

PHENOMENON™

PULL HERE TO OPEN ▲

HERBICIDE

FOR WEED CONTROL IN CORN, COTTON, PEANUTS, POD CROPS, POTATOES, SAFFLOWER, SORGHUM (GRAIN OR FORAGE), AND SOYBEANS

ACTIVE INGREDIENT:	% BY WT.
Metolachlor: 2-chloro- N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide.....	84.4%
INERT INGREDIENTS.....	15.6%
TOTAL.....	100.0%

Phenomenon contains 7.8 lbs. of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

EPA Reg. No. 66222-87

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF SWALLOWED:

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

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.

For additional precautionary, handling, and use statements, see inside of this booklet.



M A N A

Manufactured for:
**Makhteshim Agan
of North America, Inc.**
3120 Highwoods Blvd
Suite 100
Raleigh, NC 27604

14737

EPA 662509/Notif 032411/Rev A

ONE BOX MUST BE CHECKED IN EACH COLUMN:

Net Contents

270 gallons _____ gallons

EPA Est. No.

70989-MO-001 _____

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate or Viton
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment

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

ENGINEERING CONTROLS STATEMENT

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

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

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

Ground Water Advisory:

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Surface Water Advisory:

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

Mixing/Loading Instructions:

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

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

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling, or application equipment or containers within 50 ft. of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient

capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

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

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

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

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or Viton
- Shoes plus socks

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

Not for sale, use, or distribution in Nassau or Suffolk Counties, NY.

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

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.

When an adjuvant is to be used with this product, Makhteshim Agan of North America, Inc. suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

Phenomenon™ 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 corn (all types), cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, and soybeans.

Note: Do not use in nurseries, turf, or landscape plantings.

Do not apply under conditions which favor runoff or wind erosion of soil containing this product to nontarget areas.

To prevent off-site movement due to runoff or erosion:

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

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

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

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

Dry weather following preemergence application of Phenomenon 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 to crops other than corn following the use of Phenomenon under abnormally high soil moisture conditions during early development of the crop.

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

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

Note: Phenomenon 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 or other application device before using. Dispose of cleaning solution in a responsible manner. Do

not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

MIXING INSTRUCTIONS

Phenomenon Alone: Mix Phenomenon with water or fluid fertilizer and apply as a spray. Fill the spray tank 1/2 - 3/4 full with water or fluid fertilizer, add the proper amount of Phenomenon, 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 1/4 full with water, and start agitation; add 2,4-D, AAtrex, Balan, Banvel, Canopy, Caparol 4L, Command, Cotoran, Eptam, Gemini, Lexone, Lorox, Lorox Plus, Marksman, Preview, Princep, Prowl, Pursuit, AAtrex + Princep, Scepter, Sencor, Sonalan, or Treflan, and allow it to become dispersed; then add Phenomenon; then add Gramoxone Extra, Landmaster BW, or Roundup if these products are being used; and finally the rest of the water. For tank mixtures with AAtrex, Banvel, Canopy, Caparol 4L, Command, Cotoran*, Eptam, Gemini, Lexone, Lorox, Lorox Plus, Marksman, Preview, Princep, Prowl*, Pursuit, AAtrex + Princep, Scepter, Sencor, Sonalan, or Treflan, fluid fertilizers may replace all or part of the water as carrier, except in the AAtrex postemergence and the Banvel postemergence tank mixes. For tank mixtures with AAtrex, see additional mixing instructions on the AAtrex label. For each mixture, check compatibility with fluid fertilizer, as described below, before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

* See Special Mixing Instructions for tank mixtures with Cotoran, and with AAtrex or Princep + Prowl under the appropriate tank mixture section.

For directions on how to conduct a compatibility test, see Appendix A.

APPLICATION PROCEDURES

APPLICATION TIMING

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

Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, Phenomenon alone and some Phenomenon 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 2/3 the recommended broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop to determine if early preplant surface application is recommended. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

Preplant Incorporated: Apply Phenomenon 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 Phenomenon after bed formation, unless specified otherwise.

Preemergence: Apply Phenomenon during planting (behind the planter) or after planting, but before weeds or crops emerge.

SPECIAL APPLICATION PROCEDURES

Fall Application (Only in IA, MN, ND, SD, WI, and portions of NE and IL - see specific instructions in the Corn, Soybeans, and Pod Crops sections of this label for timing of application and other information): Do not apply to frozen ground. Use on medium and fine soils with greater than 2.5% organic matter that will be planted to corn or soybeans the next spring. Ground may be tilled before or after application. Do not exceed a 2- to 3-inch incorporation depth if tilled after treatment.

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

Ground Application: Apply Phenomenon 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 Phenomenon 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:

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

Note: For information on applying in lower volumes of carrier, see **Low Carrier Application** in Appendix B. For application by air or through center pivot systems, see Appendices C and D. Appendix C includes Aerial Drift Management and Aerial Drift Reduction Advisory sections. For information on impregnating dry fertilizer, see Appendix E.

PHENOMENON APPLIED ALONE

1. Weeds Controlled:

barnyardgrass (watergrass)	foxtail millet	signalgrass (<i>Brachiaria</i>)
bristly foxtail	galinsoga	southwestern cupgrass
carpetweed	giant foxtail	tall waterhemp
common waterhemp	goosegrass	wild proso millet*
crabgrass	green foxtail	witchgrass
crowfootgrass	pigweed	woolly cupgrass*
Eastern black nightshade	prairie cupgrass	yellow foxtail
fall panicum	red rice	yellow nutsedge
Florida pusley	robust foxtails (purple, white)	

* For control of these weeds in corn only, refer to the **Corn – Woolly Cupgrass and Wild Proso Millet Control Program** section of this label.

2. Weeds Partially Controlled*:

common purslane	sandbur	volunteer sorghum
eclipta	seedling johnsongrass	wild proso millet
Florida beggarweed**	shattercane	woolly cupgrass
hairy nightshade	Texas panicum***	

* 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. In corn, use 2-2.67 pts./A or the preplant surface-applied rates for Phenomenon alone or in tank mixture, if allowed, when making preplant incorporated or preemergence applications.

2. Thoroughly till moist soil to destroy germinating and emerged weeds. If Phenomenon is to be applied preplant incorporated, this tillage may be used to incorporate Phenomenon if uniform 2-inch incorporation is achieved as recommended under **APPLICATION PROCEDURES**.
3. Plant crop into moist soil immediately after tillage. If Phenomenon is to be used preemergence, apply at planting or immediately after planting.
4. 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 fine-textured soils. Also, refer to the section on **Center Pivot Irrigation Application** for this method of applying Phenomenon.
5. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

** 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.

ROTATIONAL CROPS

Phenomenon Alone: (1) If crop treated with Phenomenon alone is lost, any crop on this label may be replanted immediately. Do not make a second broadcast application of Phenomenon. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Barley, oats, rye, or wheat may be planted 4 1/2 months following treatment; alfalfa may be planted 4 months following application; tomatoes may be planted 6 months following application. (3) Any crop on this label, in addition to root crops, tobacco, barley, buckwheat, milo, oats, rice, rye, wheat, cabbage, peppers, stone fruits, or tree nuts, may be planted in the spring following treatment. Clover may be seeded 9 months following application. Do not graze or feed forage or fodder from cotton to livestock. (4) Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to tobacco, cabbage, peppers, stone fruits, or tree nuts, may be planted in the spring. All other rotational crops may be planted 12 months after a lay-by application.

Phenomenon Tank Mixtures: For rotational crop restrictions for Phenomenon used in tank mixtures, refer to the statements/restrictions above for Phenomenon and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

Important Notes: To avoid injury to rotational alfalfa or clover: (1) Do not apply more than 2 lbs. a.i. of metolachlor per acre (2 pts. of Phenomenon) preemergence (including preplant surface, preplant incorporated, postplant incorporated, etc.), and (2) Do not make lay-by or other postemergent applications of Phenomenon.

CROPS CORN (All Types)

PHENOMENON ALONE

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

PREPLANT SURFACE-APPLIED:

Refer to instructions for use of Phenomenon alone under **APPLICATION PROCEDURES**.

Fall Application (Apply after September 30 in MN, ND, SD, WI and north of Route 30 in IA; Apply after October 15 north of Route 91 in NE and south of Route 30 in IA; Apply after October 31 north of Route 136 in IL): In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55° F and falling. In minimum-tillage or no-tillage

systems on soils having greater than 2.5% organic matter, use 1.67 - 2.0 pts./A on medium-textured and 2.0 pts./A on fine-textured soils. Do not apply to frozen ground. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2 - 3 inches. Minimize furrow and ridge formation in the tillage operations. **Note:** If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for corn, or illegal residues may result.

