

07-NOV-1996

((LABEL))

PROWL(R) 480

HERBICIDE

Emulsifiable concentrate

contains pendimethalin

AGRICULTURAL

(NOT FOR USE IN PRAIRIE PROVINCES)

CYANAMID

GUARANTEE: pendimethalin...480g/L

REGISTRATION No. 21994  
PEST CONTROL PRODUCTS ACT

WARNING: EYE IRRITANT

CAUTION

POISON

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY  
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT  
1-800-454-2673

KEEP OUT OF REACH OF CHILDREN. READ THE LABEL BEFORE USING

9.5 Litres

22904-01

CYANAMID CROP PROTECTION  
Division of Wyeth-Ayerst Canada, Inc.  
Markham, Ontario L3R 6E6

\*Registered trademark

PROWL \* 480

HERBICIDE

emulsifiable concentrate

Active ingredient: pendimethalin ... 480 g/L

FOR CONTROL OF CERTAIN ANNUAL GRASS  
AND BROADLEAF WEEDS  
IN DRY BULB ONIONS (DIRECT SEEDED ONLY) AND CORN

FIRST AID:

IF SWALLOWED - DO NOT induce vomiting. Call a physician or Poison Control Centre immediately.

IF ON SKIN - Remove all contaminated clothing. Wash contaminated skin with soap and plenty of water.

IF IN EYES - Flush contaminated eyes with water for at least 15 minutes.

IF INHALED - Remove from site of exposure.

Never give anything by mouth to an unconscious person. Remove victim to safe, uncontaminated area. If victim has ceased breathing clear airway and start artificial respiration. Obtain medical attention. Take container or label or the product name and registration number with you to emergency/hospital or physician.

TOXICOLOGICAL INFORMATION:

This product contains monochlorobenzene.

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.

PRECAUTIONARY STATEMENTS:

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed, inhaled or absorbed through the skin. Causes eye irritation.

Do not get in eyes or on clothing. Wear goggles or face shield during mixing and loading.

Avoid contact with skin. Wear chemical resistant gloves (such as nitrile) and long sleeved coveralls during mixing, loading, clean up and repair.

Avoid breathing spray mist. Use with adequate ventilation.

When using, do not eat, drink or smoke. Wash skin thoroughly with soap and water after handling.

Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse.

#### ENVIRONMENTAL HAZARDS:

This product is toxic to fish and wildlife habitat. Keep this product out of waterbodies and wildlife habitat such as lakes, streams, ponds, ditches, wetlands, shelter belts, woodlots, vegetation surrounding waterbodies and field edges.

DO NOT contaminate water when cleaning equipment or disposing of wastes.

#### PHYSICAL HAZARDS:

FLAMMABLE LIQUID AND VAPOUR - FLASH POINT 33°C

DO NOT USE, POUR, SPILL OR STORE NEAR HEAT OR OPEN FLAME.

DO NOT USE IN THE VICINITY OF PILOT LIGHTS.

#### STORAGE AND DISPOSAL:

DO NOT STORE BELOW 4°C. Extended storage at temperatures below 4°C 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 (21°C) and rock occasionally until crystals re-dissolve. DO NOT store near food or feed products.

#### RINSE/DRAIN and DISPOSAL PROCEDURE:

1. Triple rinse the emptied container thoroughly and add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the Provincial Regulatory Agency or the Manufacturer.

#### NOTICE TO BUYER:

Seller's guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

NOTICE TO USER:

This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

(( PAMPHLET ))

PROWL(R) 480

HERBICIDE

emulsifiable concentrate

contains pendimethalin

AGRICULTURAL

(NOT FOR USE IN PRAIRIE PROVINCES)

CYANAMID

GUARANTEE:

pendimethalin ... 480 g/L

REGISTRATION NO. 21994  
PEST CONTROL PRODUCTS ACT

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CAUTION      POISON

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9.5 Litres

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READ ALL INFORMATION ON PAGES 1-5 BEFORE REFERRING TO SPECIFIC CROP USE

PROWL \* 480

HERBICIDE

emulsifiable concentrate

Active ingredient ... 480 g/L  
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IN DRY BULB ONIONS (DIRECT SEEDED ONLY) AND CORN

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Avoid breathing spray mist. Use with adequate ventilation.

When using, do not eat, drink or smoke. Wash skin thoroughly

with soap and water after handling.

Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse.

ENVIRONMENTAL HAZARDS:

This product is toxic to fish and wildlife habitat. Keep this product out of waterbodies and wildlife habitat such as lakes, streams, ponds, ditches, wetlands, shelter belts, woodlots, vegetation surrounding waterbodies and field edges.

DO NOT contaminate water when cleaning equipment or disposing of wastes.

PHYSICAL HAZARDS:

FLAMMABLE LIQUID AND VAPOUR - FLASH POINT 33E C

DO NOT USE, POUR, SPILL OR STORE NEAR HEAT OR OPEN FLAME.

