Dual®

8E

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

Active Ingredient:

Metolachlor: 2-chloro-*N*-(2-ethyl-6-methylphenyl)-*N*-(2-methoxy-1-methylethyl acetamide. . . .	86.4%
Inert Ingredients:	13.6%
Total:	100.0%

2½ Gallons
U.S. Standard Measure

Dual 8E contains 8 lbs. active ingredient per gallon.

Keep Out of Reach of Children.

CAUTION

See additional precautionary statements inside booklet.

See directions for use inside booklet.

EPA Reg. No.100-597

Dual® trademark of CIBA-GEIGY for metolachlor
U.S. Patent No. 3,937,730

1988 CIBA-GEIGY Corporation

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
CGA 49L12X 098

CIBA-GEIGY

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT [illegible] Directions for Use [illegible] Conditions of Sale and Warranty [illegible]

Conditions of Sale and Warranty

The Directions for Use [illegible] Directions for Use [illegible] CIBA-GEIGY makes no other express or 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 [illegible] Conditions of Sale and Warranty [illegible]

DIRECTIONS FOR USE

[illegible]

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND [illegible] ON THIS LABEL MAY RESULT IN POOR WEED CONTROL [illegible] OR ILLEGAL RESIDUES

[illegible]

Reentry Statement

[illegible] Precautionary Statements [illegible]

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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.

A. General Information

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.

Dual 8E 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.

Where directions specify a Dual 8E tank mixture with AAtrex® formulations, other brands of atrazine may be used. Follow the rates, recommendations, and limitations on the respective product label if other brands of atrazine are used.

If Dual 8E is incorporated, any supplemental tillage before planting must not exceed the specified depth of incorporation.

Dry weather following preemergence application of Dual 8E 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, or consistent control at a level below that generally considered acceptable for commercial weed control.

Precaution: Injury may occur following the use of Dual 8E under abnormally high soil moisture conditions during early development of the crop.

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:

Coarse	Medium	Fine	
Sand	Loam	Silty clay loam	Sandy clay
Loamy sand	Silt	Sandy clay loam	Clay loam
Sandy loam	Silt loam	Silty clay	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: Dual 8E 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 recommendations, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer prior to use. Do not use a sprayer contaminated with any other materials, or crop damage or sprayer clogging may result.

2. Mixing Instructions

Dual 8E Alone: Mix Dual 8E 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 Dual 8E, 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 **AAtrex**, Amiben®, Basagran®, Banvel®, Bladex®, Canopy®, Caparol® 4L, Command®, Eptam®, Gemini®, Lexone®, Lorox®, Lorox Plus, Milogard®, Preview®, Princep®, **AAtrex** + Princep®, Scepter®, Sencor® or Treflan®, and allow it to become dispersed, then add Dual 8E, then add Gramoxone® Super or Roundup® if these products are being used, and finally the rest of the water. If Igran® or Bladex is to be used in the tank mixture, first add a compatibility agent such as Unite® or Compex® at 2-3 pts./100 gals. of spray mixture. Then add Igran or Bladex and allow it to become dispersed. Then add Dual 8E, and finally add the rest of the water. Agitate during mixing and application to maintain a uniform suspension. For tank mixtures with **AAtrex**, Amiben, Banvel, Bladex, Canopy, Caparol 4L, Command, Eptam, Gemini, Igran, Lexone, Lorox (but not Lorox L), Lorox Plus, Milogard, Preview, Princep, **AAtrex** + Princep, Sencor 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. Do not apply tank mixtures of Dual 8E + Lorox L or Dual 8E + Scepter in fluid fertilizers. For tank mixtures with **AAtrex**, see additional mixing instructions on the **AAtrex** label. Check compatibility of mixture with fluid fertilizer as described below, before mixing in spray tank. For tank mixtures with **AAtrex** or Princep plus Prowl®, see the appropriate section of this label for mixing instructions.

Tank mixtures with Bladex should not be allowed to stand without agitation. If there is any evidence of incompatibility with Bladex in tank mixtures, add Compex, Unite, or an equivalent compatibility agent to the mixture as with Igran or Bladex above. Check the compatibility of tank mixtures containing Bladex closely if fluid fertilizers are used as carriers. Empty the spray tank during the spraying operation.

Compatibility Test: Since liquid fertilizers can vary, even within the same analysis, always **check compatibility with herbicide(s) each time before use.** Be especially careful when using **complete** suspension 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 **one** of the jars add ¼ tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (¼ tsp. is equivalent to 2 pts. per 100 gals. spray). Shake or stir gently to mix.
3. To **both** jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately 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	For each pound to be applied per acre, add 1.5 level teaspoons to each jar.
Liquid herbicides	For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

Note: For Dual 8E tank mixtures with AAtrex + Princep, use ⅓-½ 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 ½ of the compatibility agent to the fertilizer and the other ½ to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

3. Application Procedures

Application Timing

Dual 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.

1. **Preplant Surface-Applied:** For minimum tillage or no tillage systems only, Dual 8E alone and some Dual 8E tank mixtures may be applied up to 45 days before planting certain crops. Use only split applications for treatments made 30-45 days before planting, with ⅔ the recommended broadcast rate for the crop and soil texture applied initially and the remaining ⅓ 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 Super 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.
2. **Preplant Incorporated:** Apply Dual 8E 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 Dual 8E after bed formation unless specified otherwise.
3. **Preemergence:** Apply Dual 8E during planting (behind the planter) or after planting, but before weeds or crops emerge.

   Special Application Procedures — California Only (Corn, Safflower, Pod Crops): *Preplant Incorporated:* Broadcast Dual 8E 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 Dual 8E treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate Dual 8E with a tillage implement set to till 2-4" deep. Care should be taken during tilling to keep the tilled (Dual 8E treated) soil on the beds. *Preemergence:* Apply Dual 8E after planting. Water with sprinkler or flood irrigation within 7-10 days.

Ground Application: Apply Dual 8E 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 Dual 8E 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:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Aerial Application: Apply Dual 8E 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. 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 Dual 8E alone or Dual 8E + **AAtrex** by aircraft at a minimum upwind distance of 400 ft. from sensitive plants, or apply Dual 8E + Lexone or Sencor 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.

Center Pivot Irrigation Application: Dual 8E alone or in tank mixture with AAtrex or 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, or illegal pesticide residues in the crop can result from nonuniform 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.

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Operating Instructions

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from 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) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
9. Meter into irrigation water during entire period of water application.
10. Apply in 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 finer textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

4. Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with Dual 8E alone or selected Dual 8E tank mixtures which are registered for preplant incorporated or preplant surface application which are used to control weeds in crops on the Dual 8E label and are not prohibited from use on dry bulk granular fertilizers.

When applying Dual or Dual mixtures with dry bulk granular fertilizers, follow all directions 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 granular herbicide-fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Dual 8E and Dual 8E mixtures onto the fertilizer must be placed to provide uniform spray coverage.

If the herbicide-fertilizer mixture is too wet, use a highly absorptive powder such as Microcel E (Johns Manville Products Corporation), diatomaceous earth or finely powdered clay to obtain a dry free-flowing mixture. Add the absorptive powder separately and uniformly to the herbicide-fertilizer mixture and blend to form a suitable free flowing mixture. Generally less than 5% by weight of absorptive powder will be needed.

Calculate amounts of Dual 8E, AAtrex, AAtrex + Princep, Bladex, Igran, Milogard, Princep, Sencor or Lexone by the following formula:

$$\frac{2{,}000}{\text{lbs. of fertilizer per acre}} \times \text{pts./acre of liquid or flowable product} = \text{pts. of liquid or flowable product per ton of fertilizer}$$

$$\frac{2{,}000}{\text{lbs. of fertilizer per acre}} \times \text{lbs./acre of dry product} = \text{lbs. of dry product per ton of fertilizer}$$

Precautions: (1) To avoid potential for explosion, do not impregnate Dual 8E or Dual 8E mixtures on ammonium nitrate, potassium nitrate or sodium nitrate either alone or in blends with other fertilizers. (2) Do not impregnate mixtures of Dual 8E plus any other herbicide with single superphosphate (0-20-0) or triple superphosphate (0-46-0). (3) Do not use Dual 8E or Dual 8E mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Application

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. Nonuniform 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 (reduced or no-tillage situations) and in some conventional tillage situations, make application approximately [illegible] before planting to allow moisture to move the herbicide-fertilizer mixture into the soil. On coarse textured soils, make application approximately [illegible] prior to planting.

