

P1125

241-243

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**PROWL<sup>®</sup> herbicide**

EPA Reg. No. 241-243-ZA

PROWL SHOULD BE USED IN ACCORDANCE WITH THE DIRECTIONS IN THIS LEAFLET, OR IN SUPPLEMENTAL LABELS FOR REGISTERED USES NOT INCLUDED IN THIS LEAFLET AVAILABLE THROUGH LOCAL DEALERS. READ ALL DIRECTIONS CAREFULLY BEFORE USING.

**ACCEPTED**  
OCT 15 1984  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 241-243

In case of an emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.



**American Cyanamid Company**  
Agricultural Division  
Wayne, N.J. 07470

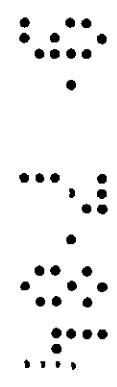


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<sup>1</sup>Aatrex is a leading brand of atrazine. Aatrex & Aatrex Nine-O are trademarks of Ciba-Geigy Corporation.

<sup>2</sup>Bladex is a trademark of Shell Chemical Company.

<sup>3</sup>Banvel is a trademark of Velsicol Chemical Corporation.

<sup>4</sup>Cotoran is a trademark of Ciba-Geigy Corporation.

<sup>5</sup>Karmex is a trademark of E.I. duPont de Nemours and Company

<sup>6</sup>Caparol is a trademark of Ciba-Geigy Corporation.

<sup>7</sup>Zorial is a trademark of Zoecon Corporation.

<sup>8</sup>Sencor is a trademark of Farbenfabriken Bayer GmbH, Leverkusen, West Germany.

<sup>9</sup>Lexone is a trademark of E.I. duPont de Nemours and Company.

<sup>10</sup>Amiben is a trademark of Union Carbide Agricultural Products Company, Inc.

<sup>11</sup>Lorox is a trademark of E.I. duPont de Nemours Company.

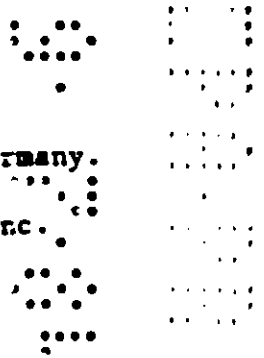
<sup>12</sup>Lasso is a trademark of Monsanto Agricultural Products Company.

<sup>13</sup>Dual is a trademark of Ciba-Geigy Corporation.

<sup>14</sup>Stam is a trademark of Kohn and Haas Company

<sup>15</sup>Eptam is a trademark of Stauffer Chemical Company

<sup>16</sup>Vernam is a trademark of Stauffer Chemical Company



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Read all information on pages 1-16 before referring to specific crop use

**PROWL® herbicide**

**Active Ingredient:**

pendimethalin (N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine) . . . . .	42.3%
Inert Ingredients . . . . .	57.7%

(1 gal. contains 4 lbs. of pendimethalin)

**FOR CONTROL OF MOST ANNUAL GRASSES  
AND CERTAIN BROADLEAF WEEDS**

EPA Reg. No. 241-243-ZA

**AVISO!**

**PRECAUCION AL USARIO:** Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(12 pt. type) **KEEP OUT OF REACH OF CHILDREN**

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS**

(18 pt. type) **WARNING!**

**CAUSES EYE IRRITATION**

**HARMFUL IF SWALLOWED, ABSORBED THROUGH THE SKIN, OR INHALED.**

Avoid contact with eyes, skin, and clothing. Wear goggles or face shield. Avoid breathing spray mist. Wash skin thoroughly with soap and water after handling. Use with adequate ventilation. Keep container closed. Remove contaminated clothing and wash before reuse.

**FIRST AID:** If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Center immediately. In case of eye contact, immediately flush eyes with plenty of water. For skin contact, wash thoroughly with soap and water. Call a physician if eye or skin irritation persists.

This product contains monochlorobenzene.

**NOTE TO PHYSICIAN:** Because of increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent (monochlorobenzene), vomiting should be induced only under professional supervision.

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**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Keep out of lakes, streams, and ponds. DO NOT apply when weather conditions favor drift from target area. DO NOT contaminate water by cleaning of equipment or disposal of wastes.

**PHYSICAL HAZARDS**

**FLAMMABLE LIQUID AND VAPOR**

DO NOT use, pour, spill, or store near heat or open flame. DO NOT use in the vicinity of pilot lights.

**DISCLAIMER**

The label instructions for the use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages, and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including any other express or implied warranty of FITNESS or MERCHANTABILITY.



(12 pt. type)

**STORAGE AND DISPOSAL**

**STORAGE:** DO NOT STORE BELOW 40°F. Extended storage at temperatures below 40°F can result in the formation of crystals on the bottom of the container. If crystallization does occur, store the container on its side at room temperature (70°F) and rock occasionally until crystals redissolve.

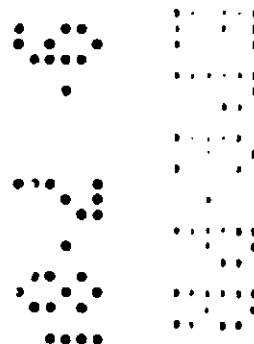
DO NOT contaminate water, food, or feed by storage or disposal.

**DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER**

**DISPOSAL:** Metal Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Containers: 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.



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### DIRECTIONS FOR USE

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

This labeling must be in the possession of the user at the time of pesticide application.

Observe all cautions and limitations in this leaflet and the labels of products used in combination with PROWL. The use of PROWL not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

#### General Worker Protection Statements

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.

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: **WARNING.** Area treated with PROWL on (date of application). Do not enter without appropriate protective clothing.

**GENERAL INFORMATION**

**Special Precautions**

PROWL herbicide controls most annual grasses and certain broadleaf weeds as they germinate, but it will not control established weeds. Destroy existing weeds before applying PROWL (except as recommended in specific postemergence combination treatments). Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

Applied according to label directions and under normal growing conditions, PROWL or PROWL tank-mix combinations will not cause crop injury. Over-application can result in crop stand loss, crop injury, or soil residues. Uneven application or improper soil incorporation can decrease weed control or cause crop injury. Soil incorporation deeper than recommended can reduce weed control.

Seedling diseases, cold weather, excessive moisture, deep planting, low or high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of crop damage from PROWL. Under these conditions, crop yields can be reduced.

**MIXING INSTRUCTIONS**

1. Fill tank one-half to three-quarters full with clean water or liquid fertilizer and agitate. Prior to mixing PROWL or PROWL tank mixtures in liquid fertilizer, refer to page 12 for recommended uses in liquid fertilizer, application instructions, and compatibility determinations.
2. PROWL Alone  
When using PROWL alone, add PROWL to the partially-filled tank while agitating and then fill the remainder of the tank with water or liquid fertilizer.



3. PROWL Tank Mixtures

Add the tank mixture ingredients in the order listed below prior to adding PROWL. (For tank mixtures with paraquat or Roundup see mixing instructions on page 46.):

- (a) **Wettable powder formulations**  
Make a slurry of the wettable powder in water (1 part WP + 2 parts water). Add the slurry slowly into the partially-filled tank while agitating.
- (b) **Flowable formulations**  
Premix one part of the flowable and one part water and add this diluted mixture into the partially-filled tank while agitating.
- (c) **Water soluble concentrate formulations**  
Add the water soluble concentrate to the partially-filled tank while agitating.
- (d) **Dry flowable/water dispersible granule formulations**  
Add the granules to the partially-filled tank while agitating.
- (e) **Emulsifiable concentrate formulations**  
Add the emulsifiable concentrate to the partially-filled tank while agitating.

After complete mixing, add PROWL to the tank.

Fill the remainder of the tank with water or liquid fertilizer while agitating.

4. MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES AND UNTIL SPRAYING IS COMPLETED. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

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**FORMULATION CONVERSION TABLES**

The rate tables in this label for PROWL tank mixtures with atrazine, Bladex, Sencor/Lexone and Lorox list rates for one formulation of the respective herbicides. Use the following conversion tables to determine rates when using other formulations.

**Atrazine Conversion Table**

Rate of atrazine 80W	Rate of atrazine 4L	Rate of AAtrex Nine-O
1.25 lbs.	2.0 pts.	1.1 lbs.
1.50 lbs.	2.4 pts.	1.3 lbs.
2.00 lbs.	3.2 pts.	1.8 lbs.

**Bladex Conversion Table**

Rate of Bladex 80W	Rate of Bladex 4L
1.25 lbs.	2.0 pts.
1.50 lbs.	2.4 pts.
2.00 lbs.	3.2 pts.
2.50 lbs.	4.0 pts.
3.00 lbs.	4.8 pts.

**Sencor/Lexone Conversion Table**

Rate of Sencor/Lexone DF	Rate of Sencor/Lexone 50WP	Rate of Sencor 4F/Lexone 4L
0.33 lb.	0.50 lb.	0.50 pt.
0.50 lb.	0.75 lb.	0.75 pt.
0.67 lb.	1.00 lb.	1.00 pt.

**Lorox Conversion Table**

Rate of Lorox L	Rate of Lorox 50W
1.0 pt.	1.0 lb.
1.5 pts.	1.5 lbs.
2.0 pts.	2.0 lbs.
2.5 pts.	2.5 lbs.

**GENERAL APPLICATION INSTRUCTIONS**

Uniformly apply recommended PROWL or PROWL tank mixture treatments in 10 or more gallons of water or 20 or more gallons of liquid fertilizer per acre with ground equipment. Refer to page 12 for liquid fertilizer recommended uses, application instructions and compatibility determinations. Apply in 5 or more gallons of water per acre with aircraft. Refer to page 10 for spraying instructions. Refer to page 14 for PROWL/dry bulk fertilizer applications.

**CULTURAL PRACTICES FOLLOWING APPLICATION**

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. A PROWL treatment may be followed by any registered herbicide to control weeds not listed on the PROWL label.

**RATES**

Follow all recommendations in specific crop sections of this label regarding rates per acre of PROWL and herbicides used in combination with PROWL. When a rate range is recommended, unless other directions are given in a crop section, the high rate of the range should be used if heavy weed populations are anticipated or if extensive crop residues were present prior to seedbed preparation.

**SOIL TEXTURES**

The rate tables for recommended PROWL treatments for each crop refer to coarse, medium, and fine soils. Soil type should be determined since rates for PROWL treatments will change with soil texture. The following table lists soil types for coarse, medium and fine soils:

<u>COARSE</u>	<u>MEDIUM</u>	<u>FINE</u>
sands	sandy clay loams*	silty clay loams*
loamy sands	sandy clays	silty clays
sandy loams	loams	clay loams
	silt loams	clays
	silts	

\*Sometimes considered transitional soils and may be classified as either medium or fine textured soils.

DO NOT use PROWL on peat or muck soils.

### WEED SPECIES CONTROLLED

The following grass and broadleaf weeds are controlled by treatments of PROWL at the rates recommended for soil texture in the respective crop section:

#### GRASSES CONTROLLED

Barnyardgrass (Echinochloa crus-galli)  
Crabgrass (Digitaria spp.)  
Crowfootgrass (Dactyloctenium aegyptium)  
Fall panicum (Panicum dichotomiflorum)  
Field sandbur (Cenchrus incertus)  
Foxtail (giant) (Setaria fabaei)  
Foxtail (green) (Setaria viridis)  
Foxtail (yellow) (Setaria glauca)  
Goosegrass (Eleusine indica)  
Johnsongrass (from seed) (Sorghum halepense)  
Signalgrass (Brachiaria platyphylla)  
Texas panicum (Panicum texanum)  
Witchgrass (Panicum capillare)

#### BROADLEAF WEEDS CONTROLLED

Carpetweed (Mollugo verticillata)  
Florida pusley (Richardia scabra)  
Kochia (Kochia scoparia)  
Lambsquarters (Chenopodium album)  
Pigweed (Amaranthus spp.)  
Purslane (Portulaca oleracea)  
Spurge, annual (Euphorbia spp.)

PROWL will aid in the control of and reduce competition from:

Pennsylvania smartweed (Polygonum pennsylvanicum)  
Velvetleaf (Buttonweed) (Abutilon theophrasti)

PROWL will provide control or aid in the control of and reduce competition from the following hard-to-control weeds (refer to listed page for use instructions):

Itchgrass (Rottboellia exaltata), p. 44 (soybeans)  
Red rice (Oryza sativa), p. 44 (soybeans)  
Rhizome johnsongrass (Sorghum halepense), p. 29 (cotton), p.44 (soybeans)  
Shattercane (Sorghum bicolor), p. 42 (soybeans), p. 51 (field corn, grain sorghum)  
Wild proso millet (Panicum miliaceum), p.19 (field and sweet corn), p. 51 (field corn, grain sorghum)

When applied preemergence in corn, PROWL will control the following weeds in addition to those listed above:

Pennsylvania smartweed (Polygonum pennsylvanicum)  
Velvetleaf (Buttonweed) (Abutilon theophrasti)  
Woolly cupgrass (Eriochloa villosa)

### SPRAYING INSTRUCTIONS

#### GROUND APPLICATIONS

Use a properly calibrated low-pressure (20 to 40 psi) sprayer equipped with 8002 or larger size Tee-Jet or comparable flat fan nozzles to achieve uniform spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle screens must be no finer than 50 mesh. DO NOT apply PROWL during periods of gusty winds or when wind velocity is greater than 10 mph.

**BROADCAST TREATMENT** - Uniformly apply in 10 or more gallons of water or 20 or more gallons of liquid fertilizer as specified in the appropriate sections of this leaflet.

**BAND TREATMENT** - Uniformly apply the broadcast equivalent rate and volume per acre. To determine these:

<u>Band width in inches</u>	X	Broadcast RATE per acre	=	Band RATE per acre
Row width in inches				
<u>Band width in inches</u>	X	Broadcast VOLUME per acre	=	Band VOLUME per acre
Row width in inches				

#### AERIAL APPLICATIONS

Uniformly apply in 5 or more gallons of water per acre. To minimize drift, DO NOT apply during periods of gusty winds or winds in excess of 5 mph. It is recommended that a flagman or an automatic mechanical flagging unit on the aircraft be used to avoid overlapping and possible crop injury.

### INCORPORATION INSTRUCTIONS

Break up clods before a preplant incorporated application.

#### 1. Flat-planted crop

PROWL is to be incorporated prior to planting and within 7 days of application. When PROWL is applied to flat land that will not be bedded, mechanical incorporation should be into the top 1 or 2 inches of soil. Mechanical incorporation of PROWL into the top 1 or 2 inches of soil can be achieved by the following:

- (a) Disk harrow set to cut 3 to 4 inches deep and operated in two different directions at 4 to 6 mph.
- (b) PTO-driven equipment (tillers, cultivators, hoes) set to cut 2 inches deep and operated one time at 4 mph or less.

- (c) Rolling cultivator set to cut 2 to 3 inches deep and operated two times at 6 to 8 mph. Use only on coarse and medium textured soils.
- (d) Field cultivator must have 3 or 4 rows of sweeps, spaced at intervals of 7 inches or less and staggered so that no soil is left unturned. Do not use chisel points. Set implement to cut 3 inches deep and make two passes at more than 5 mph. The second pass should be made at an angle to the first.
- (e) LELY-ROTERRA<sup>1</sup> set and operated according to the manufacturer's directions to thoroughly incorporate PROWL to a depth of 1 to 2 inches.
- (f) Do-All set and operated according to the manufacturer's directions to thoroughly incorporate PROWL to a depth of 1 to 2 inches.

NOTE: PROWL can be incorporated in a single pass when the soil is of good tilth with moderate moisture and relatively free of clods and trash. Implements must be properly set up to thoroughly incorporate PROWL into the top 1 or 2 inches of soil. Recommended implements include: (1) C-shank or S-shank field cultivators equipped with flexline drag or rolling basket attachment and (2) the combination disk/field cultivator implement equipped with flexline drag or rolling basket attachment. Field cultivators must have 3 or 4 rows of sweeps, spaced at intervals of 7 inches or less and staggered so that no soil is left unturned. Implements must be operated at 6 to 8 miles per hour and set to cut 3 to 4 inches deep.

