tobacco, cabbage, peppers, stone fruits or tree nuts may be planted in the spring. All other rotational crops may be planted 12 months after a lay-by application. <u>Medal Tank Mixtures</u>: For <u>Rotational</u>, <u>Crops</u> restrictions for Medal used in tank mixtures, refer to the statements/restrictions above for Medal and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

Important Notes: To avoid injury to rotational alfalfa or, clover, (1) Do not apply more than 3 lbs. ai of meto- '..'.: lachlor/A (3 pts. Medal) preemergence (including preplant-surface, preplant incorporated, postplant incorporated, etc.). (2) Do not make lay-by or other postemergent applications of Medal.

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C. <u>Citrus - Nonbearing - Medal Alone and Combinations</u>

Citrus including grapefruits, lemons, limes, oranges, tangelos, citrus citron, kumquats and hybrids of these.

Broadcast 2-4 pts./A of Medal by grc nd equipment to weedfree soil in a minimum of 10 gals. o water to control weeds listed in the <u>Medal Applied Alone</u> section of this label. Apply the lower rates on coarse-textured soils with low organic matter and where the weed infestation is expected to be low. Apply the higher rates on finetextured soils, soils high in organic matter, and where a heavy weed infestation is expected. Use caution when applying to keep the spray off the foliage to avoid possible foliar injury.

When weeds are present at the time of treatment, Medal may be applied in tank mix combination with Gramoxone Extra or Roundup. Gramoxone Extra may be applied at rates of 2-3 pts./A. Roundup may be applied at rates ranging from 1-5 qts./A, depending on the weed species. Refer to the Roundup label for the rate to be applied for various weed species. Direct applications containing Gramoxone Extra or Roundup over the weeds, making certain to keep spray off foliage stems of trees. Refer to the Gramoxone Extra and Roundup labels for further directions, precautions and limitations relative to their use.

<u>Precaution</u>: Do not apply to trees transplanted in the grove less than 30 days and only after depressions around the trees have been filled in, or crop injury may occur.

<u>Note</u>: (1) Do not apply to trees that will bear harvestable fruit within 12 months of application, and (2) Do not graze livestock in treated areas or illegal residues may result.

D. <u>Corn - Medal Alone</u>

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Apply Medal either preplant surface, preplant incorporated, preemergence or lay-by using the appropriate rate specified below.

Preplant Surface-Applied: Refer to instructions for use of Medal alone under Application Procedures. Use on medium-, and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the recommended rate of Medal (2.5 pts./A on medium soils and 3 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 prior to planting may be as either a split or single treat-

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. ment. Apply 2 pts./A on <u>coarse soils</u> not more than 2 weeks prior to planting.

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

<u>Preplant Incorporated or Preemergence</u>: Follow instructions for use of Meuil alone under <u>Application Procedures</u>. On <u>coarse soils</u>, apply 1.5-2 pts./A of Medal if organic matter content is less than 3%, or 2 pts./A if organic matter content is 3% or greater. On <u>medium soils</u>, apply 2-2.5 pts./A of Medal. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal if organic matter content is less than 3%, or 2.5-3 pts./A if organic matter content is 3% or greater.

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<u>Lay-by</u>: To extend the duration of weed control in corn, a maximum rate of 3 pts./A of Medal may be applied after corn emergence until the corn plants reach 40 inches in height following any preplant surface-applied, preplant incorporated or preemergence herbicide application including Medal. For best results, applications should be made to soil free of emerged weeds and directed towards the base of corn plants in excess of 5 inches tall. The total Medal rate applied on corn during any one crop year should not exceed 6 pts./A, depending on soil texture.

Note for all applications to corn: To avoid possible illegal residues, do not graze or feed forage from treated areas for 30 days following application.

Shattercane and Wild Proso Millet - Partial Control: For more consistent partial control of shattercane or wild proso millet, apply 1.5-2 pts./A of Medal preplant incorporated followed by 1.5-2 pts./A of Medal preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge. Apply the 2 pts./A rate tf... Medal when a heavy infestation of shattercane or wild proso millet is expected. A shallow cultivation may be needed following the preemergence application to control any lage, emerging shattercane or wild proso millet plants.

Notes: (1) Do not apply more than the labeled application

rate for a given soil texture per year either as a single or split treatment or illegal residues may result. (2) In corn, Medal may be used up to 4 pts./A as wither a preplant surface, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and (3) In the event of escape of annual broadleaf weeds 20%. following a preplant surface, preplant incorporated, or preemergence treatment of Medal, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex, Basagran, Bicep, Brominal, Buctril, Banvel or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the total labeled rate for corn on a given soil texture. (4) Brominal or Buctril may be applied postemergence alone or in tank-mix combination with AAtrex. Do not exceed 1.2 lbs. ai/A of AA+ rex in tank-mix combination with Brominal or Buctril postemergence. Refer to the Brominal, Buctril and AAtrex labels for specific rates and precautions. (5) Do not use Medal on peat or muc. soils.

E. <u>Corn - Medal Combinations</u>

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Medal in any tank mixture for corn (except Medal + AAtrex postemergence and Medal + Banvel postemergence) may be applied in water or fluid fertilizer. Use only water in the Medal + AAtrex or the Medal + Banvel postemergence tank mixes.

<u>Note</u>: For all applications to corn, do not graze or feed forage from treated areas for 30 days following application or possible illegal residues may result.

IMPORTANT: FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE) - If applying Medal in tank mixture with AAtrex, all the restrictions and rate limitations appearing on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is/must be applied at rates lower than those recommended on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

1. <u>Tank Mixture with AAtrex or Princep</u>, or <u>AAtrex plus Princep</u> - <u>Preplant Surface</u>, <u>Preplant Incorporated</u>, or <u>Preemergehice</u>,

In addition to the weeds controlled by Medal alone, Medal. A AAtrex or Prince or Medal + AAtrex + Princep, applied preplant surface, weplant incorporated or preemergence, also controls the following weeds: browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

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Apply Medal + AAtrex or Princep, or Medal + AAtrex + Princep either preplant surface, preplant incorporated, or preemergence.

Preplant Surface-Applied: Follow instructions for use of Medal alone under Application Procedures and under application instructions for Medal alone on corn. Apply Medal + AAtrex or Princep, or Medal + AAtrex + Princep on <u>medium soils</u> (2.5 pts./A Medal + 3.2-4 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) and on <u>fine soils</u> (2.5-3 pts./A Medal + 4-5 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined in minimum-tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the Medal alone Preplant Surface Applied section of the label for corn. On <u>coarse soils</u>, apply 2 pts./A of Medal and 3.2 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined.

<u>Preplant Incorporated or Preemergence</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>. Apply Medal + AAtrex or Princep, or Medal + AAtrex + Princep using the appropriate rates from Table 1.

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Note: Do not apply more than the labeled rate for a given soil texture per year either as a split or single treatment, or illegal residues may result.

Shattercane and Wild Proso Millet - Partial Control:

For more consistent partial control of shattercane or wild proso millet where Medal is applied in tank mixture or sequentially with other registered corn herbicides, the following applications may be made:

- Apply 1.5-2 pts./A of Medal plus 2 lbs. ai/A of AAtrex or Princep preplant incorporated followed by 1.5-2 pts./A of Medal preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge.
- 2. Apply Medal at 2 pts./A alone or in tank mix combination with up to 2 lbs. ai/A of AAtrex, Bladex or Princep preplant incorporated. Do not exceed the total rate of triazine herbicide recommended in combination with Medal for corn grown on a given soil texture. Follow with a post-directed application of Evik® 80W at 2.5 lbs./A. Refer to the Evik 80W label for specific directions for the post-directed application.
- 3. Apply Eradicane® or Sutan® (or equivalent EPTC or butylate formulations) at labeled rates preplant incorporated followed by a preemergence application of Medal at 1.5-2 pts./A. Do not use Eradicane or Sutan on soils where rapid degradation has been shown to occur. Make the preemergence application during or after planting, but before weeds and corn emerge.
- 4. For partial control of wild proso millet only, apply Medal preemergence at 1.5-2 pts./A followed by a postemergence application of Prowl plus Bladex at labeled rates. Refer to the Prowl and Bladex labels for application instructions. Postemergence applications of Prowl and Bladex may cause corn injury.

Precaution: When following the application regimes in Nym; bers 1-4 above, a shallow cultivation may be needed after the preemergence or postemergence application to help control any late emerging shattercane or wild proso millet;', ', plants.

Note: Do not exceed a total of 3 lbs. ai/A of metolachior (3 pts. Medal) in the preplant incorporated plus preemer-, gence application on soils with less than 6% organic mat,;,, ter, or crop injury may occur.

	rgence - corn			
	Broadcast Rates Per Acre			
	Less Than 3% (Drganic Matter	3% Organic Matte	er or Greater
	Medal	Medal	Medal	Medal
	AAtrex Nine-O®* (DR AAtrex Nine-O**	AAtrex Nine-O*	OR AAtrex Nine-O**
Soil texture	or Princep Caliber 90®*	+ Princep Caliber 90**	or Princep Caliber 90*	+ Princep Caliber 90**
COARSE	1.25-1.5 pts.	1.25-1.5 pts.	1.5 pts.	1.5 pts.
	+ 1.1-2.2 lbs.	0.6-1.1 lbs.	+ 1.3-2.2 lbs.	0.7-1.1 lbs.
		+ 0.6-1.1 lbs.		+ 0.7-1.1 lbs.
MEDIUM	1.5-2 pts.	1.5-2 pts.	2 pts.	2 pts.
	+ 1.3-2.2 lbs.	+ 0.7-1.1 lbs.	+ 1.8-2.2 lbs.	0.9-1.1 lbs.
		+ 0.7-1.1 lbs.		+ 0.9-1.1 lbs.
FINE	2 pts.	2 pts.	2-2.5 pts.	2-2.5 pts.
	1.8-2.2 lbs.	+ 0.9-1.1 lbs.	1.8-2.2 lbs.***	0.9-1.1 lbs.***
		+ 0.9-1.1 lbs.		+ 0.9-1.1 lbs.***
Muck or Peat (soils with more than 20% organic matter)		DO NOT	USE	<u></u>

Table 1: Medal + AAtrex or Princep, or Medal + AAtrex + Princep, Freplant Incorporated or Preemergence - Corn

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*When using AAtrex 4L (or Princep 4L) use equivalent rates. One 1b. of Nine-O or Caliber 90 equals 1.8 pts. of 4L. Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected. On soils having between 6% and 20% organic matter, Medal may be used up to 3.5 pts./A in tank mix combination with 2.2 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L. Meter to the AAtrex label for weeds controlled at this reduced rate.

**When using the tank mixture of Medal + AAtrex Nine-O + Princep Caliber 90, use equal rates of each as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given in Table 1 above. (<u>Example</u>: Total AAtrex Nine-O + Princep Caliber 90 = 1.2 lbs./A, use 0.4 lb. of AAtrex plus 0.8 lb. of Pr ncep, respectively.) Refer to the asterisk (*) above for AAtrex 4L and Princep 4L conversions.

***For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L or the same total amount of AAtrex + Princep with 2-2.5 pts./A of Medal.

2. Tank Mixture with AAtrex Postemergence

Weeds Controlled

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barnyardgrass (watergrass) crabgrass crowfootgrass fall panicum giant foxtail	<u>yellow foxtail</u> jimsonweed kochia lambsquarters mustard pigweed	prickly sida purslane ragweed smartweed velvetleaf
green foxtail		

<u>Weeds Partially Controlled</u>: cochlebur, morningglory, yellow nutsedge.

Apply 1.5 pts./A of Medal + 1.2 lbs./A of AAtrex Nine-O* on <u>coarse soils</u>, 2 pts./A of Medal + 1.8 lbs./A of AAtrex Nine-O on <u>medium soils</u>, or 2-2.5 pts./A of Medal + 1.8-2.2 lbs./A** of AAtrex Nine-O on <u>fine soils</u>. Apply this tark, mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Apply cartion to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

4.1.3

Lay-by: Apply to corn plants not more than 12 inches tall. Applications to corn in excess of 5 inches should be directed to the base of the corn plants; whereas applications to corn plants less than 5 inches tall may be made over the top. Occasionally some corn leaf burn may result, but this should not affect later growth or yield. Do not apply this postemergence tark mixture in fluid fertilizer, or severe crop injury may occur.