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

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B. Dual 8E Applied Alone

1. *Weeds Controlled*

barnyardgrass (watergrass)	green foxtail	yellow foxtail
crabgrass	prairie cupgrass	yellow nutsedge
crowfootgrass	red rice	
fall panicum	signalgrass (Brachiaria)	black nightshade
foxtail millet	southwestern cupgrass	carpetweed
giant foxtail	witchgrass	Florida pusley
goosegrass		galinsoga
		pigweed

Weeds Partially Controlled:* common purslane, Florida beggarweed**, 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:

1. **Thoroughly till moist soil** to destroy germinating and emerged weeds. If Dual 8E is to be applied preplant incorporated, this tillage may be used to incorporate Dual 8E if uniform 2-inch incorporation is achieved as recommended under **Application Procedures**.
2. Plant into moist soil **immediately after tillage**. If Dual 8E is to be used preemergence, apply at planting or immediately after planting.
3. If available, **sprinkler irrigate** 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 volume (1 inch) on finer textured soils. Also refer to the section on **Center Pivot Irrigation Application** for this method of applying Dual 8E.
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.

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

2. **Rotational Crops**: (1) If crop treated with Dual 8E alone is lost, any crop on this label may be replanted immediately, but do not make a second broadcast application of Dual 8E. 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. (3) Any crop on this label, in addition to root crops, barley, oats, rye, or wheat may be planted in the spring following treatment. Clovers may be seeded 9 months following application. Do not graze or feed forage from these to meat or dairy livestock. All other rotational crops may be planted 18 months after application. (4) Following a fall treatment or multiple treatments applied the previous season, any crop on this label may be planted in the spring. All other rotational crops may be planted 18 months after a fall application.

Important Notes: To avoid injury to rotational alfalfa or clover: (1) Do not apply more than 3 lbs. a.i. of metolachlor (3 pts. Dual 8E) preemergence (including preplant surface, preplant incorporated, postplant incorporated, etc.). (2) Do not make layby or other postemergent applications of Dual 8E. (3) For **Rotational Crops** restrictions for Dual 8E used in tank mixtures, refer to the statements/restrictions above for Dual 8E and to the respective product labels of any mixing partners for additional statements/restrictions.

C. Citrus–Nonbearing–Dual 8E Alone and Combinations

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

Broadcast 2-4 pts./A of Dual 8E by ground equipment to weed-free soil in a minimum of 10 gals. of water to citrus to control weeds listed in the **Dual 8E Applied Alone** 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 fine textured 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 tree injury.

In the event weeds are present at the time of treatment, Dual 8E may be applied in tank mix combination with Gramoxone Super or Roundup. Gramoxone Super may be applied at rates of [illegible] pts./A. Roundup may be applied at rates ranging from [illegible] qts./A, depending on the weed species. Refer to the Roundup label for the rate to be applied for control of weeds. [illegible] applications containing Gramoxone Super or Roundup [illegible] weeds [illegible] keep spray off foliage and green stems of trees. Refer to the Gramoxone Super and Roundup labels for further precautions, restrictions and limitations relative to their use.

Precaution: [illegible] apply to trees transplanted [illegible] less than [illegible] and [illegible] depressions around the tree [illegible] may result.

Note: [illegible] trees that will bear fruit [illegible] graze livestock [illegible] residues may result.

D. Corn – Dual 8E Alone

Apply Dual 8E either preplant surface, preplant incorporated, or preemergence using the appropriate rate specified below.

Preplant Surface Applied: Refer to instructions for use of Dual 8E alone under **Application Procedures**. Use on medium and fine textured soils in minimum tillage or no-tillage systems in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, TN, WI and WY. Apply 2/3 the recommended rate of Dual 8E (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 treatment. Apply [illegible] pts./A on coarse soils 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.

Preplant Incorporated or Preemergence: Follow instructions for use of Dual 8E alone under **Application Procedures**. On coarse soils, apply 1.5-2 pts./A of Dual 8E if organic matter content is less than 3%, or 2 pts./A if organic matter content is 3% or greater. *On medium soils*, apply 2-2.5 pts./A of Dual 8E. On *fine soils*, apply 2-2.5 pts./A of Dual 8E if organic matter content is less than 3%, or 2.5-3 pts./A if organic matter content is 3% or greater.

To extend the duration of weed control in corn, a maximum rate of 3 pts./A of Dual 8E 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 Dual 8E. 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 Dual 8E rate applied on corn during any one crop year should not exceed 6 pts./A, depending on soil texture.

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 Dual 8E preplant incorporated followed by 1.5-2 pts./A of Dual 8E preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge. Apply the 2 pts./A rate of Dual 8E 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 late 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, Dual 8E may be used up to 4 pts./A as either a preplant surface, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%. (3) In the event of escape of annual broadleaf weeds following a preplant surface, preplant incorporated, or preemergence treatment of Dual 8E applied alone or in tank mix combination, 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 [illegible] lbs./A of AAtrex 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 Dual 8E alone on peat or muck soils [illegible] injury may occur.

E. Corn – Dual 8E Combinations

Dual 8E alone or any tank mixture for corn (except Dual + AAtrex postemergence and Dual + Banvel postemergence) may be applied in water or fluid fertilizer. Use only water in the Dual + AAtrex or the Dual + Banvel postemergence tank mix.

1. Tank Mixture with AAtrex or Princep, or AAtrex plus Princep — Preplant Surface, Preplant Incorporated, or Preemergence

In addition to the weeds controlled by Dual 8E alone, Dual 8E + AAtrex or Princep or Dual 8E + AAtrex + Princep applied preplant surface, preplant incorporated, or preemergence, also controls the following weeds: browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Apply Dual 8E + AAtrex or Princep or Dual 8E + AAtrex + Princep either preplant surface, preplant incorporated, or preemergence.

Preplant Surface Applied: Follow instructions for use of Dual 8E alone under **Application Procedures** and under application instructions for Dual 8E alone on corn. Apply Dual 8E + AAtrex or Princep or Dual 8E + AAtrex + Princep on medium soils (2.5 pts./A Dual 8E + 3.2-4 pts./A of AAtrex 4L or Princep 4L or AAtrex 4L + Princep 4L combined) and on fine soils (2.5-3 pts./A Dual 8E + 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, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, TN, WI and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the Dual 8E alone Preplant Surface Applied section. [illegible] On coarse soils, apply 2 pts./A of Dual 8E and 3.2 pts./A of AAtrex 4L or Princep 4L or AAtrex 4L + Princep 4L combined.

Preplant Incorporated or Preemergence: Follow instructions for use of Dual 8E alone under **Application Procedures**. Apply Dual 8E + AAtrex or Princep or Dual 8E + AAtrex + Princep using the appropriate rates from Table 1.

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 Dual 8E is applied in tank mixture or sequentially with other registered corn herbicides, the following [illegible] may be made:

1. Apply 1.5-2 pts./A of Dual 8E plus [illegible] lbs./A of AAtrex or Princep preplant incorporated followed by 1.5 pts./A of Dual 8E preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge.
2. Apply Dual 8E at 2 pts./A alone or in tank mix combination with [illegible] lbs./A of AAtrex, Bladex [illegible] preplant incorporated followed by [illegible] directed application of [illegible] at [illegible] lbs./A [illegible] the [illegible] rate of the herbicide [illegible] on a given soil texture. Refer to the [illegible] label for specific directions for the postdirected application.

3. Apply Eradicane® or Sutan® (or equivalent EPTC or butylate formulations) at labeled rates preplant incorporated followed by a preemergence application of Dual 8E 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 Dual 8E 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 numbers 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 pts./A of Dual 8E in the preplant incorporated plus preemergence application on soils with less than 6% organic matter or crop injury may occur.

Table 1. Dual 8E + AAtrex or Princep, or Dual 8E + AAtrex + Princep, Preplant Incorporated or Preemergence — Corn

Soil texture	Broadcast rates per acre: Less than 3% organic matter: Dual 8E + AAtrex Nine-O** or Princep Caliber* 90*	OR Dual 8E + AAtrex Nine-O** + Princep Caliber 90**	3% organic matter or greater: Dual 8E + AAtrex Nine-O* or Princep Caliber 90*	OR Dual 8E + AAtrex Nine-O** + Princep Caliber 90**
COARSE	1.25-1.5 pts. + 1.1-2.2 lbs.	1.25-1.5 pts. + .6-1.1 lbs. + .6-1.1 lbs.	1.5 pts. + 1.3-2.2 lbs.	1.5 pts. + .7-1.1 lbs. + .7-1.1 lbs.
MEDIUM	1.5-2 pts. + 1.3-2.2 lbs.	1.5-2 pts. + .7-1.1 lbs. + .7-1.1 lbs.	2 pts. + 1.8-2.2 lbs.	2 pts. + .9-1.1 lbs. + .9-1.1 lbs.
FINE	2 pts. + 1.8-2.2 lbs.	2 pts. + .9-1.1 lbs. + .9-1.1 lbs.	2-2.5 pts. + 1.6-2.2 lbs.***	2-2.5 pts. + .9-1.1 lbs.*** + .9-1.1 lbs.***
Muck or Peat soils with more than 20% organic matter	DO NOT USE			

*When using AAtrex 4L (or Princep 4L), AAtrex 4LC, or AAtrex 80W (or Princep 80W), use equivalent rates. One lb. of Nine-O or Caliber 90 equals 1.8 pts. of 4L (4LC) or 1.1 lbs. 80W. 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, Dual 8E may be used up to 3.5 pts./A in tank mix combination with 3.3 lbs./A of AAtrex Nine-O or equivalent rates of AAtrex 80W or AAtrex 4L (4LC).