## 2. Bedded crop - Application Over Beds

PROWL is to be incorporated prior to planting and within 7 days of application. When PROWL is applied over beds, mechanical incorporation should be into the top 1 or 2 inches of soil. Mechanical incorporation of PROWL into the top 1 or 2 inches of soil can be achieved by the following:

- (a) Rolling cultivator set to cut 2 to 3 inches deep and operated two times at 6 to 8 mph. Use only on coarse and medium textured soils.
- (b) PTO-driven equipment (tillers, cultivators, hoes) set to cut 2 inches deep and operated one time at 4 mph or less.
- (c) Bed conditioner set to cut 2 to 3 inches deep and operated one time at 4 to 6 mph.

During planting, or if beds must be reshaped prior to planting, avoid tillage that will bring untreated soil to the surface or expose untreated soil in the seedbed or in the furrow.

<sup>1</sup>LELY-ROTERRA is a trademark of Lely.

### 3. Bedded Crop - Application Prior to Bedding

PROWL is to be incorporated prior to planting and within 7 days of application. When PROWL is applied to flat land prior to bedding, mechanical incorporation should be of sufficient depth so that bedding does not bring up untreated soil. Mechanical incorporation of PROWL can be achieved by the following:

- (a) Disk harrow set to cut 4 to 6 inches deep and operated in two different directions at 4 to 6 mph.
- (b) PTO-driven equipment (tillers, cultivators, hoes) set to cut 3 to 4 inches deep and operated one time at 4 mph or less.

During planting, or if beds must be reshaped prior to planting, avoid tillage that will bring untreated soil to the surface or expose untreated soil on the seedbed or in the furrow.

### APPLICATIONS WITH LIQUID FERTILIZERS

#### GENERAL

PROWL alone and preemergence applications of PROWL plus atrazine or Bladex can be applied in liquid fertilizers. PROWL plus Cotoran can be applied in nitrogen solutions.

Follow all PROWL label recommendations regarding registered crops, rates per acre, timing of application, special instructions and precautions. Apply treatments in 20 or more gallons of liquid fertilizer per acre with ground equipment. DO NOT apply PROWL postemergence in liquid fertilizers.

All individual state regulations relating to fluid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company selling the PROWL/liquid fertilizer mixture.

#### LIQUID FERTILIZER COMPATIBILITY DETERMINATIONS

If liquid fertilizer and herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result, which can cause poor weed control and crop injury. Always predetermine the compatibility of PROWL alone or with other herbicides in the specific liquid fertilizer to be used according to the following directions:

1. Add 1 pint of fertilizer to each of 2 one-quart jars.
2. Add 1/2 teaspoon of adjuvant\* to one jar.

\*Compex-Kalo Laboratories Incorporated, Kansas City, MO;  
Sponto 168-D-Witco-Retzloff Chemical Company, Houston, TX;  
Unite-Hopkins Agricultural Chemical Company, Madison, WI;  
or other comparable adjuvants.

3. (a) When using PROWL alone, add to each jar the correct amount of PROWL as specified in the table below.
- (b) When using PROWL tank mixtures, first add the specified quantity of atrazine, Bladex or Cotoran (see table) and then add the correct amount of PROWL.
4. Close both jars and shake thoroughly for 10 seconds. Let them stand for 30 minutes and then observe the results. Look for signs of separation, an oily layer or globules, sludge, flakes or other precipitates.
5. Determine compatibility.
  - (a) If the herbicide(s) and liquid fertilizer mixture without adjuvant does not separate, use this mixture in your spray tank.
  - (b) If the mixture with adjuvant does not separate, but the one without adjuvant separates, use the adjuvant mixture in your spray tank. Add the adjuvant to the liquid fertilizer as directed on the manufacturer's label.
  - (c) If either mixture separates, but mixes readily with shaking, the mixture can be used providing good agitation is maintained in the spray tank.
  - (d) If separation of the mixture occurs and agitation and/or adjuvant does not correct this problem, DO NOT use PROWL with that specific liquid fertilizer.

Teaspoons of Specified Herbicide to be  
Added to 1 Pint of Liquid Fertilizer Solution\*\*

Gallons of Liquid Fertilizer to be Applied per Acre	Teaspoons of Specified Herbicide to be Added to 1 Pint of Liquid Fertilizer Solution**					
	PROWL	Atrazine 80W	AAtrex Nine-0 or Atrazine 4L	Bladex 80W	Bladex 4L	Cotoran
20	2 1/2	3	2	4 1/2	3	3 3/4
30	1 3/4	2	1 1/2	3	2	2 1/2
40	1 1/4	1 1/2	1	2 1/4	1 1/2	1 7/8

\*\*Based on highest per acre rate used in this leaflet for each product.



**PREPLANT INCORPORATED APPLICATIONS  
WITH DRY BULK FERTILIZERS**

PROWL may be impregnated on dry bulk fertilizers. When applied as directed, PROWL/dry bulk fertilizer mixtures provide weed control equal to that provided by the same rates of PROWL applied in water.

Follow all PROWL label recommendations regarding rates per acre, registered crops, incorporation, special instructions and precautions. Apply PROWL/dry bulk fertilizer mixtures only for preplant incorporated use with registered crops. Apply PROWL/dry bulk fertilizer mixtures only with ground equipment.

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

A minimum of 200 pounds and a maximum of 450 pounds of dry bulk fertilizer impregnated with the recommended amount of PROWL must be applied per acre.

DO NOT impregnate PROWL onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with PROWL. A minimum of 200 pounds of impregnated dry bulk fertilizer, excluding the weight of ammonium nitrate or limestone, must be applied per acre.

Refer to appropriate crop section in PROWL leaflet label to determine the rate of PROWL per acre. Use the following table to determine the amount of PROWL to be impregnated on a ton of dry bulk fertilizer based on the rate of fertilizer which will be applied per acre.

Rate Chart for Impregnation of Dry Bulk Fertilizers with PROWL  
(Pints of PROWL per Ton of Fertilizer)

Fertilizer Rate lbs/acre	PROWL Rate per Acre (recommended rate for crop and soil texture)				
	1 pint	1 1/2 pints	2 pints	2 1/2 pints	3 pints
200	10 pts/ton	15 pts/ton	20 pts/ton	25 pts/ton	30 pts/ton
250	8 pts/ton	12 pts/ton	16 pts/ton	20 pts/ton	24 pts/ton
300	6 2/3 pts/ton	10 pts/ton	13 1/3 pts/ton	16 2/3 pts/ton	20 pts/ton
350	5 3/4 pts/ton	8 1/2 pts/ton	11 1/2 pts/ton	14 1/4 pts/ton	17 pts/ton
400	5 pts/ton	7 1/2 pts/ton	10 pts/ton	12 1/2 pts/ton	15 pts/ton
450	4 1/2 pts/ton	6 2/3 pts/ton	9 pts/ton	11 pts/ton	13 1/3 pts/ton

For those rates not listed in this table, calculate the pints of PROWL to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{pounds of dry fertilizer per acre}} \times \text{pints of PROWL per acre (recommended rate for crop and soil texture)} = \text{pints of PROWL per ton of fertilizer}$$

To impregnate PROWL on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of PROWL onto the fertilizer during mixing.

Apply the PROWL/dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The PROWL/dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading can cause poor weed control and crop injury.

Refer to page 10 for incorporation instructions.

#### **FOLLOW CROP RESTRICTIONS**

1. Land treated with PROWL may be planted to other crops the following year. See restrictions below for sugar beets, red beets, and spinach.

2. Winter wheat, winter barley

Winter wheat and winter barley may be planted in the fall 120 days after a PROWL application in any registered crop. Winter wheat and winter barley may be planted in the fall 90 days after a PROWL CULTI-SPRAY™ application in irrigated field corn or grain sorghum. The treated crop must be grown to maturity and harvested before planting wheat or barley.

In areas where irrigation is necessary to produce the crop treated with PROWL, DO NOT plant winter wheat or winter barley as follow crops if crop failure/destruction occurs and land is fallowed during the summer as crop injury may result.

DO NOT plant winter wheat or winter barley as follow crops in treated land if the follow crop is planted using no-tillage procedures as crop injury may result.

DO NOT plant winter wheat or winter barley as follow crops in treated land if higher PROWL rates were used for rhizome johnsongrass control in soybeans or cotton or for red rice control and itchgrass suppression in soybeans.

DO NOT feed forage or graze livestock for 75 days after planting wheat or barley in treated land.

3. Sugar beets, red beets, spinach

To avoid crop injury, do not plant sugar beets, red beets or spinach for 12 months following a PROWL application. Land should be plowed to a depth of 12 inches prior to planting these crops.

4. When PROWL is used in tank-mix or sequential combinations, refer to labels of other herbicides for additional follow crop restrictions.

**CORN**  
**(Field, Sweet)**

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**PROWL may be applied in field corn as follows:**

**Preemergence (surface  
treatment after planting)**

PROWL + atrazine p. 18  
PROWL + Bladex p. 18  
PROWL alone p. 20  
PROWL + Banvel p. 22

**Early Postemergence**

PROWL + atrazine p. 18  
PROWL + Bladex 80W p. 18

**DO NOT INCORPORATE**

**PROWL may be applied in sweet corn (processing varieties ONLY) in Illinois, Minnesota and Wisconsin ONLY as follows:**

**Preemergence (surface  
treatment after planting)**

PROWL + atrazine p.18  
PROWL + Bladex p. 18  
PROWL alone p. 20

**Early Postemergence**

PROWL + atrazine p. 18  
PROWL + Bladex 80W p. 18

**DO NOT INCORPORATE**

Refer to page 18 for use of PROWL in minimum tillage systems.

Refer to page 51 for instructions on CULTI-SPRAY applications (4 inch stage to layby treatment) in field corn.

DO NOT use PROWL on peat or muck soils.

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**GENERAL INSTRUCTIONS**

Use only where adequate tillage is practiced to provide good soil coverage of the corn seed. Plant corn AT LEAST 1-1/2 inches deep to ensure good seed coverage.

PROWL or PROWL tank-mix combination treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application. If cultivation is necessary because of soil crusting, soil compaction or weed germination before rain or irrigation, use shallow tillage (such as rotary hoe), and make certain corn seeds are below the tilled area. For maximum effectiveness, wait at least 7-10 days before cultivating early postemergence treatments.

### **Field Corn Grown in Minimum Tillage Systems**

PROWL alone and PROWL tank mixtures with atrazine or Bladex may be used in field corn in minimum tillage systems where adequate tillage is practiced to provide a seedbed without living vegetation which allows for good seed coverage. Plant corn AT LEAST 1-1/2 inches deep to ensure good seed coverage. The use of no-till planters in minimum tillage corn under conditions which do not allow good soil coverage of the corn seed can result in reduced crop stand or injury if PROWL contacts the germinating corn seed. Check equipment to ensure good seed coverage. Apply in 20 or more gallons of spray solution per acre.

#### **PROWL Plus Atrazine or PROWL Plus Bladex**

##### **PREEMERGENCE (surface treatment after planting)**

Apply PROWL plus atrazine or PROWL plus Bladex preemergence, after planting, but before weeds or crop emerge. Apply in water or liquid fertilizer with ground equipment or in water with aircraft. Refer to page 12 for liquid fertilizer compatibility determinations.

DO NOT INCORPORATE or serious corn injury can result.

##### **EARLY POSTEMERGENCE**

Apply PROWL plus atrazine or PROWL plus Bladex 80W, after corn emergence but no later than when corn is in the 4-leaf stage of growth and when weeds are no more than 1 inch tall except for Texas panicum which must be no larger than the 1-2 leaf stage. Apply with ground equipment or aircraft in water ONLY. For ground applications, flat fan nozzles are preferred. DO NOT apply following PROWL preemergence treatments. DO NOT apply PROWL alone postemergence.

#### **RESTRICTIONS FOR EARLY POSTEMERGENCE APPLICATIONS**

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To avoid serious crop injury with early postemergence applications observe the following restrictions:

DO NOT INCORPORATE.

DO NOT apply in liquid fertilizer.

DO NOT apply PROWL plus Bladex 80W if 5th corn leaf is visible.

DO NOT use Bladex 4L postemergence on corn.

DO NOT apply PROWL plus Bladex 80W under extended cold (below 50°F), wet weather conditions, or when cold, wet conditions are predicted.

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**Weeds Controlled**

When applied as directed, PROWL plus atrazine and PROWL plus Bladex will control the following weeds in addition to the weeds controlled by PROWL.

- Black nightshade (Solanum nigrum)
- Common ragweed (Ambrosia artemisiifolia)
- Mustard (Brassica spp.)
- Venice mallow (Hibiscus trionum)

PROWL plus atrazine or PROWL plus Bladex will aid in the control of and reduce competition from:

- Cocklebur (Xanthium strumarium)
- Annual morningglory (Ipomoea ssp.)
- Jimsonweed (Datura stramonium)
- Wild proso millet (Panicum miliaceum)

**Broadcast Rate per Acre of PROWL Plus Atrazine  
Preemergence and Early Postemergence Tank Mixtures in Corn**

Soil Texture	Less than 1.5% Organic Matter <sup>1</sup>	1.5 to 3.0% Organic Matter	More than 3.0% Organic Matter
	PROWL + atrazine 80W <sup>2</sup>	PROWL + atrazine 80W <sup>2</sup>	PROWL + atrazine 80W <sup>2</sup>
COARSE	1.5 to 2.0 pts. + 1.25 lbs.	2.0 pts. + 1.25 lbs.	3.0 pts. + 1.25 lbs.
MEDIUM	2.0 pts. + 1.25 to 1.5 lbs.	3.0 pts. + 1.25 to 1.5 lbs.	3.0 pts. + 1.5 to 2.0 lbs.
FINE	2.0 pts. + 1.25 to 1.5 lbs.	3.0 pts. + 1.5 to 2.0 lbs.	3.0 pts. + 1.5 to 2.0 lbs.

<sup>1</sup>For use in states east of and including Minnesota, Iowa, Missouri, Arkansas and Louisiana. PROWL may be applied in sweet corn in Illinois, Minnesota and Wisconsin only.

<sup>2</sup>When using atrazine 4L or AAtrex Nine-0 use equivalent rates. One quart of atrazine 4L equals 1.25 lbs. of atrazine 80W. One pound of AAtrex Nine-0 equals 1.12 lbs. of atrazine 80W. See conversion chart on page 7.

NOTE: If corn crop loss occurs due to weather conditions and corn is replanted, seeding depth must be below retilled area. Follow cropping restrictions on atrazine labels. Observe all precautions and limitations on atrazine labels.

**Broadcast Rate per Acre of PROWL Plus Bladex  
Preemergence and Early Postemergence Tan. Mixtures in Corn**

<u>Soil Texture</u>	<u>Less than 1.5% Organic Matter<sup>1</sup> PROWL + Bladex 80W<sup>2</sup></u>	<u>1.5 to 3.0% Organic Matter PROWL + Bladex 80W<sup>2</sup></u>	<u>More than 3.0% Organic Matter PROWL + Bladex 80W<sup>2</sup></u>
COARSE <sup>3</sup>	1.5 to 2.0 pts. + 1.25 to 1.5 lbs.	2.0 pts. + 2.0 lbs.	3.0 pts. + 2.0 to 2.5 lbs.
MEDIUM	2.0 pts. + 1.25 to 1.5 lbs.	3.0 pts. + 2.0 to 2.5 lbs.	3.0 pts. + 2.5 to 3.0 lbs. <sup>4</sup>
FINE	2.0 pts. + 2.0 to 2.5 lbs.	3.0 pts. + 2.5 to 3.0 lbs. <sup>4</sup>	3.0 pts. + 2.5 to 3.0 lbs. <sup>4</sup>

<sup>1</sup>For use in states east of and including Minnesota, Iowa, Missouri, Arkansas and Louisiana. PROWL may be applied in sweet corn in Illinois, Minnesota and Wisconsin only.

<sup>2</sup>When using Bladex 4L use equivalent rates. One quart of Bladex 4L equals 1.25 lbs. of Bladex 80W. DO NOT use Bladex 4L early postemergence. See conversion chart on page 7.

<sup>3</sup>DO NOT use this combination on sands or loamy sands with less than 1% organic matter.

<sup>4</sup>The MAXIMUM RATE of Bladex 80W for early postemergence treatments is 2.5 lbs. per acre.

NOTE: If corn crop loss occurs due to weather conditions and corn is replanted, seeding depth must be below retilled area. Observe all precautions and limitations on Bladex label.

**Applications of PROWL Alone**

Apply PROWL alone preemergence (surface treatment), after planting, but before weeds and crop emerge. Apply with ground equipment or aircraft.