*When using AAtrex 4L use equivalent rates. One lb. of Nine-O equals 1.8 pts. of 4L.

**For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine-textured soils above 3% crganic matter, apply 2.2 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, with 2-2.5 pts./A of Medal.

Tank mixtures of Medal plus AAtrex may be applied following use of any registered preplant surface-applied, preplant incorporated or preemergence corn herbicide, including Medal plus AAtrex.

Note: The total Medal rate should not exceed 6 pts, nor the AAtrex rate more than 2.5 lbs, active ingredient per acre during any one crop year, or illegal residues may result. Effer to the AAtrex label for geographic, scil-texture and rotational restrictions.

3. <u>Tank Mixture with Bladex Preplant Incorporated or Preemer-</u> gence

In addition to the weeds controlled by Medal alone, Medal + Bladex also controls the following broadleaf weeds: jimsonweed, lambsquarters, mustard, ragweed, smartweed, cockletur*, morningglory*, and velvetleaf*.

*Partially controlled.

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Special Mixing Instructions

Fill the spray tank one-fourth full with water and start ... agitation. When using Bladex in tank mixtures, first add a compatibility agent, such as Compex or Unite at 2-3 pts./100 gals. of spray mixture. Then add the Bladex, and allow it to become dispersed. Then add other herbi-, cides registered for tank mix with Bladex, allowing each 'to' fully disperse before adding the rest of the water or fluid fertilizer. Add the other herbicides in the following f order: dry flowables and wettable powders first, then flowables, followed by emulsifiable concentrates. Add : contact herbicides last; i.e., Gramoxone Extra or Roundup". Agitate during mixing and application to maintain a uniform suspension. Tank mixtures with Bladex should not be allowed to stand without agitation. Empty the spray tank during the spraying operation. If fluid fertilizers are

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used as carriers, check the compatibility of tank mixtures containing Bladex by using the <u>Compatibility Test</u> in the <u>General Information</u> section of this label.

<u>Preplant Incorporated or Preemergence</u>: Apply Medal + Bladex preplant incorporated or preemergence using the appropriate rate from Table 2. Follow instructions for use of Medal alone under <u>Application Procedures</u>.

		Broadcast Pates Per Acre Percent Organic Matter in Soil			
	Less than 1%	1-2.5%	2.5-4%	Over 4%	
	Pts.	Pts.	Pts.	Pts.	
	Medal	Medal	Medal	Medal	
	+	+	+	+	
Soil Texture	Qts.	Qts.	Qts.	Qts.	
	Bladex 4L*	Bladex 4L*	Bladex 4L*	Bladex 4L*	
<u>COARSE</u>	DO NOT USE	1.25-1.5	1.5-1.75	2	
Sand,		+	+	+	
loamy sand		0.8-1.4	1.4-1.6	1.75	
<u>COARSE</u> Sandy loam	1.25 + 0.8	1.25-1.5 + 1.2-1.4	1.5-1.75 + 1.4-1.75	2 + 2	
MEDIUM	1.5	1.5-1.75	1.75-2	2.25	
	+	+	+	+	
	1.2	1.4-1.75	1.75-2	2.25	
FINE	1.5	1.75-2	2-2.25	2.5	
	+	+	+	+	
	1.4	1.6-2	2-2.25	2.5	
Muck or Peat (soils more than 20% organic matter)	DO	NOT USE	L	····	

Table 2: Medal + Bladex - Preplant Incorporated or Preemergence

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*When using Bladex 90DF, use equivalent rates. One qt. of 41. equals 1.1 lbs. of Bladex 90DF.

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PtsMedHedLbsAAtQtsBlaCOARSEand, loamy sandCOARSEandy loam0.5+0.6EDIUM0.70.7Coam, silt loam,	dal s. crex Nine-O* s. adex 4L* NOT USE 25 5-1.1	1-2.5% Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	ic Matter in Soil 2.5-4% Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.5-1.75 + 0.j-1.3 + 1.5-1.75 + 0.9-1.8	Over 4% Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L*
Pts Med + Lbs AAt + Qts BlaSoil TextureBlaCOARSE Sand, loamy sandDOCOARSE Sandy loam1.2 + 0.5 + 0.5 + 0.6EDIUM Soam, silt loam, silt loam, 51.5 + 0.6	3. 1al 3. crex Nine-O* 3. adex 4L* NOT USE 25 5-1.1	Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.5-1.75 + 0.3-1.3 + 1-1.2 1.5-1.75 +	Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* - - - - - - - - - - - - -
Pts Med + Lbs AAt + Qts BlaSoil TextureBlaCOARSE Sand, loamy sandDOCOARSE Sandy loam1.2COARSE Sandy loam1.2COARSE Sandy loam1.2MEDIUM Loam, silt loam, silt1.5	3. 1al 3. crex Nine-O* 3. adex 4L* NOT USE 25 5-1.1	Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.5-1.75 + 0.j-1.3 + 1-1.2 1.5-1.75 +	Pts. Medal + Lbs. AAtrex Nine-O* + Qts. Bladex 4L* - - - - - - - - - - - - -
+LbsAAt+QtsBlaCOARSESand, loamy sandCOARSESandy loam0.5+0.6MEDIUMLoam, silt loam,silt0.7	8. rex Nine-O* 8. adex 4L* NOT USE 25 5-1.1	+ Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	+ Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.5-1.75 + 0.3-1.3 + 1-1.2 1.5-1.75 +	+ Lbs. AAtrex Nine-O* + Qts. Bladex 4L*
Lbs AAt + Qts BlaSoil TextureBlaCOARSE Sand, loamy sandDOCOARSE Sandy loam1.2 + 0.5 + 0.6MEDIUM Loam, silt loam, silt1.5 + 0.7	25 5-1.1	Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	Lbs. AAtrex Nine-O* + Qts. Bladex 4L* 1.5-1.75 + 0.3-1.3 + 1-1.2 1.5-1.75 +	Lbs. AAtrex Nine-O* + Qts. Bladex 4L*
AAt + Qts Bla COARSE Sand, loamy sand COARSE Sandy loam MEDIUM Loam, silt loam, silt 0.7	25 5-1.1	AAtrex Nine-O* + Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	AAtrex Nine-O* + Qts. Bladex 4L* 1.5-1.75 + 0.5-1.3 + 1-1.2 1.5-1.75 +	AAtrex Nine-O* + Qts. Bladex 4L*
Soil TextureBlaCOARSEDOSand, loamy sandDOCOARSE1.2Sandy loam+0.5+0.6+MEDIUM1.5Loam, silt loam,+silt0.7	Adex 4L* NOT USE 25 5-1.1	Qts. Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	Bladex 4L* 1.5-1.75 + 0.3-1.3 + 1-1.2 1.5-1.75 +	Bladex 4L*
Soil TextureBlaCOARSEDOSand, loamy sandDOCOARSE1.2Sandy loam+0.5+0.60.6MEDIUM1.5Loam, silt loam,+silt0.7	Adex 4L* NOT USE 25 5-1.1	Bladex 4L* 1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	Bladex 4L* 1.5-1.75 + 0.3-1.3 + 1-1.2 1.5-1.75 +	Bladex 4L*
COARSE Sand, loamy sandDOCOARSE Sandy loam1.2 + 0.5 + 0.6MEDIUM Loam, silt loam, silt1.5 + 0.7	NOT USE 25 5-1.1	1.25-1.5 + 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	$ \begin{array}{r} 1.5-1.75 \\ + \\ 0.3-1.3 \\ + \\ 1-1.2 \\ 1.5-1.75 \\ + \\ \end{array} $	+ 0.7-1.8 + 1.4-1.6 2 +
Sand, loamy sand COARSE Sandy loam MEDIUM Loam, silt loam, silt 0.7	25	+ 0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	+ 0.3-1.3 + 1-1.2 1.5-1.75 +	+ <u>1.4-1.6</u> 2 +
COARSE Sandy loam 0.5 + 0.6 MEDIUM Loam, silt loam, silt 0.7	5-1.1	0.4-1.1 + 0.6-1 1.25-1.5 + 0.7-1.3 +	+ 1-1.2 1.5-1.75 +	+ <u>1.4-1.6</u> 2 +
Sandy loam + 0.5 + 0.6 MEDIUM Loam, silt loam, silt 0.7	5-1.1	+ 0.6-1 1.25-1.5 + 0.7-1.3 +	+ 1-1.2 1.5-1.75 +	+ <u>1.4-1.6</u> 2 +
Sandy loam + 0.5 + 0.6 MEDIUM Loam, silt loam, silt 0.7	5-1.1	0.6-1 1.25-1.5 + 0.7-1.3 +	1.5-1.75 +	2 +
Sandy loam + 0.5 + 0.6 MEDIUM Loam, silt loam, silt 0.7	5-1.1	+ 0.7-1.3 +	+	+
Sandy loam + 0.5 + 0.6 MEDIUM Loam, silt loam, silt 0.7	5-1.1	+ 0.7-1.3 +	+	+
0.5 + 0.6 MEDIUM Loam, silt loam, + silt 0.7		+	0.9-1.8	1.1-2
MEDIUM Loam, silt loam, + silt 0.7	5-1		. 1	•
MEDIUM Loam, silt loam, + silt 0.7		1-1.2	1.2-1.6	+ 1.6-2
Loam, silt loam, + silt 0.7				
silt 0.7	;	1.5-1.75	1.75-2	2.25
	-1.3	+ 0.7-1.8	+ 0.9-1.8	+ 1.1-2
		l +	+	+
1-1		1.2-1.6	1.4-1.6	1.8
<u>FINE</u> 1.5		1.75-2	2-2.25	2.5
Sandy clay loam, { +		+	+	+
silty clay loam, 0.7	-1.5	0.9-1.8	0.9-2	1.1-2.2
clay loam, +	-1 4	+ 1 4-1 6	+	+ 2
sandy clay, 1.2 silty clay	-1.4	1.4-1.6	1.6-1.8	۷
f		L	L	
fuck or Peat." :" ''''''''''''''''''''''''''''''''''				
than 20% organic		DO NO	OT USE	
han 20% organic	· · · · · · · · · · · · · · · · · · ·			
	· · · · · · · · · · · · · · · · · · ·			

 Table 3:
 Medal + AAtrex + Bladex
 Preplant Incorporated or P emergence

*When using AAtrex 4L or Bladex 90DF, use equivalent rates. One lb. of AAtrex Nine-O equals 0.9 qt. (1.8 pts.) of AAtrex 4L. One qt. of Bladex 4L equals 1.1 lbs. of Bladex 90DF. Use lower rates of AAtrex in the mixture where broadleaf weeds are not a major problem. Use higher rates of AAtrex where heavy infestations of such broadleaf weeds as cocklebur, morningglory, smartweed and velvetleaf are expected to be the dominant weeds present.

5. Tank Mixture with Banvel

<u>Preemergence</u>: Use this tank mixture only on field corn which is flat-planted (no furrows) in IA, IL, IN, MN, NE, OH, SD, and WI.

In addition to the weeds controlled by Medal alone, Medal + Banvel, applied preemergence, also controls lambsquarters, ragweed, smartweed, cocklebur*, jimsonweed*, morningglory*, and velvetleaf*.

*Partially controlled.

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Apply Medal + Banvel preemergence. Broadcast 1 pt./A of Banvel with 2 pts./A of Medal on <u>medium soils</u>, or with 2-2.5 pts./A of Medal on <u>fine soils</u>. Do not apply on <u>coarse soils</u> or on soils with less than 2.5% organic matter. Apply this tank mixture to the soil surface at planting or after planting but before corn emerges. Plant corn at least 1.5 inches deep and apply behind planting equipment avoiding incorporation by the planter wheel or other seed covering device. Do not incorporate before corn emergence. If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than one-half inch deep.

Postemergence for Control of Pigweed (Mid-Atlantic states including DE, MD, PA, VA, and WV): Apply 1.5-2.25 pts. of Medal plus 0.5-1 pt./A of Banvel or 1-2 pts./A of Banvel II by ground equipment when pigweed plants are less than 3 inches tall and before corn exceeds 5 inches in height in a minimum of 20 gals. of spray per acre. Use the lower rate, on coarse-textured and low organic matter soils. Use the ' higher rate on fine-textured and high organic matter soils.'

> Precautions: (1) Avoid drift to sensitive nontarget plants such as soybeans during application, or injury may occur.', ' (2) Do not apply with aircraft.