**When using the tank mixture of Dual 8E + 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. (Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.2 lbs./A, use 0.4 lb. of AAtrex plus 0.8 lb. of Princep, respectively.) Refer to the asterisk (*) above for AAtrex 4L, 4LC and 80W and Princep 4L and 80W 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, 4LC or 80W, or the same total amount of AAtrex + Princep with 2-2.5 pts./A of Dual 8E.

2. Tank Mixture with AAtrex Postemergence

Weeds Controlled:

barnyardgrass (watergrass)	giant foxtail	kochia	purslane
crabgrass	green foxtail	lambsquarters	ragweed
crowfootgrass	yellow foxtail	mustard	smartweed
fall panicum	[illegible]	pigweed	velvetleaf
	[illegible]weed	prickly sida	

Weeds Partially Controlled: cocklebur, morningglory, yellow nutsedge.

Apply to corn plants not more than 4[illegible] inches tall. Apply [illegible] pts./A of Dual 8E + [illegible] lbs./A of AAtrex Nine-O* on coarse soils, 2 pts./A of Dual 8E + [illegible] lbs./A of AAtrex Nine-O on medium soils, or 2.5 pts./A of Dual 8E + [illegible] lbs./A** of AAtrex Nine-O on fine soils. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before [illegible] weeds [illegible] in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control. Applications to corn in excess of 5 inches should be directed to the base of the crop 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 tank mixture in fluid fertilizer or severe crop injury may occur.

*When using AAtrex 4L, AAtrex 4LC, or AAtrex 80W, use equivalent rates. One lb. of Nine-O equals 1.8 pts. of 4L, 4LC, or 1.1 lbs. 80W [illegible]

**For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine textured soils above 3% organic matter, apply 2.2 lbs./A of AAtrex Nine-O or equivalent rate of AAtrex 80W or AAtrex 4L (4LC) with 2-2.5 pts./A of Dual 8E.

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Tank mixtures of Dual 8E plus AAtrex may be applied following use of any registered preplant surface applied preplant incorporated or preemergence corn herbicide including Dual 8E plus AAtrex

Note The total Dual 8E rate should not exceed 6 pts nor the AAtrex rate more than 4 lbs active ingredient per acre during any one crop year or illegal residues may result Refer to the AAtrex label for geographic soil texture and rotational restrictions

3. Tank Mixture with Bladex (Field Corn and Silage Corn Only)

In addition to the weeds controlled by Dual 8E alone Dual 8E + Bladex applied preplant incorporated or preemergence also controls the following broadleaf weeds jimsonweed lambsquarters mustard ragweed smartweed cocklebur* morningglory* and velvetleaf*

*Partially controlled

Preplant Incorporated or Preemergence Apply Dual 8E + Bladex preplant incorporated or preemergence using the appropriate rate from Table 2 Follow instructions for use of Dual 8E alone under **Application Procedures**

Table 2 Dual 8E + Bladex — Field Corn and Silage Corn Only -- Broadcast Rates Per Acre

	Percent organic matter in soil			
	Less than 1%	1-2 5%	2 5-4%	Over 4%
Soil texture	Pts Dual 8E + Qts Bladex 4L*	Pts Dual 8E + Qts Bladex 4L*	Pts Dual 8E + Qts Bladex 4L*	Pts Dual 8E + Qts Bladex 4L*
COARSE Sand loamy sand	DO NOT USE	1 25 1 5 + 8 1 4	1 5 1 75 + 1 4 1 6	2 + 1 75
COARSE Sandy loam	1 25 + 8	1 25 1 5 + 1 2 1 4	1 5 1 75 + 1 4 1 75	2 + 2
MEDIUM	1 5 + 1 2	1 5 1 75 + 1 4 1 75	1 75 2 + 1 75 2	2 25 + 2 25
FINE	1 5 + 1 4	1 75 2 + 1 6 2	2 2 25 + 2 2 25	2 5 + 2 5
Muck or Peat soils (soils with more than 20% organic matter)	DO NOT USE			

*When using Bladex 8LW or Bladex 90DF use equivalent rates One qt of 4L equals 1 25 lbs of 80W or 1 1 lbs of Bladex 90DF

4. Tank Mixture with AAtrex plus Bladex Formulations (Field Corn and Silage Corn Only)

Apply Dual 8E + AAtrex + Bladex preplant incorporated or premergence to corn using the rates from Table 3 Refer to the AAtrex and Bladex labels as well as the **General Information** section of this label for all directions precautions and limitations

Rotational Crops Refer to the crop rotation statements for Dual 8E alone on this label and for AAtrex and Bladex alone on those respective labels

Table 3 Dual 8E + AAtrex + Bladex - Field Corn and Silage Corn Only Broadcast Rate Preplant Incorporated or Preemergence

	Percent organic matter in soil			
	Less than 1%	1-2 5%	2 5-4%	Over 4%
Soil texture	Pts Dual 8E + Lbs AAtrex Nine-O* + Qts Bladex 4L*	Pts Dual 8E + Lbs AAtrex Nine-O* + Qts Bladex 4L*	Pts Dual 8E + Lbs AAtrex Nine O* + Qts Bladex 4L*	Pts Dual 8E + Lbs AAtrex Nine-O* + Qts Bladex 4L*
COARSE Sand loamy sand	DO NOT USE	1 25 1 5 + 4 1 1 + [illegible]	1 5 1 75 + 5 1 3 + 1 2	2 + 1 8 + 1 4 1 6
COARSE Sandy loam	1 25 + [illegible] + [illegible]	1 25 1 5 + 1 3 + 1 2	[illegible] + 1 8 + 1 4	2 + [illegible] + 1 2
MEDIUM loam silt loam silt	[illegible] + [illegible] + [illegible]	[illegible] + 1 8 + 1 4	[illegible] + 1 8 + 1 4	[illegible] + [illegible] + 1 8
FINE Sandy clay loam silty clay loam clay loam sandy clay silty clay	1 5 + [illegible] + 1 2 1 4	1 75 2 + 1 8 + 1 4 1 6	2 + 4 2 + 1 6 1 8	2 5 + [illegible] + 2 + 1
Muck or Peat soils (soils with more than 20% organic matter)	DO NOT USE			

*When using AAtrex 4L (4LC) AAtrex L W Bladex 80W or Bladex 90 DF use equivalent rates One lb of AAtrex Nine O equals 0 9 qts (1 8 pts) of AAtrex 4L or 1 1 lbs of AAtrex 80W One qt of Bladex 4L equals 1 25 lbs of Bladex 80W or 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

Notes (1) Refer to Dual 8E AAtrex and Bladex labels for all directions precautions and limitations (2) Continue to agitate the mixture and to empty the spray tank during the spraying operation Should evidence of compatibility problems begin to occur in the tank mixture add Unite or Compex compatibility agent at 2 3 pts 100 gals of spray mixture (3) Do not allow tank mixture to stand without continuous agitation (4) Before using the tank mixture in fluid fertilizer conduct a compatibility test using the fertilizer and herbicides

5. Tank Mixture with Banvel

Preemergence **Use this tank mixture only on field corn which is flat planted** (no furrows) in IL IN IA MN NE OH SD and WI

In addition to the weeds controlled by Dual 8E alone Dual 8E + Banvel applied preemergence also controls lambsquarters ragweed smartweed* cocklebur* jimsonweed* morningglory* and velvetleaf*

*Partially controlled

Apply Dual 8E + Banvel preemergence Broadcast 1 pt A of Banvel with 2 pts A of Dual 8E on *medium soils* or with 2-2 5 pts A of Dual 8E on *fine soils* Do not apply on *coarse soils* 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 Avoid drift to soybeans or other desirable plants Do not apply with aircraft 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 Dual 8E plus 0 5 1 pt A of Banvel or 1 2 pt 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 gallons 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

Precaution Avoid drift to sensitive nontarget plants during application or injury may occur

6. Tank Mixture with AAtrex and Lorox for Control of Lambsquarters and Pigweed

For prolonged control of lambsquarters and pigweed in DE MD NJ NY PA VA and WV Dual 8E may be applied preemergence in tank mix combination with AAtrex + Lorox Apply Dual 8E and AAtrex according to the rates in Table 1 and Lorox according to the rates below

Soil Texture	Broadcast Rate A
Sandy loam (1 3% organic matter)	6 7 lb Lorox*
Sandy loam (3 6% organic matter)	1 0 lb Lorox*
Medium and fine textured soils (1 6% organic matter)	1 0 lb Lorox*

