

DIPHENE 4L

WEEDS CONTROLLED

FOR GRASS AND BROADLEAF WEED CONTROL IN TOMATO, PEPPER, SWEETPOTATO, POTATO, OKRA, STRAWBERRY, BLACKBERRY, RASPBERRY, TOBACCO, SOYBEAN, PEANUT, COTTON, FRUIT TREES, BERMUDAGRASS, DICHONDRA, ICE PLANT, ORNAMENTALS, CONIFERS, EVERGREENS AND HARDWOOD SEEDBEDS.

Active Ingredient:

Diphenamid (N,N-Dimethyl-2,2-diphenylacetamide).....	42.5%
Inert Ingredients.....	57.5%

Total.....	100.0%

Diphene 4L contains 4 lb. Diphenamid per gallon

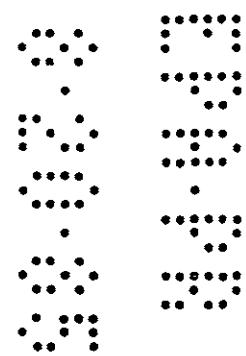
KEEP OUT OF REACH OF CHILDREN
CAUTION
STATEMENT OF PRATICAL TREATMENT

IF SWALLOWED: Induce vomiting and call a physican immediately.
IF ON SKIN: Avoid prolonged or repeated contact with skin. If spilled on handa or other skin areas, wash immediately with soap and water.
IN EYES: Wash with water for fifteen minutes and call a physican.
IF INHALED: Remove victim to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Never give anything by mouth to an unconscious person.

GRIFFIN CORPORATION
VALDOSTA, GA 31601
NET CONTENTS 2-1/2 GALLONS

ACCEPTED
JAN 14 1986
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
or amended, for the pesticide
registered under
EPA Reg. No. 1812-282

EPA Reg. No. 1812-
EPA Est. No. 1812-GA-3



PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Avoid prolonged or repeated skin contact. Do not get in eyes. Avoid breathing dust. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

ENVIRONMENTAL HAZARDS

Keep out of lakes, streams and ponds. Do not contaminate water by cleaning of equipment or disposal of wastes or containers.

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENT

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

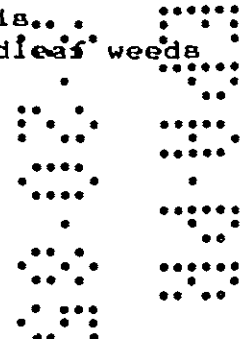
STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

Read all label directions, precautions and conditions of sale before using Diphene 4L. Diphene 4L is a preemergence weed herbicide that is selective in activity. It controls many annual grass and broadleaf weeds as they germinate.



WEEDS CONTROLLED

Grass Weeds:

Annual bluegrass
Annual sedge
Barnyardgrass (Watergrass)
Cheat
Crabgrass
Fall panicum (Panic grass)
Foxtail

Goosegrass (Crowfoot grass)
Johnsongrass (from seed)
Ryegrass
Sandbur (Sandspur)
Stinkgrass
Wild Oat
Witchgrass (Ticklegrass)

Broadleaf Weeds:

Carpetweed
Common chickweed
Corn spurry
Eveningprimrose
Field pepperweed
Florida pusley
Groundsel
Knotgrass (German moss)
Knotweed
Lambaquarters

Mouseear chickweed
Pigweed (Careless weed)
Puralane
Red sorrel
Shepherdspurse
Smartweed
Spiny amaranth (Stickerweed)
Thymeleaf sandwort
White Clover
(in tobacco seedbeds)

(R)

COMPATIBILITY: Diphene 4L is compatible with metalaxyl (Ridomil Trademark of Ciba-Geigy).