6. <u>Tank Mixture with AAtrex and Lorox for Control of Lambs-</u>, <u>quarters and Pigweed</u>

For prolonged control of lambsquarters and pigweed in DF, , MD, NJ, NY, PA, VA and WV, Medal may be applied preemer-... gence in tank mix combination with AAtrex + Lorox. Apply Medal and AAtrex according to the rates in Table 1 and Lorox according to the rates below.

<u>Soil Texture</u>

Broadcast Rate/A

Sandy loam (1-3% organic matter) Sandy loam (3-6% organic matter) Medium and fine-textured soils

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0.67 lb. Lorox* 1.0 lb. Lorox*

(1-6% organic matter) 1.0 lb. Lorox* *When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals one lb. of Lorox DF.

Observe all directions for use, precautions and limitations on the Medal, AAtrex and Lorox labels when applying these products in tank mix combinations.

7. <u>Tank Aixture wit</u>) <u>AAtrex or Princep Plus Prowl for Pro-</u> longed Control of Lambsquarters and Figweed in Field Corn Only (Northeast U.S., including MI, IN, KY and States East of These)

For prolonged control of lambsquarters and pigweed, in addition to a broad spectrum of annual broadleaf and grass weeds, Medal in tank mix combination with AAtrex* or Princep plus Prowl 4E may be applied after planting but before corn or weeds emerge. Apply by ground equipment in a minimum of 10 gals. of water or 20 gals. of liquid fertilizer. Apply by air in a minimum of 5 gals. of water. Refer to Table 1 of this label for rates of Medal, AAtrex or Princep to be applied. Apply Prowl 4E according to the rates below in Table 4.

*Do not apply Medal in tank mix combination with AAtrex 80W plus Prowl, as this combination is not compatible. Other AAtrex formulations may be used.

<u>Mixing Instructions</u>: Fill the spray tank one-fourth full with water or fluid fertilizer and start agitation. To aid in compatibility, add a compatibility agent, such as Unite or X-77®, at 4 pts./100 gals. of spray mixture to the spray tank first, then aci the AAtrex or Princep and allow it to become dispersed, then add Medal and Prowl 4E, and finally the rest of the water.

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	Percent Organic Matter in Soil		
Soil Texture	Less Than 1.5%	1.5-3%	Over 3%
COARSE	1.5-2.0 pts.	2.0 pts.	3.0 pts.
MEDIUM	2.0 pts.	3.0 pts.	3.0 pts.
FINE	2.0 pts.	3.0 pts.	3.0 pts.

Table 4. Prowl 4E - Broadcast Rates Per Acre

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Observe all directions for use, precautions, and limitations on the respective product labels when applying these products in tank mix combination. Refer to the Prowl 4E label for replanting instructions in the event of crop loss.

8. <u>Tank Mixture with AAtrex, Bladex*, or Princep, AAtrex plus</u> <u>Bladex or AAtrex plus Princep, with Gramoxone Extra or</u> <u>Roundup for Minimum-Tillage or No-Tillage Systems</u>

*See <u>Tank Mixture with Bladex</u> section of this label for special mixing instructions.

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be added to a tank mix of Medal + AAtrex, Bladex or Princep, Medal + AAtrex + Bladex or Medal + AAtrex + Princep. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The Medal + AAtrex or Princep, or Medal + AAtreg + Princep portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for Medal + AAtrex or Princep, or Medal + '.'.'. AAtrex + Princep Preplant Surface, Preplant Incorporated, ' or Preemergence. The Medal + Bladex or Medal + AAtrex provide Bladex tank mixture provides preemergence control of weeds listed on this label in the tank mixture sections with , AAtrex and Bladex. Refer to Table 3 for Bladex rates.

<u>Application</u>: Apply before, during, or after planting, but.: before the corn emerges, at the rates specified below. Add Gramoxone Extra or Roundup at the following broadcast rates: <u>Gramoxone Extra</u>: 1.5-2.0, 2.0-2.5 or 2.5-3.0 pts./A to 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

<u>Note</u>: Do not apply combinations containing Gramoxone Extra in suspension type liquid fertilizers because the activity of paraquat will be reduced.

<u>Roundup</u>: 1.5 qts./A for existing annual weeds, or 2-4 qts. per acre for existing perennial weeds. See the Roundup label for weeds controlled and recommended rates for specific weeds.

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

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On <u>coarse soils</u>, apply 1.5 pts./A of Medal with 1.3 lbs. AAtrex Nine-O* or Princep Caliber 90*, or with 0.7 lb. Nine-O** plus 0.7 lb. Caliber 90**. On <u>medium soils</u>, apply 2 pts./A of Medal with 1.8 lbs. AAtrex Nine-O or Princep Caliber 90, or with 0.9 lb. Nine-O plus 0.9 lb. Caliber 90. On <u>fine soils</u>,*** apply 2-2.5 pts./A of Medal with 1.8-2.2 lbs. AAtrex Nine-O or Princep Caliber 90, or with 0.9-1.1 lbs. of Nine-O plus 0.9- 1.1 lbs. Caliber 90.

*When using AAtrex 4L (or Princep 4L) use equivalent rates. One lb. of Nine-O or Caliber 90 equals 1.8 pts. of 4L. Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected.

**When using the tank mixture of Medal + AAtrex Nine-O + Princep Caliber 90, use equal rates of AAtrex and Princep as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given above. (Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.8 lbs./A, use 9.6 lb. of AAtrex plus 1.2 lbs. of Princep, respectively.) Refer to the asterisk (*) above for AAtrex 4L and Princep 4L conversions.

***For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L.or, the same total amount of AAtrex + Princep, with 2-2.5 pts./A of Medal.

9. <u>Tank Mixture with AAtrex or Ai rex plus 2.4-D or AAtrex</u> plus 2.4-D plus Banvel for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, Medal applied in combination with AAtrex will kill most emerged small annual weeds. Apply Medal + AAtrex before, during, cr after planting, but before corn emerges according to the rates in Table 1.

Where heavy crop residues exist, add 0.8-1.6 pts./A of an appropriately labeled 3.8 lb. ai/gal. 2,4-D amine (such as Weedar 64, Weedar 64A, DMA-4 Herbicide, or Formula 40) to the spray tank last and apply in a minimum of 25 gals. of carrier/A.

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As carriers, nitrogen solutions and complete liquid fertilizers, applied before ccrn emergence, enhance burndown of existing weeds, and therefore are recommended instead of water. Add X-77 surfactant at 1.0-2.0 qts./100 gals. of diluted spray, or another appropriate surfactant at its recommended rate. Apply before weeds exceed 3 inches in height. If alfalfa is present, add Banvel to the spray mixture at 0.33-0.5 pt./A and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone Extra at the rate of 2.5 pts./A in place of or in addition to 2,4-D as indicated above. Do not apply Gramoxone Extra in suspension-type liquid fertilizer. Observe all directions for use, precautions and limitations on the respective product labels when applying these products in tank mix combination.

10. <u>Tank Mixture with Bladex* or Bladex plus AAtrex plus 2,4-D</u> or Bladex plus AAtrex plus 2,4-D plus Banvel** for <u>Minimum-Tillage or No-Tillage Systems</u>

*See <u>Tank Mixture With Bladex</u> section of this label for special mixing instructions. **Apply the tank mixtures with Banvel to field corn only.

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, estaclished sod, or previous crop residues, Medal applied in combination with Bladex or Bladex + AAtrex will provide control of emerged small annual weeds, and extended control of those species on the Medal and Bladex labels.

Apply Medal in tank mix combination with Bladex according

to the <u>Tank Mixture with Bladex</u> and <u>Tank Mixture with</u> <u>AAtrex...</u> sections of this label or the preemergence section of the Bladex and AAtrex labels. Where heavy corn residues exist at the time of treatment, follow directions for use in the <u>Bladex Plus Medal</u> tank mixture in the <u>Minimum- or No-Till Weed Control</u> section of the Bladex label. Using a minimum of 25 gals./A of carrier, add an appropriately labeled 2,4-D amine or low volatile ester to the spray tank last.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore are recommended instead of water. Add X-77 surfactant at 1.0 to 2.0 qts./100 gals. of diluted spray, or another appropriate surfactant at its recommended rate. Apply before weeds exceed 3 inches in height. If alfalfa is present, add Banvel to the spray mixture at 0.33-0.5 pt./A and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone Extra at the rate of 2.5 pts./A in place of or in addition to 2,4-D as indicated above. Do not apply Gramoxone Extra in suspension-type liquid fertilizer. Observe all directions for use, precautions and limitations on the respective product labels when applying these products in tank mix combination.

F. Cotton - Medal Alone

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<u>Application</u>: Apply Medal preemergence only in Area 1* at the rate of J.75-1.5 pts./A on sandy loams, 1.0-2.0 pts./A on <u>medium soils</u>, or 1.5-2 pts./A on <u>fine soils</u>. Apply Medal preplant incorporated or preemergence in Area 2** at 1.5 pts./A on <u>sandy loams</u>, 1.5-2 pts./A on <u>medium soils</u>, or 2 pts./A on fine soils. <u>Do not use on sands and loamy</u> sand.

*Area 1 = AR, LA, MS, TN, and Bootheel of MO **Area 2 = NM, OK, TX

<u>Preplant Incorporated (NM, OK and TX Only</u>): Apply to the soil and incorporate into the top inch of soil immediately before planting, at planting, or after planting but before crop or weeds emerge. Use a rolling cultivator or similar implement to uniformly incorporate not more than one inch, deep. Use a preplant incorporated application if furrow , irrigation is used or when a period of dry weather after ..., application is expected. Where furrow irrigation is used, wet the top of the bed for best results. If the crop is to be planted on beds, apply and incorporate after bed formation. Cotton should be planted below the zone of incorporation; i.e., at least 1 inch on fine soils and 1.5 inches

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on <u>coarse</u> and <u>medium soils</u>. If incorporated prior to planting, use a planter that will result in a minimum of soil disturbance.

Note: For best control of yellow nutsedge and suppression of seedling johnsongrass, apply Medal preplant incorporated at the maximum rate for the soil texture, whether applied alone or mixed with Caparol 4L.

<u>Preemergence</u>: Apply to the soil surface at planting, or after planting but before weeds or crop emerge.

Precautions: To avoid crop injury, (1) Do not apply Medal on sand or loamy sand soils or in areas where water is likely to "pond" over the bed: (2) To avoid concentration in the seed furrow, do not make broadcast applications of Medal to cotton planted in furrows more than two inches deep. Band applications may be made to cotton planted in furrows deeper than two inches, but band width should not exceed the width of the bottom of the furrow; and (3) Do not apply on Taloka silt loam.

<u>Note</u>: Do not graze or feed forage or fodder from cotton to livestock, or illegal residues may result.

G. <u>Cotton - Medal Combinations</u>

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1. Tank Mixture with Caparol 4L

Medal tank mixtures with Caparol 4L may be applied in water or fluid fertilizer. When fluid fertilizer is used as a carrier for Medal, either alone or in combination with Caparol 4L, mix only the amount that will be sprayed in one operation. These mixtures should not be allowed to stand without agitation.

In addition to those weeds controlled by Medal alone, Medal + Caparol 4L, applied preplant incorporated or preemergence, also controls the following weeds: junglerice, wild oats, annual morningglory, groundcherry, hairy nightshade, lambsquarters, malva, mustard, prickly sida (teaweed), purslane, ragweed, and shallow-germinating seedlings of cocklebur and coffeeweed.

<u>Preplant Incorporated or Preemergence</u>: Apply Medal + Caparol 4L either preplant incorporated or preemergence using the appropriate rate from Table 5. Cotton should be planted below the zone of incorporation; i.e., at least 1.0 inch on fine soils and 1.5 inches on <u>coarse</u> and <u>medium</u>, <u>soils</u>. If incorporated before planting, use a planter that will result in a minimum of soil disturbance. ۰۰ ۲۰۱۰

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		Broadcast Rates Per Acre	
Use Areas	Soi <u>Texture</u>	Medal	Caparol 4L
ALL	Sand, loamy sand	DO NOT	USE
Oklahoma, and Blacklands and Gulf Coast of	Loams	1.25-2 pts.	2.4 pts.
Texas	Clays	2 pts.	4.8 pts.
Rio Grande Valley of	Loams	1.25-2 pts.	3.2 pts.
Texas	Clays	2 pts.	4.8 pts.
New Mexico and High Plains,	Sandy loam	1.25-1.5 pts.	1.6 pts.
Rolling Plains, Edwards Plateau	Loams	1.25-2 pts.	2.4 pts.
of Texas and Southwest Texas	Sandy clay loams	2 pts.	2.4 pts.
	Other clay soils	2 pts.	3.2 pts.