DO NOT INCORPORATE or serious corn injury can result. DO NOT apply PROWL alone postemergence.

**Weeds Controlled**

When applied as directed, PROWL preemergence treatments in corn will control the following weeds in addition to the weeds controlled by PROWL listed on page 9:

- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)
- Woolly cupgrass (Eriochloa villosa)

PROWL will aid in the control of and reduce competition from wild proso millet (Panicum miliaceum)

**Broadcast Rate per Acre of PROWL Alone Preemergence in Corn**

<u>Soil Texture</u>	<u>Less than 1.5% Organic Matter<sup>1</sup></u>	<u>1.5 to 3.0% Organic Matter</u>	<u>More than 3.0% Organic Matter</u>
COARSE	1.5 to 2.0 pts.	3.0 pts.	3.0 pts.
MEDIUM	2.0 to 3.0 pts.	3.0 pts.	3.0 to 4.0 pts.
FINE	2.0 to 3.0 pts.	3.0 to 4.0 pts.	4.0 pts.

<sup>1</sup>For use in states east of and including Minnesota, Iowa, Missouri, Arkansas and Louisiana. PROWL may be applied in sweet corn in Illinois, Minnesota and Wisconsin only.

( NOTE: When PROWL alone is used, if corn loss occurs due to weather conditions, corn, cotton or soybeans can be replanted the same year without adverse effects. If corn is replanted, seeding depth must be below retilled area.

**Preemergence Applications of PROWL Plus Banvel  
Tank Mixture in Field Corn**

Apply PROWL plus Banvel preemergence (surface treatment) only, after planting, but before weeds or crop emerge. Apply in water with GROUND EQUIPMENT ONLY.

DO NOT INCORPORATE or serious corn injury can result.

PROWL plus Banvel is recommended for use ONLY in the states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, New York, North Dakota, Ohio, Pennsylvania, South Dakota, and Wisconsin. (APPLY ONLY ON LEVEL PLANTED CORN.) Plant corn AT LEAST 1-1/2 inches deep to ensure good seed coverage.



**WEEDS CONTROLLED**

When applied as directed, PROWL plus Banvel will control the following weeds in addition to the weeds controlled by PROWL.

- Cocklebur (Xanthium strumarium)
- Venice mallow (Hibiscus trionum)

**Broadcast Rate per Acre of PROWL Plus Banvel  
Preemergence Tank Mixture in Field Corn**

<u>Soil Texture</u> <sup>1</sup>	<u>1.5 to 3.0% Organic Matter PROWL + Banvel</u>	<u>More than 3.0% Organic Matter PROWL + Banvel</u>
MEDIUM	DC NOT USE	3.0 pts. + 0.75 pts.
FINE	3.0 pts. + 0.75 pts.	3.0 pts. + 0.75 pts.

<sup>1</sup>DO NOT use on sands, loamy sands, or sandy loams.  
DO NOT use on medium soils containing less than 3% organic matter.

AVOID drift of this mixture to soybeans or other sensitive crops.  
DO NOT use on furrow irrigated corn.  
DO NOT apply this tank mixture by aircraft.  
When applying this tank mixture at planting, the spray nozzles must be far enough behind the planter to avoid contact of the spray mixture with the seeds to avoid crop injury.

NOTE: Follow cropping restrictions on Banvel label. Observe all precautions and limitations on Banvel label.

**COTTON**

**PROWL can be applied in cotton as follows:**

**Preplant Incorporated**

PROWL alone p.23  
PROWL + Caparol p. 24

**Sequential**

PROWL preplant  
incorporated followed  
by Cotoran  
preemergence p. 24  
PROWL preplant  
incorporated followed  
by Karmex  
preemergence p. 24

**Preemergence**

PROWL +  
Cotoran p. 26  
PROWL +  
Zorial p. 28

Refer to page 29 for rhizome johnsongrass control program.

DO NOT use PROWL on peat or muck soils.

**Preplant Incorporated Application of PROWL Alone**

Apply PROWL with ground equipment or aircraft immediately before planting or up to 60 days prior to planting. Incorporate prior to planting and within 7 days of application. Refer to page 10 for incorporation instructions.

DO NOT APPLY PROWL AS A POSTEMERGENCE SPRAY IN COTTON.

**Broadcast Rate Per Acre of PROWL  
Preplant Incorporated in Cotton**

<u>Soil Texture</u>	<u>PROWL</u>
COARSE	1.0 pt.
MEDIUM	1.5 pts.
FINE	2.0 pts.

For heavy clay soils, apply PROWL at the broadcast rate of 3 pints per acre.

When heavy weed populations are anticipated, apply PROWL at the broadcast rate per acre of 1.5 pints on coarse soils, 2.0 pints on medium soils, and 3.0 pints on fine soils.

**NOTE:** DO NOT feed forage or graze livestock in treated cotton fields. If loss of cotton crop occurs due to adverse weather conditions, cotton or any crop registered for PROWL preplant incorporated use can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

#### **Fall Application**

PROWL may be applied for weed control in cotton in the fall, after October 15 (up to 140 days prior to planting cotton) in Arizona, California, Louisiana, New Mexico, Mississippi, Oklahoma and Texas. Apply PROWL at the broadcast rate per acre of 1.5 pints on coarse soils, 2.0 pints on medium soils and 3.0 pints on fine soils.

#### **Preplant Incorporated Application of PROWL Followed by Preemergence Application of Cotoran or Karmex**

PROWL preplant incorporated followed by an overlay preemergence application of Cotoran 80W or Karmex may be applied for weed control in cotton.

Refer to the Cotoran or Karmex label for specific directions regarding rates, mixing, spraying and application. Use the Cotoran or Karmex alone preemergence rates. Follow all precautions and limitations on the Cotoran or Karmex label.

When applied as directed, in addition to those weeds controlled by PROWL alone, PROWL preplant incorporated followed by Cotoran or Karmex preemergence will control those additional broadleaf weeds listed on the Cotoran or Karmex label.

#### **Preplant Incorporated Application of PROWL Plus Caparol Mixtures**

PROWL plus Caparol 80W tank mixture may be applied preplant incorporated for weed control in cotton grown in Arizona, California, New Mexico and the Upper and Lower El Paso Valley of Texas.

Apply PROWL plus Caparol with ground equipment prior to listing or over partially finished or finished beds. Incorporation should immediately follow application. Refer to page 10 for incorporation instructions. Maintain good agitation at all times until spraying is completed to keep the material in suspension. Mechanical agitation should be used in Arizona and California.

Weeds Controlled

When applied as directed, PROWL plus Caparol will control the following weeds in addition to those controlled by PROWL alone:

GRASSES CONTROLLED

- Junglerice (Echinochloa colonum)
- Wild oat (Avena fatua)

BROADLEAF WEEDS CONTROLLED

- Annual morningglory (Ipomoea spp.)
- Black nightshade (Solanum nigrum)
- Common ragweed (Ambrosia artemisiifolia)
- Groundcherry (Physalis spp.)
- Malva (Malva spp.)
- Mustard (Brassica spp.)
- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Prickly sida (Sida spinosa)

PROWL plus Caparol will control shallow-germinating seedlings of:

- Cocklebur (Xanthium strumarium)
- Coffeeweed (Daubentonia texana)
- Sandbur (Cenchrus spp.)

Broadcast<sup>1</sup> Rate Per Acre of PROWL Plus Caparol 80W  
Preplant Incorporated Tank Mixture in Cotton

Soil Texture		PROWL + Caparol 80W
COARSE	Sands, loamy sands	DO NOT USE
	Sandy loams	1.0 to 1.5 pts. + 1.5 to 2.0 lbs.
MEDIUM	Loams	1.5 to 2.0 pts. + 2.0 lbs.
	Silt loams, silts, sandy clay loams <sup>2</sup>	1.5 to 2.0 pts. + 2.0 to 3.0 lbs.
FINE	Silty clay loams <sup>2</sup> , clay loams, clays	1.5 to 3.0 pts. + 2.0 to 3.0 lbs.

<sup>1</sup>For calculation of band treatment rates, see page 10.

<sup>2</sup>Sometimes considered transitional soils and may be classified as either medium or fine textured soils.

Use the 3 pint rate of PROWL for heavy clay soils.

**NOTE:** DO NOT feed forage or graze livestock in treated cotton fields. If replanting is necessary, cotton may be planted in soil previously treated with PROWL plus Caparol. DO NOT rework the soil. Follow cropping restrictions on Caparol label.

**PRECAUTIONS:**

DO NOT use this tank mixture in cut areas of newly leveled fields, in areas of excess salt or in areas where flooding over the bed is likely to occur as crop injury may result. Cotton should not be planted in tractor wheel depressions or crop injury may result. DO NOT use this tank mixture when cotton is irrigated up as crop injury may result. On mulch-planted cotton, water back only after cotton seedlings are well established. Follow all precautions and limitations on Caparol label.

**Preemergence Application of PROWL Plus Cotoran**

PROWL plus Cotoran 80WP preemergence tank mixture may be applied immediately after planting for weed control in cotton grown in all states except Texas, Oklahoma, New Mexico, Arizona and California.

Apply PROWL plus Cotoran in water or nitrogen solution with ground equipment immediately after planting. Make sure cotton seeds are placed 1 inch or deeper below soil surface. Apply PROWL plus Cotoran immediately after planting or crop injury may result. Refer to page 12 for liquid fertilizer compatibility determinations. Maintain good agitation at all times until spraying is completed.

PROWL plus Cotoran is most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application. A shallow cultivation is recommended if soil crusting or soil compaction occurs. If weeds begin to germinate or adequate moisture is not received within 7 days after application, use shallow tillage (rotary hoe or light harrow) and make certain cotton seeds are below the tilled area.

**Weeds Controlled**

When applied as directed, PROWL plus Cotoran will control the following weeds in addition to those controlled by PROWL alone:

Jimsonweed (Datura stramonium)  
Prickly sida (Sida spinosa)

PROWL plus Cotoran will aid in the control of and reduce competition from:

Cocklebur (Xanthium strumarium)  
Annual morningglory (Ipomoea spp.)

**Broadcast Rate<sup>1</sup> Per Acre of PROWL  
Plus Cotoran Preemergence Tank Mixture in Cotton**

<u>Soil Texture</u>	<u>States</u>	<u>PROWL + Cotoran 80WP</u>
COARSE	Arkansas, Louisiana and Mississippi	1.0 to 1.5 pts. + 1.0 lb.
	Other states, except Texas, Oklahoma, New Mexico, Arizona, and California	1.0 to 1.5 pts. + 1.25 lbs.
MEDIUM	All states, except Texas, Oklahoma, New Mexico, Arizona, and California	1.5 to 2.0 pts. + 1.25 to 2.0 lbs.
FINE	All states, except Texas, Oklahoma, New Mexico, Arizona, and California	1.5 to 3.0 pts. + 2.0 to 2.5 lbs.

<sup>1</sup>For calculation of band treatment rate, see page 10.

Use the 3 pint rate of PROWL for heavy clay soils.

**NOTE:** The use of Cotoran 80WP as a preemergence application, following the use of a systemic insecticide at planting, may result in injury to cotton. DO NOT plant crops other than cotton within 6 months of the last application of Cotoran or injury may result. DO NOT feed foliage from treated cotton plants or gin trash to livestock. Observe all precautions and limitations on the Cotoran label.

### Preemergence Application of PROWL Plus Zorial

PROWL plus Zorial 80WP preemergence tank mixture may be applied immediately after planting for weed control in cotton grown in all states except Texas, Oklahoma, New Mexico, Arizona and California.

Apply PROWL plus Zorial with ground equipment immediately after planting. Make sure cotton seeds are placed 1 inch or deeper below soil surface. Apply PROWL plus Zorial immediately after planting or crop injury may result. Maintain good agitation at all times until spraying is completed.

PROWL plus Zorial is most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application. A shallow cultivation is recommended if soil crusting or soil compaction occurs. If weeds begin to germinate or adequate moisture is not received within 7 days after application, use shallow tillage (rotary hoe or light harrow) and make certain cotton seeds are below the tilled area.

#### Weeds Controlled

When applied as directed, PROWL plus Zorial will control the following weeds in addition to those controlled by PROWL alone:

Common ragweed (Ambrosia artemisiifolia)  
Pennsylvania smartweed (Polygonum pennsylvanicum)  
Prickly sida (Sida spinosa)  
Sicklepod (Cassia obtusifolia)  
Spurred anoda (Anoda cristata)

PROWL plus Zorial will aid in the control of and reduce competition from:

Cocklebur (Xanthium strumarium)  
Annual morningglory (Ipomoea spp.)  
Nutsedge (Cyperus spp.)

**Broadcast Rate<sup>1</sup> Per Acre of PROWL Plus Zorial  
Preemergence Tank Mixture in Cotton**

<u>Soil Texture</u>	<u>PROWL+ Zorial 80WP</u>
COARSE	1.0 to 1.5 pts. + 1.25 lbs.
MEDIUM	1.5 to 2.0 pts. + 1.9 lbs.
FINE	1.5 to 3.0 pts. + 2.5 lbs.

<sup>1</sup>For calculation of band treatment rate, see page 10.

Use the 3 pint rate of PROWL for heavy clay soils.

**NOTE:** If the cotton plant is stressed during early development, application of PROWL plus Zorial at the label rate may result in temporary bleaching or chlorosis of the leaves from which the plant will recover. If cotton crop loss occurs due to weather conditions, cotton can be replanted. If replanting is necessary, a light reworking of the soil will retain the herbicidal activity of PROWL plus Zorial. DO NOT feed forage or graze livestock in treated cotton fields. Observe all precautions and limitations on the Zorial label.

**Preplant Incorporated Application of PROWL for  
Control of Rhizome Johnsongrass**

PROWL applied preplant incorporated for two consecutive years will provide control of rhizome johnsongrass (Sorghum halepense) in cotton at the rates recommended for soil textures listed on page 30. This use is not recommended for Arizona, New Mexico and California. Rhizome johnsongrass will be suppressed after the first year and controlled after the second year.

Before application, use a chisel plow or similar implement to bring johnsongrass rhizomes to the surface. Chop rhizomes into small pieces with a disk harrow set to cut 4 to 6 inches deep and operated in two different directions at 4 to 6 mph.

PROWL is to be incorporated into the soil within 7 days after application prior to planting. For maximum control of rhizome johnsongrass, incorporate PROWL as soon as possible after application. Deep and thorough incorporation of PROWL is necessary for control of rhizome johnsongrass. Mechanical incorporation can be achieved by the following methods:

- a) Disk harrow set to cut 4 to 6 inches deep and operated in two different directions at 4 to 6 mph.
- b) PTO-driven equipment (tillers, cultivators, hoes) set to cut 3 to 4 inches deep and operated one time at 4 mph or less.



For johnsongrass escapes during the crop season, cultivation and/or application of registered postemergence herbicides are recommended. Follow the directions for use on the labels of the respective herbicides.

**Broadcast Rate Per Acre of PROWL Preplant Incorporated  
for Control of Rhizome Johnsongrass in Cotton**

**APPLY FOR TWO CONSECUTIVE YEARS**

**Soil Texture - Up to 3% Organic Matter<sup>1</sup>**

**COARSE                      2.0 pts.**

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**MEDIUM                     3.0 pts.**

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**FINE                         4.0 pts.**

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<sup>1</sup>This use is not recommended for soils with more than 3% organic matter.

NOTE: DO NOT feed forage or graze livestock in treated cotton fields.

If cotton crop loss occurs due to weather conditions, cotton or soybeans can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

**SOYBEANS**

**PROWL can be applied in soybeans as follows (DO NOT USE PROWL IN SOYBEANS IN CALIFORNIA):**

**Preplant Incorporated**

PROWL alone p.31  
PROWL + Sencor/  
Lexone p. 33  
PROWL + Amiben  
p. 36  
PROWL + Amiben +  
Sencor/Lexone p.37  
PROWL + Lasso p. 40  
PROWL + Dual p.41

**Sequential**

PROWL preplant  
incorporated  
followed by  
preemergence  
applications  
of: Sencor/  
Lexone p. 33  
Amiben p.36  
Lorox p. 39

**Preemergence**

PROWL + Sencor/  
Lexone p.33  
PROWL + Amiben  
p.36  
PROWL + Lorox  
p. 39  
PROWL + Amiben  
+ Sencor/  
Lexone p. 37  
PROWL + Lasso  
p. 40  
PROWL + Dual  
p. 41

Refer to page 46 for use of PROWL in minimum and no-till soybeans.