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

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

7. Tank Mixture with AAtrex or Princep Plus Prowl for Prolonged Control of Lambsquarters and Pigweed 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 Dual 8E 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 gallons of water or 20 gallons of liquid fertilizer Apply by air in a minimum of 5 gallons of water Refer to Table 1 of this label for rates of Dual 8E AAtrex or Princep to be applied Apply Prowl 4E according to the rates below in Table 4

*Do not apply Dual 8E in tank mix combination with AAtrex 80W plus Prowl as this combination is not compatible Other AAtrex formulations may be used

Mixing Instructions Fill the spray tank one fourth full with water and start agitation To aid in compatibility add a compatibility agent such as Vale or X 77* at 4 pts 100 gals of spray mixture to the spray tank first then add the AAtrex or Princep and allow it to become dispersed then add Dual 8E and Prowl 4E and finally the rest of the water

Table 4 Prowl 4E - Broadcast Rates Per Acre

	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

Observe all directions for use precautions and limitations on their specific product labels when applying these products in tank mix combination See the Prowl 4E label for replanting instructions in the event of crop loss

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8. Tank Mixture with AAtrex, Bladex*, or Princep, AAtrex plus Bladex or AAtrex plus Princep, with Gramoxone Super or Roundup for Minimum-Tillage or No-Tillage Systems

*Field corn and silage only

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 Super or Roundup may be added to a tank mix of Dual 8E + AAtrex, Bladex or Princep, Dual 8E + AAtrex + Bladex or Dual 8E + AAtrex + Princep. When used as directed, the Gramoxone Super 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 Dual 8E + AAtrex or Princep or Dual 8E + AAtrex + Princep portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for Dual 8E + AAtrex or Princep or Dual 8E + AAtrex + Princep Preplant Surface, Preplant Incorporated, or Preemergence. The Dual 8E + Bladex or Dual 8E + AAtrex + Bladex tank mixture provides preemergence or postemergence control of weeds listed on this label in the tank mixture sections with AAtrex and Bladex.

Application: Apply before, during, or after planting, but before the corn emerges, at the rates specified below. Add Gramoxone Super or Roundup at the following broadcast rates:

Gramoxone Super: 1.5–2.5 pts. A plus 8 fl. oz. of X-77 Spreader per 100 gals. of spray mixture. Use the lower rate for control of annual weeds less than 4 inches tall and the higher rate for weeds 4–6 inches tall. This treatment will not consistently control weeds taller than 6 inches.

Note: Do not apply combinations containing Gramoxone Super in suspension type liquid fertilizers because the activity of paraquat will be reduced.

Roundup: 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 liquid fertilizer per acre with ground equipment.

On *coarse soils*, apply 1.5 pts. A of Dual 8E 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 *medium soils*, apply 2 pts. A of Dual 8E 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 *fine soils****, apply 2.25 pts. A of Dual 8E with 1.8–2.25 lbs. AAtrex Nine O or Princep Caliber 90, or with 0.9–1.1 lbs. Nine O plus 0.9–1.1 lbs. Caliber 90.

*When using AAtrex 4L or Princep 4L, AAtrex 4LC or AAtrex 80W or Princep 80W, use equivalent rates. One lb. Nine O or Caliber 90 equals 1 lb. (1.4L, 1.4LC, 1.1 lbs. of 80W). Use Princep in preference to AAtrex when heavy infestations of crabgrass and barnyardgrass are expected.

**When using the tank mixture of Dual 8E + 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 and barnyardgrass are expected, use a 2:1 ratio of AAtrex + Princep instead of the 1:1 ratio given above (example: 2 lbs. AAtrex Nine O + Princep Caliber 90 = 1.4 lbs. A.I. use lb. lb. of AAtrex plus 1.2 lbs. of Princep). Refer to the asterisk (*) above for AAtrex 4L, 4LC and 80W and Princep 4L and Princep 80W conversions.

***For stock protective row nutsedge and yellowleaf control on fine textured soils of 1.5–2% organic matter, apply 2.25 lbs. A of AAtrex Nine O or equivalent rates of AAtrex 80W or AAtrex 4L (4LC) or the same total amount of AAtrex + Princep with 2.25 pts. A of Dual 8E.

9. Tank Mixture with AAtrex or AAtrex plus 2,4-D or AAtrex 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, Dual 8E applied in combination with AAtrex will control most emerged small annual weeds. Apply Dual 8E + AAtrex before, during, or after planting, but before corn emerges according to the rates in Table 3.

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

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 1.0–2.0 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 Super 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 Super 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 – Dual 8E Alone – AR, LA, MS, NM, OK, TN, TX, and Bootheel of MO

Application: Apply Dual 8E either preplant incorporated or preemergence at the rate of 1.5 pts. A on sandy loams*, 1.5–2 pts. A on *medium soils*, or 2 pts. A on *fine soils*. *Do not use on sands and loamy sands.*

*Use on sandy loam soils only in NM, OK, and TX.

Preplant Incorporated: Apply to the soil surface 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 in 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 on coarse and medium soils). If incorporated prior to planting, use a planter that will result in a minimum of soil disturbance.

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

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

Precautions: To avoid crop injury: (1) Do not apply Dual 8E on sand or loamy sand soils or in areas where water is likely to pond over the bed; (2) Do not apply broadcast to furrow planted cotton; and (3) Do not apply on Tatum silt loam.

G. Cotton – Dual 8E Combinations

1. Tank Mixture with Caparol 4L

Dual 8E tank mixtures with Caparol 4L may be applied in water or liquid fertilizer. When liquid fertilizer is used as a carrier for Dual 8E, 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 Dual 8E alone, Dual 8E + 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.

Preplant Incorporated or Preemergence: Apply Dual 8E + Caparol 4L either preplant incorporated or preemergence using the appropriate rate from Table 5.

Table 5. Dual 8E + Caparol 4L — Cotton (NM, OK, TX)

Use areas	Soil texture	Broadcast rates per acre: Dual 8E	Broadcast rates per acre: Caparol 4L
ALL	sand, loamy sand	DO NOT USE	
Oklahoma and Black lands and Gulf Coast of Texas	loams	1.25–2 pts.	[illegible]
	clays	2 pts.	[illegible]
Rio Grande Valley of Texas	loams	1.25–2 pts.	[illegible]
	clays	[illegible]	[illegible]
New Mexico and High Plains, Rolling Plains, Edwards Plateau of Texas (and Oklahoma)	sandy loam	[illegible]	[illegible]
	loams	[illegible]	[illegible]
	sandy clay loams	[illegible]	[illegible]
Texas	other clay soils	[illegible]	[illegible]

Precautions: To avoid concentration in the seed furrow, do not make broadcast applications of Dual 8E + Caparol 4L on 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 new leveled fields or in areas of excessive sand; (4) Do not apply to okra-leaf cotton varieties; and (5) Do not apply on Tatum silt loam.

Note: Do not feed treated forage to livestock or graze treated areas. Illegal residues may result.

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

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H. Grapes – Nonbearing – Dual 8E Alone and Combinations

Broadcast 2 4 pts A of Dual 8E by ground equipment to weed free soil in a minimum of 10 gals of water to grapes to control weeds listed in the **Dual 8E Applied Alone** 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 fine textured 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

In the event weeds are present at the time of treatment Dual 8E may be applied in tank mix combination with Gramoxone Super or Roundup Gramoxone Super may be applied at rates of 3 5 pts A Roundup may be applied at rates ranging from 1 5 qts A depending on the weed species Direct applications containing Gramoxone Super or Roundup over the weeds making certain to keep spray off grape foliage and vines Refer to the Gramoxone Super and Roundup labels for further directions precautions and limitations relative to their use

Precaution 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

Note Do not apply to vines that will bear harvestable fruit within 12 months of application or illegal residues may result

I. Peanuts – Dual 8E Alone

Apply Dual 8E either preplant incorporated postplant incorporated preemergence or lay by using the appropriate rate specified below *Preplant Incorporated or Preemergence* Follow instructions for use of Dual 8E alone under **Application Procedures** *Postplant Incorporated* Apply and shallowly incorporate Dual 8E 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 *Lay by* Apply Dual 8E to the soil immediately after the last normal cultivation

Apply Dual 8E 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 OK TX and NM

*In the Southeast use 2 3 pts A and apply preemergence for partial control of Florida beggarweed

Note Dual 8E 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 Amiben at 2 3 3 pts A

J. Peanuts – Dual 8E Combinations

1. Tank Mixture with Balan L.C.

Dual 8E + Balan tank mixture applied preplant incorporated controls those weeds listed under **Dual 8E Applied Alone** and those weeds as listed on the Balan label

Apply 1 5 2 pts A of Dual 8E + 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 Dual 8E + Balan up to 14 days prior to planting