Table 5: Medal + Caparol 4L - Cotton (NM, OK, TX)

Precautions: (1) To avoid concentration in the seed furrow, do not make broadcast applications of Medal + Caparol 4L to cotton planted in furrows more than two inches deep. Band applications may be made to cotton planted in furrows deeper than two inches, but band width should not exceed the width of the bottom of the furrow. To avoid crop injury. (2) Do not apply on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed: (3) Do not apply in cut areas of newly leveled fields, or in areas of excess salt: (4) Do not apply to glandless cotton varieties; and (5) Do not apply on Taloka silt loam.

Note: Do not graze or feed forage or fodder from cotton to livestock, or illegal residues may result.

Refer to the Caparol 4L label for further instructions and limitations.

2. Tank Mixture with Cotoran DF

Medal may be applied in tank mixture with Cotoran DF ***** preemergence for control of those weeds controlled by Medal alone and those as listed on the Cotoran DF label. This

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combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crop emerge, using the appropriate rates from Table 6 below.

Mixing Instructions: Incompatibility may occur when tank mixing Medal and Cotoran DF. To help overcome this condition, fill the spray tank one-fourth full with water or fluid fertilizer and start agitation, add the Cotoran DF and allow to become dispersed. Add X-77 at 0.5% volume/volume final spray (4 pts./100 gals.), then add the Medal and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension.

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	Broadcast Rates Per Acre			
	Medal_	(pts.)	Cotoran DF***	
Soil Texture	Area 1*	Area 2**	Lbs.	
Sand, loamy sand	DO NOT	USE	DO NOT USE	
Sandy loam	0.75-1.5	1.25-1.5	1.2	
Loam, silt, silt loam	1-2	1.5-2	1.2-1.9	
Fine soils	1.5-2	2	1.9-2.4	

Table 6: Medal + Cotoran DF - Cotton

*Area 1-AR, LA, MS, Bootheel of MO and TN **Area 2-Eastern OK and Gulf Coast, Rio Grande Valley and Eastern TX. ***When using Cotoran 4L use equivalent rates. Multiply lbs. of Cotoran DF by 1.7 to get pts. of Cotoran 4L.

Precautions: 1) Do not apply Medal + Cotoran on sand or loamy sand soils or in areas where water is likely to "pond" over the bed. or crop injury may occur. 2) To avoid concentration in the seed furrow, do not make broadcast applications of Kedal + Cotoran to cotton planted in furrows more than two inches deep. Band applications may be made to cotton planted in furrows deeper than two inches. but band width should not exceed the width of the bottom of the furrow. 3) The use of Cotoran following the use of a systemic insecticide at planting may result in crop injury. 4) Do not use on Taloka silt loam, or crop injury may occur.

Note: To avoid possible illegal residues, do not feed;', ', treated forage or gin trash to livestock, or graze treated areas.

3. Tank Mixture of Medal or Medal + Cotoran with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems, (AL, LA, MS only).

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be added to a tank mix of either Medal or Medal + Cotoran. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The Medal and Medal + Cotoran portion of the tank mixture provides preemergence control of the weeds listed on this label in the Medal and Medal + Cotoran sections, respectively.

Refer to the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions and all other precautions and limitations. Refer to <u>Mixing Instructions</u> under <u>Tank</u> <u>Mixture with Cotoran DF</u> section.

<u>Application</u>: Apply before, during, or after planting, but before the cotton emerges, at the rates specified below. Arply Medal at 1.25-1.5 pts./A on sandy loams, medium, and fine-textured soils. Refer to Table 6 for the Cotoran DF rates.

Add Gramoxone Extra or Roundup at the following broadcast rates:

<u>Gramoxone Extra</u>: 1.5-2.0, 2.0-2.5, or 2.5-3.0 pts./A to 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

<u>Note</u>: Do not apply combinations containing Gramoxone Extra in suspension type liquid fertililzers as the activity of paraquat will be reduced.

<u>Roundup</u>: 1.5 qts./A for existing annual weeds, or 2-4 qts./A for existing perennial weeds. See the Roundup label for weeds controlled and recommended rates for specific weeds.

<u>Note:</u> Do not apply Medal + Cotoran 4L + Roundup in tank with mixture bacause of compatibility problems.

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

Precautions: 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. Refer to the Cotoran, ; labels and the Tank Mixture with Cotoran DF section of this label for further instructions, precautions and limitations.

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H. <u>Grapes - Nonbearing - Medal Alone and Combinations</u>

Broadcast 2-4 pts./A of Medal by ground equipment to weedfree soil in a minimum of 10 gals. of water to control weeds listed in the <u>Medal Applied Alone</u> section of this label. Apply the lower rates on coarse-textured soils with low organic matter and where the weed infestation is expected to be low. Apply the higher rates on finetextured soils, soils high in organic matter, and where a heavy weed infestation is expected. Use caution when applying to keep the spray off the foliage to avoid psosible foliar injury.

When weeds are present at the time of treatment, Medal may be applied in tank mix combination with Gramoxone Extra or Roundup. Gramoxone Extra may be applied at rates of 2-3 pts./A. Roundup may be applied at rates ranging from 1-5 qts./A, depending on the weed species. Direct applications containing Gramoxone Extra or Roundup over the weeds, making certain to keep spray off grape foliage and vines. Refer to the Gramoxone Extra and Roundup labels for further directions, precautions and limitations relative to their use.

<u>Precaution</u>: Do not apply to vines established in the vineyard less than 30 days and only after depressions around the vines have been filled in, or crop injury may occur.

<u>Note</u>: Do not apply to vines that will bear harvestable fruit within 12 months of application, or illegal residues may result.

I. <u>Peanuts - Medal Alone</u>

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Apply Medal either preplant incorporated, postplant incorporated, preemergence or lay-by using the appropriate rate specified below. <u>Preplant Incorporated or Preemergence</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>. <u>Postplant Incorporated</u>: Apply and shallowly incorporate Medal into the soil after planting, but'' before peanut germination. Incorporation depth and incorporating implements must be kept above the seed or seed' will be damaged. <u>Lay-by</u>: Apply Medal to the soil immediately after the last normal cultivation.

Apply Medal alone preplant incorporated, postplant ;...;, incorporated, preemergence or lay-by at a broadcast rate of 1.5-2 pts./A in the Southeast* and 1.25-2 pts./A in NM, OK and TX.

*In the Southeast, use 2-3 pts./A and apply preemergence, ;; for partial control of Florida beggarweed.

Notes: (1) Medal alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label recommendations: Balan at 3-4 qts./A; Treflan E.C. at 1 pt./A; or Vernam® at 2.33-3 pts./A; Sonalan at 1.25-3 pts./A, Pursuit at 1/4 pt./A, and Prowl at 1-2 pts./A. (2) Do not graze or feed peanut forage or fodder to livestock for 30 days following application and (3) Do not apply within 90 days of harvest, or illegal residues may result.

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J. <u>Peanuts - Medal Combinations</u>

1. Tank Mixture with Balan L.C.

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Medal + Balan tank mixture applied preplant incorporated controls those weeds listed under <u>Medal Applied Alone</u> and those weeds as listed on the Balan label.

Apply 1.5-2 pts./A of Medal + 3-4 qts./A of Balan in a minimum of 10 gals. of spray volume per acre for ground application or in a minimum of 5 gals. of spray volume per acre for aerial application. Follow the recommended procedures for Balan on the Balan label for soil preparation and incorporation of this tank mix. Apply and incorporate Medal + Balan up to 14 days prior to planting.

<u>Note</u>: Follow all restrictions and precautions on the Balan label.

2. <u>Multiple Applications (Southeast Only: AL, FL, GA, NC, SC, VA)</u>

Where weed pressure is heavy or where species difficult to control are expected, Medal is most effective when used as follows:

<u>lst Application</u>: Apply Medal preplant incorporated as directed under <u>Peanuts-Medal Alone</u> or apply Medal + Balan preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

2nd Application: Apply Medal any time from preemergence ap to "ground cracking" at 1.5-3 pts./A for extended control of weads not yet emerged. Refer to the <u>Medal Applied Alopp</u> section for a list of weeds controlled.

<u>3rd Application</u>: Apply Medal at layby as directed under, ', <u>Peanuts-Medal Alone</u>. Use only when late germinating we'eds' are expected to be a problem. Refer to the <u>Medal Appli'd</u>, ', <u>Alone</u> section for a list of weeds controlled.

Notes: (1) Do not apply more than the equivalent of 6 p;s. of Medal/A during any one year or illegal residures and year of illegal residures both Medal and Dual 25G (4 lbs. of ... Dual 25G equals 1 pt. of Medal). (2) Do not graze or feed peanut forage or fodder to livestock for 30 days following application and (3) Do not apply within 90 days of harvest, or illegal residues may result.

3. Tank Mixture or Sequentially with Pursuit

The tank mixture or sequential treatment of Medal and Pursuit controls all weeds controlled by Medal alone and by Pursuit alone. Refer to the <u>Medal</u>. <u>lied Alone</u> section for weeds controlled by Medal and to the Pursuit label for weeds controlled by Pursuit.

Refer to the respective labels for application methods, timing, rates, restrictions, and precautions; and use in accordance with the more restrictive label. Do not exceed the label rate of either product. Medal will not control emerged weeds.

4. Tank Mixture with Sonalan

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The tank mixture controls all weeds controlled by Medal alone and by Sonalan alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Sonalan label for weeds controlled by Sonalan.

Apply Medal + Sonalan preplant incorporated using the appropriate rate from Table 7. Follow recommended soil preparation procedures for Sonalan. Refer to the Peanut Sonalan/Medal Tank Mixture label for incorporation specifications.

		Broad	cast Rates Per	c Acre
	Southeast		NM, OK, TY	<u>د</u>
Soil Texture	Medal	Sonalan	Medal	Sonalan
Cuarse	1.5-	1.25-	1.25-	1.25-
	2 pts.	2 pts.	2 pts.	2 pts.
Medium	1.5-	1.75-	1.25-	1.75-
	2 pts.	2.5 pts.	2 pts.	2.5 pts.
Fine	1.5-	2.25-	1.25-	2.25- ;';;
	2 pts.	3 pts.	2 pts.	3 pts. ;,;;

Table 7: <u>Medal + Sonalan - Peanuts</u>

Note: Follow all use directions, limitations, precrutions and information regarding application to peanuts on the Medal and Sonalan labels.

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5. <u>Tank Mixture with Prowl</u>

Medal + Prowl applied preplant incorporated controls all weeds controlled by Medal alone plus Texas panicum, field sandbur, johnsongrass from seed, lambsquarters, Kochia, annual spurge, and other species on the Prowl label. Apply Medal + Prowl by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1-2 inches of soil before planting and within 7 days of application using a finishing disk or similar implement capable of providing uniform incorporate after bed formation. Refer to the <u>Incorporation</u> instructions of the respective labels for additional directions.

Apply Medal + Prowl preplant incorporated using the appropriate rates from Table 8.

Soil Texture	TX, OK, NM	Other Peanut Growing States	
	Medal + Prowl	Medal + Prowl	
Sands, loamy sand	1.25 + 1-1.5 pts.	1.5-2 + 1.5-2 pts.	
Sandy loams	1.25-1.5 ÷ 1-1.5 pts.	1.5-2 + 1.5-2 pts.	
Finer soils	2 + 1-1.5 pts.	2 + 1.5-2 pts.	

Table 8: Medal + Prowl - Peanuts

Broadcast Rates Per Acre

Note: Follow all use directions, limitations, precautions and information regarding application to peanuts on the Medal and Prowl labels.