PROWL will provide control or aid in the control of and reduce competition from the following special weeds:

- Itchgrass, see page 44
- Red rice, see page 44
- Rhizome johnsongrass, see page 44
- Shattercane, see page 42

DO NOT use PROWL on peat or muck soils.

**Preplant Incorporated Applications of PROWL Alone**

Apply PROWL with ground equipment or aircraft immediately before planting or up to 60 days prior to planting. Incorporate prior to planting and within 7 days of application. Refer to page 10 for incorporation instructions.

The following rates for PROWL alone preplant incorporated should be used when no tank mixtures or sequential preemergence treatments are planned. Use PROWL alone rates when sequential postemergence broadleaf herbicide treatments are planned.

**Broadcast Rate Per Acre of PROWL Alone  
Preplant Incorporated in Soybeans**

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**SOUTHERN STATES  
(Including Eastern Coastal Plains)<sup>1</sup>**

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<u>Soil Texture</u>	<u>PROWL</u>
COARSE	1.0 pt.
MEDIUM	1.5 pts.
FINE	2.0 pts.

<sup>1</sup>See map on page 75 for specific Southern states. DO NOT use in California.

For heavy clay soils, apply PROWL at the broadcast rate of 3 pints per acre.

When heavy weed populations are anticipated, apply PROWL at the broadcast rate per acre of 1.5 pints on coarse soils, 2.0 pints on medium soils, and 3.0 pints on fine soils.

**Broadcast Rate Per Acre  
of PROWL Alone Preplant Incorporated in Soybeans**

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**NORTHERN STATES<sup>1</sup>**

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<u>Soil Texture</u>	<u>Up to 3% Organic Matter</u>	<u>More than 3% Organic Matter</u>
COARSE	1.0 to 2.0 pts.	2.0 pts.
MEDIUM	1.5 to 2.5 pts.	2.5 to 3.0 pts.
FINE	2.0 to 3.0 pts.	3.0 pts.

<sup>1</sup>See map on page 75 for specific Northern states.

Use the 3 pint rate for heavy clay soils.

**NOTE:** Livestock can graze or be fed soybean forage from treated fields. If soybean crop loss occurs due to weather conditions, soybeans or any crop registered for PROWL preplant incorporated use can be replanted. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

### **PROWL Preemergence General Instructions**

Use the following instructions when applying recommended PROWL preemergence tank mixtures in soybeans. Apply PROWL preemergence tank mixtures at planting or up to 2 days after planting. Apply to a seedbed which is firm and free of clods and trash. **DO NOT APPLY POSTEMERGENCE.** Preemergence treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application.

If moisture is insufficient to activate the herbicides, a shallow cultivation (preferably with a rotary hoe) should be made after emergence of soybeans, but while weeds are small enough to be controlled by mechanical cultivation.

A shallow, thorough mixing of soil after herbicide application with a rotary hoe or similar implement will improve consistency of performance and reduce dependency on rainfall to activate herbicides.

**DO NOT** make applications of PROWL preemergence north of Interstate 80.

#### **PROWL Plus Sencor/Lexone**

The following PROWL plus Sencor/Lexone treatments may be used in soybeans. Apply PROWL plus Sencor/Lexone treatments with ground equipment or aircraft. Refer to page 10 for incorporation instructions. Use PROWL and Sencor/Lexone rates listed in table on page 35. See special precautions on page 34.

1. PROWL Preplant Incorporated Followed by Sencor/Lexone Preemergence

Apply PROWL preplant incorporated. Follow with a preemergence treatment of Sencor/Lexone as directed on the Sencor or Lexone label.

2. Preplant Incorporated Tank Mixture of PROWL plus Sencor/Lexone

PROWL plus Sencor/Lexone must be incorporated into the soil within 7 days after application and soybeans must be planted no later than 7 days after application. For best results, incorporation should be in the top 1 to 2 inches of soil.

3. Preemergence Tank Mixture of PROWL plus Sencor/Lexone

Apply PROWL plus Sencor/Lexone preemergence tank mixture at planting or up to 2 days after planting. Refer to above for "PROWL Preemergence General Instructions." **DO NOT APPLY POSTEMERGENCE.**

**Special Precautions for PROWL Plus Sencor  
or Lexone Combinations**

Soybean seed should be planted at least 1 1/2 inches below soil surface. Applications should not be made to soils having calcareous surface or a pH of 7.5 or higher. Soil incorporation deeper than recommended will reduce weed control and can result in crop injury.

The PROWL plus Sencor or Lexone treatment can be applied only once per cropping season. DO NOT USE on sensitive soybean varieties - Altona, Coker 102 and 156, Govan, Semmes, Tracy or Vansoy.

Follow cropping restrictions on Sencor and Lexone labels.

**Weeds Controlled**

PROWL plus Sencor/Lexone will control the following weeds in addition to those controlled by PROWL alone:

Common ragweed (Ambrosia artemisiifolia)  
Jimsonweed (Datura stramonium)  
Pennsylvania smartweed (Polygonum pennsylvanicum)  
Prickly sida (Sida spinosa)  
Velvetleaf (Buttonweed) (Abutilon theophrasti)  
Venice mallow (Hibiscus trionum)  
Wild mustard (Brassica kaber) (medium and  
fine soils only)

PROWL plus Sencor/Lexone will aid in the control of and reduce competition from cocklebur (Xanthium strumarium). Use either a preplant incorporated application of PROWL followed by a preemergence application of Sencor/Lexone or a preemergence tank mixture of PROWL plus Sencor/Lexone where severe cocklebur infestations are anticipated. See page 42 for PROWL plus Sencor/Lexone use for shattercane control.

**Broadcast Rates Per Acre of PROWL Plus  
Sencor/Lexone Preplant Incorporated or Preemergence  
Tank Mixtures or PROWL Preplant Incorporated  
followed by Sencor/Lexone Preemergence**

<u>Soil Texture</u> <sup>3</sup>	<u>SOUTHERN STATES (Including Eastern Coastal Plains)</u> <sup>1</sup>		<u>NORTHERN STATES</u> <sup>1</sup>	
	<u>PROWL + Sencor/Lexone DF<sup>2</sup></u>	<u>PROWL + Sencor/Lexone DF<sup>2</sup></u>	<u>PROWL + Sencor/Lexone DF<sup>2</sup></u>	<u>PROWL + Sencor/Lexone DF<sup>2</sup></u>
			<u>1/2 to 3% Organic Matter</u>	<u>More Than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts. + 0.33 lb.	1.0 to 1.5 pts. + 0.5 lb.	1.0 to 1.5 pts. + 0.5 lb.	1.5 pts. + 0.5 lb.
MEDIUM	1.5 to 2.0 pts. + 0.5 lb.	1.5 to 2.0 pts. + 0.5 lb.	1.5 to 2.0 pts. + 0.5 lb.	1.5 to 2.0 pts. + 0.5 to 0.67 lb.
FINE	1.5 to 2.0 pts. + 0.5 to 0.67 lb.	1.5 to 2.0 pts. + 0.5 to 0.67 lb.	1.5 to 2.0 pts. + 0.5 to 0.67 lb.	2.0 to 2.5 pts. + 0.67 lb.

<sup>1</sup>See map on page 75 for specific states. DO NOT USE IN CALIFORNIA.

<sup>2</sup>When using Sencor 4F, Sencor 50WP, Lexone 4L, or Lexone 50WP, use equivalent rates. One pint of the flowable formulation or 1 lb. of the wettable powder formulation equals 0.67 lb. of Sencor DF or Lexone DF. See conversion chart on page 7.

<sup>3</sup>DO NOT USE on sands. DO NOT USE on loamy sands or on sandy loams that contain less than 2% organic matter, nor on other soils with less than 1/2% organic matter as crop injury may result. This tank mixture is not recommended for use on soils with less than 2% organic matter in the Coastal Plain of New Jersey or the Delmarva Peninsula.

**NOTE:** In the event of a crop loss due to weather conditions, soybeans can be replanted without adverse effects the same year. If replanting is necessary, DO NOT rework the soil. Livestock can graze or be fed soybean forage from treated fields 40 days after application. Observe all precautions and limitations on Sencor and Lexone labels.

**PROWL PLUS AMIBEN**

The following PROWL plus Amiben treatments may be used in soybeans in the Northern States. See the map on page 75 for specific states. Apply PROWL plus Amiben treatments with ground equipment or aircraft. Refer to page 10 for incorporation instructions. Use PROWL and Amiben rates listed in table below.

1. **PROWL Preplant Incorporated Followed by Amiben Preemergence**

Apply PROWL preplant incorporated. Follow with a preemergence treatment of Amiben as directed on the Amiben label.

2. **Preplant Incorporated Tank Mixture of PROWL plus Amiben**

PROWL plus Amiben must be incorporated into the soil within 7 days after application and soybeans must be planted no later than 7 days after application. For best results, incorporation should be in the top 1 to 2 inches of soil.

3. **Preemergence Tank Mixture of PROWL plus Amiben**

Apply PROWL plus Amiben preemergence tank mixture at planting or up to 2 days after planting. Refer to page 33 for "PROWL Preemergence General Instructions." DO NOT APPLY POSTEMERGENCE.

**Weeds Controlled**

When applied as directed, PROWL plus Amiben will control the following weeds in addition to those controlled by PROWL alone:

- Common ragweed (Ambrosia artemisiifolia)
- Mustard (Brassica spp.)
- Pennsylvania smartweed (Polygonum pensylvanicum)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)

**Broadcast Rates Per Acre of PROWL Plus Amiben  
Preplant Incorporated or Preemergence Tank Mixtures  
or PROWL Preplant Incorporated Followed by Amiben Preemergence**

<u>Soil Texture</u>	<u>PROWL + Amiben Up to 3% Organic Matter</u>	<u>PROWL + Amiben More Than 3% Organic Matter</u>
COARSE	DO NOT USE	DO NOT USE
MEDIUM	1.5 to 2.0 pts. + 1.0 gallon	1.5 to 2.0 pts. + 1.0 gallon
FINE	1.5 to 2.0 pts. + 1.0 gallon	2.0 to 2.5 pts. + 1.0 gallon

The high rate of PROWL for each soil texture above should be used if velvetleaf or Pennsylvania smartweed infestations are anticipated.

NOTE: In the event of crop loss due to weather conditions, soybeans can be replanted without adverse effects the same year. If replanting is necessary, DO NOT rework the soil. Livestock can graze or be fed soybean forage from treated fields. Observe all precautions and limitations on Amiben label.

#### PROWL Plus Amiben Plus Sencor/Lexone

The following PROWL plus Amiben plus Sencor/Lexone treatments may be used in soybeans in the Northern States. Refer to page 75 for specific states. Apply PROWL plus Amiben plus Sencor/Lexone treatments with ground equipment or aircraft. When mixing add Sencor or Lexone first, then Amiben followed by PROWL. Refer to page 5 for complete mixing instructions. Refer to page 10 for incorporation instructions. Use PROWL plus Amiben plus Sencor/Lexone rates listed in table on page 38. See special precautions on page 34 for PROWL plus Sencor/Lexone combinations.

1. Preplant Incorporated Tank Mixture of PROWL plus Amiben plus Sencor/Lexone

PROWL plus Amiben plus Sencor/Lexone must be incorporated into the soil within 7 days after application and soybeans must be planted no later than 7 days after application. For best results, incorporation should be in the top 1 to 2 inches of soil.

2. Preemergence Tank Mixture of PROWL plus Amiben plus Sencor/Lexone

Apply PROWL plus Amiben plus Sencor/Lexone preemergence tank mixture at planting or up to 2 days after planting. Refer to page 33 for "PROWL Preemergence General Instructions." DO NOT APPLY POSTEMERGENCE.

#### Weeds Controlled

When applied as directed, PROWL plus Amiben plus Sencor/Lexone will control the following weeds in addition to those controlled by PROWL alone:

Common ragweed (Ambrosia artemisiifolia)  
Mustard (Brassica spp.)  
Pennsylvania smartweed (Polygonum pennsylvanicum)  
Prickly sida (Sida spinosa)  
Velvetleaf (Buttonweed) (Abutilon theophrasti)  
Venice mallow (Hibiscus trionum)

PROWL plus Amiben plus Sencor/Lexone preemergence will aid in the control of and reduce competition from cocklebur (Xanthium strumarium)

PROWL plus Amiben plus Sencor/Lexone preplant incorporated or preemergence will aid in the control of and reduce competition from Jimsonweed (Datura stramonium).



**Broadcast Rates Per Acre of PROWL Plus Amiben Plus Sencor/Lexone Preplant Incorporated or Freemergence Tank Mixtures**

<u>Soil Texture<sup>2</sup></u>	<u>PROWL + Amiben + Sencor/Lexone DF<sup>1</sup></u>	<u>PROWL + Amiben + Sencor/Lexone DF<sup>1</sup></u>
	<u>1/2 to 3% Organic Matter</u>	<u>More Than 3% Organic Matter</u>
COARSE	1.5 pts. + 6.0 pts. + 0.33 lb.	1.5 pts. + 6.0 pts. + 0.33 lb.
MEDIUM	1.5 to 2.0 pts. + 6.0 to 8.0 pts. + 0.33 to 0.5 lb.	1.5 to 2.0 pts. + 6.0 to 8.0 pts. + 0.33 to 0.5 lb.
FINE	1.5 to 2.0 pts. + 6.0 to 8.0 pts. + 0.33 to 0.5 lb.	2.0 to 2.5 pts. + 8.0 pts. + 0.5 lb.

<sup>1</sup>When using Sencor 4F, Sencor 50WP, Lexone 4L, or Lexone 50WP, use equivalent rates. One pint of the flowable formulation or 1 lb. of the wettable powder formulation equals 0.67 lb. of Sencor DF or Lexone DF. See conversion chart on page 7.

<sup>2</sup>DO NOT USE on sands. DO NOT USE on loamy sands or on sandy loams that contain less than 1% organic matter, nor on other soils with less than 1/2% organic matter as crop injury may result.

The high rates of PROWL, Amiben and Sencor/Lexone for each soil texture, as stated above, should be used if cocklebur, jimsonweed, Pennsylvania smartweed or velvetleaf populations are expected.

NOTE: In the event of a crop loss due to weather conditions, soybeans can be replanted without adverse effects the same year. If replanting is necessary, DO NOT rework the soil. DO NOT use foliage for livestock feed or forage. Observe all precautions and limitations on Amiben, Sencor and Lexone labels.

**PROWL Plus Lorox**

The following PROWL plus Lorox treatments may be used in soybeans. Apply PROWL plus Lorox with ground equipment or aircraft. Refer to page 10 for incorporation instructions. Use PROWL and Lorox rates listed in table below.

- 1. PROWL Preplant Incorporated Followed by Lorox Preemergence.

Apply PROWL preplant incorporated. Follow with a preemergence treatment of Lorox as directed on the Lorox label.

- 2. Preemergence Tank Mixtures of PROWL plus Lorox.

Apply PROWL plus Lorox preemergence tank mixture at planting or up to 2 days after planting. Refer to page 33 for "PROWL Preemergence General Instructions." DO NOT APPLY POSTEMERGENCE.

**Weed Species Controlled**

When applied as directed PROWL plus Lorox will control the following weeds in addition to those controlled by PROWL alone:

- Mustard (Brassica spp.)
- Pennsylvania smartweed (Polygonum pensylvanicum)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)

PROWL plus Lorox will aid in the control of and reduce competition from:

- Common ragweed (Ambrosia artemisiifolia)

**Broadcast Rate Per Acre of PROWL Plus Lorox  
Preemergence Tank Mixtures or PROWL Preplant Incorporated  
Plus Lorox Preemergence**

<u>Soil Texture</u> <sup>2</sup>	<u>PROWL + Lorox L<sup>1</sup></u> <u>1/2 to 3%</u> <u>Organic Matter</u>	<u>PROWL + Lorox L<sup>1</sup></u> <u>More Than 3%</u> <u>Organic Matter</u>
	COARSE Sandy loams only	1.0 to 1.5 pts. + 1.0 pts.
MEDIUM	1.5 to 2.0 pts. + 1.0 to 1.5 pts.	1.5 to 2.0 pts. + 1.5 to 2.0 pts.
FINE	1.5 to 2.0 pts. + 1.5 to 2.0 pts.	2.0 to 2.5 pts. + 2.0 to 2.5 pts.