TANK MIXES

Diphene 4L can be tank mixed for the following uses:

TOBACCO: Isopropalin (Parlan(R) 6E, Trademark of Eli Lilly & Co.),
Pebulate (Tillam(R) 6E, Trademark of Stauffer Chemical Co.),
Pendamethalin, 4 lbs/gallon (Prowl(R), Trademark of American Cyanamid.
TOMATO: Napropamide (Devrinol(R) 50 WP, Trademark of Stauffer
Chemical Co.), Pebulate (Tillam(R) 6E, Trademark of Stauffer Chemical
Co.), Trifluralin (Treflan(R) E.C., Trademark of Eli Lilly & Co.).
SWEETPOTATO: Chloramben, 2 lbs/gallon (Amiben(R), Trademark of Union
Carbide Agricultural Co.) and Oryzalin (Surflan(R) 75W or 4AS, Trademark
of Eli Lilly & Co.)

SOIL PREPARATION

Prepare the soil for seeding, planting or transplanting in accordance with with good agricultural practices.

All weed growth and crop debris should be worked into the soil before treatment. The soil should be moist and loose with all clods broken down.

INCORPORATION AND IRRIGATION

To be effective, Diphene 4L must be moved into the top few inches of soil and contact germinating weed seeds or very young seedlings before they emerge. This may be accomplished by rainfall, overhead irrigation, or mechanical incorporation. If rainfall is not expected shortly after

application, apply 1 to 2 inches of water by overhead irrigation, or mechanically incorporate to a depth of 1/2 to 2 inches. Deeper incorporation will dilute the Diphene 4L in the soil and may result in poor weed control. Equipment used for incorporation must mix the Diphene 4L thoroughly and evenly with the soil.

CULTIVATION

Weeds which emerge after treatment should be destroyed by shallow cultivation (1/2 to 2 inches). Deeper cultivation that brings untreated soil to the surface may result in poor weed control.

SPRAY EQUIPMENT

Before use, calibrate a sprayer to deliver proper spray gallonage and uniform spray pattern; check frequently during application. Use standard low pressure (25 to 50 psi) boom sprayer with fan-type nozzles for broadcast application or fan-type even-spray nozzles for band application. Use 50 mesh or coarser screens in strainers, nozzles, and suction units. Clean nozzles and screens frequently; replace worn nozzles to insure uniform application. Maintain continuous agitation of spray mixture. Wind can cause loss of spray or uneven coverage. Do not apply in strong wind.

BROADCAST (OVERALL) APPLICATION

See recommendations for specific crop. Evenly apply the recommended rate of Diphene 4L in at least 30 gallons of water per acre. Avoid spray overlap that will increase the applied amount of Diphene 4L above the recommended rates.

BAND (ROW) APPLICATION: The amount of Diphene 4L required per crop acre is reduced with band application. Use this formula:

Band width (inches)		Broadcast rate in quarts per acre	=	Quarts Diphene 4L per acres for treatment
-----	X			
Row spacing (inches)				

GENERAL USE PRECAUTIONS

Apply this product only as specified on this label. Do not use Diphene 4L in direct combination with fertilizers, insecticides or fungicides, or with other herbicides except as specifically recommended. Observe all cautions and limitations on labeling of all products used in mixtures. Edible crops other than those registered for Diphene 4L use should not be planted in Diphene 4L treated soil for 6 months after date of last application.

Small grain cover crops sown within 6 months after date of Diphene 4L treatment may be injured. Use band treatments of Diphene 4L to reduce the possibility of injury to cover crops or use tolerant cover crops such as vetch, birdsfoot trefoil, Korean lespedeza, alfalfa, or rye.

Do not use cover crops for food or feed within 6 months after application.

As with all herbicides, effectiveness of Diphene 4L may be reduced by mistakes in application, fertilization, cultivation and other crop management practices. Results may be affected by extremes in soil and weather conditions. The grower should watch to note that the treatment is working. In case of poor control, weeds should be removed by mechanical or other chemical methods.