6. Tank Mixture or Sequentially with Starfire

Medal + Starfire applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of, weed species listed in the <u>Medal Applied Alone</u> section of, this label. Apply 11 fl. oz./A of Starfire with the appropriate Medal rate from the <u>Peanuts - Medal Alone</u> section in a minimum spray volume of 20 gals./A with ground equipment. A second application of Medal + Starfire may be made 28 days after ground cracking. (Refer to the <u>Peanuts - Medal</u> <u>Combinations - Multiple Applications</u> section of this label for geographical areas where multiple applications are recommended.) A second Starfire application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

7. Tank Mixture or Sequentially with Starfire + Basagran

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The addition of Basagran to the Medal + Starfire mixture will result in improved control of such problem broadleaf weeds as prickly sida, cocklebur, smartweed, and bristly starbur. Medal + Starfire + Basagran applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the Medal Applied Alone section of this label. Apply 1 pt./A of Basagran + 11 fl. o2./A of Starfire with the appropriate Medal rate from the Peanuts - Medal Alone section in a minimum spray volume of 20 gal./A with ground equipment. Α second application of Dual 8E + Starfire + Basagran may be made 28 days after ground cracking. (Refer to the Peanuts - Medal Combinations - Multiple Applications section of this label for geographical areas where multiple applications are recommended.) A second Starfire + Basagran upplication may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

8. <u>Tank Mixture or Sequentially with Starfire + Butyrac 200 or</u> <u>Butoxone 200</u>

The addition of Butyrac 200 or Butoxone 200 to the Medal + Starfire mixture will result in improved control of such problem broadleaf weeds as sicklepod, morningglory, and cocklebur. Medal + Starfire + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the Medal Applied Alone section of this label. Apply 11 fl. oz./A of Starfire + 8-16 fl. oz./A (0.125-0.25 lb./A) of Butyrac 200 or Butoxone 200 with the appropriate Medal rate from the Peanuts - Medal Alone section in a minimum spray volume of 20 gal./A with ground equipment. A second application of Medal + Starfire + Butyrac 200 or, ' Butoxone 200 may be made 28 days after ground cracking. (Refer to the <u>Peanuts - Medal Combinations - Multiple</u> Applications section of this label for geographical areas where multiple applications are recommended.) A second, ,, Starfire + Butyrac 200 or Butoxone 200 application may be,,' made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

9. Tank Mixture or Sequentially with Basagran

Medal + Basagran applied at ground cracking or sequentially

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will control species on the Basagran label and provide residual control of species listed in the <u>Medal Applied</u> <u>Alone</u> section of this label. Apply 1-2 pts./A of Basagran in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate Medal rate from the <u>Peanuts - Medal Alone</u> section. A second application of the combination may be made before peanut pegging. (Refer to the <u>Peanuts - Medal Combinations - Multiple Applications</u> section of this label for geographical areas where multiple applications are recommended.) A second Basagran application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

 <u>Tank Mixture or Sequentially with Basagran + Butyrac 200 or</u> <u>Butoxone 200</u>

Medal + Basagran + Butyrac 200 or Butoxon. 200 applied at ground cracking or sequentially will control species on the Basagran label and on the Butyrac or Butoxone labels, especially morningglories. Apply 1.5-2 pts./A of Basagran + 8 fl. oz./A of Butyrac 200 or Butoxone 200 in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate Medal rate from the <u>Peanuts - Medal Alone</u> section. A second application of the combination may be made before peanut pegging. (Refer to the Feanuts - Medal Combinations - Multiple Applications section of this label for geographical areas where multiple applications are recommended.) A second Basagran + Butyrac 200 or Butoxone 200 application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

K. Pod Crops - Medal Alone

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

Apply Medal either preplant incorporated or preemergence using the appropriate rate specified below. <u>Preplant</u> <u>Incorporated or Preemergence</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>. On <u>coarse</u> <u>soils</u> with less than 3% organic matter, apply 1.5-2 pts./Å, of Medal or 2 pts./A if organic matter is 3% or greater. On <u>medium soils</u>, apply 2-2.5 pts./A of Medal. On <u>fine</u>, <u>soils</u>, apply 2-2.5 pts./A of Medal if organic matter cont tent is less than 3%, or 2.5-3 pts./A if organic matter content is 3% or greater.

*On English peas, use only preemergence applications. Do not use on English peas in northeastern U.S., or injury may occur. 400

Note: Do not cut for hay within 120 days following a Medal application, or illegal residues may result.

L. Pod Crops - Medal Combinations

<u>Note</u>: When applying Medal in combination on pod crops, do not cut for hay within 120 days following application, or illegal residues may result.

1. <u>Tank Mixture and Sequential Applications with Eptam - Beans</u> (Green or Dry)

This mixture controls all weeds controlled by Medal alone and by Eptam alone. Refer to the <u>Medal Applied Alone</u> section of this label for weeds controlled by Medal alone and to the Eptam label for weeds controlled by Eptam.

<u>Preplant Incorporated</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>. <u>Sequential</u>: Apply Eptam alone Preplant Incorporated, as specified on that label. Follow with a preemergence application of Medal, at rates specified for Medal alone, during planting (behind the planter) or after planting, but before the weeds or crop emerge.

Refer to the <u>General Information</u> section of this label and to the Eptam label for weather, cultural practices, and all other precautions and limitations that affect performance of these products.

Apply 3.5-4.5 pts./A of Eptam 7E* with Medal as specified. On <u>coarse soils</u>, apply 1.25 pts./A of Medal if organic matter content is less than 3%, or 1.5 pts./A if organic matter content is 3% or greater. On <u>medium soils</u>, apply 1.5 pts./A of Medal if organic matter content is less than 3%, or 2 pts./A if organic matter content is 3% or greater. On <u>fine soils</u>, apply 2 pts./A of Medal if organic matter is less than 3%, or 2-2.5 pts./A if organic matter is 3% or greater.

*Refer to the Eptam label for rate limitations depending on geographical area, and for species and varietal restrictions.

Precaution: Do not exceed 3.5 pts./A Eptam 7E on small;...;, white beans or green beans grown on course-textured soils.

2. <u>Tank Mixture with Treflan - Beans (Dry - Kidney, Navy, Pinto, etc., Lima and Snap)</u>

Medal + Treflan tank mix applied preplant incorporated controls those weeds listed under <u>Medal Applied Alone</u> and those weeds listed for Treflan alone on the Treflan label. Medal + Treflan may be applied by ground or aerial equipment and incorporated up to 14 days price to planting. Follow the recommended procedures on this label and on the respective Treflan label using equipment that provides uniform 2-inch incorporation.

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Apply Medal + Treflan tank mix using the appropriate Medal rate specified for Medal alone, and the Treflan rate from the <u>Dry Beans</u>, and the <u>Lima and Snap Beans</u> sections of the respective Treflan label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

<u>Note</u>: Follow all restrictions and precautions on the respective Treflan label and in the <u>Pod Crops - Medal Alone</u> portion of this label.

M. Potatoes ~ Medal Alone

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Apply Medal either incorporated, preemergence, or arter hilling/lay-by according to directions specified below for control of weeds listed under the <u>General Information</u> section. Within a rate range, use the lower rate on soils relatively coarse textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil.

<u>Incorporated</u>: Apply Medal at 1.5-3 pts./A to the soil and incorporate into the top 3 inches before planting using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices should not bring untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off, but before potato emergence. Use an implement that evenly distributes Medal in the top 2 inches of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

<u>Preemergence</u>: Apply Medal at 1.5-3 pts./A either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 4 pts./A of Medal alone may be used where soil organic' matter is between 6% and 20%.

After Hilling/Lay-by: Apply 2.5 pts./A Medal after hilling/at layby to control Medal-sensitive species for remainder of the growing season. This application will not control emerged weeds. It may be applied over a previous Medal application, but do not apply more than 5.5 pts./A of Medal in a single crop season.

Ecouptions: (1) Do not use on muck or peat soils. If . . c. c. wet soil conditions occur after application, Medal ... may delay meturity and/or reduce yield of Superior and other early meturing potato varieties. To avoid crop injury, (2) Do not use on sweet potatoes or yams; (3) Do not apply both as a preemergence and an incorporated treatment; and (4) Do not use in Kern County, CA.

<u>Note</u>: Potatoes treated with Medal should not be harvested within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application, or illegal residues may result.

N. <u>Potatoes - Medal Combinations</u>

1. Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by Medal alone, Medal applied in tank mix combination with or sequentially with any of the registered Sencor or Lexone formulations, also controls the following broadleaf weeds: cocklebur*, hairy nightshade*, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

*Partially controlled.

Medal at 1.5-3 pts./A plus the labeled Sencor/Lexone use rate may be used preemergence through after last hilling. Apply 1.5-2 pts./A of Medal on <u>coarse soils</u> and 2-3 pts./A on other soil textures. Within this rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. Medal will not control emerged weeds.

Refer to the Sencor or Lexone labels for precautionary statements, restrictions, application information and weeds controlled.

Precautions: (1) Postemergence applications to potatoes should be made only as a directed or semi-directed spray to avoid chlorosis, minor necrosis or leaf distortion, To avoid crop injury, (2) Do not use Medal + Sencor or Lexone cn potatoes in Kern County, CA, and (3) Do not apply to sweet potatoes or yams, (4) Do not use this tank mixture on muck or peat soils.

> <u>Notes</u>: (1) Potatoes treated with Medal in tank mixture with Sencor or Lexone cannot be harvested within 60 days after application or illegal residues may result. (2) Potatoes may not be harvested within 40 days after a lay-by application of Medal, or illegal residues may result.

2. <u>Medal + Lorox Tank Mixture (East of Rocky Mountains)</u>

Medal may be applied in a tank mix combination with any, of, the registered Lorox formulations as a preemergence broadcast application to potatoes. Apply to the soil surface after planting and before emergence of the crop or after final drag-off according to the rates specified in Table 9.

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ļ	Broadcast Rates Per Acre					
	l to Les Organic	s Than 3% Matter	3 to 5% Organic Matter			
Soil Texture	Medal	Lorox*	Medal	Lorox*		
<u>COARSE</u> Sandy loam	1.5 pts.	1-1.5 lbs.	2 pts.	1.5-2 lbs.		
<u>MEDIUM</u> Loam, silt loam, silt	2 pts.	1.5-2 lbs.	2.5-3 pts	2-2.5 lbs.		

Table 9: Medal + Lorox - Potatoes (East of Rocky Mountains)

*When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals one 1b. of Lorox DF.

Precautions: To avoid crop injury, (1) Do not use on sands or loamy sands, and (2) Do not incorporate or spray over the top of emerged potatoes.

Refer to the <u>General Information</u> section of this label and to the Lorox label for precautionary statements, restrictions, application information and weeds controlled.

3. Tank Mixture with Prowl

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In addition to the weeds controlled by Medal alone, a tank mixture with Prowl controls such problem species as Kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Prowl 4E Alone label. Apply "" Medal + Prowl preemergence, preemergence incorporated cr early postemergence according to the specific directions on the Prowl 4E label, using the rates in Table 10. -47-

Table 10: Medal + Prowl - Potatoes

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	BIOADCAST RATE PER ACTE				
Soil Texture	Less Than 3% Organic Matter Medal + Prowl 4E*	More Than 3% Organic Matter Medal + Prowl 4E*			
COARSE	1.5-2 pts. + 1-1.5 pts.	1.5-2 pts. + 1-1.5 pts.			
MEDIUM	2 pts. + 1.5-2 pts.	2-2.5 pts. + 2-3 pts.			
FINE	2-2.5 pts. ∻ 2-3 pts.	2.5-3 pts.+ 3 pts.			

Broadcast Rate Per Acre

*When using other formulations of Prowl, use equivalent rates of active ingredient.

Refer to the Medal and Prowl 4E labels and observe all directions, timings, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

4. Tank Mixture with Prowl + Eptam

In addition to the weeds controlled by Medal alone, this tank mixture will control those species on the Prowl and Eptam labels. Refer to the Medal + Prowl 4E labels for rates of those products and add Eptam 7E at 3.5-7 pts./A depending on geographical area. Refer to the respective Medal, Pr wl, and Eptam labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

0. <u>Safflowers ~ Medal Alone</u>

<u>Preplant Incorporated or Preemergence</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>.

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On <u>coarse soils</u>, apply 1.5-2 pts./A of Medal if organic matter content is less than 3%, or 2 pts./A if organic metter is 3% or greater. On <u>medium soils</u>, apply 2-2.5 pts:/A; of Medal. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal if' organic matter content is less than 3%, or 2.5-3 pts./A if organic matter content is 3% or greater. P. Grain or Forage Sorghum (Seed treated with Concep®) - Medal Alone

Apply Medal either preplant surface, preplant incorporated, or preemergence using the appropriate rate specified below.