<sup>1</sup>When using Lorox 50W use equivalent rates. One pint of the flowable formulation equals 1 lb. of the wettable powder formulation. See conversion chart on page 7 .

<sup>2</sup>DO NOT USE on sands, loamy sands, or gravelly soils, or on soils containing less than 1/2% organic matter.

NOTE: Livestock may graze or be fed forage from treated soybean fields. If soybean crop loss occurs due to weather conditions, soybeans may be replanted. If replanting is necessary, thoroughly rework the soil before replanting. Observe all precautions and limitations on Lorox label.

### PROWL Plus Lasso

The following PROWL plus Lasso treatments may be used in soybeans. Apply PROWL plus Lasso treatments with ground equipment or aircraft. Refer to page 10 for incorporation instructions. Use PROWL and Lasso rates listed in table on page 41.

#### 1. Preplant Incorporated Tank Mixture of PROWL Plus Lasso

PROWL plus Lasso must be incorporated into the soil within 7 days after application and soybeans must be planted no later than 7 days after application. Incorporate into the top 1 to 2 inches of soil.

Incorporation on coarse soils may reduce length of control due to leaching of Lasso with rainfall or irrigation. Incorporation is not recommended on coarse soils in the Southeastern States.

#### 2. Preemergence Tank Mixtures of PROWL Plus Lasso

Apply PROWL plus Lasso preemergence tank mixture at planting or up to 2 days after planting. Refer to page 33 for "PROWL Preemergence General Instructions." DO NOT APPLY POSTEMERGENCE. This treatment must be applied within 5 days of the last preplant tillage.

High intensity or excessive rainfall or excessive irrigation after application may reduce weed control.

### Weeds Controlled

When applied as directed, PROWL plus Lasso will control the following weeds in addition to those controlled by PROWL alone:

Black nightshade (Solanum nigrum)  
Hairy nightshade (Solanum sarrachoides)  
Red rice (Oryza sativa)\*  
Yellow nutsedge (Cyperus esculentus)\*

\*Apply preplant incorporated only for control of these weeds.

**Broadcast Rates of PROWL Plus Lasso Preplant  
Incorporated or Preemergence Tank Mixtures**

<u>Soil Texture</u>	<u>PROWL + Lasso Up to 3% Organic Matter</u>	<u>PROWL + Lasso More Than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts. + 2.5 qts.	1.5 pts. + 2.5 qts.
MEDIUM	1.5 to 2.0 pts. + 3.0 to 4.0 qts.	1.5 to 2.0 pts. + 3.0 to 4.0 qts.
FINE	1.5 to 2.0 pts. + 3.0 to 4.0 qts.	2.0 to 2.5 pts. + 3.0 to 4.0 qts.

Observe all precautions and limitations on the Lasso label.

**PROWL Plus Dual**

The following PROWL plus Dual treatments may be used in soybeans. Apply PROWL plus Dual treatments with ground equipment or aircraft. Refer to page 10 for incorporation instructions. Use PROWL and Dual rates listed in table on page 42.

1. Preplant Incorporated Tank Mixture of PROWL Plus Dual

PROWL plus Dual must be incorporated into the soil within 7 days after application and soybeans must be planted no later than 14 days after application. Incorporate into the top 1 to 2 inches of soil.

Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If soybeans are planted on beds, apply and incorporate after bed formation.

2. Preemergence Tank Mixtures of PROWL Plus Dual

Apply PROWL plus Dual preemergence tank mixture at planting or up to 2 days after planting. Refer to page 3 for "PROWL Preemergence General Instructions." DO NOT A / POSTEMERGENCE.

**Weeds Controlled**

When applied as directed, PROWL plus Dual will control the following weeds in addition to those controlled by PROWL alone:

- Red rice (Oryza sativa)
- Yellow nutsedge (Cyperus esculentus)
- Black nightshade (Solanum nigrum)

**Broadcast Rates Per Acre of PROWL Plus Dual  
Preplant Incorporated or Preemergence Tank Mixtures**

<u>Soil Texture</u>	<u>PROWL + Dual 8E Up to 3% Organic Matter</u>	<u>PROWL + Dual 8E More Than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts. + 1.5 to 2.0 pts.	1.5 pts. + 2.0 pts.
MEDIUM	1.5 to 2.0 pts. + 2.0 to 2.5 pts.	1.5 to 2.0 pts. + 2.0 to 2.5 pts.
FINE	1.5 to 2.0 pts. + 2.0 to 2.5 pts.	2.0 to 2.5 pts. + 2.5 to 3.0 pts.

Observe all precautions and limitations on the Dual label.

**Special Weeds**

**1. Shattercane**

Preplant incorporated treatments of PROWL alone, PROWL plus Sencor/Lexone preplant incorporated tank mixture, or preplant incorporated PROWL applications followed by registered sequential preemergence herbicides will control shattercane (wild cane) (Sorghum bicolor).

Shattercane is difficult to control in many soybean growing areas because of its ability to germinate from a greater depth in the soil than most other weeds. Shattercane can emerge throughout the growing season depending on soil temperature, moisture, and seed dormancy.

Thoroughly mix previous crop residues into the soil and destroy any existing vegetation prior to herbicide application. Apply PROWL or PROWL combinations at the recommended rates listed in tables on page 43. See page 10 for incorporation instructions. Thoroughly and uniformly mechanically incorporate PROWL into the TOP 2 INCHES of soil. Acceptable results CANNOT be expected if PROWL is applied preemergence. Cultivation may be necessary to control escapes and late germinating shattercane during the crop season.

**Broadcast Rate Per Acre of PROWL  
Preplant Incorporated for Control of Shattercane in Soybeans**

<u>Soil Texture</u>	<u>Up to 3% Organic Matter</u>	<u>More Than 3% Organic Matter</u>
COARSE	2.0 pts.	2.0 pts.
MEDIUM	2.5 pts.	3.0 pts.
FINE	3.0 pts.	3.0 pts.

**Broadcast Rate Per Acre of PROWL Plus Sencor/Lexone  
Preplant Incorporated Tank Mixture for Control of  
Shattercane in Soybeans<sup>1</sup>**

<u>Soil Texture<sup>3</sup></u>	<u>PROWL + Sencor/ Lexone DF<sup>2</sup> ½ to 3% Organic Matter</u>	<u>PROWL + Sencor/ Lexone DF<sup>2</sup> More Than 3% Organic Matter</u>
COARSE	1.5 pts. + 0.5 lb.	1.5 pts. + 0.5 lb.
MEDIUM	2.0 pts. + 0.5 lb.	2.0 pts. + 0.5 to 0.67 lb.
FINE	2.0 pts. + 0.5 to 0.67 lb.	2.5 pts. + 0.67 lb.

<sup>1</sup>Refer to page 34 for special precautions for PROWL Plus Sencor/Lexone combinations.

<sup>2</sup>When using Sencor 4F, Sencor 50WP, Lexone 4L, or Lexone 50WP use equivalent rates. One pint of the flowable formulation or 1 lb. of the wettable powder formulation equals 0.67 lb. of Sencor DF or Lexone DF. See conversion chart on page 7.

<sup>3</sup>DO NOT USE on sands. DO NOT USE on loamy sands or on sandy loams that contain less than 1% organic matter, nor on other soils with less than 1/2% organic matter as crop injury may result.

## 2. Red Rice, Itchgrass

PROWL applied preplant incorporated will provide control of red rice (Oryza sativa) and aid in the control of and reduce competition from itchgrass (Rottboellia exaltata) at the rates listed in the table below.

### Broadcast Rate Per Acre of PROWL Preplant Incorporated for Control of Red Rice and Suppression of Itchgrass in Soybeans

#### Soil Texture - Up to 3% Organic Matter<sup>1</sup>

COARSE	2.0 to 3.0 pts. <sup>2</sup>
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MEDIUM	3.0 pts.
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FINE	4.0 pts.
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<sup>1</sup>This use is not recommended for soils with more than 3% organic matter.

<sup>2</sup>The higher rate should be used if heavy red rice or itchgrass populations are anticipated.

NOTE: Livestock can graze or be fed from treated soybean fields. If soybean crop loss occurs due to weather conditions, cotton or soybeans can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

## 3. Rhizome Johnsongrass

PROWL applied preplant incorporated for two consecutive years will provide control of rhizome johnsongrass (Sorghum halepense) in soybeans at the rates recommended for soil textures listed on page 45. This use is not recommended for Arizona, New Mexico and California. Rhizome johnsongrass will be suppressed after the first year and controlled after the second year.

Before application, use a chisel plow or similar implement to bring johnsongrass rhizomes to the surface. Chop rhizomes into small pieces with a disk harrow set to cut 4 to 6 inches deep and operated in two different directions at 4 to 6 mph.

PROWL is to be incorporated into the soil within 7 days after application prior to planting. For maximum control of rhizome johnsongrass, incorporate PROWL as soon as possible after application. Deep and thorough incorporation of PROWL is necessary for control of rhizome johnsongrass. Mechanical incorporation can be achieved by the following methods.

- a) Disk harrow set to cut 4 to 6 inches deep and operated in two different directions at 4 to 6 mph.
- b) PTO-driven equipment (tillers, cultivators, hoes) set to cut 3 to 4 inches deep and operated one time at 4 mph or less.

For johnsongrass escapes during the crop season, cultivation and/or application of registered postemergence herbicides are recommended. Follow the directions for use on the labels of the respective herbicides.

**Broadcast Rate Per Acre of PROWL Preplant Incorporated  
for Control of Rhizome Johnsongrass**

Apply for two consecutive years.

Soil Texture - Up to 3% Organic Matter<sup>1</sup>

COARSE	2.0 pts.
<hr/>	
MEDIUM	3.0 pts.
<hr/>	
FINE	4.0 pts.
<hr/>	

<sup>1</sup>This use is not recommended for soils with more than 3% organic matter.

NOTE: Livestock can graze or be fed from treated soybean fields.

If soybean crop loss occurs due to weather conditions, cotton or soybeans can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.



### PROWL TANK MIXTURES IN MINIMUM AND NO-TILL SYSTEMS

PROWL may be applied as a preemergence tank mixture treatment in minimum or no-till soybeans as follows:

PROWL + Sencor/Lexone + Roundup  
PROWL + Sencor/Lexone + paraquat  
PROWL + Lorox + Roundup  
PROWL + Lorox + paraquat

Paraquat and Roundup are used to kill existing vegetative growth. Paraquat or Roundup should be deleted from the tank mixture if vegetation is absent at time of application.

#### Application Instructions

Uniformly apply the recommended PROWL tank mixture in 20 to 60 gallons of water per acre with ground equipment. Use the higher gallonage for fields with heavy weed infestations or excessive crop residues.

Apply recommended PROWL tank mixtures at planting or up to 2 days after planting. DO NOT APPLY POSTEMERGENCE to soybeans since soybeans exposed at time of application will be killed.

These treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application.

#### Mixing Instructions

Fill tank one-half to three-quarters full with clean water. MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES. Add Sencor, Lexone or Lorox formulation first, as follows:

When using Sencor/Lexone or Lorox Flowable Formulation: Premix one part of the flowable and one part water and add this diluted mixture into the partially filled tank while agitating.

When using Sencor/Lexone Dry Flowable Formulation: Add the granules to the partially filled tank while agitating, and allow the granules to disperse.

When using Sencor/Lexone or Lorox Wettable Powder Formulation: Make a slurry of the wettable powder in water (1 part WP + 2 parts water). Add the slurry slowly into the partially filled tank while agitating.

After Sencor, Lexone or Lorox herbicide has been added to the tank and mixing is complete, add PROWL to tank while agitating.

After complete mixing of PROWL, continue filling the sprayer with water and add paraquat or Roundup near the end of the filling process.

If paraquat is included in the tank mixture, add 8 oz. of Ortho<sup>1</sup> X-77 spreader or similar non-ionic surfactant per 100 gallons of total spray mixture as the last ingredient in the tank.

Fill the remainder of the tank with water.

MAINTAIN CONTINUOUS AGITATION UNTIL SPRAYING IS COMPLETED. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

#### Tank Mixtures with Paraquat

Apply 1 to 2 pints of paraquat per acre in recommended tank mixtures. Use the 2 pint rate if weeds are 4 to 6 inches tall. Weeds over 6 inches tall will not be controlled with this treatment.

The rate of paraquat is based on products containing 2 pounds active ingredient per gallon.

When paraquat is included in a recommended tank mixture, add 8 oz. of Ortho X-77 spreader or similar non-ionic surfactant per 100 gallons of spray mixture. See mixing instructions above.

Paraquat will control most annual emerged weeds and suppress many emerged perennials. Refer to paraquat label for specific use recommendations.

Observe all precautions and limitations on paraquat label.

#### Tank Mixtures with Roundup

##### Annual Weeds

Apply 1.0 to 1.5 quarts of Roundup per acre in recommended tank mixtures. Use the 1.5 quart rate if annual weeds are more than 6 inches tall.

Roundup will control most annual emerged weeds. Refer to Roundup label for specific use recommendations.

Observe all precautions and limitations on Roundup label.

##### Perennial Weeds

At normal application times in minimum or no-till systems, perennial weeds may not be at the proper stage of growth for control with Roundup. Refer to Roundup label for the proper stage of growth for perennial weeds. Use of 2 to 4 quarts of Roundup per acre in recommended tank mixtures under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. Refer to Roundup label for emerged perennial weeds controlled. To obtain control of perennial weeds, follow recommendations on Roundup label for stage of growth and rate of application.

<sup>1</sup>Ortho is a trademark of Chevron Chemical Company.

NOTE: When using these tank mixtures, DO NOT exceed 4 quarts of Roundup per acre.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IS NOT RECOMMENDED.

Observe all precautions and limitations on Roundup label.

**PROWL Plus Sencor/Lexone**

See special precautions on page 34 for PROWL plus Sencor/Lexone combinations.

**Weeds Controlled**

When applied as directed, PROWL plus Sencor/Lexone will control the following weeds in addition to those controlled by PROWL alone:

- Common ragweed (Ambrosia artemisiifolia)
- Jimsonweed (Datura stramonium)
- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Prickly sida (Sida spinosa)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)
- Venice mallow (Hibiscus trionum)
- Wild mustard (Brassica kaber) (Medium and fine soils only)

PROWL plus Sencor/Lexone will aid in the control of and reduce competition from cocklebur (Xanthium strumarium)

**Broadcast Rates Per Acre of PROWL Plus Sencor/Lexone  
Preemergence Tank Mixture in Minimum and No-Till Soybeans**

Soil Texture <sup>3</sup>	SOUTHERN STATES (Including Eastern Coastal Plains) <sup>1</sup>		NORTHERN STATES <sup>1</sup>	
	PROWL + Sencor/Lexone DF <sup>2</sup>	PROWL + Sencor/Lexone DF <sup>2</sup>	PROWL +	PROWL +
			<u>½ to 3% Organic Matter</u>	<u>More Than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts. + 0.33 lbs.	1.0 to 1.5 pts. + 0.5 lb.	1.5 pts. + 0.5 lb.	
MEDIUM	1.5 to 2.0 pts. + 0.5 lb.	1.5 to 2.0 pts. + 0.5 lb.	1.5 to 2.0 pts. + 0.5 to 0.67 lb.	
FINE	1.5 to 2.0 pts. + 0.67 lb.	1.5 to 2.0 pts. + 0.5 to 0.67 lb.	2.0 to 2.5 pts. + 0.67 lb.	

<sup>1</sup>See map on page 75 for specific states. DO NOT USE IN CALIFORNIA.

<sup>2</sup>When using Sencor 4F, Sencor 50WP, Lexone 4L, or Lexone 50WP, use equivalent rates. One pint of the flowable formulation or 1 lb. of the wettable powder formulation equals 0.67 lb. of Sencor DF or Lexone DF. See conversion chart on page 7.

<sup>3</sup>DO NOT USE on sands. DO NOT USE on loamy sands or on sandy loams that contain less than 1% organic matter, nor on other soils with less than 1/2% organic matter as crop injury may result. This tank mixture is not recommended for use on soils with less than 2% organic matter in the Coastal Plain of New Jersey or the Delmarva Peninsula.

The high rates of PROWL and Sencor/Lexone for each soil texture, as stated above, should be used if heavy weed populations are anticipated or if field is particularly trashy or cloddy.