IMPORTANT-READ BEFORE USE

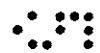
By using this product user accepts the following conditions, warranty, disclaimer of warranties and limitations of liability:

CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. However, because of extreme weather and soil conditions, manner of use and other factors beyond Griffin Ag Products' control, it is impossible for Griffin Ag Products' to eliminate all risks associated with use of this product. As a result, crop injury or ineffectiveness is always possible.

RECOMMENDATIONS

For control of listed annual grass and broadleaf weeds in the crops below:

Crop	When to Apply	xx 4L (Quarts/Acre)		Remarks
		(See Application Instructions)		
		Coarse Soil	Medium/Fine Soil	
TOMATO	From 1 wk before to 1 month after direct seeding or transplanting as a broad-	4 qt	6 qt	Incorporate Diphene 4L into soil when applied before seeding or transplanting. May be applied over top of plants. ***See Irrigation The following tank mix combinations may be applied at the rate(s) specified. Diphene 4L, 4 qts. and Treflan E.C., 8 fl oz/acre. Diphene 4L, 2 to 4 qts./acre and Tillam, 1-1/2 to 2-1/2 qts/acre. Diphene 4L, 2 to 4 qts./acre and Devrinol 50WP, 1 to 2 lb/acre. Immediately after application, thoroughly incorporate the material to a depth of 2 to 3 inches. Set disc to cut from 4 to 6 inches.
	At planting or immediately after without incorporation.			This method of application is recommended for use in California if sprinkler irrigation is available. Diphene 4L should be uniformly applied at the recom-



the first to uniformly incorporate Diphene 4L to a depth of 3 to 4 inches. The depth at which the disk is incorporating should be checked carefully before the whole field is worked. The disking should thoroughly mix Diphene 4L in the soil and not just turn the soil over. In shaping the bed it is important not to use bed shapers which bring up soil from below the treated soil depth. Immediately following bedding and seeding, the beds should be thoroughly wet using furrow irrigation. The top of the bed should be wet.
 ***See Irrigation

For the control of winter weeds (most grasses and many broadleaf weeds) where fields are prepared in the fall for early spring planting of direct-seeded tomatoes

After soil preparation and prior to start of the winter rainy season in CA (Oct or Nov) apply Diphene 4L. Do not mechanically incorporate. Allow winter rains to incorporate Diphene 4L. Tomatoes may be planted March 1 in fields treated. Do not use a fall application on fields scheduled to be planted after March 1. Do not cultivate bed tops prior to or just after planting. Weeds that emerge on bed tops prior to tomato germination should be treated with an approved contact herbicide. To insure late season weed control, treat at lay-by with a herbicide recommended for application at this time. Do not use a second application of Diphene 4L. ***See Irrigation

Diphene 4L may be tank mixed with trifluralin for preemergence control of crabgrass, barnyard grass (watergrass) and pigweed in direct-seeded tomatoes grown for processing in CA

4 qt

For broadcast application, mix and apply preplant at the rate of 4 qts. Diphene 4L and 0.25 lb trifluralin per acre in 30 to 50 gallons of water. Immediately after application, thoroughly incorporate the material to a depth of 2-3 inches. This may be accomplished with PFO-driven rotary equipment or by double-disking. Rototiller-type equipment should be set to cut 2-3 inches deep. Disks should be

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set to cut 4-6 inches deep and the field cross-disked, operating at 4-6 mph.

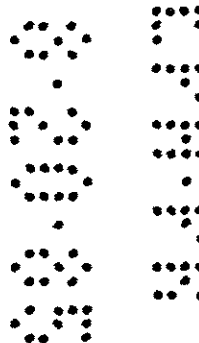
CAUTION: Do not use this combination on coarse soils, soils containing more than 5% organic matter, or soils with a salt problem.

Use of this combination may result in injury to the tomato seedlings. The possibility of damage is increased by seedling disease, cold temperature, excessive moisture, drought, and other adverse conditions. If a follow-up treatment with trifluralin is desired, do not use more than 0.5 lb/acre of trifluralin applied after thinning and blocking. Read the complete label on each product before using this tank mixture. ***See Irrigation

Diphene 4L may
mixed with pebulate
for use in direct-
seeded tomatoes
grown for pro-
cessing in CA.