<u>Preplant Surface-Applied</u>: Refer to instructions for use of Medal under <u>Application Procedures</u>. For minimum-tillage or no-tillage systems only, Medal may be applied up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 2.25 pts./A of Medal on medium soils or 2.5 pts./A on fine soils. Treatments less than 30 days prior to planting may be made either as a split or single application. Apply 2 pts./A of Medal on coarse soils not more than 2 weeks prior to planting.

Under dry conditions, irrigation after application is recommended to move Medal into the soil.

<u>Preplant Incorporated or Preemergence</u>: Refer to instructions for use of Medal under <u>Application Procedures</u>. Broadcast 1.5- 2 pts./A of Medal on <u>coarse soils</u>, 2-2.25 pts./A on <u>medium soils</u>, or 2-2.5 pts./A on <u>fine soils</u>.

Precautions: (1) If sorghum seed is not properly treated with Concep, Medal will severely injure the crop. (2) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of Medal. The crop will normally outgrow this effect. (3) Do not use Medal on sorghum grown under dry mulch tillage or injury may occur. (4) Except for the split preplant surface treatment, do not make more than one application per year, or illegal residues may result.

Q. Grain or Forage Sorghum (Seed treated with Concep) - Medal Combinations

Medal tank mixtures with AAtrex may be applied in water or fluid fertilizer. Apply Medal alone or in the tank mixtures only when the sorghum seed has been properly treated by the seed company with Concep.

IMPORTANT: FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS; OF ATRAZINE) - If applying Medal in tank mixture with AAtrex. all the restrictions and rate limitations appearing on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is/must be applied at rates lower than those recom-

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mended on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

Precautions: (1) Applications of Madal + AAtrex on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury. (2) If sorghum seed is not properly treated with Concep, Medal + AAtrex may severely injure the crop. (3) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of Medal + AAtrex. The crop will normally outgrow this effect. (4) Do not use Medal + AAtrex on sorghum grown under dry mulch tillage or injury may occur. (5) Except for the split preplant surface treatment. do not make more than one application per year, or illegal residues may result.

1. Tank Mixture with AAtrex

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In addition to the weeds controlled by Medal alone, Medal + AAtrex also controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Preplant Surface-Applied: Refer to instructions for use of Medal under Application Procedures. For minimum-tillage or no-tillage systems only, Medal + AAtrex may be applied up to 45 days prior to planting in IA, IL, eastern KS, MO, NE and SD. Use only split applications for treatments made 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 2.25 pts./A of Medal + 1.7-2 lbs./A of AAtrex Nine-O* on <u>medium soils</u> with 1.5% organic matter or greater. Apply 2.25 pts./A of Medal + 1.7-2 lbs./A of AAtrex Nine-O or fine soils with less than 1.5% organic matter, or apply 2.5 pts./A of Medal + 2-2.2 lbs./A of AAtrex Nine-O on fine soils with 1.5% organic matter or greater. Treatments less than 30 days prior to planting may be made either as a ' '' split or single application. Under dry conditions, irrigation after application is recommended to move Medal + AAtrex into the soil.

Precautions: To avoid crop injury, 1) Do not use on coarse soils, and 2) Do not use on medium soils with less than,,'.: 1.5% organic matter.

<u>Preplant Incorporated or Preemergence</u>: Refer to instructions for use of Medal under <u>Application Procedures</u>. On <u>medium soils</u> with 1.5% organic matter or greater, apply 1.5 pts./A of Medal + 1.3 lbs./A of AAtrex Nine-O*. On <u>fine</u> <u>soils</u> with less than 1.5% organic matter, apply 1.5 pts./A of Medal plus 1.3 lbs./A of AAtrex Nine-O; on <u>fine soils</u> with 1.5% organic matter or greater, apply 1.75-2 pts./A of Medal plus 1.6-1.8 lbs./A of AAtrex Nine-O.

*When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-O equals 1.8 pts. of AAtrex 4L.

Precautions: To avoid crop injury, (1) Do not use on coarse soils: (2) Do not use on medium soils with less than 1.5% organic matter: (3) Do not use in NM, OK, or TX except in northeast OK and the TX Gulf Coast and Blacklands areas: and (4) Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

2. <u>Tank Mixture of Medal or Medal + AAtrex.</u> with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where sorghum (seed treated with Concep) is planted directly into a cover crop, stale seedbed, established sod or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be tank mixed with Medal or Medal + AAtrex. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The Medal or Medal + AAtrex portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

<u>Application</u>: Apply before, during, or after planting but before sorghum emerges, at the appropriate rates listed under <u>Grain or Forage Sorghum - Medal Alone</u> or - <u>Medal</u> <u>Combinations - Medal + AAtrex</u>, respectively. Add Gramoxone Extra or Roundup at the following broadcast rates:

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<u>Gramoxone Extra</u>: 1.5-2.0, 2.0-2.5 or 2.5-3.0 pts./A to,.... 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient; respectively. This treatment will not control weeds taller than 6 inches.

<u>Roundup</u>: 1.5 qts. per acre for control of existing annual weeds, or 2-4 qts. per acre for existing perennial weeds. See the Roundup label for weeds controlled and recommended rates for specific weeds.

R. <u>Soybeans - Medal Alone</u>

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Apply Medal either preplant surface-applied, preplant incorporated or preemergence using the appropriate rate specified below. <u>Preplant Surface-Applied</u>, <u>Preplant Incor-</u> <u>porated</u> or <u>Preemergence</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>.

Preplant Surface-Applied: Use on medium and fine soils with minimum-tillage or no-tillage systems in CO, DE, IA, IL, IN, KS, KY, MD, MI, MN, MO, MT, ND, NE, NY, OH, PA, SD, TN, VA, WI, WV and WY. Apply 2/3 the recommended rate of Medal (2.5 pts./A on medium soils and 3 pts./A on fine soils) as a split treatment 30-45 days prior to planting and the remainder at planting. Applications made less than 30 days before planting may be as either a split or single treatment. Apply 2 pts./A on coarse soils not more than 2 weeks prior to planting.

<u>Preplant Incorporated or Preemergence</u>: On <u>coarse soils</u>, apply 1.5-2 pts./A of Medal if organic matter content is less than 3%, or 2 pts./A if organic matter content is 3% or greater. On <u>medium soils</u>, apply 2-2.5 pts./A of Medal. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal if organic matter content is less than 3%, or 2.5-3 pts./A if organic matter content is 3% or greater.

Note: On soybeans, Medal may be used up to 4 pts./A as a preplant surface-applied, preplant incorporated or preemergence treatment on soils having an organic matter content between 6% and 20%. The total Medal rate applied to soybeans during any one crop should not exceed 4 pts./A.

S. Soybeans - Medal Combinations

Water or fluid fertilizer may be used as carrier for Medal in combination with Sencor, Lexone, Lorox, Lorox Plus, Genini, Canopy, Preview, Pursuit, Scepter, Sonalan or Command.

Note: For all of the following combinations, Medal may be used up to 3.5 pts./A on soils having an organic matter content between 6% and 20%. The total Medal rate applied to soybeans during any one crop year should not exceed 4 pts./A.

1. Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by Medal alone, Medal + Sencor or Lexone, when applied as directed, also 5071

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controls the following broadleaf weeds: cocklebur*, hairy nightshade, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

*Partially controlled.

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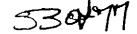
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Apply Medal and Sencor or Lexone preplant incorporated or preemergence using the appropriate rates from Table 11. <u>Preplant Incorporated or Preemergence</u>: Follow instructions for use of Medal alone under <u>Application Procedures</u>.

<u>Sequential</u>: Apply Medal alone <u>Preplant Incorporated</u>, as specified in Table 11 for this tank mixture. Follow with a preemergence application of Sencor or Lexone during planting (behind the planter) or after planting before weeds or soybeans emerge.

Refer to the Sencor or Lexone labels for planting details and soybean variety restrictions.

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	Broadcast Rates Per Acre					
	0.5% to Less Than 3% Organic Matter			3% Organic Matter or Greater		atter
Soil Texture**	Medal	+	Sencor/ Lexone DF*	Medal	+	Sencor/ Lexone DF*
<u>COARSE</u> Loamy sand (over 2% organic matter), sandy_loam	1.25-1.5 pts	.+	0.33 lb.	1.5 pts.	+	0.5 lb.
MEDIUM	1.5-2 pts.	+	0.5 lb.	2 pts.	+	0.67 lb.***
FINE	2 pts.	+	0.67 lb.	2-2.5 pts.	+	0.67 lb.
Mississippi Delta only silty clay, clay	2 pts.	+	1.0 lb.	2-2.5 pts.	+	1.0 lb.
Muck or Peat (soils with more than 20% organic matter)			DO NOT USE			

Table 11: Medal + Sencor or Lexone - Soybeans

*When using Sencor 4 or Lexone 4L, multiply lbs. of DF by 1.5 to get pts./A.

**On all sand and on loamy sand with less than 2% organic matter, do not use this tank mixture preemergence, or the sequential treatment. Do not use the tank mixture preplant incorporated on any sand, loamy sand, or sandy loam, or crop injury may occur.

***Use 0.5 lb./A if applied preplant incorporated.

<u>Precautions: (1) Do not use the tank mix or sequential</u> <u>application on soil with less than 0.5% organic matter or</u> <u>on alkaline soil with a pH over 7.4. or crop injury may</u> <u>occur. (2) If heavy rain occurs soon after application</u> <u>crop injury may result, especially in poorly drained areas</u> <u>where water stands for several days</u>.

2. <u>Tank Mixture with Lorox</u>

In addition to those weeds controlled by Medal alone, Medal + Lorox, applied preemergence, also controls the following broadleaf weeds: cocklebur*, jimsonweed*, lambsquarters, morningglory*, prickly sida, ragweed, smartweed, velvetleaf*, Venice mallow, and wild mustard.

*Partially controlled.

<u>Prequergence</u>: Apply during planting (behind planter) or aft r planting, but before weeds or soybeans emerge. Refer to the Lorox label for planting details. Apply the appropriate rates from Table 12.

	Broadcast Rates Per Acre						_
	0.5% to L Organic M			38	3% Organic or Greater	Matter	
Soil Texture*	Medal	<u>+</u>	Lorox	DF***	Medal	+ Lorox	DF***
COARSE**	1.25 pts.	+	1 lb.		1.5 pts.	+ 1-1.5	lbs.
MEDIUM	1.5 pts.	+	1-1.5	lbs.	2 pts.	+ 1.5-2	lbs.
FINE	2 pts.	+	2 lbs.	,	2-2.5 pts.	+ 2.5-3	lbs.
Muck or Peat (soils with more than 20% organic matter)			DO	NOT	USE		

Table 12: Medal + Lor x - Soybeans

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*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 over 1% organic matter.
- ***When using Lorox L or Lorox DF, use equivalent rates. Cre pt. of Lorox L equals one lb. of Lorox DF.

Precaution: Do not use on soil with less than 0.5% ordanic matter or crop injury may occur.

3. Tank Mixture with Treflan

Medal + Treflan tank mix applied preplant incorporated controls those weeds listed under the <u>Medal Applied Alone</u> suction and those weeds listed for Treflan alone on the respective Treflan label. Medal+ Treflan may be applied by ground or aerial equipment and incorporated up to 14 days before planting. Follow the recommended procedures on the Treflan and Medal labels using equipment that provides uniform 2-inch incorporation. . . ' . .

Apply Medal + Treflan tank mix using the appropriate rate from the <u>Soybeans - Medal Alone</u> section of this label and the Treflan Alone section of the Treflan EC label for the specific soil texture/organic matter classification and weed species expected.

For the control of DNA-resistant goosegrass* and other species on the respective labels where the soil organic matter is 3% or less, apply the rate in Table 13.

	Broadcast Rates Per Acre					
	Medal	Treflan EC**				
Soil Texture	Organic Matter Less Than 3%	Organic Matte Less Than 2%				
COARSE*	1.25-1.5 pts.	1 pt.	1.5 pts.			
MEDIUM	1.5 pts.	1.5 pts.	1.5 pts.			
 FINE	2 pts.	2 pts.	2 pts.			

Table 13: Medal + Treflan - Organic Matter Content Less Than 3%

*Where a range of rates is given for Medal, use the minimum rate where DNA-resistant goosegrass is the predominant species.

**When Treflan MTF or Treflan 5 is used, use comparable rates. Multiply pints of Treflan EC by 1 for Treflan MTF and by 0.8 for Treflan 5.