Early Preplant Applications:

Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the recommended rate of Phenomenon (1.67 pts./A on medium soils and 2.0 pts./A on fine soils) as a split treatment 30 - 45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Apply 1.33 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 CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, 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, Beacon, Bicep, Exceed, Accent, Banvel, Basagran, bromoxynil (Brominal or Buctril), or 2,4-D. 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 Phenomenon alone under **Application Procedures**. On coarse soils, apply 1.0 - 1.33 pts./A of Phenomenon if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On medium soils, apply 1.33 - 1.67 pts./A of Phenomenon. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon if organic matter content is less than 3%, or 1.67 - 2.0 pts./A if organic matter content is 3% or greater.

LAY-BY: To extend the duration of weed control in corn, a maximum rate of 2.0 pts./A of Phenomenon 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 Phenomenon. 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 Phenomenon rate applied on corn during any one year must not exceed 4 pts./A, depending on soil texture.

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

PROBLEM WEED CONTROL DIRECTIONS:

Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta – Partial Control: For more consistent partial control of shattercane, wild proso millet, woolly cupgrass, or eclipta, apply 2.0 - 2.5 pts./A as a single application or apply 1.0 - 1.33 pts./A of Phenomenon preplant incorporated, followed by 1.0 - 1.33 pts./A of Phenomenon preemergence; however, do not apply more than a total of 2.55 pts./A. Make the preemergence application during or after planting, but before weeds and corn emerge. Apply the 1.33 pts./A rate of Phenomenon when a heavy infestation of shattercane, wild proso millet, woolly cupgrass, or eclipta is expected. A shallow cultivation may be needed to control any late emerging weeds.

Woolly Cupgrass and Wild Proso Millet Control Program: For control of these species, use the following 3-step program: (1) Apply Phenomenon early preplant, preplant incorporated, or preemergence at 1.67 pts./A on medium soils and 2.0 pts./A on fine-textured soils, up to the maximum label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5-7 days;

(2) Apply a postemergence tank mix of Beacon at 0.38 oz./A or Exceed at 1 packet per 4 acres plus Accent SP at 0.33 oz./A plus 1 qt. of crop oil concentrate plus 1 gal./A of 28% nitrogen, or the equivalent amount of ammonium sulfate, when grasses are 2-3 inches tall and the corn is at least 4 inches tall; and (3) Cultivate 14-21 days after the postemergence application.

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, Phenomenon may be used up to 2.75 pts./A as either a preplant surface, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20% or up to 2.0 pts./A on any soil for extended residual control and where severe stands of problem weeds are expected. (3) In the event of escape of annual weeds following a preplant surface, preplant incorporated, or preemergence treatment of Phenomenon, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex, Beacon, Bicep, Exceed, Accent, Banvel, Basagran, Brominal, Buctril, or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, i.e., AAtrex, do not exceed the total labeled rate for corn on a given soil texture. (4) Brominal or Buctril may be applied postemergence alone or in tank mix combination with AAtrex. Do not exceed 1.2 lbs. a.i./A of AAtrex in tank mix combination with Brominal or Buctril postemergence. Refer to the AAtrex, Brominal, and Buctril labels for specific rates and precautions. (5) Do not use Phenomenon on peat or muck soils.

PHENOMENON COMBINATIONS FOR CORN

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

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

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

Chart 1: Phenomenon Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions

	Phenomenon + AAtrex and/or Princep (Preplant Surface, PPI, PRE)	Phenomenon + AAtrex (Post)	Phenomenon + Banvel (Field Corn)	Phenomenon + AAtrex + Lorox	Phenomenon + AAtrex or Princep + Prowl	Phenomenon + Marksman	Phenomenon + Broadstrike + Parallel PCS
Section	1	2	3	4	5	8	9
Special Mixing Instructions					2		
Comments	3,4,5,6,7,8	3,4,5,6		3,4,5,6,8	3,4,5,6	7	7
Browntop panicum	•			•	•		
Cocklebur	•	0	0	•	•	•	0*
Common purslane	•			•	•	•	•
Hairy nightshade	•			•	•	•	•
Jimsonweed		0	0			•	0*
Kochia		•				•	•
Lambsquarters	•	•	•	•	•	•	•
Morningglory	•	0	0	•	•	•	0*
Mustard		•				•	•
Pigweed				•	•	•	•
Prickly sida		•				•	•
Ragweed	•	•	•	•	•	•	0*
Smartweed	•	•	•	•	•	•	•
Velvetleaf	•	•	0	•	•	•	•

• = control; 0 = partial control; 0* = partial to full control depending on ratio of products used or on weed population

Comments:

1. Special Mixing Instructions for Phenomenon + AAtrex or Princep and Prowl: (1) Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation. (2) To aid compatibility, add a compatibility agent, such as Unite or X-77 at 4 pts./100 gals. of spray mixture. (3) Then add the AAtrex or Princep and allow it to become dispersed. (4) Then add Phenomenon and Prowl 4E. (5) Add the rest of the water.
2. Although a single formulation for AAtrex or Princep is listed in the rate tables, other formulations may be substituted, using the following formula: 1 lb. of AAtrex Nine-0 or Princep Caliber 90 = 1.8 pts. of AAtrex 4L or Princep 4L.
3. Although directions specify AAtrex formulations in tank mixture with Phenomenon, other brands of atrazine may be used. Follow the rates, recommendations, and limitations on the atrazine label.

4. See additional mixing instructions on the AAtrex label.
5. Precaution: Do not exceed a total of 2.5 lbs. a.i. of atrazine per acre per year. However, certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.
6. Other formulations of Lorox can be used: 1 lb. of Lorox DF = 1 pt. of Lorox L.
7. In minimum-tillage and no-tillage systems, mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression of emerged field bindweed and control or suppression of annual weeds; or with Roundup for control of most emerged annual and perennial weeds.
8. Refer to **Phenomenon Combinations for Corn - Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems** sections for specific directions for 2,4-D or Banvel burndown combinations in minimum-tillage and no-tillage systems.

Phenomenon in any tank mixture for corn may be applied in water or fluid fertilizer, except as noted.

Notes: (1) For all applications to corn, do not graze or feed forage from treated areas for 30 days following application, or possible illegal residues may result. (2) When applying Phenomenon in tank mixture with AAtrex, do not exceed a total of 2.5 lbs. a.i. of atrazine per acre per year. (3) Refer to the section entitled **Corn (All Types)-Phenomenon Alone, Problem Weed Control Directions, Note (3)** for recommended sequential postemergence treatments if escape weeds develop. (4) In corn, Phenomenon may be used up to 2.0 pts/A in combinations on any soil for extended residual control and where severe stands of problem weeds are expected.

Tank Mixture with AAtrex or Princep, or AAtrex + Princep – Preplant Surface, Preplant Incorporated, or Preemergence

In addition to the weeds controlled by Phenomenon alone, Phenomenon + AAtrex or Princep, or Phenomenon + 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 Phenomenon + AAtrex or Princep, or Phenomenon + AAtrex + Princep either preplant surface, preplant incorporated, or preemergence.

Preplant Surface-Applied: Follow instructions for use of Phenomenon alone under **Application Procedures** and under application instructions for Phenomenon alone on corn. Apply Phenomenon + AAtrex or Princep, or Phenomenon + AAtrex + Princep on medium soils (1.67 pts./A of Phenomenon + 3.2 - 4 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) and on fine soils (1.67 - 2.0 pts./A of Phenomenon + 4 - 5 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) in minimum-tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the **Phenomenon Alone – Preplant Surface-Applied** section of the label for corn. On coarse soils, apply 1.33 pts./A of Phenomenon 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 Phenomenon alone under **Application Procedures**. Apply Phenomenon + AAtrex or Princep, or Phenomenon + 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, Wild Proso Millet, Woolly Cupgrass, and Eclipta – Partial Control

For more consistent partial control of shattercane, wild proso millet, woolly cupgrass, or eclipta, where Phenomenon is applied in tank mixture or sequentially with other registered corn herbicides, apply 2.0 - 2.33 pts. as a single application, or the following applications may be made:

1. Apply 1.0 - 1.33 pts./A of Phenomenon + 2 lbs. a.i./A of AAtrex or Princep preplant incorporated, followed by 1.0 - 1.33 pts./A of Phenomenon preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge.