6 qt

For broadcast application, mix and apply preplant at the rate of 6 qts. Diphene 4L and 4 lb pebulate per acre in 30 to 50 gallons of water. Immediately after application thoroughly incorporate the material to a depth of 2-3 inches. This may be accomplished with PTO-driven rotary equipment or double disking. Rototiller-type equipment should be set to cut 2-3 inches deep. Disks should be set to cut 4-6 inches deep and the field cross-disked, operating at 4-6 mph. CAUTION: Do not use this combination on coarse soils, or on soil containing more than 20% organic matter.

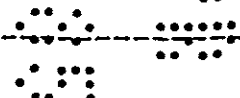


Use of this combination may result in injury to tomato seedlings. The possibility of damage is increased by seedling disease, cold temperature, excessive moisture, drought and other adverse conditions. Read the complete label on each product before using this tank mixture.
 ***See Irrigation.

***IRRIGATION FOLLOWING PLANTING: Following initial watering, the beds should be kept at the optimum moisture level for seed germination and emergence. Allowing the seedbed to dry out reduces the level of herbicide effectiveness as well as the stand and vigor of tomato plants.

Diphene 4L (Quarts/Acre)
 (See Application Instructions)
 Coarse Medium/Fine

Crop	When to Apply	Soil	Soil	Remarks
PEPPER	At direct seeding, transplanting or within 1 month after transplanting	3 qt	5 qt	May be applied over top of transplants.
SWEET-POTATO	At transplanting	4 qt	6 qt	Diphene 4L may be applied over top of transplant. Diphene 4L at 2 to 4 qts./acre may be tank mixed with: Amiben (1 to 2 gal/acre), Surflan 75W (0.67 to 1.33 lbs/acre) or Surflan 4AS (1 to 2 pts/acre). These tank mixtures should be applied prior to weed emergence.
	At bedding	4 qt	6 qt	Apply to soil after covering sweet potatoes.
POTATOES	Between planting and emergence, or at lay-by	4 qt	6 qt	Shallow cultivation (1/2 to 2 inches) after application will not destroy effectiveness of Diphene 4L. However, any tillage operation such as dragging-off, hilling, etc. that brings untreated soil to the surface will result in poor weed control. At lay-by, apply as a directed spray to base of plants. Do not apply within 50 days before harvest.



OKRA At planting 3 qt 5 qt

TOBACCO At seeding 3 fl oz ** 4.5 fl oz **

**Use Diphene 4L on coarse soil at 3 fl oz. and on medium/fine soils at 4.5 fl oz per 1000 sq ft. Applied at seeding, Diphene 4L controls white clover. Do not mix Diphene 4L with other chemicals except as specifically recommended on this label or supplemental labeling.

Field Before Transplanting From 0 to 7 days before transplanting 4 qt 6 qt

Apply Diphene 4L evenly to the soil surface and thoroughly incorporate into the top 2 inches of soil. Plant crop in usual manner. Diphene 4L may also be applied preemergence in the following combinations. Diphene 4L at 2 to 4 qts/acre and Prowl at 1 to 2 pt/acre. Diphene 4L at 2 to 4 qts/acre and Paarlán 6E at 1 to 2 pts/acre. Diphene 4L at 2 to 4 qts/acre and Tillam at 1-1/2 to 2-2/3 qt/acre.

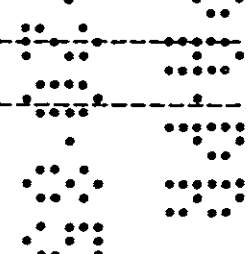
After Transplanting From transplanting to 7 days after transplanting, OR 4 qt 6 qt

May be applied over top of transplants. When Diphene 4L is applied more than 2 days after transplanting, tillage is required immediately before or at time of application to destroy germinating weed seeds.