<u>Note</u>: Follow all restrictions and precautions on the respective Treflan label and in the <u>Soybeans - Medal Alore</u> portion of this label.

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4. Tank Mixture with Scepter

This tank mixture controls all weeds controlled by Medal, alone and by Scepter alone. Refer to the <u>Medal Applied</u>',,',' <u>Alone</u> section for weeds controlled by Medal and to the Scepter label for weeds controlled by Scepter. Refer to the Scepter label for geographical locations where this tank mixture may be applied.

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Apply Medal + Scepter preplant incorporated or preemergence using rates in Table 14. Follow use directions under <u>Application Instructions</u> on the Scepter label. For preplant incorporated applications apply and incorporate within 30 days before planting. Observe all other precautions and limitations on the Scepter labels.

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	Broadcast Rates Per Acre					
	Less T Organi	han 3% c Matter	3% or More Organic Matter			
Soil Texture	Medal	Scepter	Medal	Scepter		
Coarse	1.25 pts.	0.67 pt.	1.5 pts.	0.67 pt.		
Medium	1.5 pts.	0.67 pt.	2.0 pts.	0.67 pt.		
Fine	2.0 pts.	0.67 pt.	2-2.5* pts.	0.67 pt.		
Muck or Peat (soils with more than 20% organic matter)		do not	USE			

Table 14: Medal + Scepter-Soybeans

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*Use the higher rate of Medal if heavy weed infestations are expected.

<u>Notes</u>: (1) Do not apply within 90 days of harvest, and (2) Do not graze or feed treated soybean forage, hay or straw to livestock, or illegal residues may result.

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5. <u>Tank Mixture with Lorox Plus</u>

This tank mixture controls all weeds controlled by Medal alone and by Lorox Plus alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Lorox Plus label for weeds controlled by Lorox Plus.

Apply Medal + Lorox Plus preemergen 3 after planting but before soybeans emerge using rates in Table 15.

<u>Note</u>: Follow all use directions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Medal and Lorox Plus labels.

	Broadcast Rates Per Acre			
	0.5 - 3% Organic Matter			
Soil Texture	Medal	Lorox Plus (60DF)		
<u>Coarse</u>	1.25 pts.	<u>12-14_oz.</u>	<u> </u>	
Medium	1.5 pts.	14-16 oz.		
Fine	2.0 pts.	16-18 oz.		

Precaution: Do not apply to sand or to any soil with less than 0.5% organic matter or to any soil with pH greater than 6.8.

6. Tank Mixture with Gemini

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This tank mixture controls all weeds controlled by Medal alone and by Gemini alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Gemini label for weeds controlled by Gemini.

Apply Medal + Gemini preemergence after planting but before soybeans emerge using rates in Table 16.

Note: Follow all use directions, limitations, precautions, information regarding application to soybeans and rota- ''''' tional restrictions on the Medal and Gemini labels.

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	Broadcast Rates Per Acre			
	0.5 - 3% Organic Matter			
Soil "exture	Medal	Gemini (60DF)		
Ccarse (Carcy loam only)	1.25 pts.	1?-16 oz.		
Medium	1.5 pts.	16-20 oz.		
Fine	2.0 pts.	20-24 oz.		

Table 16: Medal + Gemini - Soybeans

<u>Precaution:</u> Do not apply to sand or loamy sand or to any soil with less than 0.5% organic matter or to any soil with pH greater than 7.0 except as noted on the Gemini label.

7. Tank Mixture with Canopy

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This tank mixture controls all weeds controlled by Medal alone and by Canopy alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Canopy label for weeds controlled by Canopy.

Apply preplant incorporated or preemergence using the appropriate rates from Table 17. <u>Preplant Incorporated</u>: Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2" of soil before planting soybeans. <u>Preemergence</u>: Apply after planting but before soybeans emerge.

> <u>Note</u>: Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Medal and Canopy labels.

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	Broadcast Rates Per Acre			
	< 3% O.M.	> 3% O.M.		
Soil Texture	Medal	Medal	Canopy	
Coarse	1.25 pts.	1.5 pts.	*	
Medium	1.5 pts.	2.0 pts.	*	
Fine	2.0 pts.	2.0-2.5 pts.	*	

Table 17: Medal + Canopy - Soybeans

*Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification and pH limitations.

Precaution: Do not apply to sand or to any soil with less than 0.5% organic matter or to any soil with pH greater than 7.0 except as noted on the Canopy label.

8. Tank Mixture with Preview

This tank mixture controls all weeds controlled by Medal alone and by Preview alone. Refer to the Medal Applied Alone section for weeds controlled by Medal and to the Preview label for weeds controlled by Preview.

Apply preplant incorporated or preemergence using the appropriate rates from Table 18. Preplant Incorporated: Apply within 2 weeks of planting. Uniformly incorporate in to the top 1-2" of soil before planting soybeans. Preemergence: Apply after planting but before soybeans emerge.

.'ote: Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Medal and ' Preview labels. • • • • • • • • •

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	Broadcast Rates Per Acre				
	0.5-Less Than 3% Organic Matter		<u>3-5% Organic Matter</u>		
Soil Texture	Medal	Preview 75DF	Medal	Preview 75DF	
Coarse	1.25 pts.	6 oz.	1.5 pts.	7 oz.	
Medium	1.5 pts.	7 oz.	2.0 pts.	8 oz.	
Fine	2.0 pts.	8 oz.	2.0-2.5 pts.	9-10 oz.	

Table 18: Medal + Preview - Soybeans

<u>Precaution: Do not apply to sand or to any soil with less</u> than 0.5% organic matter or to any soil with pH greater than 6.8.

9. Tank_Mixture with Command*

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This tank mixture controls all weeds controlled by Medal alone and by Command alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Command label for weeds controlled by Command.

Apply Medal + Command preplant incorporated using rates in Table 19. Follow all Command application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.*

*<u>Note</u>: Before making applications, read and strictly follow all use directions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Medal and Command labels.

Table 19: Medal + Command - Soybeans

	Broadcast Rates Per Acre				
	Medal		Command 4E		
Soil Texture	0.5-3% Organic Matter	Greater Than 3% Organic Matter	Northern Area	Southern Area	
Coarse	1.25 pts.	1.5 pts.	1.5-2 pts.	2-2.5 pts.	
Medium	1.5 pts.	2.0 pts.	1.5-2 pts.	2-2.5 pts.	
Fine	2.0 pts.	2.0-2.5 pts.	1.5-2 pts.	2-2.5 pts.	

10. Tank Mixture with Sonalan

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This tank mixture control and welds controlled by Medal alone and by Sonalan alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Sonalan label for weeds controlled by Sonalan.

Apply Medal and Sonalan preplant incorporated using the appropriate rates from Table 20.

<u>Preplant Incorporated</u>: Follow recommended soil preparation procedures for Sonalan. Refer to the <u>Sonalan/Medal Tank</u> <u>Mi:ture</u>label for incorporation specifications.

<u>Sequential</u>: Apply Sonalan alone preplant incorporated as specified on the Sonalan label. Follow with a preemergence application of Medal during planting (behind the planter) or after planting before weeds or soybeans emerge

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	Less Than 3% Organic Matter		3% or More Organic Matter	
Soil Texture	Medal	Sonalan	Medal	Sonalan
Coarse	1.5-2 pts.	1.25-2 pts.	2 pts.	1.25-2 pts.
Medium*	2-2.5 pts.	1.75-2.5 pts.	2-2.5 pts.	1.75-2.5 pts.
Fine*	2-2.5 pts.	2.25-3 pts.	2.5-3 pts.	2.25-3 pts.
Muck or Peat (soils with more than 20% organic matter)		DO NOT	USE	

Table 20: Medal + Sonalan - Soybeans

*For eastern black nightshade on these soils, apply Sonalan at 3 pts./A on medium and 3.5 pts./A on fine-textured soils and follow with two incorporation passes.

<u>Note</u>: Follow all use directions, limitations, precautions, and information regarding application to soybeans on the Medal and Sonalan labels.

11. Tank Mixture with Pursuit

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This tank mixture controls all weeds controlled by Medal alone and by Pursuit alone. Refer to the <u>Medal Applied</u> <u>Alone</u> section for weeds controlled by Medal and to the Pursuit label for weeds controlled by Pursuit. Refer to, the Pursuit label for geographical locations where this; '...' tank mixture may be applied.

Apply Medal + Pursuit early preplant, preplant incorporated, or preemergence after planting using rates in Table 21. Application can be made in water or liquid fer tilizer. Follow all use directions under <u>Soil Applications</u>: on the Pursuit label. For early preplant and preplant incorporated applications, apply within 30 days before planting.

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<u>Note</u>: Follow all use directions, limitations, precautions, and information regarding application to soybeans and rotational restrictions on the Medal and Pursuit labels.

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	Broadcast Rates Per Acre			
	Less Than 3% Organic Matter	3% or More Organic Matter		
Soil Texture	Medal	Medal	Pursuit	
Coarse	1.25 pts,	1.5 pts.	0.25 pt.	
Medium	1.5 pts	2.0 pts.	0.25 pt.	
Fine	2.0 pts.	2.0-2.5 pts.	0.25 pt.	

Table 21: Medal + Pursuit - Soybeans

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<u>Sequential</u>: Apply Medal early preplant, preplant incorporated or preemergence after planting at 1.25 pts./A on coarse soils and 1.5 pts./A on medium and fine textured soils. Follow with a sequential postemergence application of Pursuit to control emerged weeds according to the Pursuit label. Medal will improve the consistency and level of control from Pursuit on most grass species. Refer to the Pursuit postemergence label for a listing of weeds controlled, application rate and growth stage limitations.

12. <u>Tank Mixture with Lexone, Sencor, Scepter, Lorox, Lorox</u> <u>Plus, Gemini, Canopy, Preview or Pursuit plus Gramoxone</u> <u>Extra or Roundup for Mininum-Tillage or No-Tillage Systems</u>

In minimum-tillage or no-tillage systems where soybeans are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be added to a tank mix of either Medal + Sencor or Lexone, Medal + Scepter, Medal + Lorox, Medal + Lorox Plus, Medal + Gemini, Medal + Canopy, Medal + Preview or Medal + Pursuit. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged weeds and suppresses many perennial. weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup' label. The Medal + Sencor/Lexone, Scepter, Lorox, Lorox, Plus, Gemini, Canopy, Preview, or Pursuit portion or the tank mixture provides preemergence control of the weeds '..... listed on this label in the tank mixture section for Medal. + Sencor/Lexone, Medal + Scepter, Medal + Lorox, Medal + ** Lorox Plus, Medal + Gemini, Medal + Canopy, Medal + Preview and Medal + Pursuit, respectively.

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Refer to the label of each product used in combination and observe the planting details, soybean variety restrictions, information regarding application to soybeans, geographical restrictions and all other precautions and limitations.

Refer below for rates of Gramoxone Extra or Roundup, Medal + Sencor/Lexone, Medal + Scepter, Medal + Lorox, Medal + Lorox Plus, Medal + Gemini, Medal + Canopy, Medal + Preview, and Medal + Pursuit, respectively.

<u>Application</u>: Apply before, during, or after planting, but before the soybeans emerge, at the rates specified below. Add Gramoxone Extra or Roundup at the following broadcast rates:

<u>Gramoxone Extra</u>: 1.5-2.0, 2.0-2.5 or 2.5-3.0 pts./A to 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

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<u>Note</u>: Do not apply combinations containing Gramoxone Extra in suspension type liquid fertilizers as the activity of paraquat will be reduced.

<u>Roundup</u>: 1.5 qts./A for existing annual weeds, or 2-4 qts./A for existing perennial weeds. See the Roundup label for weeds controlled and recommended rates for specific weeds.

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

<u>Medal + Lexone/Sencor + Gramoxone Extra or Roundup</u>

On <u>loamy sand</u> with over 2% organic matter, apply 1.5 pts./A of Medal + 0.33-0.5 lb./A of Sencor or Lexone DF. On <u>medium soils</u>, apply 2 pts./A of Medal + 0.5-0.67 lb./A of Sencor or Lexone DF. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal + 0.67 lb./A of Sencor or Lexone DF.

*When using Sencor 4 or Lexone 4L, multiply lbs. of DF by ... 1.5 to get pts./A.

Precautions: To avoid crop injury, (1) Do not use this tank mixture on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4. or on all sand and on; loamy sand with less than 2% organic matter. (2) 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.