- Apply Phenomenon at 1.33 pts./A alone or in tank mix combination with up to 2 lbs. a.i./A of AAtrex or Princep, preplant incorporated. Do not exceed the total rate of triazine herbicide recommended for corn grown on a given soil texture. Follow with a post-directed application of Evik 80W at 2.5 lbs./A. Refer to the Evik 80W label for specific directions for the post-directed application.
- Apply Eradicane or Sutan (or equivalent EPTC or butylate formulations) at labeled rates preplant incorporated, followed by a preemergence application of Phenomenon at 1.0 - 1.33 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.

Precaution: When following the application regimes in numbers 1-3 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.

Table 1: Phenomenon + AAtrex or Princep, or Phenomenon + AAtrex + Princep, Preplant Incorporated or Preemergence - Corn (All Types)

SOIL TEXTURE	BROADCAST RATES PER ACRE					
	LESS THAN 3% ORGANIC MATTER			3% ORGANIC MATTER OR GREATER		
	Phenomenon + AAtrex Nine-O* or Princep Caliber 90*	-OR-	Phenomenon + AAtrex Nine-O** + Princep Caliber 90**	Phenomenon + AAtrex Nine-O* or Princep Caliber 90*	-OR-	Phenomenon + AAtrex Nine-O** + Princep Caliber 90**
Coarse	0.85 - 1.0 pt. + 1.1 - 2.2 lbs.		0.85 - 1.0 pt. + 0.6 - 1.1 lbs. + 0.6 - 1.1 lbs.	1.0 pt. + 1.3 - 2.2 lbs.		1.0 pt. + 0.7 - 1.1 lbs. + 0.7 - 1.1 lbs.
Medium	1.0 - 1.33 pts. + 1.3 - 2.2 lbs.		1.0 - 1.33 pts. + 0.7 - 1.1 lbs. + 0.7 - 1.1 lbs.	1.33 pts. + 1.8 - 2.2 lbs.		1.33 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.
Fine	1.33 pts. + 1.8 - 2.2 lbs.		1.33 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.	1.33 - 1.67 pts. + 1.8 - 2.2 lbs.***		1.33 - 1.67 pts. + 0.9 - 1.1 lbs.*** + 0.9 - 1.1 lbs.
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE					

* 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, Phenomenon may be used up to 2.33 pts./A in tank mix combination with 2.2 lbs./A of AAtrex Nine-0, or equivalent rates of AAtrex 4L. Refer to the AAtrex label for weeds controlled at this reduced rate.

** When using the tank mixture of Phenomenon + AAtrex Nine-0 + 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. (Example: Total AAtrex Nine-0 + Princep Caliber 90 = 1.2 lbs./A, use 0.4 lb. of AAtrex + 0.8 lb. of Princep, respectively.) Refer to Comment No. 2 following Chart 1 for AAtrex 4L and Princep 4L conversions.

*** For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-0, or equivalent rates of AAtrex 4L, or the same total amount of AAtrex + Princep with 1.33 - 1.67 pts./A of Phenomenon.

Tank Mixture with AAtrex - Postemergence

Weeds Controlled:

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

Weeds Partially Controlled:

cocklebur	morningglory	yellow nutsedge
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Apply 1.0 pt./A of Phenomenon + 1.3 lbs./A of AAtrex Nine-0* on coarse soils, 1.33 pts./A of Phenomenon + 1.8 lbs./A of AAtrex Nine-0 on medium soils, or 1.33 - 1.67 pts./A of Phenomenon + 1.8 - 2.2 lbs./A** of AAtrex Nine-0 on fine soils. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

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

* When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-0 equals 1.8 pts. of AAtrex 4L.

** 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-0, or equivalent rate of AAtrex 4L, with 1.33 - 1.67 pts./A of Phenomenon. Tank mixtures of Phenomenon + AAtrex may be applied following use of any registered preplant surface-applied, preplant incorporated, or preemergence corn herbicide, including Phenomenon + AAtrex.

Note: The total Phenomenon rate should not exceed 4 pts. nor the AAtrex rate more than 2.5 lbs. a.i./A during any one-crop year, or illegal residues may result. Refer to the AAtrex label for geographic, soil-texture, and rotational restrictions.

Tank Mixture with Banvel

Preemergence: Use this tank mixture only on field corn which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI. In addition to the weeds controlled by Phenomenon alone, Phenomenon + Banvel, applied preemergence also controls lambsquarters, ragweed, smartweed, cocklebur*, jimsonweed*, morningglory*, and velvetleaf*.

*Partially controlled.

Apply Phenomenon + Banvel preemergence. Broadcast 1 pt./A of Banvel with 1.33 pts./A of Phenomenon on medium soils, or with 1.33 - 1.67 pts./A of Phenomenon 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. 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 1/2 inch deep.

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

Postemergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV): Apply 1.0 - 1.5 pts. of Phenomenon + 0.5 - 1 pt./A of Banvel by ground equipment when pigweed plants are less than 3 inches tall and before corn exceeds 5 inches in height in a minimum of 20 gals. of spray per acre. Use the lower rate on coarse-textured and low organic matter soils. Use the higher rate on fine-textured and high organic matter soils.

Banvel SGF and Clarity may be used at equivalent lbs. of active ingredient per acre.

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

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, Phenomenon may be applied preemergence in tank mix combination with AAtrex + Lorox. Apply Phenomenon and AAtrex according to the rates in **Table 1** and Lorox according to the following rates.

SOIL TEXTURE

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

BROADCAST RATE PER ACRE

0.67 lb. Lorox
1.0 lb. Lorox
1.0 lb. Lorox

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

Tank Mixture with AAtrex or Princep + 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, Phenomenon in tank mix combination with AAtrex* or Princep + Prowl 4E may be applied after planting, but before corn or weeds emerge. Apply by ground equipment in a minimum of 10 gals. of water or 20 gals. of liquid fertilizer. Apply by air in a minimum of 5 gals. of water. Refer to **Table 1** of this label for rates of Phenomenon, AAtrex, or Princep to be applied. Apply Prowl 4E according to the following rates in **Table 2**.

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

Mixing Instructions: See Comment No. 1 following Chart 1.

Table 2: Prowl 4E – Broadcast Rates Per Acre

SOIL TEXTURE	PERCENT ORGANIC MATTER IN SOIL		
	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 the respective product labels when applying these products in tank mix combination. Refer to the Prowl 4E label for replanting instructions in the event of crop loss.

Tank Mixture with AAtrex, or Princep, AAtrex + Princep, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems

See Comment No. 1 following Chart 1 for special mixing instructions.

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be added to a tank mix of Phenomenon + AAtrex or Princep, or Phenomenon + AAtrex + Princep. See Comment No. 7 following Chart 1. The Phenomenon + AAtrex or Princep, or Phenomenon + AAtrex + Princep portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for Phenomenon + AAtrex or Princep, or Phenomenon + AAtrex + Princep – Preplant Surface, Preplant Incorporated, or Preemergence.

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

Gramoxone Extra: 1.5 - 2.0, 2.0 - 2.5, or 2.5 - 3.0 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches. **Note:** Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers, because the activity of paraquat will be reduced.

Landmaster BW: 27 - 54 oz./A depending on weed species and size. See the Landmaster BW label for weeds controlled, recommended rates for specific weeds, and other information concerning use.

Roundup: See the Roundup or Roundup RT label for weeds controlled, recommended rates, and other use directions.

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

On coarse soils, apply 1.0 pt./A of Phenomenon with 1.3 lbs. of AAtrex Nine-0* or Princep Caliber 90*, or with 0.7 lb. of AAtrex Nine-0**

+ 0.7 lb. of Princep Caliber 90**. On medium soils, apply 1.33 pts./A of Phenomenon with 1.8 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 lb. of AAtrex Nine-O + 0.9 lb. of Princep Caliber 90. On fine soils***, apply 1.33 - 1.67 pts./A of Phenomenon with 1.8 - 2.2 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 - 1.1 lbs. of AAtrex Nine-O + 0.9 - 1.1 lbs. of Princep Caliber 90.

* Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected.

** When using the tank mixture of Phenomenon + AAtrex Nine-O + Princep Caliber 90, use equal rates of AAtrex and Princep as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given. (Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.8 lbs./A, use 0.6 lb. of AAtrex + 1.2 lbs. of Princep, respectively.) Refer to Comment No. 2 following Chart 1 for AAtrex 4L and Princep 4L conversions.