Lay-by Following last cultivation usually 4 to 6 weeks after transplanting 4 qt 6 qt

If Diphene 4L was used before or after transplanting (see above), apply 2 to 4 qts. of Diphene 4L per acre after the last cultivation. Do not use more than a total of 8 pounds of Diphene 4L per acre in both applications. Diphene 4L also may be applied in combination with Tillam at lay-by. Use a band treatment of Diphene 4L alone or in combination.

COTTON At planting 3 qt 4 qt



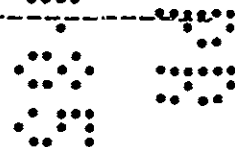
PEANUT	At planting, OR	4 qt	6 qt	
	At cracking or within 7 days after cracking, OR	2 qt	3 qt	Combine Diphene 4L with 1-1/2 pounds of DNBP amine per acre.
	At lay-by following last cultivation	2 qt	2 qt	Will not control established weeds. Do not use if more than 2 qts. per acre of Diphene 4L where applied at planting or cracking.

SOYBEAN	At planting	2 qt	5 qt	
	At planting	3 qt	3 qt	Combine Diphene 4L with 1/2 pound of linuron or 3 pounds of CIPC per acre. CAUTION: Do not graze treated areas or feed forage from treated areas to livestock. Do not plant food crops other than soybean within 6 months after treatment.

STRAW- BERRY Newly planted	2-6 weeks after plant- ing but not before new foliage has appeared	4 qt	6 qt	A temporary delay in the rooting of daughter plants may occur but will not affect yield. Do not use on the herbicide sensitive variety Shaata. Do not apply within 60 days before harvest.
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Estab- lished	While straw- berries are dormant or semi-dormant or after renovation. Additional appli- cations may be made at intervals of 6 months or more	4 qt	6 qt	
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BLACKBERRY: Erect and Trailing (Non- Bear- ing)	After plant- ing and before weed seeds germinate	4 qt	6 qt	Work all weed growth into soil before application. Apply as a directed spray to the soil. USE ONLY IN SEASON OF PLANTING. Do not apply within 12 months of harvest.
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RASP- BERRY (Red & Black)	After plant- ing and before weed seeds germinate	4 qt	6 qt	New Plantings: Apply after planting before weed seeds germinate. Es- tablished: Apply prior to weed emergence; or apply immediately following a cultivation after all weed growth has been worked into the soil. Apply as a directed spray to the soil. DO NOT APPLY WITHIN 60 DAYS OF HARVEST. DO NOT USE more than 6 qts. of Diphene 4L during the growing season.
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FRUIT TREES (Apple, Peach)	Any time of the year except when fruit is on tree or within 90 days before harvest	4 qt	6 qt	Following clean cultivation, apply to soil around established trees. CAUTION: On peaches do not use on coarse soil. Do not allow livestock to graze in treated orchards.
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NON- BEAR- ING (Cher- ry, Lime, Orange)	Do not apply within 12 months before harvest	4 qt	6 qt	
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EVER- GREENS SHRUBS AND TREES	In fall or spring before weeds emerge	6 qt	8 qt	Diphene 4L may be used on new plantings and container stock after plants are established. Deciduous and evergreen trees and shrubs tolerant to Diphene 4L include: almond, apple+, arborvitae, ash, azalea, bald cypress, barberry, beautybush, beech, birch, blackberry, black walnut+, black locust, blueberry+, camellia, ceanothus, cherry laurel, cherry+, chestnut, cotton-easter, cottonwood, crab apple, cream carpet, currant+, dogwood, elseagnus, eucalyptus, euonymus, firethorn, forsythia, heath, heather, heliotrope, hemlock holly, honeysuckle, hydrangea, juniper, laurel, lilac, lime, mahonia, maple, mock orange, oak, oleander, (max- ginal leaf chlorosis may develop)... orange+, peach, pear+, pecan+, pittosporum, plum+, privet+, rasp- berry (red), redbud, red cedar,.... rhododendron, rose, rose-of- sharon, spiraea, St. Johnswort,.... star of confederate jasmine, sugar maple, sweet gum.
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In fall or
spring before
weeds emerge