NOTE: Livestock may graze or be fed forage from treated fields 40 days after application. Observe all precautions and limitations on Sencor and Lexone labels.

**PROWL PLUS LOROX**

**Weeds Controlled**

When applied as directed, PROWL plus Lorox preemergence will control the following weeds in addition to those controlled by PROWL alone:

- Mustard (Brassica spp.)
- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)

PROWL plus Lorox will aid in the control of and reduce competition from:

- Common ragweed (Ambrosia artemisiifolia)

**Broadcast Rates Per Acre of PROWL Plus Lorox  
Preemergence Tank Mixture in Minimum and No-Till Soybeans**

<u>Soil Texture</u>	<u>PROWL + Lorox L<sup>1</sup></u> <u>1/2 to 3%</u> <u>Organic Matter</u>	<u>PROWL + Lorox L<sup>1</sup></u> <u>More Than 3%</u> <u>Organic Matter</u>
COARSE sandy loams only	1.0 to 1.5 pts. + 1.0 pt.	1.5 pts + 1.0 to 1.5 pts.
MEDIUM	1.5 to 2.0 pts. + 1.0 to 1.5 pts.	1.5 to 2.0 pts. + 1.5 to 2.0 pts.
FINE	1.5 to 2.0 pts. + 1.5 to 2.0 pts.	2.0 to 2.5 pts. + 2.0 to 2.5 pts.

1When using Lorox 50W use equivalent rates. One pint of the flowable formulation equals 1 lb. of the wetttable powder formulation. See conversion chart on page 7.

2DO NOT USE on sands, loamy sands, or gravelly soils, or on soils containing less than 1/2% organic matter.

The high rates of PROWL and Lorox for each soil texture, as stated above, should be used if heavy weed populations are anticipated or if field is particularly trashy or cloddy.

NOTE: Livestock may graze or be fed forage from treated fields. Observe all precautions and limitations on Lorox label.

**CULTI-SPRAY™  
(POSTEMERGENCE INCORPORATED)  
FIELD CORN - GRAIN SORGHUM**

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**PROWL CULTI-SPRAY (postemergence incorporated) can be applied in field corn as follows:**

**PROWL alone p. 53  
PROWL + atrazine p. 53**

**PROWL CULTI-SPRAY (postemergence incorporated) can be applied in grain sorghum as follows:**

**PROWL alone p. 54  
PROWL + atrazine p. 54**

Winter wheat and winter barley may be planted in the fall 90 days after an application with PROWL CULTI-SPRAY in irrigated field corn or grain sorghum or 120 days after an application with PROWL CULTI-SPRAY in dry land field corn or grain sorghum. The treated crop must be grown to maturity and harvested before planting wheat or barley. See page 16 for complete follow crop instructions.

**DO NOT use PROWL on peat or muck soils.**

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**General Information**

PROWL or PROWL plus atrazine tank mixtures applied as a CULTI-SPRAY (postemergence incorporated) treatment will control most late season annual grasses and certain broadleaf weeds in field corn or grain sorghum. PROWL treatments can be applied from the 4-inch growth stage to as late as the last cultivation (layby) of field corn or grain sorghum. PROWL treatments will not control established weeds. EMERGED WEEDS MUST BE DESTROYED BY CULTIVATION PRIOR TO PROWL APPLICATION.

**Additional Herbicide Applications**

CULTI-SPRAY (postemergence incorporated) applications of PROWL or PROWL plus atrazine tank mixture can be applied in field corn or grain sorghum previously treated with herbicides registered for use in field corn or grain sorghum. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in field corn or grain sorghum and for follow crop restrictions.

**CULTI-SPRAY (Postemergence Incorporated)  
APPLICATIONS**

The field must be cultivated and all emerged weeds must be destroyed prior to application. Cultivation should be accomplished with a sweep-type or rolling cultivator operated at sufficient speed to throw at least one inch of soil over the bases of the field corn or grain sorghum plants. This will kill small weed seedlings growing in the field corn or grain sorghum row and will prevent direct contact of the zone of brace root formation by PROWL during application.

Apply PROWL or PROWL plus atrazine tank mixture with ground sprayer. Uniform soil coverage must be obtained. Drop nozzles should be used in field corn or grain sorghum foliage will prevent uniform coverage of the soil surface within the rows.

PROWL treatments can be applied from the 4-inch growth stage to as late as the last cultivation (layby) of field corn or grain sorghum.

PROWL treatments must be thoroughly and uniformly incorporated into the soil (1) with a sweep-type or rolling cultivator set to provide thorough incorporation in the top 1 inch of soil OR (2) with adequate irrigation water or rainfall. For best results, PROWL treatments should be incorporated as soon as possible after application but incorporation must be completed within 7 days after application. If adequate moisture is not received within 7 days after application, PROWL must be incorporated with a sweep-type or rolling cultivator.

Under situations of low rainfall or soil moisture, when deep germinating weeds such as shattercane or field sandbur are anticipated, mechanical incorporation will provide best results.

If cultivation is needed after application and incorporation of PROWL, the depth of cut should be no deeper than the depth of cut used to incorporate.

DO NOT APPLY PROWL in field corn or grain sorghum more than once per crop season.

**Weeds Controlled**

When applied as directed, PROWL CULTI-SPRAY (postemergence incorporated) will control the following weeds in addition to the weeds controlled by PROWL listed on page 9:

Shattercane (Sorghum bicolor)  
Wild proso millet (Panicum miliaceum)

When applied as directed, PROWL plus atrazine CULTI-SPRAY (postemergence incorporated) tank mixture will control the following weeds in addition to those controlled by PROWL alone:

Pennsylvania smartweed (Polygonum pennsylvanicum)  
Velvetleaf (Buttonweed) (Abutilon theophrasti)  
Venice mallow (Hibiscus trionum)

**FIELD CORN**

**DO NOT APPLY PROWL preplant incorporated in field corn as serious crop injury can result.**

**Broadcast Rate Per Acre of PROWL CULTI-SPRAY  
(Postemergence Incorporated) in Field Corn**

<u>Soil Texture</u>	<u>Southern States<sup>1</sup></u>	<u>Northern States<sup>1</sup></u>
COARSE	1.0 to 1.5 pts.	1.5 to 2.0 pts.
MEDIUM	1.5 to 2.0 pts.	2.0 to 3.0 pts.
FINE	1.5 to 3.0 pts.	2.0 to 3.0 pts.

<sup>1</sup>See map on page 75 for specific states.

**NOTE: Livestock can graze or be fed forage from treated field corn after 21 days following application.**

**Broadcast Rate Per Acre of PROWL Plus Atrazine  
CULTI-SPRAY (Postemergence Incorporated) Tank Mixture in Field Corn**

<u>Soil Texture</u>	<u>PROWL + atrazine 80W<sup>1</sup></u>	
	<u>Southern States<sup>2</sup></u>	<u>Northern States<sup>2</sup></u>
COARSE	1.0 to 1.5 pts. + 1.25 lbs.	1.5 to 2.0 pts. + 1.25 lbs.
MEDIUM	1.5 to 2.0 pts. + 1.25 to 1.5 lbs.	2.0 to 3.0 pts. + 1.25 to 1.5 lbs.
FINE	1.5 to 3.0 pts. + 1.25 to 1.5 lbs.	2.0 to 3.0 pts. + 1.25 to 1.5 lbs.

<sup>1</sup>When using atrazine 4L or AAtrex Nine-0 use equivalent rates. One quart of atrazine 4L equals 1.25 lbs. of atrazine 80W. One pound of AAtrex Nine-0 equals 1.12 lbs. of atrazine 80W. See conversion chart on page 7.

<sup>2</sup>See map on page 75 for specific states.

**NOTE: Observe all precautions and limitations on atrazine labels. Follow cropping restrictions on atrazine labels. Livestock can graze or be fed forage from treated field corn after 21 days following application.**



**GRAIN SORGHUM**

**DO NOT APPLY PROWL** in grain sorghum preplant incorporated or preemergence as serious crop injury can result.

**DO NOT APPLY PROWL** in grain sorghum which is planted in double row beds since this cultural practice does not permit adequate soil coverage of the bases of the grain sorghum plants with cultivation.

**Broadcast Rate Per Acre of PROWL CULTI-SPRAY  
(Postemergence Incorporated) in Grain Sorghum**

<u>Soil Texture</u>	<u>Southern States<sup>1</sup></u>	<u>Northern States<sup>1</sup></u>
COARSE	1.0 to 1.5 pts.	1.5 to 2.0 pts.
MEDIUM	1.5 to 2.0 pts.	2.0 to 3.0 pts.
FINE	1.5 to 3.0 pts.	2.0 to 3.0 pts.

<sup>1</sup>See map on page 75 for specific states.

**NOTE:** Livestock can graze or be fed forage from treated grain sorghum after 21 days following application.

**Broadcast Rate Per Acre of PROWL Plus Atrazine CULTI-SPRAY  
(Postemergence Incorporated) Tank Mixture in Grain Sorghum**

<u>Soil Texture</u>	<u>PROWL + atrazine 80W<sup>1</sup></u>	
	<u>Southern States<sup>2</sup></u>	<u>Northern States<sup>2</sup></u>
COARSE	DO NOT USE	DO NOT USE
MEDIUM	1.5 to 2.0 pts. + 1.25 lbs.	2.0 to 3.0 pts. + 1.25 lbs.
FINE	1.5 to 3.0 pts. + 1.25 lbs.	2.0 to 3.0 pts. + 1.25 lbs.

<sup>1</sup>When using atrazine 4L or AAtrex Nine-O use equivalent rates. One quart of atrazine 4L equals 1.25 lbs. of atrazine 80W. One pound of AAtrex Nine-O equals 1.12 lbs. of atrazine 80W. See conversion chart on page 7.

<sup>2</sup>See map on page 75 for specific states.

**NOTE:** Observe all precautions and limitations on atrazine labels. Follow cropping restrictions on atrazine labels. Livestock can graze or be fed forage from treated grain sorghum fields after 21 days following application.

**RICE**

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**PROWL plus Stam M-4 early postemergence tank mixture may be used in dry-seeded rice.**

**DO NOT use this treatment in water-seeded rice. DO NOT use in California.**

**DO NOT use PROWL on peat or muck soils.**

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**GENERAL INFORMATION**

**PROWL plus Stam M-4 is a postemergence treatment which combines the direct contact action of Stam M-4 and the residual activity of PROWL. Since the residual activity of PROWL provides preemergence control of certain annual grasses which can germinate after this tank-mix treatment is applied, flooding after application can be delayed.**

**For maximum weed control with this treatment, it is important to carefully follow the directions below for (1) adequate spray coverage of weeds and soil and (2) proper timing of application, when barnyardgrass (watergrass) is in the 1 to 3 leaf stage of growth with an occasional 4 leaf plant (make application when sprangletop is less than 1/2 inch in height).**

**Spraying Instructions**

**AERIAL APPLICATIONS**

**For aerial application, apply the recommended rate in 10 to 12 gallons of water per acre to ensure adequate coverage. To minimize drift (see Stam M-4 label for sensitive crops), DO NOT apply during periods of gusty winds or winds in excess of 5 mph. Uniform spray distribution may not be achieved when wind velocity is greater than 5 mph. It is recommended that a flagman or an automatic mechanical flagging unit on the aircraft be used to avoid overlapping and possible crop injury.**

**GROUND APPLICATIONS**

**For ground equipment, apply the recommended rate in 15 to 25 gallons of water per acre to ensure adequate coverage. Use a properly calibrated low-pressure (20 to 40 psi) sprayer equipped with 8002 or larger size Tee-Jet or comparable nozzles to achieve uniform spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle screens must be no finer than 50 mesh. DO NOT apply PROWL during periods of gusty winds or when wind velocity is greater than 10 mph.**

### Early Postemergence Applications

The seedbed should be firm and free of clods and trash. The seedbed must be prepared to allow for good seed coverage. Previous crop residues should be thoroughly mixed into the soil to a depth of 4 to 6 inches by plowing or disking before planting rice.

Uniformly apply recommended PROWL plus Stam M-4 treatment by aircraft or ground equipment after rice emergence, according to spraying instructions above, when barnyardgrass is in the 1 to 3 leaf growth stage with an occasional 4 leaf plant (make application when sprangletop is less than 1/2 inch). THE GROWER SHOULD INSPECT FIELDS FREQUENTLY TO CHECK GROWTH OF BARNYARDGRASS AND/OR SPRANGLETOP TO DETERMINE PROPER APPLICATION TIMING. Timing of applications should be based on the growth stage of barnyardgrass and/or sprangletop and not on the growth stage of rice. If rice is too small to maintain a flood on the field, the treatment can still be applied since flooding can be delayed because of the residual activity of PROWL.

While the residual activity of PROWL allows flooding to be delayed, proper water management practices must be followed for normal rice growth. Flooding should not be delayed if weeds begin to develop after application.

Since soil and weeds must be completely exposed to spray coverage, no flood water should be on field at time of application. If necessary, fields may be flushed prior to treatment to produce vigorous rice and weed growth.

Since the residual activity of PROWL is activated by moisture, PROWL is most effective in controlling emerging weeds when adequate rainfall or irrigation (flush) is received within 7 days after application.

For maximum direct contact activity of Stam M-4, delay application if there is a chance of rain within 6 to 8 hours.

#### Weeds Controlled

PROWL plus Stam M-4 tank mixture provides direct contact control of weeds listed on the Stam M-4 label. The following grass species are controlled by the residual activity of PROWL plus Stam M-4 tank mixture at the rates recommended for each soil texture listed below:

Barnyardgrass (watergrass) (Echinochloa crus-galli or  
Echinochloa colonum)  
Crabgrass (Digitaria spp.)  
Signalgrass (Brachiaria platyphylla)  
Sprangletop (Leptochloa spp.)

**Broadcast Rate Per Acre of PROWL  
Plus Stam M-4 Tank Mixture in Rice**

<u>Soil Texture</u>	<u>PROWL + Stam M-4</u>
COARSE	1.5 pts. + 6.0 to 8.0 pts.
MEDIUM	1.5 to 2.0 pts. + 6.0 to 8.0 pts.
FINE	1.5 to 2.0 pts. + 6.0 to 8.0 pts.

The high rate of Stam M-4 should be used in the following situations at the time of application: (1) in case of unseasonably cool weather, (2) if barnyardgrass has progressed to predominantly the 3 to 4 leaf stage, or (3) if emerged sprangletop (less than 1/2 inch) is present.

DO NOT apply this tank mixture within 14 days before or after insecticide applications because serious damage to rice may occur.

DO NOT apply this tank mixture in liquid fertilizer.

DO NOT make more than one application of PROWL per season.

DO NOT bale or use rice straw from treated fields for feed or bedding.

Observe all precautions and limitations on the Stam M-4 label.

**POTATOES**

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**PROWL may be applied in potatoes as follows:**

**Preemergence**

PROWL alone, p. 58  
PROWL + Sencor/Lexone, p. 59  
PROWL + Lorox, p. 61

**Preemergence Incorporated**

PROWL alone, p. 58  
PROWL + Eptam, p. 62

**DO NOT use PROWL on peat or muck soils.**

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**Applications of PROWL Alone**

Apply PROWL with ground equipment, aircraft or sprinkler irrigation. The seedbed should be firm and free of clods and trash. Refer to page 59 for PROWL applications through sprinkler irrigation systems. **DO NOT** apply prior to planting crop or postemergence to crop and weeds.

**1. Preemergence Applications**

PROWL may be applied after planting but before potatoes and weeds emerge or after drag-off where this operation is practiced.

PROWL applied preemergence is most effective in controlling weeds when adequate rainfall or irrigation is received within 7 days after application.

**2. Preemergence Incorporated**

Apply PROWL and incorporate after planting but before potatoes and weeds emerge. Where drag-off is practiced, apply PROWL and incorporate before, at or after drag-off but before potatoes and weeds emerge. PROWL is to be incorporated within 7 days after application.

PROWL must be thoroughly and uniformly incorporated into the top 1 or 2 inches of soil. Care must be taken so that incorporation equipment does not damage seed pieces or elongating sprouts.

Mechanical incorporation is not required if adequate rainfall for good crop and weed emergence occurs or irrigation is received within 7 days after application.