*** For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, or the same total amount of AAtrex + Princep, with 1.33 - 1.67 pts./A of Phenomenon.

Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems

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

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

As carriers, nitrogen solutions and complete liquid fertilizers applied before corn emergence enhance burndown of existing weeds, and therefore, are recommended instead of water. Add X-77 surfactant at 1.0 - 2.0 qts./100 gals. of diluted spray, or another appropriate surfactant at its recommended rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). 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., brome grass, orchardgrass, rye, or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone Extra at the rate of 2.5 pts./A in place of or in addition to 2,4-D, as indicated above. Do not apply Gramoxone Extra in suspension-type liquid fertilizer. Observe all directions for use, precautions, and limitations on the respective product labels when applying these products in tank mix combination.

Tank Mixture with Marksman in Conservation Tillage - Field and Silage Corn

In conservation tillage systems where corn is planted directly into a cover crop or previous crop residue, Phenomenon + Marksman will kill most emerged small annual weeds. Apply Phenomenon + Marksman before, during, or after planting, but before corn emergence on medium and fine soils with greater than 2.5% organic matter. For fields with existing vegetation exceeding 3 inches in height or when very dry conditions exist, add Gramoxone Extra at its standard rate. Phenomenon + Marksman may be applied postemergence to corn less than 3 inches tall and before weedy grasses exceed the 2-leaf stage. As carriers, nitrogen solutions and complete liquid fertilizers applied before corn emergence enhance burndown of existing weeds. Do not apply Gramoxone Extra in suspension-type liquid fertilizer or use on emerged corn.

Refer to the Marksman label and follow all directions, limitations, precautions, and information regarding application and use in corn.

Tank Mixture with Broadstrike + Parallel PCS

For preplant surface, preplant incorporated, or preemergence application where severe grass populations are expected on

medium- or fine-textured soils with relatively high organic matter content, Broadstrike + Parallel PCS may be spiked with Phenomenon for optimum performance. Refer to the Broadstrike + Parallel PCS label for its use rate and the amount of metolachlor active ingredient it contains. Phenomenon may be added up to, but not to exceed, the maximum alone Phenomenon label rate for the soil classification. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

COTTON

PHENOMENON ALONE

Application: Apply Phenomenon preemergence only in Area 1* at the rate of 0.50 - 1.0 pt./A on sandy loams, 0.67- 1.33 pts./A on medium soils, or 1.0 - 1.33 pts./A on fine soils. Apply Phenomenon preplant incorporated or preemergence in Area 2** at 1.0 pt./A on sandy loams, 1.0 - 1.33 pts./A on medium soils, or 1.33 pts./A on fine soils. **Do not use on sands and loamy sand.**

*Area 1 = AR, LA, MS, TN, and Bootheel of MO

**Area 2 = NM, OK, and TX

Preplant Incorporated (NM, OK, and TX Only): Apply to the soil and incorporate into the top inch of soil immediately before planting, at planting, or after planting, but before crop or weeds emerge. Use a rolling cultivator or similar implement to uniformly incorporate not more than 1 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.

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

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

Precautions: To avoid crop injury, (1) Do not apply Phenomenon on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed; (2) To avoid concentration in the seed furrow, do not make broadcast applications of Phenomenon to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow; and (3) Do not apply on Taloka silt loam. (4) Do not use in Gaines County, TX.

Note: To avoid possible illegal residues, do not graze or feed forage or fodder from cotton to livestock.

PHENOMENON COMBINATIONS

Tank Mixture with Caparol 4L

Phenomenon tank mixtures with Caparol 4L may be applied in water or fluid fertilizer. When fluid fertilizer is used as a carrier for Phenomenon, 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 Phenomenon alone, Phenomenon + 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 Phenomenon + Caparol 4L, either preplant incorporated or preemergence, using the appropriate rate from **Table 3**. Cotton should be planted below the zone of incorporation; i.e., at least 1.0 inch on fine soils and 1.5 inches on coarse and medium soils. If incorporated before planting, use a planter that will result in a minimum of soil disturbance.

Table 3: Phenomenon + Caparol 4L – Cotton (NM, OK, TX)

USE AREAS	SOIL TEXTURE	BROADCAST RATES PER ACRE	
		PHENOMENON	CAPAROL 4L
ALL	Sand, loamy sand	DO NOT USE	
OK, and Blacklands and Gulf Coast of TX	Loams	0.85 - 1.33 pts.	2.4 pts.
	Clays	1.33 pts.	4.8 pts.
Rio Grande Valley of TX	Loams	0.85 - 1.33 pts.	3.2 pts.
	Clays	1.33 pts.	4.8 pts.
NM; High Plains, Rolling Plains, Edwards Plateau of TX, and Southwest TX	Sandy loam	0.85 - 1.0 pt.	1.6 pts.
	Loams	0.85 - 1.33 pts.	2.4 pts.
	Sandy clay loams	1.33 pts.	2.4 pts.
	Other clay soils	1.33 pts.	3.2 pts.

Precautions: (1) To avoid concentration in the seed furrow, do not make broadcast applications of Phenomenon + Caparol 4L to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow. To avoid crop injury, (2) Do not apply on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed; (3) Do not apply in cut areas of newly leveled fields, or in areas of excess salt; (4) Do not apply to glandless cotton varieties; and (5) Do not apply on Taloka silt loam. (6) Do not use in Gaines County, TX.

Note: To avoid possible illegal residues, do not graze or feed forage or fodder from cotton to livestock.

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

Tank Mixture with Cotoran DF

Phenomenon may be applied in tank mixture with Cotoran DF preemergence for control of those weeds controlled by Phenomenon alone and those as listed on the Cotoran DF label. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crop emerge, using the appropriate rates from **Table 4**.

Mixing Instructions: Incompatibility may occur when tank mixing Phenomenon and Cotoran DF. To help overcome this condition, fill the spray tank 1/4 full with water or fluid fertilizer and start agitation; add the Cotoran DF and allow it to become dispersed. Add X-77 at 0.5% volume/volume final spray (4 pts./100 gals.), then add the Phenomenon, and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension.

Table 4: Phenomenon + Cotoran DF – Cotton

SOIL TEXTURE	BROADCAST RATES PER ACRE		
	PHENOMENON (PTS.)		COTORAN DF*** (LBS.)
	Area 1*	Area 2**	
Sand, loamy sand	DO NOT USE		
Sandy loam	0.50 - 1.0	0.85 - 1.0	1.2
Loam, silt, silt loam	0.67 - 1.33	1.0 - 1.33	1.2 - 1.9
Fine soil	1.0 - 1.33	1.33	1.9 - 2.4

*Area 1 = AR, LA, MS, Bootheel of MO, and TN

**Area 2 = Eastern OK, Gulf Coast, Rio Grande Valley, and Eastern TX

***When using Cotoran 4L, use equivalent rates. Multiply lbs. of Cotoran DF by 1.7 to get pts. of Cotoran 4L.

Precautions: (1) Do not apply Phenomenon + Cotoran on sand or loamy sand soils, or in areas where water is to "pond" over the bed, or crop injury may occur. (2) To avoid concentration in the seed furrow, do not make broadcast applications of Phenomenon + Cotoran to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow. (3) The use of Cotoran following the use of a systemic insecticide at planting may result in crop injury. (4) Do not use on Taloka silt loam, or crop injury may occur. (5) Do not use in Gaines County, TX.

Refer to the Cotoran labels for further instructions, precautions, and limitations.

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

Tank Mixture of Phenomenon or Phenomenon + Cotoran with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems

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

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

Application: Apply before, during, or after planting, but before the cotton emerges, at the rates specified below. Apply Phenomenon at 0.85 - 1.0 pt./A on sandy loams, medium-, and fine-textured soils. Refer to **Table 4** for the Cotoran DF rates.

Add Gramoxone Extra or Roundup at the following broadcast rates:

Gramoxone Extra: 1.5 - 2.0, 2.0 - 2.5, or 2.5 - 3.0 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches. **Note:** Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Roundup: See the Roundup label for weeds controlled, recommended rates, and other use directions. Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

Precautions: (1) If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed. (2) Refer to the Cotoran labels and the Tank Mixture with Cotoran DF section of this label for further instructions, precautions, and limitations. (3) Do not use in Gaines County, TX.

PEANUTS

PHENOMENON ALONE

Apply Phenomenon, either preplant incorporated, postplant incorporated, or preemergence using the appropriate rate specified below.

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

Postplant Incorporated: Apply and shallowly incorporate Phenomenon 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.