Note Follow all restrictions and precautions on the Balan label

2. Multiple Applications (Southeast Only: AL, FL, GA, NC, SC or VA)

Where weed pressure is heavy or where species difficult to control are expected Dual 8E is most effective when used as follows

1st Application Apply Dual 8E preplant incorporated as directed under **Peanuts-Dual 8E Alone** or apply Dual 8E + Balan preplant incorporated as directed previously in this section Refer to the respective section for weeds controlled

2nd Application Apply Dual 8E any time from preemergence up to ground cracking at 1 5 3 pts A for extended control of weeds not yet emerged Refer to the **Dual 8E Applied Alone** section for a list of weeds controlled

3rd Application Apply Dual 8E at lay by as directed under **Peanuts – Dual 8E Alone** Use only when late germinating weeds are expected to be a problem Refer to the **Dual 8E Applied Alone** section for a list of weeds controlled

Notes (1) Do not apply more than the equivalent of 6 pts of Dual 8E A during any one year or illegal residues may result This includes both Dual 8E and Dual 25G (4 lbs of Dual 25G equals 1 pt of Dual 8E) (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

Rotational Crops For a single application refer to the rotational crop information under **Dual 8E Applied Alone** For multiple applications of Dual 8E corn cotton soybeans peanuts potatoes safflowers sorghum or the pod crops listed on this label may be planted the spring following treatment All other rotational crops may be planted 18 months after application

K. Pod Crops – Dual 8E Alone

Pod crops including garbanzo great northern beans kidney beans lima beans mung beans navy beans peas (English)* southern peas (cowpeas blackeye pinkeye crowder etc) pinto beans snap beans (green wax snap) and lupines (sweet white white sweet and grain)

Apply Dual 8E either preplant incorporated or preemergence using the appropriate rate specified below *Preplant Incorporated or Preemergence* Follow instructions for use of Dual 8E alone under **Application Procedures** On coarse soils with less than 3% organic matter apply 1 5 pts A of Dual 8E or 2 pts A if organic matter is 3% or greater On *medium soils* apply 2 2 5 pts A of Dual 8E On *fine soils* apply 2 2 5 pts A of Dual 8E if organic matter content 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

Note Do not cut for hay within 120 days following a Dual 8E application or illegal residues may result

L. Pod Crops – Dual 8E Combinations

Note When applying Dual 8E in combination on pod crops do not cut for hay within 120 days following application or illegal residues may result

1. Tank Mixture and Sequential Applications with Eptam – Beans (Green or Dry)

This mixture controls all weeds controlled by Dual 8E alone and by Eptam alone Refer to the **Dual 8E Applied Alone** section of this label for weeds controlled by Dual 8E alone and to the Eptam label for weeds controlled by Eptam

Preplant Incorporated Follow instructions for use of Dual 8E alone under **Application Procedures** *Sequential* Apply Eptam alone preplant incorporated as specified on that label Follow with a preemergence application of Dual at rates specified for Dual 8E alone during planting (behind the planter) or after planting but before weeds or crop emerge

Refer to the **General Information** 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 Dual 8E as specified On *coarse soils* apply 1 25 pts A of Dual 8E if organic matter content is less than 3% or 1 5 pts A if organic matter content is 3% or greater On *medium soils* apply 1 5 pts A of Dual 8E if organic matter content is less than 3% or 2 pts A if organic matter content is 3% or greater On *fine soils* apply 2 pts A of Dual 8E 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 limits 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 coarse textured soils

2. Tank Mixture with Treflan – Beans (Dry–Kidney, Navy, Pinto, etc., Lima and Snap)

Dual 8E + Treflan tank mix applied preplant incorporated controls those weeds listed under **Dual 8E Applied Alone** and those weeds listed for Treflan alone on the Treflan E C label Dual + Treflan E C may be applied by ground or aerial equipment and incorporated up to 14 days prior to planting Follow the recommended procedures on this label and on the Treflan E C label using equipment that provides uniform and rich incorporation

Apply Dual + Treflan tank mix using the appropriate Dual 8E rate specified for Dual 8E alone and the Treflan rate from the **Dry Beans** and the **Lima and Snap Beans** sections of the Treflan E C label Choose the product rate for the specific soil texture organic matter classification and weed species expected

Note Follow all restrictions and precautions on the Treflan E C label and on the Dual alone portion of this label

3. Tank Mixture with Amiben – Beans (White, Navy, Kidney Pinto, and Lima)

Dual 8E + Amiben tank mix applied either preplant incorporated or preemergence controls those weeds listed under **Dual 8E Applied Alone** and those weeds listed for Amiben alone on the Amiben Amiben DS labels

Preplant Incorporated or Preemergence Apply Dual 8E and Amiben either preplant incorporated or preemergence using the Dual rate as specified for Dual 8E alone and the Amiben rate as specified on the Amiben Amiben DS labels according to the soil texture organic matter classification and weed species expected Follow instructions for use of Dual 8E alone under **Application Procedures**

Refer to the **General Information** section of this label and to the Amiben labels for weather and cultural practices that affect performance of these products

M. Potatoes – Dual 8E Alone

Apply Dual 8E either incorporated preemergence or after hilling lay by according to directions specified below for control of weeds listed under the **General Information** 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

Incorporated Apply Dual 8E at 1 5 3 pts A to the soil and incorporate into the top 3 inches before planting using a finishing disk harrow rototiller or similar implement Planting and later cultural practices should not bring untreated soil to the surface Postplant incorporated applications may be made any time after planting to drag off but before potato emergence Use an implement that evenly distributes Dual 8E in the top 2 inches of soil Do not damage potato seed pieces or sprouts with incorporation equipment

Preemergence Apply Dual 8E at 1 5 3 pts A either after planting as a preemergence delayed preemergence after drag off but before potato emergence or before weeds emerge Up to 4 pts A of Dual 8E may be used when soil organic matter is between 6% and 20%

After Hilling Lay-by Apply 2 5 pts A of Dual 8E after hilling lay by to control Dual sensitive species for remainder of the growing season This application will not control emerged weeds It may be applied over a previous Dual 8E application but do not apply more than 5 5 pts A of Dual 8E in a single crop season

Precaution (1) *Do not use on muck or peat soils If cool wet weather conditions occur after application Dual may delay maturity and or reduce yield of Superior and other early maturing potato varieties To avoid crop injury* (2) *Do not use on sweet potatoes or yams* (3) *Do not apply both at a preemergence and an incorporated treatment and* (4) *Do not use in Kern County California*

Note Potatoes treated with Dual 8E 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

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N. Potatoes – Dual 8E Combinations

1. Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by Dual 8E alone, Dual 8E 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

Dual 8E 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 Dual 8E on *coarse soils* 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. Dual 8E 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 Dual + Sencor or Lexone on potatoes in Kern County, California, and (3) Do not apply to sweet potatoes or yams. (4) Do not use this tank mixture on muck or peat soils.

Notes: (1) Potatoes treated with Dual 8E 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 Dual 8E, or illegal residues may result.

2. Dual 8E + Lorox Tank Mixture (East of Rocky Mountains)

Dual 8E 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 6.

Table 6. Dual 8E + Lorox – Potatoes (East of Rocky Mountains)

	Broadcast rate per acre			
	1 to less than 3% organic matter		3 to 5% organic matter	
Soil texture	**Dual**	**Lorox***	**Dual**	**Lorox***
COARSE Sandy loam	1.5 pts.	[illegible]	2 pts.	1.5-2 lbs.
MEDIUM Loam, silt loam, silt	2 pts.	1.5-2 lbs.	2.5-3 pts.	2-2.5 lbs.

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

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. (3) Only water should be used as a carrier for Dual 8E + Lorox L.

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

O. Safflowers – Dual 8E Alone

Preplant Incorporated or Preemergence: Follow instructions for use of Dual 8E alone under **Application Procedures**.

On *coarse soils*, apply 1.5-2 pts./A of Dual 8E if organic matter content is less than 3%, or 2 pts./A if organic matter content is 3% or greater. On *medium soils*, apply 2-2.5 pts./A of Dual 8E. On *fine soils*, apply 2-2.5 pts./A of Dual 8E 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®) – Dual 8E Alone

Apply Dual 8E either preplant surface, preplant incorporated, or preemergence using the appropriate rate specified below.

Preplant Surface Applied: Refer to instructions for use of Dual 8E under **Application Procedures**. For minimum tillage or no-tillage systems, only Dual 8E may be applied up to 45 days before planting in CO, IL, IA, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with ⅔ of the broadcast rate applied initially and the remaining ⅓ at planting. Apply 2.25 pts./A of Dual 8E 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 Dual 8E on coarse soils not more than 2 weeks prior to planting.

Under dry conditions, irrigation after application is recommended to move Dual 8E into the soil.

Preplant Incorporated or Preemergence: Refer to instructions for use of Dual 8E under **Application Procedures**. Broadcast 1.5-2 pts./A of Dual 8E on coarse soils, 2-2.25 pts./A on medium soils, or 2-2.5 pts./A on fine soils.