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**Applications of PROWL Alone  
Sprinkler Irrigation Systems**

PROWL may be applied preemergence (after planting but before potatoes and weeds have emerged or after drag-off where this operation is practiced) through sprinkler irrigation systems. UNIFORM application requires:

1. The system must be free of leaks and clogged nozzles.
2. The system must be properly calibrated, with water only, to ensure the amount of PROWL applied per acre corresponds to the recommended PROWL rate (see below).
3. The system must apply a uniform amount of water over all areas. Uneven application may cause lack of weed control or crop injury.
4. Application must not be made during periods of gusty winds or when wind velocity is greater than 10 mph.
5. Agitation must be maintained in the nurse tank.

SPRINKLER IRRIGATION SYSTEMS MUST BE EQUIPPED WITH CHECK VALVES OR ANTISIPHON DEVICES AND AN AUTOMATIC SHUTOFF TO PREVENT BACKFLOW INTO THE WATER SUPPLY.

Maintain continuous agitation in nurse tanks during herbicide injection. Apply PROWL in 1/2 to 3/4 inches of water. When application is complete, flush the system with water.

**Broadcast Rate Per Acre of PROWL Alone in Potatoes**

<u>Soil Texture</u>	<u>Less than 3% Organic Matter</u>	<u>More than 3% Organic Matter</u>
COARSE	1.5 pts.	1.5 pts.
MEDIUM	2.0 pts.	3.0 pts.
FINE	3.0 pts.	3.0 pts.

**PROWL Plus Sencor/Lexone**

PROWL plus Sencor/Lexone preemergence tank mixture may be applied after planting but before potatoes and weeds emerge or after drag-off where this operation is practiced. Apply with ground equipment or aircraft. The seedbed should be firm and free of clods and trash. DO NOT incorporate. DO NOT apply postemergence to crop.

This treatment is most effective in controlling weeds when adequate rainfall or irrigation is received within 7 days after application.

**Weeds Controlled**

When applied as directed, PROWL plus Sencor/Lexone will control the following weeds in addition to those controlled by PROWL alone:

- Cocklebur (Xanthium strumarium)
- Common ragweed (Ambrosia artemisiifolia)
- Pennsylvania smartweed (Polygonum pensylvanicum)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)

PROWL plus Sencor/Lexone will aid in the control of and reduce competition from:

- Black nightshade (Solanum nigrum)
- Hairy nightshade (Solanum sarrachoides)

**Broadcast Rate Per Acre of PROWL  
Plus Sencor/Lexone Preemergence Tank Mixture in Potatoes**

<u>Soil Texture</u>	<u>PROWL + Sencor/ Lexone DF<sup>1</sup></u>	<u>PROWL + Sencor/ Lexone DF<sup>1</sup></u>
	<u>Less than 3% Organic Matter<sup>2</sup></u>	<u>More than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts. + 0.33 to 0.5 lb. <sup>3</sup>	1.0 to 1.5 pts. + 0.33 to 0.5 lb. <sup>3</sup>
MEDIUM	1.5 to 2.0 pts. + 0.5 to 0.67 lb.	2.0 to 3.0 pts. + 0.5 to 0.67 lb.
FINE	2.0 to 3.0 pts. + 0.5 to 0.67 lb.	3.0 pts. + 0.5 to 0.67 lb.

<sup>1</sup>When using Sencor 4F, Sencor 50WP, Lexone 4L, or Lexone 50WP, use equivalent rates. One pint of the flowable formulation or 1 lb. of the wettable powder formulation equals 0.67 lb. of Sencor DF or Lexone DF. See conversion chart on page 7.

<sup>2</sup>Observe organic matter restrictions on Sencor and Lexone labels.

<sup>3</sup>Use 0.5 to 0.67 lb. of Sencor/Lexone on coarse soils in Wisconsin.

NOTE: Observe all precautions and limitations on Sencor and Lexone labels. Follow cropping restrictions on Sencor and Lexone labels.

**PROWL Plus Lorox**

PROWL plus Lorox preemergence tank mixture may be used in potatoes grown East of the Rocky Mountains. Apply after planting but before potatoes and weeds emerge or after drag-off or hilling where these operations are practiced. Apply with ground equipment or aircraft. The seedbed should be firm and free of clods and trash. Plant seed pieces at least two inches deep.

This treatment is most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application.

**Weeds Controlled**

When applied as directed, PROWL plus Lorox will control the following weeds in addition to those controlled by PROWL alone:

- Chickweed (Stellaria media)
- Mustard (Brassica spp.)
- Common ragweed (Ambrosia artemisiifolia)
- Pennsylvania smartweed (Polygonum pensylvanicum)

**Broadcast Rate Per Acre of PROWL  
Plus Lorox Preemergence Tank Mixture in Potatoes**

<u>Soil Texture</u> <sup>2</sup>	<u>PROWL + Lorox L<sup>1</sup></u> 1 to 3% <u>Organic Matter</u>	<u>PROWL + Lorox L<sup>1</sup></u> 3 to 5% <u>Organic Matter</u>
COARSE sandy loams only	1.0 to 1.5 pts. + 1.5 to 2.5 pts.	1.0 to 1.5 pts. + 2.0 to 3.0 pts.
Wisconsin-Central Sands Area Only: PROWL plus Lorox tank mixture may be used on sands and loamy sands. Sands - Apply 1.0 to 1.5 pints of PROWL plus 1 pint of Lorox L per acre. Loamy sand - Apply 1.0 to 1.5 pints of PROWL plus 2 pints of Lorox L per acre.		
MEDIUM	1.5 to 2.0 pts. + 1.5 to 3.0 pts.	2.0 to 3.0 pts. + 2.5 to 4.0 pts.
FINE	2.0 to 3.0 pts. + 2.5 to 4.0 pts.	3.0 pts. + 3.0 to 4.0 pts.

<sup>1</sup>When using Lorox 50W use equivalent rates. One pint of the flowable formulation equals 1 lb. of the wettable powder formulation. See conversion chart on page 7.

<sup>2</sup>DO NOT use on sands and loamy sands (except in Wisconsin-Central Sands Area), gravelly soils or exposed subsoils or on soils containing less than 1% organic matter as injury to the treated crop or subsequent crops may result.

NOTE: Observe all precautions and limitations on Lorox label.



### PROWL Plus Eptam

PROWL plus Eptam tank mixture may be applied and incorporated after planting but before potatoes and weeds emerge. The seedbed should be firm and free of clods and trash. In areas where potatoes are normally dragged-off, apply and incorporate following drag-off but before potatoes and weeds emerge. Incorporate immediately after application.

PROWL plus Eptam must be thoroughly and uniformly incorporated into the top 1 or 2 inches of soil. Whenever possible, application and incorporation should be done in the same operation. Care must be taken so that incorporation equipment does not damage seed pieces or elongating sprouts.

### Weeds Controlled

When applied as directed, PROWL plus Eptam will control the following weeds in addition to those controlled by PROWL alone:

- Purple nutsedge (Cyperus rotundus)
- Yellow nutsedge (Cyperus esculentus)
- Black nightshade (Solanum nigrum)
- Hairy nightshade (Solanum sarrachoides)

### Broadcast Rate Per Acre of PROWL Plus Eptam Preemergence Incorporated in Potatoes<sup>1</sup>

<u>Soil Texture</u>	<u>PROWL + Eptam 7E</u>	<u>PROWL + Eptam 7E</u>
	<u>Less than 3% Organic Matter</u>	<u>More than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts. + 3.0 to 3.5 pts.	1.0 to 1.5 pts. + 3.0 to 3.5 pts.
MEDIUM	1.5 to 2.0 pts. + 3.0 to 3.5 pts.	3.0 pts. + 3.0 to 3.5 pts.
FINE	3.0 pts. + 3.0 to 3.5 pts.	3.0 pts. + 3.0 to 3.5 pts.

<sup>1</sup>For nutsedge control, use 4.5 to 7.0 pints of Eptam per acre.

NOTE: The Superior variety potato is sensitive to Eptam and under stress conditions, early season stunting may occur. Observe all precautions and limitations on Eptam label.

TOBACCO

PROWL may be applied in transplanted tobacco as follows:

Preplant incorporated application, p. 63.

Layby application, p. 64.

DO NOT use PROWL on peat or muck soils.

Preplant Incorporated Application

Apply PROWL with ground sprayer immediately before transplanting or up to 60 days prior to transplanting tobacco. Incorporate prior to planting and within 7 days of application. Refer to page 10 for incorporation instructions.

Broadcast Rate Per Acre of PROWL  
Preplant Incorporated in Transplanted Tobacco

<u>REGION</u>	<u>SOIL TEXTURE</u>	<u>PROWL</u>
Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida	COARSE	1.5 to 2.0 pts.
	MEDIUM	
	sandy clay loams, loams	1.5 to 2.0 pts.
	silt loams, silts	2.0 to 2.5 pts.
	FINE	2.0 to 2.5 pts.
Other tobacco- growing states	COARSE	1.5 to 2.0 pts.
	MEDIUM	2.5 to 3.0 pts.
	FINE	2.5 to 3.0 pts.

NOTE: Applied according to directions and under normal growing conditions, PROWL will not harm transplanted tobacco. Under stress conditions for plant growth such as cold/wet or hot/dry weather, PROWL can produce a temporary retardation of tobacco development.

If loss of tobacco crop occurs due to adverse weather conditions, transplanted tobacco or any crop registered for PROWL preplant incorporated use can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

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### Layby Applications

PROWL may be applied as a directed spray following the last normal cultivation (layby), usually 4 to 6 weeks after transplanting tobacco.

Layby applications can be applied in tobacco previously treated with herbicides registered for use in tobacco. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in tobacco and for follow crop restrictions.

Apply PROWL in a 16 to 24-inch band in the middle of the row between the crop rows. The spray should not contact tobacco plants. If the spray nozzles on the ends of the spray boom pass over the same row middle twice, use nozzles which apply one-half (1/2) the normal number of gallons per acre to prevent over-application.

PROWL is most effective in controlling weeds when adequate rainfall or irrigation is received within 7 days after application.

PROWL will not control established weeds. EMERGED WEEDS MUST BE DESTROYED PRIOR TO APPLICATION.

DO NOT APPLY AS A BROADCAST SPRAY OVER TOP OF TOBACCO. LEAF CONTACT MAY CAUSE MALFORMED LEAVES.

#### Broadcast<sup>1</sup> Rate Per Acre of PROWL Layby Application in Transplanted Tobacco

<u>Soil Texture</u>	<u>PROWL<sup>2</sup></u>
COARSE	1.0 to 1.5 pts.
MEDIUM	1.5 to 2.0 pts.
FINE	1.5 to 2.0 pts.

<sup>1</sup>For calculation of band treatment rate, see page 10.

<sup>2</sup>The high rate for each soil texture above should be used if a registered herbicide treatment was not applied prior to layby.

**PEANUTS**

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**PROWL may be applied preplant incorporated in peanuts as follows:**

- PROWL alone, p. 65.**
- PROWL + Vernam, p. 65.**
- PROWL + Dual, p. 67.**

**DO NOT use in California.**

**DO NOT use PROWL on peat or muck soils.**

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**Preplant Incorporated Applications of PROWL Alone**

Apply PROWL with ground equipment or aircraft immediately before planting or up to 60 days prior to planting. Incorporate prior to planting and within 7 days of application. Refer to page 10 for incorporation instructions.

**Broadcast Rate Per Acre of PROWL  
Preplant Incorporated in Peanuts**

<b>REGION</b>	<b>PROWL</b>
Texas, Oklahoma and New Mexico	1.0 to 1.5 pints
Other peanut-growing states	1.5 to 2.0 pints

If loss of peanut crop occurs due to adverse weather conditions, peanuts or any crop registered for PROWL preplant incorporated use can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

**PROWL Plus Vernam**

PROWL plus Vernam tank mixture may be applied preplant incorporated in peanuts.

**1. Application Instructions**

Apply PROWL plus Vernam with ground sprayer only.

## 2. Incorporation Instructions

PROWL plus Vernam must be incorporated IMMEDIATELY (within minutes) after application to prevent loss of Vernam herbicide. Whenever possible, application and incorporation should be done in the same operation.

Use power-driven cultivation equipment set to cut to a depth of 2 to 3 inches or tandem disks set to cut to a depth of 4 to 6 inches, operated at 4 to 6 mph, followed by a spike-toothed harrow or some other leveling device which extends beyond the ends of the disk. For thorough mixing, disk in two different directions (cross disk). Prior to second disking, raise the disk to prevent cutting deeper than 4 to 6 inches.

## 3. Planting and Weed Control Instructions

DO NOT plant seed deeper than 2 inches. Seeding can be accomplished immediately after application or up to 10 days after application. If it is necessary to rework the soil after incorporation, but before planting, do not work the soil deeper than the depth of incorporation.

For nutsedge control, existing stands must be turned under and chopped up thoroughly before application. Cultivation is suggested in addition to PROWL plus Vernam treatment in fields with moderate or heavy nutsedge infestations. Do not cultivate deeper than the depth of incorporation.

### Weeds Controlled

When applied as directed, PROWL plus Vernam will control the following weeds in addition to those controlled by PROWL alone:

Yellow nutsedge (Cyperus esculentus)  
Purple nutsedge (Cyperus rotundus)

### Broadcast Rates Per Acre of PROWL Plus Vernam Preplant Incorporated Tank Mixture in Peanuts

<u>REGION</u>	<u>SOIL TEXTURE</u>	<u>PROWL + Vernam 7E</u>
Texas, Oklahoma and New Mexico	sands, loamy sands	1.0 to 1.5 pts. + 2 1/3 pts.
	sandy loams and finer soils	1.0 to 1.5 pts. + 3 pts.
Other peanut- growing states	sands, loamy sands	1.5 to 2.0 pts. + 2 1/3 pts.
	sandy loams and finer soils	1.5 to 2.0 pts. + 3 pts.

Follow all precautions and limitations on Vernam label.

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**PROWL Plus Dual**

PROWL plus Dual tank mixture may be applied preplant incorporated in peanuts.

Apply PROWL plus Dual with ground equipment or aircraft within 14 days prior to planting. Incorporate into the top 1 to 2 inches of soil prior to planting and within 7 days of application. If crop will be planted on beds, apply and incorporate after bed formation. Refer to page 10 for incorporation instructions.

**Weeds Controlled**

When applied as directed, PROWL plus Dual will control the following weeds in addition to those controlled by PROWL alone:

- Black nightshade (Solanum nigrum)
- Nutsedge (yellow) (Cyperus esculentus)
- Prairie cupgrass (Eriochloa contracta)
- Red rice (Oryza sativa)
- Southwestern cupgrass (Eriochloa gracilis)

**Broadcast Rate Per Acre of PROWL Plus Dual 8E  
Preplant Incorporated Tank Mixture in Peanuts**

<u>REGION</u>	<u>SOIL TEXTURE</u>	<u>PROWL + Dual 8E</u>
Texas, Oklahoma and New Mexico	sands, loamy sands	1.0 to 1.5 pts. + 1.25 pts.
	sandy loams	1.0 to 1.5 pts. + 1.25 to 1.5 pts.
	finer soils	1.0 to 1.5 pts. + 2.0 to 2.5 pts.
Other peanut- growing states	sands, sandy loams, loamy sand	1.5 to 2.0 pts. + 1.5 to 2.0 pts.
	finer soils	1.5 to 2.0 pts. + 2.0 to 2.5 pts.

DO NOT use in California.

Follow all precautions and limitations on Dual 8E label.

**SUNFLOWERS**

**PROWL may be applied preplant incorporated in sunflowers as follows:**

- PROWL alone, p. 68**
- PROWL + Amiben, p. 69**

**DO NOT use PROWL on peat or muck soils.**

**Preplant Incorporated Applications of PROWL Alone**

Apply PROWL with ground equipment or aircraft immediately before planting or up to 60 days prior to planting. Incorporate prior to planting and within 7 days of application. Refer to page 10 for incorporation instructions.

**Broadcast Rate Per Acre of PROWL  
Preplant Incorporated in Sunflowers**

<u>Soil Texture</u>	<u>SOUTHERN STATES<sup>1</sup></u>	<u>NORTHERN STATES<sup>1</sup></u>	
	<u>No Organic Matter Restrictions</u>	<u>Up to 3% Organic Matter</u>	<u>More than 3% Organic Matter</u>
<b>COARSE</b>	1.0 to 1.5 pts.	1.0 to 2.0 pts.	2.0 pts.
<b>MEDIUM</b>	1.5 to 2.0 pts.	1.5 to 2.5 pts.	2.5 to 3.0 pts.
<b>FINE</b>	1.5 to 3.0 pts.	2.0 to 3.0 pts.	3.0 pts.