Apply Phenomenon alone, preplant incorporated, postplant incorporated, or preemergence at a broadcast rate of 1.0 - 1.33 pts./A in the Southeast* and 0.85 - 1.33 pts./A in NM, OK, and TX.

*In the Southeast, use 1.33 - 2.0 pts./A and apply preemergence for partial control of Florida beggarweed.

Note: (1) Phenomenon 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; Vernam at 2.33 - 3 pts./A; Sonalan at 1.25 - 3 pts./A; Pursuit at 0.25 pt./A; or Prowl at 1 - 2 pts./A. (2) Do not graze or feed peanut forage or fodder to livestock for 30 days following application, and (3) Do not apply within 90 days of harvest, or illegal residues may result.

PHENOMENON COMBINATIONS

Tank Mixture with Balan L.C.

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

Apply 1.0 - 1.33 pts./A of Phenomenon + 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 5.0 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 Phenomenon + Balan up to 14 days prior to planting. **Note:** Follow all restrictions and precautions on the Balan label.

Tank Mixture or Sequentially with Pursuit

The tank mixture or sequential treatment of Phenomenon and Pursuit controls all weeds controlled by Phenomenon alone and by Pursuit alone. Refer to the **Phenomenon Applied Alone** section for weeds controlled by Phenomenon and to the Pursuit label for weeds controlled by Pursuit.

Refer to the respective labels for application methods, timing, rates, restrictions, precautions, and use in accordance with the more restrictive label.

Tank Mixture with Sonalan

The tank mixture controls all weeds controlled by Phenomenon alone and by Sonalan alone. Refer to the **Phenomenon Applied Alone** section for weeds controlled by Phenomenon and to the Sonalan label for weeds controlled by Sonalan.

Apply Phenomenon + Sonalan preplant incorporated, using the appropriate rate from **Table 5**. Follow recommended soil preparation procedures for Sonalan. Refer to the Peanut Sonalan/Parallel PCS Tank Mixture label for incorporation specifications.

Table 5: Phenomenon + Sonalan – Peanuts

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	SOUTHEAST		NM, OK, TX	
	Phenomenon	Sonalan	Phenomenon	Sonalan
Coarse	1.0 - 1.33 pts.	1.25 - 2 pts.	0.85 - 1.33 pts.	1.25 - 2 pts.
Medium	1.0 - 1.33 pts.	1.75 - 2.5 pts.	0.85 - 1.33 pts.	1.75 - 2.5 pts.
Fine	1.0 - 1.33 pts.	2.25 - 3 pts.	0.85 - 1.33 pts.	2.25 - 3 pts.

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

Tank Mixture with Prowl

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

Apply Phenomenon + Prowl preplant incorporated, using the appropriate rates from **Table 6**.

Table 6: Phenomenon + Prowl - Peanuts

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	NM, OK, TX	OTHER PEANUT GROWING STATES
	Phenomenon + Prowl	Phenomenon + Prowl
Sand, loamy sand	0.85 pt. + 1 - 1.5 pts.	1.0 - 1.33 pts. + 1.5 - 2 pts.
Sandy loam	0.85 - 1.0 pt. + 1 - 1.5 pts.	1.0 - 1.33 pts. + 1.5 - 2 pts.
Fine soil	1.33 pts. + 1 - 1.5 pts.	1.33 pts. + 1.5 - 2 pts.

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

Sequentially with Storm

Apply Phenomenon according to the directions for **PHENOMENON ALONE** and follow with a postemergence treatment of Storm, as specified on its label for the control of weeds listed on the Phenomenon label and on the Storm label. Refer to the **PEANUTS - PHENOMENON ALONE** section and to the Storm label and follow all directions, limitations, and restrictions for each product.

Multiple Applications

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

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

1st Application: Apply Phenomenon preplant incorporated as directed under **Peanuts – Phenomenon Alone** or apply Phenomenon + Balan preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

2nd Application: Apply Phenomenon any time from preemergence to before 'ground cracking' at 1.0 - 2.0 pts./A for extended control of weeds not yet emerged. **Do not use Phenomenon after peanut emergence.** If peanuts have emerged, use Parallel PCS according to its label section entitled **Peanuts - Parallel PCS Combinations - Multiple Applications.**

3rd Application: Do not use Phenomenon. Apply Parallel PCS at lay-by as directed under **Peanuts – Parallel PCS Alone** section of the Parallel PCS label.

Note: (1) Do not apply more than the equivalent of 4 lbs. of metolachlor active ingredient per acre during any one year, or illegal residues may result. This includes Parallel PCS and Phenomenon, but do not use Phenomenon after peanuts have emerged. (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.

Southwest Only (NM, OK, TX)

1st Application: Apply Phenomenon preplant incorporated or preemergence to before 'ground cracking' as directed under **Peanuts - Phenomenon Alone** or apply Phenomenon + Balan preplant incorporated as directed previously in this section. **Do not use Phenomenon after peanut emergence.** If peanuts have emerged, use Parallel PCS according to its label.

2nd Application: Do not use Phenomenon. Apply Parallel PCS at lay-by as directed under **Peanuts – Phenomenon PCS Alone** on that label. Use only when late-germinating weeds are expected to be a problem. Refer to the **Parallel PCS Applied Alone** section for a list of weeds controlled.

Note: (1) Do not apply more than the equivalent of 2.6 lbs. of metolochlor active ingredient per acre during any one year, or illegal residues may result. This includes Parallel PCS and Phenomenon, but do not use Phenomenon after peanuts have emerged. (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.

POD CROPS

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

PHENOMENON ALONE

Fall Application

- Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-tillage or no-tillage systems on soils having greater than 2.5% organic matter, use 1.65 - 2.0 pts./A on medium-textured and 2.0 pts./A on fine-textured soils. Do not apply to frozen ground. A tillage operation may precede the

application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2-3 inches. **Note:** If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for pod crops, or illegal residues may result.

Spring Application

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

Preplant Incorporated or Preemergence: Follow instructions for use of Phenomenon alone under **Application Procedures**. On coarse soils with less than 3% organic matter, apply 1.0 - 1.33 pts./A of Phenomenon or 1.33 pts./A if organic matter is 3% or greater. On medium soils, apply 1.33 - 1.67 pts./A of Phenomenon. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon if organic matter content is less than 3%, or 1.67 - 2 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: To avoid possible illegal residues, (1) Do not cut for hay within 120 days following a Phenomenon application, and (2) Do not apply more than 2.0 pts./A of Phenomenon during any one crop year, depending on soil texture.

PHENOMENON COMBINATIONS

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

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

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

Preplant Incorporated: Follow instructions for use of Phenomenon alone under **Application Procedures**.

Sequential: Apply Eptam alone preplant incorporated, as specified on that label. Follow with a preemergence application of Phenomenon, at rates specified for Phenomenon alone, during planting (behind the planter) or after planting, but before the 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 2.5 - 4.5 pts./A of Eptam 7E* with Phenomenon as specified. On coarse soils, apply 0.85 pt./A of Phenomenon if organic matter content is less than 3%, or 1.0 pt./A if organic matter content is 3% or greater. On medium soils, apply 1.0 pt./A of Phenomenon if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On fine soils, apply 1.33 pts./A of Phenomenon if organic matter is less than 3%, or 1.33 - 1.67 pts./A if organic matter is 3% or greater.

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

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

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

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

Apply Phenomenon + Treflan tank mix using the appropriate Phenomenon rate specified for Phenomenon alone, and the Treflan rate from the Dry Beans, and the Lima and Snap Beans sections of the respective Treflan 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 respective Treflan label and in the **Pod Crops – Phenomenon Alone** section of this label.

POTATOES

PHENOMENON ALONE

Apply Phenomenon, either incorporated or preemergence, 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 Phenomenon at 1.0 - 2.0 pts./A to the soil and incorporate into the top 3 inches before planting, using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices should not bring untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off, but before potato emergence. Use an implement that evenly distributes Phenomenon in the top 2 inches of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

Preemergence: Apply Phenomenon at 1.0 - 2.0 pts./A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.75 pts./A of Phenomenon alone may be used where soil organic matter is between 6% and 20%.

Precautions: (1) Do not use on muck or peat soils. If cool, wet soil conditions occur after application, Phenomenon 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 as a preemergence and an incorporated treatment.

Note: Potatoes treated with Phenomenon must not be harvested within 60 days after the at-planting to drag-off application, or illegal residues may result.

PHENOMENON COMBINATIONS

Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by Phenomenon alone, Phenomenon 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.