Precautions: (1) If sorghum seed is not properly treated with Concep, Dual 8E will severely injure the crop. (2) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of Dual 8E. The crop will normally outgrow this effect. (3) Do not use Dual 8E on sorghum grown under dry mulch tillage or injury may occur. (4) Do not make more than one application per year or illegal residues may result.

Q. Grain or Forage Sorghum (Seed treated with Concep) – Dual 8E Combinations

Dual 8E tank mixtures with AAtrex, Milogard, or Igran may be applied in water or fluid fertilizer. Apply Dual 8E alone or in the tank mixtures only when the sorghum seed has been properly treated by the seed company with Concep.

Precautions: (1) Applications of Dual 8E + AAtrex, Dual 8E + Igran, or Dual 8E + Milogard 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, Dual 8E + AAtrex, Dual 8E + Igran, or Dual 8E + Milogard may severely injure the crop. (3) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of Dual 8E + AAtrex, Dual 8E + Igran, or Dual 8E + Milogard. The crop will normally outgrow this effect. (4) Do not use Dual 8E + AAtrex, Dual 8E + Igran, or Dual 8E + Milogard on sorghum grown under dry mulch tillage or injury may occur. (5) Do not make more than one application per year, or illegal residues may result.

1. Tank Mixture with AAtrex

In addition to the weeds controlled by Dual 8E alone, Dual 8E + 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 Dual 8E under **Application Procedures**. For minimum tillage or no-tillage systems, only Dual 8E + AAtrex may be applied up to 45 days prior to planting in IL, IA, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with ⅔ of the broadcast rate applied initially and the remaining ⅓ at planting. Apply 2.25 pts./A of Dual 8E + 1.7-2 lbs./A of AAtrex Nine-O® on *medium soils* with 1.5% organic matter or greater. Apply 2.25 pts./A of Dual 8E + 1.7-2 lbs./A of AAtrex Nine-O on *fine soils* with less than 1.5% organic matter, or apply 2.5 pts./A of Dual 8E + 2-2.2 lbs./A 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 Dual 8E + 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.

Preplant Incorporated or Preemergence: Refer to instructions for use of Dual 8E under **Application Procedures**. On *medium soils* with 1.5% organic matter or greater, apply 1.5 pts./A of Dual 8E + 1.3 lbs./A of AAtrex Nine-O®. On *fine soils* with less than 1.5% organic matter, apply 1.5 pts./A of Dual 8E plus 1.3 lbs./A of AAtrex Nine-O. On *fine soils* with 1.5% organic matter or greater, apply 1.75-2 pts./A of Dual 8E plus 1.6-1.8 lbs./A of AAtrex Nine-O.

*When using AAtrex 80W, AAtrex 4L, or AAtrex 4LC, use equivalent rates. One lb. of AAtrex Nine-O equals 1.1 lbs. of AAtrex 80W or 1.8 pts. of AAtrex 4L/4LC.

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 Texas Gulf Coast and Blacklands areas, and (4) Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

2. Tank Mixture with Igran (Grain Sorghum Only)

In addition to the weeds controlled by Dual 8E alone, Dual 8E + Igran also controls common purslane, hairy nightshade, kochia, lambsquarters, morningglory, puncturevine, ragweed, and velvetleaf. Dual 8E + Igran may not give adequate control of foxtail millet and Florida pusley.

Preplant Incorporated or Preemergence: Follow instructions for use of Dual 8E alone under **Application Procedures**. On *coarse soils**, apply 1.25 pts./A of Dual 8E + 2-4 pts./A of Igran 4L**. On *medium soils*, apply 1.5-1.75 pts./A of Dual 8E + 3.2-3.5 pts./A of Igran 4L. On *fine soils*, apply 1.75-2 pts./A of Dual 8E + 3.5-4 pts./A of Igran 4L.

*On sandy loams, apply 1.25-1.5 pts./A of Dual 8E + 2.4-3.2 pts./A of Igran 4L.

**When using Igran 80W, use equivalent rates. One pt. of Igran 4L equals 0.63 lb. of Igran 80W.

3. Tank Mixture with Milogard

In addition to the weeds controlled by Dual 8E alone, Dual 8E + Milogard applied either preplant surface, preplant incorporated, or preemergence also controls browntop panicum, common purslane, hairy nightshade, lambsquarters, and morningglory.

Preplant Surface Applied: Refer to instructions for use of Dual 8E under **Application Procedures**. For minimum tillage or no-tillage systems, only Dual 8E + Milogard 4L* may be applied up to 45 days prior to planting in central and western KS and eastern CO. Use only split applications for treatments made 30-45 days prior to planting, with ⅔ of the broadcast rate applied initially and the remaining ⅓ at planting. On sandy loams, apply 2 pts./A of Dual 8E + 1.2-1.6 pts./A of Milogard 4L. On medium soils, apply 2.25 pts./A of Dual 8E + 1.6-2 pts./A of Milogard 4L. On fine soils, apply 2.5 pts./A of Dual 8E + 2 pts./A of Milogard 4L. 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 Dual 8E + Milogard 4L into the soil.

Preplant Incorporated or Preemergence: Refer to instructions for use of Dual 8E under **Application Procedures**. On sandy loams, apply 1.25-1.5 pts./A of Dual 8E + 1.2-1.6 pts./A Milogard 4L*. On medium soils, apply 1.5-1.8 pts./A of Dual 8E + 1.6-2 pts./A of Milogard 4L. On fine soils, apply 1.9-2 pts./A of Dual 8E + 2 pts./A of Milogard 4L.

*When using Milogard 80W or Milogard Maxx® 90, use equivalent rates. One pt. of Milogard 4L equals 0.56 lb. of Milogard Maxx 90 or 0.63 lb. of Milogard 80W.

Precautions: To avoid crop injury: (1) Do not apply on sands or loamy sands, and (2) Do not incorporate on sandy loam soils in AR, GA, OK, NM, TX, and the Gulf Coast states.

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4. Tank Mixture of Dual 8E or Dual 8E + AAtrex, with Gramoxone Super 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 Super or Roundup may be tank mixed with Dual 8E or Dual 8E + AAtrex. When used as directed, the Gramoxone Super 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 Dual 8E or Dual 8E + 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.

Application. Apply before, during, or after planting but before sorghum emerges, at the appropriate rates listed under **Grain or Forage Sorghum – Dual 8E Alone** or **Dual 8E Combinations – Dual 8E + AAtrex**, respectively. Add Gramoxone Super or Roundup at the following broadcast rates:

Gramoxone Super: 1.5-2.5 pts. per acre plus 8 fl. oz. of X-77 Spreader per 100 gals. of spray mixture. Use the lower rate for control of annual weeds less than 4 inches tall and the higher rate for weeds 4-6 inches tall. This treatment will not consistently control weeds taller than 6 inches.

Roundup: 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.

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

R. Soybeans – Dual 8E Alone

Apply Dual 8E either preplant surface applied, preplant incorporated, or preemergence, using the appropriate rate specified below. *Preplant Surface Applied, Preplant Incorporated or Preemergence*: Follow instructions for use of Dual 8E alone under **Application Procedures**.

Preplant Surface Applied: Use on *medium and fine soils* with minimum tillage or no tillage systems in CO, DE, IL, IN, IA, KS, KY, MD, MI, MN, MO, MT, NE, ND, NY, OH, PA, SD, TN, VA, WI, WV and WY. Apply the recommended rate of Dual 8E (2.5 pts. A.I. on medium soils and 3 pts. A.I. on fine soils) as a split treatment: 10-45 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.I. on coarse soils not more than 2 weeks prior to planting.

Preplant Incorporated or Preemergence: On coarse soils, apply 1.5-2 pts. A.I. of Dual 8E. If organic matter content is less than 3% or 2 pts. A.I. if organic matter content is 3% or greater (in most cases), apply 2-2.5 pts. A.I. of Dual 8E. On fine soils, apply 2-2.5 pts. A.I. if Dual 8E if organic matter content is less than 3%, or 2.5-3 pts. A.I. if organic matter content 3% or greater.

Note: On soybeans, Dual 8E may be used up to 4 pts. A.I. as a preplant surface applied, preplant incorporated or preemergence treatment. On soils having an organic matter content between 6% and 20%, the total Dual 8E rate applied to soybeans during any one crop should not exceed 4 pts. A.I.

S. Soybeans – Dual 8E Combinations

Water or liquid fertilizer may be used as carrier for Dual 8E in combination with Amiben, Sencor, Lexone, Lorox 50W, Lorox Plus, Gemini, Canopy, Preview or Command. Only water may be used as carrier for Dual 8E + Lorox L or Dual 8E + Scepter.

Note: For all of the following combinations, Dual 8E may be used up to 3.5 pts. A.I. on soils having an organic matter content between 6% and 20%. The total Dual 8E rate applied to soybeans during any one crop year should not exceed 4 pts. A.I.

1. Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by Dual 8E alone, Dual + Sencor or Lexone, when applied as directed, 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.

Apply Dual 8E and Sencor or Lexone preplant incorporated or preemergence using the appropriate rates from Table 7. *Preplant Incorporated or Preemergence*: Follow instructions for use of Dual 8E alone under **Application Procedures**. *Sequential*: Apply Dual 8E alone *Preplant Incorporated* as specified in Table 7 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 label for specific planting details and soybean variety restrictions.

Table 7. Dual 8E + Sencor or Lexone – Soybeans

	Broadcast rates per acre					
	0.5% to less than 3% organic matter			3% organic matter or greater		
Soil texture**	Dual 8E	+	Sencor 50WP* or Lexone	Dual 8E	+	Sencor 50WP* or Lexone
COARSE (Loamy sand (over 2% organic matter), sandy loam)	1.25-1.5 pts.	+	.5 lb.	1.5 pts.	+	.75 lb.
MEDIUM	1.5-2 pts.	+	.75 lb.	2 pts.	+	1 lb.***
FINE	2 pts.	+	1 lb.	2-2.5 pts.	+	1 lb.
Mississippi Delta only Silty clay, clay	2 pts.	+	1.5 lbs.	2-2.5 pts.	+	1.5 lbs.
Muck or Peat Soils (soils with more than 20% organic matter)	DO NOT USE					

*When using Sencor 4 or Lexone 4L, substitute pints for pounds (1 pint equals 1 pound). For Sencor DF or Lexone DF, multiply pounds 50WP by 0.67.

**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 0.75 lb. A.I. if applied preplant incorporated.

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

2. Tank Mixture with Lorox

In addition to those weeds controlled by Dual 8E alone, Dual 8E + 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.

Preemergence: Apply during planting (behind planter) or after planting, but before weeds or soybeans emerge. Refer to the Lorox label for planting details. Apply the appropriate rates from Table 8.

Table 8. Dual 8E + Lorox – Soybeans

	Broadcast rates per acre					
	0.5% to less than 3% organic matter			3% organic matter or greater		
Soil texture*	Dual 8E	+	Lorox***	Dual 8E	+	Lorox***
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 (soils with more than 20% organic matter)	DO NOT USE					

*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. One pt. of Lorox L or one lb. of Lorox DF equals one lb. of Lorox wettable powder.

Precautions: (1) *Do not use on soil with less than 0.5% organic matter or crop injury may occur.* (2) *Only water should be used as a carrier for Dual 8E + Lorox L.*

3. Tank Mixture with Amiben

This tank mixture controls all weeds controlled by Dual 8E alone and by Amiben alone. Refer to the **Dual 8E Applied Alone** section for a list of Dual 8E weeds controlled by Dual 8E alone and to the Amiben label for weeds controlled by Amiben.

Preplant Incorporated or Preemergence: Apply 1 gal. A.I. Amiben* (2 quarts) + 1.5 pts. A.I. of Dual 8E on coarse soils, 1.5-2 pts. A.I. of Dual 8E on medium soils or 2-2.5 pts. A.I. of Dual 8E on fine soils. Use the higher rate of Amiben* on fine textured high organic matter soils or where a dense stand of hard to control broadleaf weeds, such as black nightshade, velvetleaf, or jimsonweed, is expected to occur. *Preplant Incorporated*: Apply the appropriate rate of Dual 8E and incorporate into the top 2 inches of soil prior to planting. Follow instructions for use, other than the preplant interval, in Dual 8E alone under **Application Procedures**. *Preemergence*: Apply this tank mixture during planting (behind the planter) or after planting but before weeds or soybeans emerge. *Sequential*: Apply Dual 8E alone *Preplant Incorporated*, as specified above for this tank mixture. Follow with a preemergence application of Amiben during planting (behind the planter) or after planting but before weeds or soybeans emerge.

*When using Amiben DF, multiply gallons of Amiben by 2.4 to get lbs. Amiben (25% A.I.).

Refer to the **General Information** section of this label and to the Amiben label for weather and cultural practices that affect performance of these products.

4. Tank Mixture with Amiben and Sencor or Lexone

This tank mixture effectively controls those weeds as listed on the current Dual 8E, Amiben Amiben DS and Lexone WP 4L DF or Sencor WP 4 DF labels.

Apply Dual + Amiben + Lexone or Sencor preplant incorporated or preemergence using the appropriate rates from Table 9. *Preplant Incorporated or Preemergence*. Follow instructions for use of Dual 8E alone under **Application Procedures**.

Table 9 Dual 8E + Amiben + Sencor or Lexone — Soybeans

Soil texture	Broadcast rates per acre* Dual 8E	+	Amiben	+	Sencor 50WP** or Lexone
COARSE Loamy sand (over 2% organic matter) sandy loam	1.5-2 pts	+	3-4 qts	+	5 lb
MEDIUM	2-2.5 pts	+	4.5 qts	+	5-7.5 lb***
FINE	2.5-3 pts	+	5-6 qts	+	7.5-1[illegible] lb***
Muck or Peat Soils (soils with more than 20% organic matter)	DO NOT USE				

*Refer to the Amiben Amiben DS + Dual 8E + Sencor Lexone section of the Amiben labels for determining product use rate within rate ranges. When using Amiben DS multiply quarts of Amiben by 0 lb for its Amiben DS A.

**When using Sencor 4 or Lexone 4L substitute pints for pounds [illegible] equals 1 pound. For Sencor DF or Lexone DF multiply pounds [illegible] by 0.67.

***On Clarion Webster or similar alkaline (calcareous) soils with a pH 7.5 or above apply the WP at 0.5 lb A on medium soils and 0.5-0.75 lb A on fine soils.

Special Precautions. Refer to the Dual 8E + Sencor Lexone section of this label the Amiben + Dual 8E + Sencor Lexone section of the Amiben label and the Sencor Lexone labels for planting details, variety limitations, and all cautions and restrictions concerning use of these products on soybeans.

5. Tank Mixture with Treflan

Dual 8E + Treflan tank mix applied preplant incorporated controls the weeds listed under **Dual 8E Applied Alone** and those weeds listed for Treflan alone on the Treflan E C label. Dual 8E + Treflan may be applied by ground or aerial equipment and incorporated up to 24 days prior to planting. Follow the recommended procedures on the Treflan E C and Dual 8E labels using equipment that provides uniform 2 inch incorporation.

Apply Dual 8E + Treflan tank mix using the appropriate rate from the Dual 8E alone section of this label and the Treflan section of the Treflan E C label for the specific soil texture organic matter classification and weed species expected.

Note. Follow all restrictions and precautions on the Treflan E C label and on the Dual 8E alone portion of this label.

6. Tank Mixture with Scepter

This tank mixture controls all weeds controlled by Dual 8E alone and by Scepter alone. Refer to the **Dual 8E Applied Alone** section for weeds controlled by Dual 8E 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.

Apply Dual 8E + Scepter preplant incorporated or preemergence using rates in the table below. Follow use directions under **Application Instructions** 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.

Table 10 Dual 8E + Scepter – Soybeans

Soil Texture	Broadcast Rates Per Acre: Less Than 3% Organic Matter, Dual 8E	Less Than 3% Organic Matter, Scepter	3% or More Organic Matter, Dual 8E	3% or More Organic Matter, Scepter
Coarse	1.25 pts	6.7 pt	1.5 pts	[illegible]
Medium	1.5 pts	6.7 pt	2.0 pts	[illegible]
Fine	2.0 pts	6.7 pt	2.0-2.5 pts	[illegible]
Muck or Peat Soils (soils with more than 20% organic matter)	DO NOT USE			

*Use the higher rate of Dual 8E if heavy weed infestations are expected.

Notes: To [illegible] not apply within 90 days of harvest [illegible] treated soybean forage, hay, straw or seed [illegible] restrictions.

7. Tank Mixture with Lorox Plus

This tank mixture controls all weeds controlled by Dual 8E alone and by Lorox Plus alone. Refer to the **Dual 8E Applied Alone** section for weeds controlled by Dual 8E and the Lorox Plus label for weeds controlled by Lorox Plus.

Apply Dual 8E + Lorox Plus preemergence after planting but before soybeans emerge using rates in Table 11.

Note. Follow all use directions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Dual 8E and Lorox Plus labels.

Table 11 Dual 8E + Lorox Plus – Soybeans

Soil Texture	Broadcast Rates Per Acre, 0.5-3% Organic Matter: Dual 8E	Lorox Plus (60DF)
Coarse	1.25 pts	12-14 oz
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.*

8. Tank Mixture with Gemini

This tank mixture controls all weeds controlled by Dual 8E alone and by Gemini alone. Refer to the **Dual 8E Applied Alone** section for weeds controlled by Dual 8E and to the Gemini label for weeds controlled by Gemini.