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<u>Medal + Scepter + Gramoxone Extra or Roundup</u>

On <u>coarse soils</u>, apply 1.5 pts./A of Medal + 0.67 pt./A of Scepter. On <u>medium soils</u>, apply 2 pts./A of Medal + 0.67 pt./A of Scepter. On <u>fine soils</u>, apply 2.5 pts./A of Medal + 0.67 pt./A of Scepter.

<u>Notes:</u> (1) Do not apply within 90 days of harvest, and (2) Do not graze or feed treated soybean forage, hay, or straw to livestock, or illegal residues may result.

<u>Medal + Lorox + Gramoxone Extra or Roundup</u>

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On <u>coarse soils</u>*, apply 1.5 pts./A of Medal + 1-1.5 lbs./A of Lorox DF**. On <u>medium soils</u>, apply 2 pts./A of Medal + 1-2 lbs./A of Lorox DF. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal + 2-3 lbs./A of Lorox DF.

*Do not use on loamy sand, except in the northeastern U.S. on loamy sand with over 1% organic matter, or injury may occur. Do not use on sand, gravelly soils, or exposed subsoils, or injury may occur.

**When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals one lb. of Lorox DF.

<u>Precaution: Do not use on soil with less than 0.5% organic</u> matter or crop injury may occur.

<u>Medal + Lorox Plus + Gramoxone Extra or Roundup</u>

Use only where soils have 0.5-3% organic matter. On <u>coarse</u> <u>soils</u>, apply 1.5 pts./A of Medal + 12-14 oz./A of Lorox Plus 60DF. On <u>medium soils</u>, apply 2 pts./A of Medal + 14-16 oz./A of Lorox Plus. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal + 16-18 oz./A of Lorox Plus.

Precaution: Do not apply to sand or to any soil with pH greater than 6.8.

<u>Medal + Gemini + Gramoxone Extra or Roundup</u>

Use only where soils Lave 0.5-3% organic matter. On <u>ccause</u> <u>soils</u> (sandy loam only) apply 1.5 pts./A of Medal + 12-10 oz./A of Gemini 60DF. On <u>medium soils</u>, apply 2 pts./A of Medal + 16-20 oz./A of Gemini. On <u>fine soils</u>... apply 2-2.5 pts./A of Medal + 20-24 oz./A of Gemini.

Precaution: Do not apply to sand or loamy sand or to any soil with less than 0.5% organic matter or to any soil with, pH greater than 7.0 except as noted on the Gemini label.""

<u>Medal + Canopy + Gramoxone Extra or Roundup</u>

Use only where soils have 0.5-5% organic matter. On coarse

<u>soils</u> (except sand), apply 1.5 pts./A of Medal, on <u>medium</u> <u>soils</u>, apply 2 pts./A of Medal and on <u>fine soils</u>, apply 2-2.5 pts./A of Medal. Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

<u>Precaution: Do not apply to sand or to any soil with less</u> than 0.5% organic matter or to any soil with pH greater than 7.0 except as noted on the Canopy label.

<u>Medal + Preview + Gramoxone Extra cr Roundup</u>

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Use only where soils have 0.5-5% organic matter. On <u>coarse</u> <u>~'ls</u> (except sand), apply 1.5 pts./A of Medal + 6*-7 oz./A or Preview 75DF. On <u>medium soils</u>, apply 2 pts./A of Medal + 7*-8 oz./A cf Preview. On <u>fine soils</u>, apply 2-2.5 pts./A of Medal + 8* to 9-10 oz./A of Preview.

*Use this rate where the soil organic matter is in the 0.5 to less than 3.0% range.

Precaution: Do not apply to sand or to any soil with less than 0.5% or to any soil with pH greater than 6.8.

<u>Medal + Pursuit + Gramoxone Extra or Roundup</u>

On <u>coarse soils</u>, apply 1.5 pts./A of Medal + 0.25 pt./A of Pursuit. On <u>medium soils</u>, apply 2 pts./A of Medal + 0.25 pt./A of Pursuit. On <u>fine soils</u>, apply 2.5 pts./A of Medal + 0.25 pt./A of Pursuit.

T. Stone Fruits - Medal Alone and Combinations

Stone fruits including: apricots, cherries (sweet, sour), nectarines, peaches, plums (chickasaw, damson, Japanese) and prunes.

Broadcast 2-4 pts./A of Medal by ground equipment to weedfree soil in a minimum of 10 gals. of water to apricots, cherries, nectarines, peaches, plums, or prunes, to control weeds listed in the <u>Medal Applied Alone</u> section of this label. Apply the lower rates on coarse-textured soils with. low organic matter and where the weed infestation is expected to be low. Apply the higher rates on finetextured soils, soils high in organic matter, and where a heavy weed infestation is expected. Use caution when applying to keep the spray off the foliage of the tree crops to avoid excessive residues or possible foliar injury.

For control of browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, annual morningglory, ragweed, smartweed and velvetleaf, tank mix Medal at rates indicated above with 1.1 to 4.4 lbs./A, depending on the crop, or Princep Caliber 90 (or 1-4 gts./A of Princep 4L) and apply to weed-free soil in a minimum of 10 gals. of water, keeping the spray off the foliage of the tree crops. Refer to the rate of Princep Caliber 90 or Princep 4L for a given crop on the respective Princep label.

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When weeds are present at the time of treatment, Medal alone or in tank mixture with Princep Caliber 90 (or 4L) may sequentially follow an application of Gramoxone Extra or Roundup, or Medal alone or in tank mixture with Princep may be applied in tank mix combiantion with Gramoxone Extra or Roundup. Gramoxone Extra may be applied at rates of 2-3 pts./A. Roundup may be applied at rates ranging from 1-5 qts./A, depending on the weed species. Refer to the Roundup label for rate for varicus weed species. Direct applications containing Gramoxone Extra or Roundup over the weeds, making certain to keep spray off foliage and stems of trees. Refer to the Princep Caliber 90 (or 4L), Gramoxone Extra, and Roundup labels for other details relative to their use.

<u>Notes</u>: (1) Do not graze livestock in treated areas and (2) Do not feed or graze cover crops grown in treated orchards, or illegal residues may result. (3) <u>To avoid</u> <u>crop injury. do not apply tank mixtures with Princep on</u> <u>nectarines or apricots</u> and (4) Do not apply Medal to nonbearing trees transplanted in the orchard less than 30 days or before depressions around the trees have been filled in.

U. Tree Nuts - Medal Alone and Combinations

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Tree nuts including almonds, beech nuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapins, filberts (hazel nuts), hickory nuts, Macadamia nuts, pecans, and walnuts (black and English).

Broadcast 2-4 pts./A of Medal by ground equipment to weedfree soil in a minimum of 10 gals. of water to tree nuts to control weeds listed in the <u>Medal Applied Alone</u> section of this label. Apply the lower rates on coarse-textured soils with low organic matter and where the weed infestation is expected to be low. Apply the higher rates on finetextured soils, soils high in organic matter, and where a heavy weed infestation is expected. Use caution when applying to keep the spray off the foliage of the tree crops to avoid excessive residues or possible foliar injury.

For control of browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, annual morningglory, ragweed, smartweed and velvetleaf, tank mix Medal, at rates indicated above with 1.1 to 4.4 lbs./A, depending on the crop, of Princep Caliber 90 (or 1-4 qts./A of Princep', 4L) and apply to weed-free soil in a minimum of 10 gals. of water, keeping the spray off the foliage of the tree crops. Refer to the rate of Princep Caliber 90 or Princep 4L for a given crop on the respective Princep label.

When weeds are present at the time of treatment, Medal alone or in tank mixture with Princep may be applied in tank mix combination with Gramoxone Extra or Roundup. Gramoxone Extra may be applied at rates of 2-3 pts./A. Roundup may be applied at rates ranging from 1-5 qts./A, depending on the weed species. Refer to the Roundup label for rate for various weed species. Direct applications containing Gramoxone Extra or Roundup over the weeds, making certain to keep spray off foliage and stems of trees. Refer to the Princep Caliber 90 (or 4L), Gramoxone Extra, and Roundup labels for other details relative to their individual use.

<u>Notes</u>: (1) Tank mixtures containing Princep may only be used on almonds, filberts, Macadamia nuts, pecans, or walnuts. (2) Do not graze livestock in treated orchards, or illegal residues may result. (2) Do not apply Medal to nonbearing trees transplanted in the grove less than 30 days or before depressions around the trees have been filled in, or crop injury may occur.

V. <u>Storage and Disposal</u>

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Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

Container Disposal

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. Keep out of smoke from burning containers.

This product may be stored at temperatures down to 30 degrees below 0°F.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special

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care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-800-888-8372 day or night.

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W. <u>Precautionary Statements</u>

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Hazards to Humars and Domestic Animals

CAUTION

The active ingredient, metolachlor, may cause skin sensitization reactions in certain individuals. Wear protective clothing (coverall and gloves) while handling or using this product. Causes skin and eye irritation. Do not get in eyes, on skin, or on clothing. Harmful if inhaled. Avoid breathing spray mist.

Harmful if swallowed or absorbed through the skin. Wash thoroughly after handling. Avoid contamination of food.

Statement of Practical Treatment

<u>If swallowed</u>: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

<u>Note to Physician</u>: If swallowed, there is no specific antidote. Induce emesis and lavage stomach. Treat symptomatically! The use of an aqueous slurry of activated charcoal (such as Norit A) and a saline cathartic should be considered.

<u>If on skin</u>: Wash with plenty of soap and water. Get medical attention if irritation persists.

If inhaled: Remove victim to fresh air. Get medical attention.

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water, is mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

Ground Water and Surface Water Advisory

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Metolachlor has been idertified in limited sampling of ground water and there is the possibility that it may leach through the soil to ground water, especially where soils are coarse and ground water is near the surface. Following application and during rainfall events that cause runoff, metolachlor may reach surface water bodies including streams, rivers and reservcⁱrs.

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

Check values or antisiphoning devices must be used on all mixing and/or irrigation equipment.

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Agricultural Division CIBA-GEIGY Corporation Greensboro, North Carolina 27419

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[GANNONC.LABELD]MEDALF42 - 1/11/93

Revised January, 1993 Peanut, potato, soybean tank mix additions

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(Container Label)

Medal

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Herbicide

For weed control in corn, cotton, nonbearing citrus, nonbearing grapes, peanuts, pod crops, potatoes, safflowers, grain or forage sorghum, soybeans, stone fruits and tree nuts

See directions for use in attached booklet.

TPA Reg. No. 100-688

EPA Est. 32761-MO-3^F EPA Est. 34704-MS-1^P EPA Est. 11773-IA-1^W EPA Est. 42761-MS-1^R

(Superscript is first letter of lot number on jug)

2 1/2 Gallons U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

The active ingredient, metolachlor, may cause skin sensitization reactions in certain individuals. Wear protective, clothing (coveralls and gloves) while handling or using, ... this product. Causes skin and eye irritation. Do not get. in eyes, on skin, or on clothing. Harmful if inhaled. Avoid breathing spray mist.

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Harmful if swallowed or absorbed through the skin. Wash thoroughly after handling. Avoid contamination of food. Statement of Practical Treatment

<u>If swallowed</u>: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

Note to Physician: If swallowed, there is no specific antidote. Induce emesis and lavage stomach. Treat symptomatically! The use of an aqueous slarry of activated charcoal (such as Norit A) and a saline cathartic should be considered.

<u>If on skin</u>: Wash with plenty of soap and waer. Get medical attentior if irritation persists.

<u>If inheled</u>: Remove victim to fresh air. Get medical attention.

<u>If in eyes</u>: Flush eyes with plenty of water. Call a physician if irritation persists.

Environmental Hazards

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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 when disposing of equipment wash waters or rinsate.

Ground Water and Surface Water Advisory

Metolachlor has been identified in limited sampling of ground water and there is the possibility that it may leach through the soil to ground water, especially where soils are coarse and ground water is near the surface. Following application and during rainfall events that cause runoff, metolachlor may reach surface water bodies including streams, rivers and reservoirs.

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

Check valves or antisiphoning devices must be used on all mixing and/or irrigation equipment.

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Chemigation

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Refer to supplemental labeling in attached booklet for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

Container Disposal

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

Medal® trademark of CIBA-GEIGY Corporation for metolachlor U.S. Patent No. 4,022,611

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