Phenomenon at 1.0 - 2.0 pts./A plus the labeled Sencor/Lexone use rate may be used preemergence. Apply 1.0 - 1.33 pts./A of Phenomenon on coarse soils and 1.33 - 2.0 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. Phenomenon will not control emerged weeds.

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

Precautions: (1) Do not apply to sweet potatoes or yams. (2) Do not use this tank mixture on muck or peat soils.

Note: Potatoes treated with Phenomenon in tank mixture with Sencor or Lexone cannot be harvested within 60 days after application, or illegal residues may result.

Phenomenon + Lorox Tank Mixture (East of Rocky Mountains)

Phenomenon 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 7**.

Table 7: Phenomenon + Lorox – Potatoes (East of Rocky Mountains)

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	1% to Less Than 3% Organic Matter		3 - 5 % Organic Matter	
	Phenomenon	Lorox*	Phenomenon	Lorox*
Coarse				
Sandy loam	1.0 pt.	1 - 1.5 lbs.	1.33 pts.	1.5 - 2 lbs.
Medium				
Loam, silt loam, silt	1.33 pts.	1.5 - 2 lbs.	1.67 - 2.0 pts.	2 - 2.5 lbs.

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

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

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

Tank Mixture with Prowl 4E

In addition to the weeds controlled by Phenomenon alone, this tank mixture with Prowl 4E controls such problem species as kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Prowl 4E Alone label. Apply Phenomenon + Prowl 4E preemergence or preemergence incorporated, according to the specific directions on the Prowl 4E label, using the rates in **Table 8**.

Table 8: Phenomenon + Prowl 4E – Potatoes

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	Less Than 3% Organic Matter	More Than 3% Organic Matter
	Phenomenon + Prowl 4E*	Phenomenon + Prowl 4E*
Coarse	1.0 - 1.33 pts. + 1 - 1.5 pts.	1.0 - 1.33 pts. + 1 - 1.5 pts.
Medium	1.33 pts. + 1.5 - 2 pts.	1.33 - 1.67 pts. + 2 - 3 pts.
Fine	1.33 - 1.67 pts. + 2 - 3 pts.	1.67 - 2.0 pts. + 3 pts.

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

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

Tank Mixture with Prowl 4E + Eptam

In addition to the weeds controlled by Phenomenon alone, this tank mixture will control those species on the Prowl 4E and Eptam labels. Refer to the Phenomenon + Prowl 4E labels for rates of those products and add Eptam 7E at 3.5-7.0 pts./A, depending on geographical area. Refer to the respective Phenomenon, Prowl 4E, and Eptam labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

PHENOMENON ALONE

Preplant Incorporated or Preemergence: Follow instructions for use of Phenomenon alone under **Application Procedures**. On coarse soils, apply 1.0 - 1.33 pts./A of Phenomenon if organic matter content is less than 3%, or 1.33 pts./A if organic matter is 3% or greater. On medium soils, apply 1.33 - 1.67 pts./A of Phenomenon. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon if organic matter content is less than 3%, or 1.67 - 2.0 pts./A if organic matter content is 3% or greater.

SAFFLOWER

GRAIN OR FORAGE SORGHUM (Seed Treated with Concep or Screen)

PHENOMENON ALONE

Apply Phenomenon, either preplant surface, preplant incorporated, or preemergence, using the appropriate rate specified below. Apply Phenomenon alone only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

Preplant Surface-Applied: Refer to instructions for use of Phenomenon under **Application Procedures**. For minimum-tillage or no-tillage systems only, Phenomenon may be applied up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30 - 45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.50 pts./A of Phenomenon on medium soils or 1.67 pts./A on fine soils. Treatments less than 30 days prior to planting may be made either as a split or single application. Apply 1.33 pts./A of Phenomenon on coarse soils not more than 2 weeks prior to planting. Under dry conditions, irrigation after application is recommended to move Phenomenon into the soil.

Preplant Incorporated or Preemergence: Refer to instructions for use of Phenomenon under **Application Procedures**. Broadcast 1.0 - 1.33 pts./A of Phenomenon on coarse soils, 1.33 - 1.50 pts./A on medium soils, or 1.33 - 1.67 pts./A on fine soils.

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

PHENOMENON COMBINATIONS

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

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

Precautions: (1) Applications of Phenomenon + AAtrex on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury. (2) If sorghum seed is not properly treated with Concep or Screen, Phenomenon + AAtrex may severely injure the crop. (3) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of Phenomenon + AAtrex. The crop will normally outgrow this effect. (4) Do not use Phenomenon + AAtrex on

sorghum grown under dry mulch tillage, or injury may occur. (5) Except for the split preplant surface treatment, do not make more than one application per year, or illegal residues may result.

Tank Mixture with AAtrex

In addition to the weeds controlled by Phenomenon alone, Phenomenon + 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 Phenomenon under **Application Procedures**. For minimum-tillage or no-tillage systems only, Phenomenon + AAtrex may be applied up to 45 days prior to planting in IA, IL, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30 - 45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.5 pts./A of Phenomenon + 1.7 - 2 lbs./A of AAtrex Nine-0* on medium soils with 1.5% organic matter or greater. Apply 1.5 pts./A of Phenomenon + 1.7 - 2 lbs./A of AAtrex Nine-0 on fine soils with less than 1.5% organic matter, or apply 1.67 pts./A of Phenomenon + 2 - 2.2 lbs./A of AAtrex Nine-0 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 Phenomenon + 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 Phenomenon under **Application Procedures**. On medium soils with 1.5% organic matter or greater, apply 1.0 pt./A of Phenomenon + 1.3 lbs./A of AAtrex Nine-0*. On fine soils with less than 1.5% organic matter, apply 1.0 pt./A of Phenomenon + 1.3 lbs./A of AAtrex Nine-0; on fine soils with 1.5% organic matter or greater, apply 1.2 - 1.33 pts./A of Phenomenon + 1.6 - 1.8 lbs./A of AAtrex Nine-0.

* When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-0 equals 1.8 pts. of AAtrex 4L.

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

Tank Mixture of Phenomenon or Phenomenon + AAtrex, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where sorghum (seed treated with Concep or Screen) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be tank mixed with Phenomenon or Phenomenon + AAtrex. See Comment No. 7 following Chart 1. The Phenomenon or Phenomenon + 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 - Phenomenon Alone or - Phenomenon Combinations - Phenomenon + AAtrex, respectively. Add Gramoxone Extra, Landmaster BW, or Roundup at the following broadcast rates:

Gramoxone Extra: 1.5 - 2, 2 - 2.5, or 2.5 - 3 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant

at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

Landmaster BW: 27 - 54 oz./A depending on weed species and size. See the Landmaster BW label for weeds controlled, recommended rates for specific weeds, and other information concerning use.

Roundup: See the Roundup or Roundup RT label for weeds controlled, recommended rates, and other use directions.

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

SOYBEANS

PHENOMENON ALONE

Apply Phenomenon, 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 Phenomenon alone under **Application Procedures**.

Preplant Surface-Applied

Fall Application: (Apply after September 30 in MN, ND, SD, WI and north of Route 30 in IA; Apply after October 15 north of Route 91 in NE and south of Route 30 in IA; Apply after October 31 north of Route 136 in IL):

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-tillage or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67 - 2.0 pts./A on medium-textured and 2.0 pts./A on fine-textured soils. Do not apply to frozen ground. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2 - 3 inches. Minimize furrow and ridge formation in the tillage operations. **Note:** If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for soybeans, or illegal residues may result.

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

Preplant Incorporated or Preemergence: On coarse soils, apply 1.0 - 1.33 pts./A of Phenomenon if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On medium soils, apply 1.33 - 1.67 pts./A of Phenomenon. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon if organic matter content is less than 3%, or 1.67 - 2.0 pts./A if organic matter content is 3% or greater.

Note: On soybeans, Phenomenon may be used up to 2.55 pts./A as a preplant surface-applied, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%. The total Phenomenon rate applied to soybeans during any one crop should not exceed 2.55 pts./A.

PHENOMENON COMBINATIONS

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

Note: For all of the following combinations, Phenomenon may be used up to 2.3 pts./A on soils having an organic matter content between 6% and 20%. The total Phenomenon rate applied to soybeans during any one crop year should not exceed 2.55 pts./A.

Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by Phenomenon alone, Phenomenon + 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 Phenomenon and Sencor or Lexone preplant incorporated or preemergence, using the appropriate rates from **Table 9. Preplant Incorporated or Preemergence:** Follow instructions for use of Phenomenon alone under **APPLICATION PROCEDURES.**

Sequential: Apply Phenomenon alone **Preplant Incorporated**, as specified in **Table 9** for this tank mixture. Follow with a preemergence application of Sencor or Lexone during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

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

Table 9: Phenomenon Plus Sencor or Lexone – Soybeans

SOIL TEXTURE**	BROADCAST RATES PER ACRE					
	0.5% to Less Than 3% Organic Matter			3% Organic Matter or Greater		
	Phenomenon		Sencor/ Lexone DF*	Phenomenon		Sencor/ Lexone DF*
Coarse Loamy sand (over 2% organic matter), sandy loam	0.85 - 1.0 pt.	+	0.33 lb.	1.0 pt.	+	0.5 lb.
Medium	1.0 - 1.33 pts.		0.5 lb.	1.33 pts.		0.67 lb.***
Fine	1.33 pts.		0.67 lb.	1.33 - 1.67 pts.		0.67 lb.
Mississippi Delta only Silty clay, clay	1.33 pts.		1.0 lb.	1.33 - 1.67 pts.		1.0 lb.
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE					

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

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

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

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.

Tank Mixture with Lorox

In addition to those weeds controlled by Phenomenon alone, Phenomenon + 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 10**.

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

Table 10: Phenomenon Plus Lorox – Soybeans

SOIL TEXTURE*	BROADCAST RATES PER ACRE					
	0.5% to Less Than 3% Organic Matter			3% Organic Matter or Greater		
	Phenomenon	+	Lorox DF***	Phenomenon	+	Lorox DF***
Coarse	0.85 pt.			1 lb.		1.0 pt.
Medium	1.0 pt.		1 - 1.5 lbs.	1.33 pts.		1.5 - 2 lbs.
Fine	1.33 pts.		2 lbs.	1.33 - 1.67 pts.		2.5 - 3 lbs.
Muck or Peat (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 equals 1 lb. of Lorox DF.

Tank Mixture with Treflan

Phenomenon + Treflan tank mix applied preplant incorporated controls those weeds listed under the **Phenomenon Applied Alone** section and those weeds listed for Treflan Alone on the Treflan label. Phenomenon + Treflan may be applied by ground or by aerial equipment and incorporated up to 14 days before planting. Follow the recommended procedures on the Treflan and Phenomenon labels, using equipment that provides uniform 2-inch incorporation.

Apply Phenomenon + Treflan tank mix, using the appropriate rate from the **Soybeans – Phenomenon Alone** section of this label and the Treflan Alone section of the Treflan label for the specific soil texture/organic matter classification and weed species expected.

To control DNA-resistant goosegrass* and other species on the respective labels where the soil organic matter is 3% or less, apply the rate listed in **Table 11**.

Table 11: Phenomenon Plus Treflan – Organic Matter Content Less Than 3%

SOIL TEXTURE	BROADCAST RATE PER ACRE		
	Phenomenon	Treflan E.C.**	
	Organic Matter		
	Less Than 3%	Less Than 2%	2 - 3 %
Coarse*	0.85 - 1.0 pt.	1 pt.	1.5 pts.
Medium	1.0 pt.	1.5 pts.	1.5 pts.
Fine	1.33 pts.	2 pts.	2 pts.

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

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

Note: Follow all restrictions and precautions on the respective Treflan label and in the **Soybeans – Phenomenon Alone** section of this label.

Tank Mixture with Scepter

This tank mixture controls all weeds controlled by Phenomenon alone and by Scepter alone. Refer to the **Phenomenon Applied Alone** section for weeds controlled by Phenomenon 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 Phenomenon + Scepter preplant incorporated or preemergence, using rates in **Table 12**. 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 12: Phenomenon Plus Scepter – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	Phenomenon	Scepter	Phenomenon	Scepter
Coarse	0.85 pt.	0.67 pt.	1.0 pt.	0.67 pt.
Medium	1.0 pt.	0.67 pt.	1.33 pts.	0.67 pt.
Fine	1.33 pts.	0.67 pt.	1.33 - 1.67* pts.	0.67 pt.
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE			

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

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

Tank Mixture with Lorox Plus

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

Apply Phenomenon + Lorox Plus preemergence after planting, but before soybeans emerge, using rates in **Table 13**.

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

Table 13: Phenomenon Plus Lorox Plus – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	0.5 - 3% Organic Matter	
	Phenomenon	Lorox Plus (60DF)
Coarse	0.85 pt.	12 - 14 oz.
Medium	1.0 pt.	14 - 16 oz.
Fine	1.33 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.

Tank Mixture with Gemini

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

Apply Phenomenon + Gemini preemergence after planting, but before soybeans emerge, using rates in **Table 14**.

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

Table 14: Phenomenon Plus Gemini – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	0.5 - 3% Organic Matter	
	Phenomenon	Gemini (60DF)
Coarse (Sandy loam only)	0.85 pt.	12 - 16 oz.
Medium	1.0 pt.	16 - 20 oz.
Fine	1.33 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.

Tank Mixture with Canopy

This tank mixture controls all weeds controlled by Phenomenon alone and by Canopy alone. Refer to the **Phenomenon Applied Alone** section for weeds controlled by Phenomenon and to the Canopy label for weeds controlled by Canopy. Apply preplant incorporated or preemergence, using the appropriate rates from **Table 15**.

Preplant Incorporated: Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2 inches 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 Phenomenon and Canopy labels.

Table 15: Phenomenon Plus Canopy – Soybeans

SOIL TEXTURE	BROADCAST RATE PER ACRE			
	0.5 to Less Than 3% Organic Matter		3-5% Organic Matter	
	Phenomenon	Canopy	Phenomenon	Canopy
Coarse	0.85 pt.	6.0 - 10 oz.	1.0 pt.	6.0 - 10 oz.
Medium	1.0 pt.	8.0 - 12 oz.	1.33 pts.	8.0 - 12 oz.
Fine	1.33 pts.	10 - 14 oz.	1.33 - 1.67 pts.	10 - 14 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 7.0, except as noted on the Canopy label.

Tank Mixture with Preview

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

Apply preplant incorporated or preemergence, using the appropriate rates from **Table 16**.

Preplant Incorporated: Apply within 2 weeks of planting. Uniformly incorporate into the top 1 - 2 inches 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 Phenomenon and Preview labels.

Table 16: Phenomenon Plus Preview – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	0.5% to Less Than 3% Organic Matter		3 - 5 % Organic Matter	
	Phenomenon	Preview 75DF	Phenomenon	Preview 75DF
Coarse	0.85 pt.	6 oz.	1.0 pt.	7 oz.
Medium	1.0 pt.	7 oz.	1.33 pts.	8 oz.
Fine	1.33 pts.	8 oz.	1.33 - 1.67 pts.	9 - 10 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.

Tank Mixture with Command*

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

Apply Phenomenon + Command preplant incorporated, using rates in **Table 17**. Follow all Command application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.

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

Table 17: Phenomenon Plus Command – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	Phenomenon		Command 4E	
	0.5 - 3% Organic Matter	Greater Than 3% Organic Matter	Northern Area	Southern Area
Coarse	0.85 pt.	1.0 pt.	1.5 - 2 pts.	2 - 2.5 pts.
Medium	1.0 pt.	1.33 pts.	1.5 - 2 pts.	2 - 2.5 pts.
Fine	1.33 pts.	1.33 - 1.67 pts.	1.5 - 2 pts.	2 - 2.5 pts.

Tank Mixture with Sonalan

This tank mixture controls all weeds controlled by Phenomenon alone and by Sonalan alone. Refer to the **Phenomenon Applied Alone** section for weeds controlled by Phenomenon and to the Sonalan label for weeds controlled by Sonalan.

Apply Phenomenon and Sonalan preplant incorporated, using the appropriate rates from **Table 18**.

Preplant Incorporated: Follow recommended soil preparation procedures for Sonalan. Refer to the Sonalan/ Parallel PCS Tank Mixture label for incorporation specifications.

Sequential: Apply Sonalan alone preplant incorporated as specified on the Sonalan label. Follow with a preemergence application of Phenomenon during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

Table 18: Phenomenon Plus Sonalan – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	Phenomenon	Sonalan	Phenomenon	Sonalan
Coarse	1.0 - 1.33 pts.	1.25 - 2 pts.	1.33 pts.	1.25 - 2 pts.
Medium*	1.33 - 1.67 pts.	1.75 - 2.5 pts.	1.33 - 1.67 pts.	1.75 - 2.5 pts.
Fine*	1.33 - 1.67 pts.	2.25 - 3 pts.	1.67 - 2 pts.	2.25 - 3 pts.
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE			

*For eastern black nightshade on these soils, apply Sonalan at 3 pts./A on medium and 3.5 pts./A on fine-textured soils, and follow with 2 incorporation passes.