Sycamore, taxus (yew), tulip tree,
viburnum, weigela, white ash, white
cedar and willow.
+NON-BEARING ONLY

ANNUAL
AND
PERE-
NNIAL
FLOWERS

At transplant-
ing fall or
spring before
weeds emerge

6 qt 8 qt

Do not apply Diphene 4L until
plants are well established.
Ornamental plants tolerant to Dip-
henamid 4L include: alyssum,
aster, baby's breath, begonia,
chrysanthemum, dahlia, delphinium,
feverfew, foxglove (yellow),
geranium, lobelia, loosestrife,
marigold, peony, philodendron,
phlox, salvia, shasta daisy,
snapdragon, stock, sweet william,
verbena and zinnia.

DICHONDRA

New
seed-
ing

At seeding

10 qt

Apply Diphene 4L to the
prepared seedbed and rake in
1/2 inch deep before seeding.

Est-
ablished

Before weeds emerge

Repeat application in 6 months.
Existing bermudagrass will be
greatly weakened.

GROUND COVER

New
plant-
ings

After cuttings
have rooted
(usually 1 month
after planting)

8 qt

Ground cover plants tolerant to
Diphene 4L include: ice plant,
English ivy, ornamental straw-
berry, periwinkle and myrtle.
Avoid overwatering. Repeat treatment
in 6 months.

Est-
estab-
lished
plantings

Before weeds emerge

BERMUDA-
GRASS
LAWNS

In fall or
spring, or both
fall and early
spring, to mature
established Bermuda
turf.

4 qt

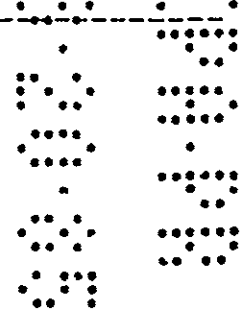
Fall applications control annual
bluegrass while spring applications
are required for good control of
crabgrass. Make early spring appli-
cations while bermudagrass is still
dormant.
CAUTION: Do not graze treated areas
or feed forage from treated areas
to livestock.

SEEDBEDS
CONIFERS

(Fir, Hemlock, and Pine) One day prior to seeding to within one month after seeding and mulching, if mulching is used 4 qt 4 qt Diphene 4L may flocculate on contact with petroleum solvents such as mineral spirits. If sprayer has been used for mineral spirits, wash it thoroughly with detergent and water before applying Diphene 4L. Work all weed growth into soil before application. After broadcast application of Diphene 4L to moist seedbeds, apply 1/2 to 3/4 inch of water by overhead sprinkler irrigation. If Diphene 4L is used one day before or within two days after seeding, a second 4 qts. of Diphene 4L may be applied 6 weeks after seeding. Use only postplanting applications on Austrian pine. Conifers tolerant to Diphene 4L include: bald cypress, douglasfir, Fraser fir, grand fir, noble fir, red fir, rocky mountain douglasfir, white fir, eastern hemlock, western hemlock, western larch, austrian pine, loblolly pine, lodgepole pine, longleaf pine, monterey pine, ponderosa pine, scotch pine, shortleaf pine, slash pine, sugar pine, white pine, englemann spruce, norway spruce and white spruce.

CYPRESS AND SPRUCE Apply after seedlings are 1 month old.

EVERGREENS AND HARDWOOD Apply within two days after seeding and mulching, if mulching is used 4 qt 4 qt Destroy all weed growth before treatment. After broadcast applications of Diphene 4L to moist seedbeds, apply 1/2 to 3/4 inch of water by overhead sprinkler irrigation. Evergreens and hardwoods tolerant to Diphene 4L include: arborvitae, euonymus, multiflora rose, and black walnut.



NOTICE OF WARRANTY

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATE ABOVE.