Apply Dual 8E + Gemini preemergence after planting but before soybeans emerge using rates in Table 12.

Note. Follow all use directions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Dual 8E and Gemini labels.

Table 12 Dual 8E + Gemini – Soybeans

Soil Texture	Broadcast Rates Per Acre, 0.5-3% Organic Matter: Dual 8E	Gemini (60DF)
Coarse (Sandy Loam Only)	1.25 pts	12-16 oz
Medium	1.5 pts	16-20 oz
Fine	2.0 pts	20-24 oz

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.*

9. Tank Mixture with Canopy

This tank mixture controls all weeds controlled by Dual 8E alone and by Canopy alone. Refer to the **Dual 8E Applied Alone** section for weeds controlled by Dual 8E and to the Canopy label for weeds controlled by Canopy.

Apply preplant incorporated or preemergence using the appropriate rates from Table 13. *Preplant Incorporated*. Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2" of soil before planting soybeans. *Preemergence*. Apply after planting but before soybeans emerge.

Note. Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Dual 8E and Canopy Labels.

Table 13 Dual 8E + Canopy – Soybeans

Soil Texture	Broadcast Rates Per Acre, 0.5%-Less Than 3% Organic Matter: Dual 8E	Canopy 75DF	3-5% Organic Matter: Dual 8E	Canopy 75DF
Coarse	1.25 pts	6-10 ozs	1.5 pts	6-10 ozs
Medium	1.5 pts	8-12 ozs	2.0 pts	8-12 ozs
Fine	2.0 pts	10-14 ozs	2.0-2.5 pts	10-14 ozs

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.*

10. Tank Mixture with Preview

This tank mixture controls all weeds controlled by Dual 8E and by Preview alone. Refer to the **Dual 8E Applied Alone** section for weeds controlled by Dual 8E and to the Preview label for weeds controlled by Preview.

Apply preplant incorporated or preemergence using the appropriate rates from Table 14. *Preplant Incorporated*. Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2" of soil before planting soybeans. *Preemergence*. Apply after planting but before soybeans emerge.

Note. Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Dual 8E and Preview labels.

Table 14 Dual 8E + Preview – Soybeans

Soil Texture	Broadcast Rates Per Acre, 0.5%-Less Than 3% Organic Matter: Dual 8E	Preview 75DF	3-5% Organic Matter: Dual 8E	Preview 75DF
Coarse	[illegible]	[illegible] ozs	[illegible]	[illegible]
Medium	[illegible]	[illegible] ozs	[illegible]	8 ozs
Fine	[illegible]	8 ozs	2.0-2.5 pts	[illegible]

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.*

11. Tank Mixture with Command®

This tank mixture controls all weeds controlled by Dual 8E alone and by Command alone. Refer to the **Dual 8E Applied Alone** section for weeds controlled by Dual 8E and to the Command label for weeds controlled by Command.

Apply Dual 8E + Command preplant incorporated using rates in Table 15. Follow all Command application instructions as to incorporation intervals, geographical, local, equipment operation, soil moisture conditions, etc.

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*Note: Before making applications, read and strictly follow all use directions, limitations, precautions, information regarding application to soybeans and rotational restrictions on the Dual 8E and Command labels.

Table 15 Dual 8E + Command - Soybeans

	Broadcast Rates Per Acre			
	Dual 8E		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	[illegible]	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

12. Tank Mixture with Lexone, Sencor, Scepter, Lorox, Lorox Plus, Gemini, Canopy, or Preview plus Gramoxone Super or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum tillage or no tillage systems where soybeans are planted directly into a cover of plant seeded, established sod or previous crop residues, the contact herbicides Gramoxone Super or Roundup may be added to a tank mix. Either Dual 8E + Sencor or Lexone, Dual 8E + Scepter, Dual 8E + Lorox, Dual 8E + Lorox Plus, Dual 8E + Gemini, Dual 8E + Canopy or Dual 8E + Preview. When used as directed, the Gramoxone Super portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Roundup applications will control emerged annual and perennial weeds when applied as directed on the Roundup label. The Dual 8E + Sencor, Lexone, Scepter, Lorox, Lorox Plus, Gemini, Canopy or Preview portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for Dual 8E + Sencor, Lexone, Dual 8E + Scepter, Dual 8E + Lorox, Dual 8E + Lorox Plus, Dual 8E + Gemini, Dual 8E + Canopy and Dual 8E + Preview respectively.

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 Super or Roundup, Dual 8E + Sencor, Dual 8E + Lexone, Dual 8E + Scepter, Dual 8E + Lorox, Dual 8E + Lorox Plus, Dual 8E + Gemini, Dual 8E + Canopy and Dual 8E + Preview respectively.

Application: Apply before tillage or after tillage and prior to the weed emergence with a rotary hoe, field cultivator. Add Gramoxone Super or Roundup at the lower rates.

Gramoxone Super: [illegible] pts. A of Dual 8E [illegible] broadleaf weeds [illegible] pts. A. Spray mixture on the lower rate for [illegible] annual weeds less than 4 inches tall and the higher rate for weeds 4-6 inches tall. This treatment will control many annual weeds listed on the label.

*While Dual 8E applications contain organic matter, the surfactant suspension system in Dual 8E differs as the activity of Dual 8E is reduced.

Roundup: 1.5 pts. A for existing annual weeds or 2-4 pts. 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 fertilizer per acre with ground equipment.

Dual 8E + Lexone Sencor + Gramoxone Super or Roundup

On loamy sand with over 2% organic matter, apply 1.5 pts. A of Dual 8E + 0.5-0.75 lb. A of Sencor 75WP* or Lexone. On medium soils, apply 2 pts. A of Dual 8E + 0.75 lb. A of Sencor 75WP or Lexone. On fine soils, apply 2-2.5 pts. A of Dual 8E + 1 lb. A of Sencor 75WP or Lexone.

*When using Sencor or Lexone 4L, substitute pints for pounds (1 pint equals 1 pound). For Sencor DF or Lexone DF, multiply pounds 75% by 0.67.

Precautions: To avoid crop injury: Do not use this tank mixture on soil with less than 0.5% organic matter, on a sandy soil with pH over 7.4, on a loamy sand and on loamy sand with less than 2% organic matter. 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 has not been properly closed.

Dual 8E + Scepter + Gramoxone Super or Roundup

On coarse soils, apply 1.5 pts. A of Dual 8E + [illegible] pts. A of Scepter. On medium soils, apply 2 pts. A of Dual 8E + [illegible] pts. A of Scepter. On fine soils, apply 2-2.5 pts. A of Dual 8E + [illegible] pts. A of Scepter.

Notes: (1) Do not apply within [illegible] days of harvest and [illegible] grazing treated soybean forage, hay or straw for [illegible] days. [illegible] may result.

Dual 8E + Lorox + Gramoxone Super or Roundup

On coarse soils, apply 1.5 pts. A of Dual 8E + [illegible] pts. A of Lorox. On medium soils, apply 2 pts. A of Dual 8E + [illegible] pts. A of Lorox. On fine soils, apply 2-2.5 pts. A of Dual 8E + [illegible] pts. A of Lorox.

*[illegible] use in loamy sand except in the [illegible] may [illegible] crop injury may [illegible] stand [illegible] may result.

**When using [illegible] Lorox [illegible] Dual 8E [illegible] Lorox [illegible] Dual 8E [illegible] Lorox [illegible] Dual 8E

V. Storage and Disposal

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 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 (919) 292-7100 day or night.

W. Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

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.

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

Statement of Practical Treatment

If swallowed: 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 slurry of activated charcoal (such as N.F.A.) and a saline cathartic should be considered.

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

If inhaled: Remove victim to fresh air.

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

Environmental Hazards

Do not apply directly to water, or wetlands (swamps, bogs, marshes and potholes). Do not contaminate water when disposing of equipment wash waters.

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

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
(A 44 02X) 08

Dual 8E

Herbicide

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

Active Ingredient:
Metolachlor: 2-chloro-*N*-(2-ethyl-6-methylphenyl)-*N*-(2-methoxy-1-methylethyl) acetamide 86.4%

Inert Ingredients:	**13.6%**
Total:	**100.0%**

Dual 8E contains 8 lbs. active ingredient per gallon.

See directions for use in attached booklet.

EPA Reg. No. 100-597

Dual® trademark of CIBA-GEIGY for metolachlor
U.S. Patent No. 3,937,730

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
CGA 49L12X 098

2½ Gallons
U.S Standard Measure

Keep Out of Reach of Children.
CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

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

Statement of Practical Treatment

If swallowed 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 slurry of activated charcoal (such as Norit A) and a saline cathartic should be considered.

If on skin Wash with plenty of soap and water. Get medical attention if irritation persists.

If inhaled Remove victim to fresh air.

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

Chemigation

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, if by open burning is allowed by state and local authorities. If burned, keep out of smoke.

CIBA-GEIGY