<sup>1</sup>See map on page 75 for specific states.

Use the 3 pint rate for heavy clay soils.

**NOTE: DO NOT feed forage or graze livestock in treated sunflower fields. If sunflower crop loss occurs due to weather conditions, sunflowers or any crop registered for PROWL preplant incorporated use can be replanted. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.**

**PROWL Plus Amiben**

The following PROWL plus Amiben treatments may be applied in sunflowers grown in Northern States. See map on page 75 for specific states. Apply PROWL or PROWL plus Amiben tank mixture with ground equipment or aircraft. Refer to page 10 for incorporation instructions. Use PROWL and Amiben rates listed below.

**1. PROWL Preplant Incorporated Followed by Amiben Preemergence**

Apply PROWL preplant incorporated. Follow with a preemergence treatment of Amiben as directed on the Amiben label.

**2. Preplant Incorporated Tank Mixture of PROWL Plus Amiben**

PROWL plus Amiben must be incorporated into the soil within 7 days after application and sunflowers must be planted no later than 7 days after application. For best results, incorporation should be in the top 1 to 2 inches of soil.

When applied as directed, PROWL plus Amiben will control the following weeds in addition to those controlled by PROWL alone:

- Common ragweed (Ambrosia artemisiifolia)
- Mustard (Brassica spp.)
- Pennsylvania smartweed (Polygonum pensylvanicum)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)

**Broadcast Rate per Acre of PROWL Plus Amiben  
Preplant Incorporated Tank Mixture or PROWL  
Preplant Incorporated Plus Amiben Preemergence in Sunflowers**

<u>Soil Texture</u>	<u>PROWL + Amiben</u> Up to 3% <u>Organic Matter</u>	<u>PROWL + Amiben</u> More than 3% <u>Organic Matter</u>
COARSE	DO NOT USE	
MEDIUM	1.5 to 2.0 pts. + 1 gallon	1.5 to 2.0 pts. + 1 gallon
FINE	1.5 to 2.0 pts. + 1 gallon	2.0 to 2.5 pts. + 1 gallon

The high rate of PROWL for each soil texture above should be used if velvetleaf or smartweed infestations are anticipated.

**NOTE:** DO NOT feed forage or graze livestock in treated sunflower fields. If sunflower loss occurs due to weather conditions, sunflowers can be replanted. If replanting is necessary, DO NOT rework the soil. Observe all precautions and limitations on Amiben label.



**BEANS (DRY, LIMA, SNAP)**

**PROWL may be applied preplant incorporated in dry beans as follows:**

PROWL alone, p. 70

PROWL + Eptam, p.71

**PROWL may be applied preplant incorporated in lima and snap beans as follows:**

PROWL alone, p. 70

**DO NOT use FROWL on peat or muck soils.**

**Preplant Incorporated Applications of PROWL Alone**

Apply PROWL with ground equipment or aircraft immediately before planting or up to 60 days prior to planting. Incorporate prior to planting and within 7 days of application. Refer to page 10 for incorporation instructions.

**Broadcast Rate Per Acre of PROWL  
Preplant Incorporated in Dry, Lima or Snap Beans**

<u>Soil Texture</u>	<u>SOUTHERN STATES<sup>1</sup></u>		<u>NORTHERN STATES<sup>1</sup></u>	
	<u>No Organic Matter Restrictions</u>		<u>Up to 3% Organic Matter</u>	<u>More than 3% Organic Matter</u>
COARSE	1.0 to 1.5 pts.		1.0 to 2.0 pts.	2.0 pts.
MEDIUM	1.5 to 2.0 pts.		1.5 to 2.5 pts.	2.5 to 3.0 pts.
FINE	1.5 to 3.0 pts.		2.0 to 3.0 pts.	3.0 pts.

<sup>1</sup>See map on page 75 for specific states.

Use the 3 pint rate for heavy clay soils.

**NOTE:** If loss of dry, lima or snap bean crop occurs due to adverse weather conditions, dry, lima or snap beans, or any crop registered for PROWL preplant incorporated use can be replanted the same year into treated soil without adverse effects. If replanting is necessary, DO NOT rework the soil deeper than the treated zone.

**PRECAUTION:** DO NOT APPLY PROWL PREEMERGENCE (surface treatment) to dry, lima and snap beans after planting or serious crop injury can result. PROWL must be applied preplant incorporated.

**PROWL Plus Eptam**

PROWL plus Eptam tank mixture may be applied preplant incorporated in dry beans. DO NOT use this tank mixture on Adzuki beans, cowpeas (blackeye peas, blackeye beans), soybeans, lima beans or other flat podded beans.

Apply PROWL plus Eptam with ground sprayer up to 2 days before planting. Incorporate immediately (within minutes) after application to prevent loss of Eptam herbicide. Whenever possible, application and incorporation should be done in the same operation.

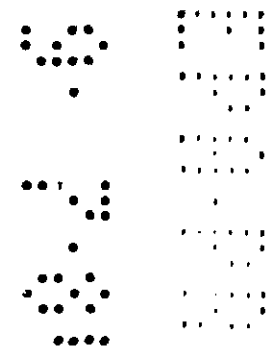
**Incorporation Instructions**

Use power-driven cultivation equipment set to cut to a depth of 2 to 3 inches or tandem disks set to cut to a depth of 4 to 6 inches, operated at 4 to 6 mph, followed by a spike-toothed harrow or some other leveling device which extends beyond ends of the disk. For thorough mixing, disk in two different directions (cross disk).

**Weeds Controlled**

When applied as directed, PROWL plus Eptam will control the following weeds in addition to those controlled by PROWL alone:

- Black nightshade (Solanum nigrum)
- Deadnettle (Henbit) (Lamium amplexicaule)
- Hairy nightshade (Solanum sarrachoides)
- Purple nutsedge (Nutgrass) (Cyperus rotundus)
- Yellow nutsedge (Nutgrass) (Cyperus esculentus)



**Broadcast Rate Per Acre of PROWL Plus Eptam  
Preplant Incorporated Tank Mixture in Dry Beans**

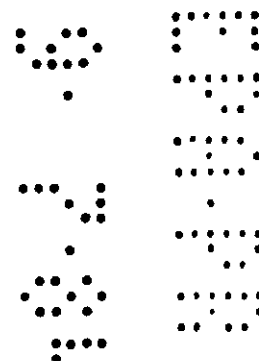
<u>Soil Texture</u>	<u>SOUTHERN STATES<sup>1</sup></u>	<u>NORTHERN STATES<sup>1</sup></u>	
	<u>PROWL + Eptam 7E No Organic Matter Restrictions</u>	<u>PROWL + Eptam 7E Up to 3% Organic Matter</u>	<u>PROWL + Eptam 7E More than 3% Organic Matter</u>
<b>COARSE<sup>2</sup></b>	1.0 to 1.5 pts. + 2.5 to 4.5 pts.	1.0 to 2.0 pts. + 2.5 to 4.5 pts.	2.0 pts. + 2.5 to 4.5 pts.
<b>MEDIUM</b>	1.5 to 2.0 pts. + 3.0 to 4.5 pts.	1.5 to 2.5 pts. + 3.0 to 4.5 pts.	2.5 to 3.0 pts. + 3.0 to 4.5 pts.
<b>FINE</b>	1.5 to 3.0 pts. + 3.0 to 4.5 pts.	2.0 to 3.0 pts. + 3.0 to 4.5 pts.	3.0 pts. + 3.0 to 4.5 pts.

<sup>1</sup>See map on page 75 for specific states.

<sup>2</sup>DO NOT exceed 3.5 pints Eptam 7E per acre on small white beans on coarse-textured soils.

For nutsedge control, use 4.5 pints of Eptam 7E per acre.

DO NOT feed bean hay, vines and forage or graze livestock in treated bean fields.



### NONBEARING FRUIT AND NUT CROPS AND VINEYARDS

PROWL may be applied for preemergence control of most annual grasses and certain broadleaf weeds in several nonbearing fruit and nut crops and vineyards. PROWL may be used on the following nonbearing crops:

Almond	Peach
Apple	Pear
Apricot	Pistachio
Cherry	Plum
Grape	Prune
Nectarine	English walnut
Orange	

Uniformly apply in 20 or more gallons of water per acre (broadcast basis) with ground equipment. Applications may be band or broadcast.

PROWL controls weeds as they germinate but will not control established weeds. Emerged weeds must be destroyed with tillage prior to PROWL application OR use PROWL in combination with a contact herbicide registered for use in specific nonbearing crop to remove existing vegetation. Consult contact herbicide label for all directions, precautions and restrictions.

PROWL treatments are most effective in controlling weeds when adequate rainfall or irrigation is received within 7 days after application.

**PRECAUTIONS:** Apply the spray directly to the ground beneath the trees or vines.

DO NOT apply to newly transplanted trees or vines until ground has settled and no cracks are present.

DO NOT feed forage or graze livestock in treated fields.

**FOR NEWLY TRANSPLANTED AND ONE YEAR OLD GRAPEVINES:** Apply only to dormant grapevines. DO NOT apply if buds have started to swell.



Weeds Controlled

The following weeds are controlled by preemergence treatments of PROWL at the rates recommended below:

GRASSES CONTROLLED

- Barnyardgrass (Echinochloa crus-galli)
- Bluegrass (annual) (Poa annua)
- Browntop panicum (Panicum fasciculatum)
- Crabgrass (Digitaria spp.)
- Fall panicum (Panicum dichotomiflorum)
- Foxtail (giant) (Setaria faberi)
- Foxtail (green) (Setaria viridis)
- Foxtail (yellow) (Setaria glauca)
- Johnsongrass (from seed) (Sorghum halepense)
- Junglerice (Echinochloa colonum)
- Lovegrass (Eragrostis spp.)
- Mexican sprangletop (Leptochloa uninervis)
- Red sprangletop (Leptochloa filiformis)
- Signalgrass (Brachiaria platyphylla)
- Texas panicum (Panicum texanum)
- Witchgrass (Panicum capillare)
- Woolly cupgrass (Eriochloa villosa)

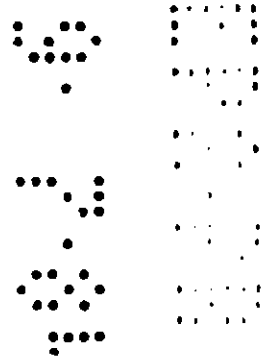
BROADLEAF WEEDS CONTROLLED

- Carpetweed (Mollugo verticillata)
- Chickweed (common) (Stellaria media)
- Fiddlen ck (Amsinckia intermedia)
- Florida pusley (Richardia scabra)
- Henbit (Lamium amplexicaule)
- Knotweed (prostrate) (Polygonum aviculare)
- Lambsquarters (Chenopodium album)
- London rocket (Sisymbrium irio)
- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Pigweed (Amaranthus spp.)
- Puncturevine (Tribulus terrestris)
- Purslane (Portulaca oleracea)
- Sheperdspurse (Capsella bursa-pastoris)
- Spurge (annual) (Euphorbia spp.)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)

RECOMMENDED BROADCAST RATES

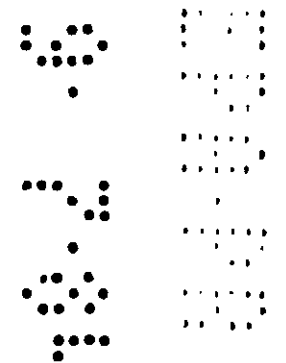
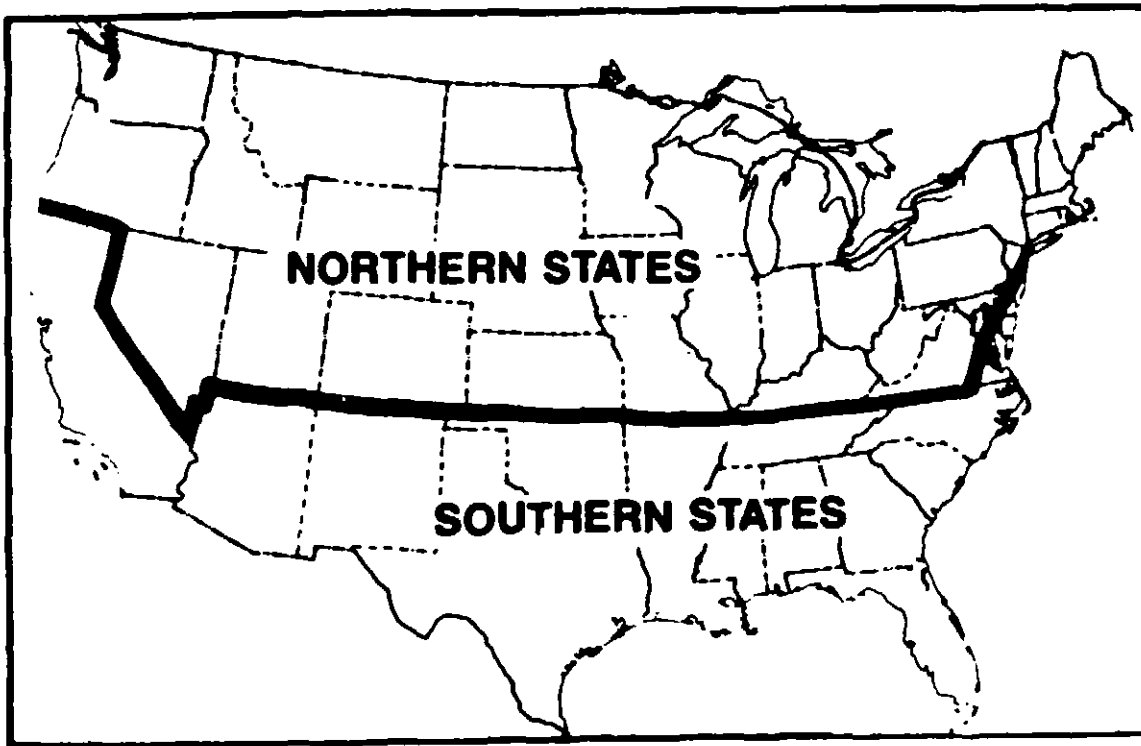
Short-term control (4 months) : 2 quarts PROWL per acre  
 Long-term control (6 - 8 months): 4 quarts PROWL per acre

DO NOT use PROWL on peat or muck soils.



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## REGIONAL MAP FOR RATE DETERMINATION



EPA Reg. No. 241-243

### APPLICATION IN SPRINKLER IRRIGATION SYSTEMS

**OBSERVE ALL PRECAUTIONARY STATEMENTS IN THE PROWL LEAFLET LABEL BEFORE USING**

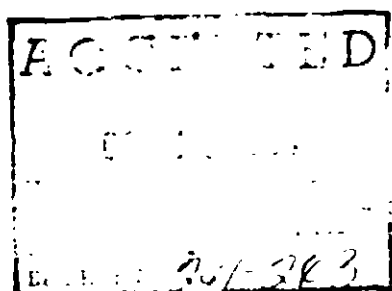
PROWL may be applied through sprinkler irrigation systems in cotton, field corn, grain sorghum, peanuts, potatoes, soybeans and sunflowers. Follow all PROWL label recommendations for these crops regarding rates per acre, timing of application, special instructions and precautions.

UNIFORM application requires:

1. The system must be free of leaks and clogged nozzles.
2. The system must be properly calibrated, with water only, to ensure the amount of PROWL applied per acre corresponds to the recommended PROWL rate.
3. The system must apply a uniform amount of water over all areas. Uneven application may cause lack of weed control or crop injury.
4. Application must not be made during periods of gusty winds or when wind velocity is greater than 10 mph.
5. Agitation must be maintained in the nurse tank.

**SPRINKLER IRRIGATION SYSTEMS MUST BE EQUIPPED WITH CHECK VALVES OR ANTISIPHON DEVICES AND AN AUTOMATIC SHUTOFF TO PREVENT BACKFLOW INTO THE WATER SUPPLY.**

Maintain continuous agitation in nurse tanks during herbicide injection. Apply PROWL in 1/2 to 3/4 inches of water. When application is complete, flush the system with water.



American Cyanamid Company  
Agricultural Division  
Wayne, N.J. 07470