Note: Follow all use directions, limitations, precautions, and information regarding application to soybeans on the Phenomenon and Sonalan labels.

Tank Mixture with Pursuit

This tank mixture controls all weeds controlled by Phenomenon alone and by Pursuit alone. Refer to the **Phenomenon Applied Alone** section for weeds controlled by Phenomenon and to the Pursuit label for weeds controlled by Pursuit. Refer to the Pursuit label for geographical locations where this tank mixture may be applied.

Apply Phenomenon + Pursuit early preplant, preplant incorporated, or preemergence after planting, using rates in **Table 19**. Application can be made in water or liquid fertilizer. Follow all use directions under Soil Applications on the Pursuit label. For early preplant and preplant incorporated applications, apply within 30 days of planting.

Note: Follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the Phenomenon and Pursuit labels.

Table 19: Phenomenon Plus Pursuit – Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE		
	Less Than 3% Organic Matter	3% or More Organic Matter	
	Phenomenon	Phenomenon	Pursuit
Coarse	0.85 pt.	1.0 pt.	0.25 pt.
Medium	1.0 pt.	1.33 pts.	0.25 pt.
Fine	1.33 pts.	1.33 - 1.67 pts.	0.25 pt.

Sequential: Apply Phenomenon early preplant, preplant incorporated, or preemergence after planting at 0.85 pt./A on coarse soils and 1.0 pt./A on medium- and fine-textured soils. Follow with a sequential postemergence application of Pursuit to control emerged weeds according to the Pursuit label. Phenomenon will improve the consistency and level of control from Pursuit on

most grass species. Refer to the Pursuit postemergence label for a listing of weeds controlled, application rate, and growth stage limitations.

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

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

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

Gramoxone Extra: 1.5 - 2, 2 - 2.5, or 2.5 - 3 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1.0 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

Note: Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Roundup: See the Roundup or Roundup RT label for weeds controlled, recommended rates, and other use directions. Apply in 20 - 60 gals. of water or fluid fertilizer per acre with ground equipment.

Phenomenon plus Lexone / Sencor plus Gramoxone Extra or Roundup

On loamy sand with over 2% organic matter, apply 1.0 pt./A of Phenomenon + 0.33 - 0.5 lb./A of Sencor or Lexone DF. On medium soils, apply 1.33 pts./A of Phenomenon + 0.5 - 0.67 lb./A of Sencor or Lexone DF. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon + 0.67 lb./A of Sencor or Lexone DF.

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

Precautions: To avoid crop injury: (1) Do not use this tank mixture on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and on loamy sand with less than 2% organic matter. (2) If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days or where the seeding slit has not been properly closed.

Phenomenon plus Scepter plus Gramoxone Extra or Roundup

On coarse soils, apply 1.0 pt./A of Phenomenon + 0.67 pt./A of Scepter. On medium soils, apply 1.33 pts./A of Phenomenon + 0.67 pt./A of Scepter. On fine soils, apply 1.67 pts./A of Phenomenon + 0.67 pt./A of Scepter.

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

Phenomenon plus Lorox plus Gramoxone Extra or Roundup

On coarse soils*, apply 1.0 pt./A of Phenomenon + 1 - 1.5 lbs./A of Lorox DF**. On medium soils, apply 1.33 pts./A of Phenomenon + 1 - 2 lbs./A of Lorox DF. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon + 2 - 3 lbs./A of Lorox DF.

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

**When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals 1.0 lb. of Lorox DF.

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

Phenomenon plus Lorox Plus plus Gramoxone Extra or Roundup

Use only where soils have 0.5 - 3% organic matter. On coarse soils, apply 1.0 pt./A of Phenomenon + 12 - 14 oz./A of Lorox Plus 60DF. On medium soils, apply 1.33 pts./A of Phenomenon + 14 - 16 oz./A of Lorox Plus. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon + 16 - 18 oz./A of Lorox Plus.

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

Phenomenon plus Gemini plus Gramoxone Extra or Roundup

Use only where soils have 0.5 - 3% organic matter. On coarse soils (sandy loam only), apply 1.0 pt./A of Phenomenon + 12 - 16 oz./A of Gemini 60DF. On medium soils, apply 1.33 pts./A of Phenomenon + 16 - 20 oz./A of Gemini. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon + 20 - 24 oz./A of Gemini.

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

Phenomenon plus Canopy plus Gramoxone Extra or Roundup

Use only where soils have 0.5 - 5% organic matter. On coarse soils (except sand), apply 1.0 pt./A of Phenomenon, on medium soils, apply 1.33 pts./A of Phenomenon, and on fine soils, apply 1.33 - 1.67 pts./A of Phenomenon. Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

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.

Phenomenon plus Preview plus Gramoxone Extra or Roundup

Use only where soils have 0.5 - 5% organic matter. On coarse soils (except sand), apply 1.0 pt./A of Phenomenon + 6* - 7 oz./A of Preview 75DF. On medium soils, apply 1.33 pts./A of Phenomenon + 7* - 8 oz./A of Preview. On fine soils, apply 1.33 - 1.67 pts./A of Phenomenon + 8* to 9 - 10 oz./A of Preview.

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

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

Phenomenon plus Pursuit plus Gramoxone Extra or Roundup

On coarse soils, apply 1.0 pt./A of Phenomenon + 0.25 pt./A of Pursuit. On medium soils, apply 1.33 pts./A of Phenomenon + 0.25 pt./A of Pursuit. On fine soils, apply 1.67 pts./A of Phenomenon + 0.25 pt./A of Pursuit.

Tank Mixture with Broadstrike plus Parallel PCS

For preplant surface, preplant incorporated, or preemergence application where severe grass populations are expected on *medium- or fine-textured soils* with relatively high organic matter content, Broadstrike + Parallel PCS may be spiked with Phenomenon for optimum performance. Refer to the Broadstrike + Parallel PCS label for its use rate and the amount of metolachlor active ingredient it contains. Phenomenon may be added up to, but not to exceed, the maximum alone Phenomenon label rate for the soil classification. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

APPENDICES

APPENDIX A:

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 or fluid fertilizers, as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1 pt. of fertilizer to each of 2 one-qt. jars with tight lids.
2. To **one** of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Complex or Unite (1/4 tsp. is equivalent to 2 pts./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.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 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 2 jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

APPENDIX B:

Low Carrier Application

For Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator, Hagie, John Deere Hi-Cycle, Melroe Spra-Coupe, Tyler Patriot, or Willmar Air Ride, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in

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

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

APPENDIX C:

Aerial Application

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

Aerial Drift Management:

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

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

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backwards Phenomenon with the airstream and never be pointed downwards more than 45 degrees.

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

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

Aerial Drift Reduction Advisory Management:

Information on Droplet Size

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

Controlling Droplet Size

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

- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

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

Swath Adjustment

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

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided when wind speed is below 2 mph due to variable wind directions and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

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

Temperature Inversions

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

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive area).

APPENDIX D:

Center Pivot Irrigation Application

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

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 or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
9. Meter into irrigation water during entire period of water application.
10. Apply in 1/2 - 1 inch of water. Use the lower water volume (1/2 inch) on coarse-textured soils and the higher volume (1 inch) on fine-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

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

APPENDIX E:

Dry Bulk Granular Fertilizers

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

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

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

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

$$2000 \text{ lbs. of fertilizer per acre} \quad \times \quad \text{pts./A of liquid or flowable product} \quad = \quad \text{pts. of liquid or flowable product per ton of fertilizer}$$

$$2000 \text{ lbs. of fertilizer per acre} \quad \times \quad \text{lbs./A of dry product} \quad = \quad \text{lbs. of dry product per ton of fertilizer}$$

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

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

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

Application

Apply 200-700 lbs. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential 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, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

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

STORAGE AND DISPOSAL

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

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

PESTICIDE DISPOSAL: 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 HANDLING:

Nonrefillable Container (five gallons or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

Refillable Container (greater than 55 gallons): Refillable container. Refill this container with metolachlor only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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

LIMITATION OF WARRANTY AND LIABILITY

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

By using this product, user or buyer accepts the following **Conditions, Disclaimer of Warranties and Limitations of Liability**.

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

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