DO NOT USE IN THE VICINITY OF PILOT LIGHTS.

STORAGE AND DISPOSAL:

DO NOT STORE BELOW 4E C. Extended storage at temperatures below 4E C 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 (21E C) and rock occasionally until crystals re-dissolve. DO NOT store near food or feed products.

RINSE/DRAIN and DISPOSAL PROCEDURE:

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NOTICE TO USER:

This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

#### SPECIAL PRECAUTIONS

PROWL herbicide controls certain annual grass and broadleaf weeds as they germinate, but 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 will not cause crop injury.

Over-application can result in crop stand loss, crop injury, or soil residues. Uneven application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, deep planting, 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.

Livestock cannot be fed PROWL treated onions.

DO NOT graze the treated immature corn or cut for silage prior to 100 days after PROWL application.

DO NOT apply to sweet corn or corn grown for seed.

#### SPRAYING INSTRUCTIONS

Apply using only ground operated boom sprayers. Do not use a boom height greater than 30 cm. DO NOT APPLY BY AIR. DO NOT apply when weather conditions favour drift from the target area. DO NOT apply near fish and wildlife habitat. Leave a 10 metre buffer zone between the treated area and fish and wildlife habitat.

Use a properly calibrated low-pressure (138 kPa to 276 kPa) sprayer equipped with 80E or 110E flat fan nozzles to achieve uniform spray distribution and minimize drift. Keep the by-pass 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 15 km/h.

CORN - FIELD



PROWL applied to corn will control certain annual grass and annual broadleaved weeds (see appropriate tank-mix listing for weeds controlled).

PROWL can be applied on corn alone as pre-emergence treatment or in tank mixture with either atrazine or cyanazine at pre-emergence or post-emergence timings.

DO NOT apply PROWL herbicide more than one year in sequence. DO NOT apply VALOR\* herbicide in the year following the application of PROWL herbicide. DO NOT apply PROWL herbicide in the year following the application of VALOR herbicide.

\*Registered trademark of Cyanamid.

#### DO NOT INCORPORATE

Refer to specific sections of the label for directions for each method of application.

#### GENERAL INSTRUCTIONS

The application of PROWL is restricted to corn grown only in medium and fine texture soils with more than 3% organic matter.

The seed bed should be firm and free of clods and trash. Plant corn AT LEAST 4 cm deep to ensure good seed coverage.

PROWL tank-mixture treatments are most effective in controlling weeds when adequate rainfall is received within 7 days after application. If cultivation is necessary because of soil crusting, soil compaction, or weed germination before rain, use shallow tillage (such as rotary hoe), and make certain corn seeds are below the tilled area. After early postemergence treatments, wait 7 to 10 days before cultivating. Annual grasses must be in the 2-leaf stage or smaller at the time of early postemergence application. A shallow cultivation or rotary hoeing will generally result in improved weed control.

Read and follow label of tank mix partner products regarding specific precautions and application information.

#### SOIL CLASSIFICATIONS

Soil textures are classified as Coarse, Medium and Fine. These terms are further defined as follows:

- Coarse - sands, loamy sands, sandy loams
- Medium - sandy clay loams, sandy clays, loams, silts, silt loams
- Fine - silty clay loams, sandy clay loams, clay loams, silty clays, clays

For PROWL tank-mixtures follow the cropping restrictions for the

tank mix partner.

In the case of a crop failure land treated with PROWL can be reseeded only with the original crop (corn), provided seeding depth is below the retilled layer. Crop injury will result if seed is planted in the retilled layer of soil which is treated with PROWL.

- (i) DO NOT plant corn where land preparation prior to reseeded has incorporated the PROWL into the seed germination zone.
- (ii) Restrictions given on the label of the tank-mix partner must be followed.

(a) PROWL alone

APPLICATION TIMING:

- A) Pre-emergence (after planting, before weeds or crop emerges)

PROWL alone will control:

Grasses	Broadleaf weeds
Green foxtail	Lamb's-quarters
Fall panicum	Redroot pigweed*
Barnyard grass	

\* Suppression only

Uniformly apply PROWL in 220 litres or more water per hectare by ground equipment.

APPLICATION RATE:

3.5 L/ha PROWL 480EC

PRECAUTIONS:

- 1. DO NOT INCORPORATE or serious corn injury will result.
- 2. DO NOT USE on corn grown in peat or muck soils.
- 3. DO NOT apply more than once during a season.

(b) PROWL plus ATRAZINE (90 WP or 90 WG)

APPLICATION TIMING:

- A) Pre-emergence (after planting, before weeds or crop emerges)
- B) Post-emergence (before the 2-leaf stage of annual grasses and up to and including the 4-leaf stage of corn).

This tank mixture will control:

Grasses	Broadleaf weeds
Green foxtail	Lamb's-quarters
Yellow foxtail	Redroot pigweed
Fall panicum	Ragweed
Barnyard grass	Smartweed
	Velvetleaf*

\* Early post-emergence application only up to the 3-leaf stage of corn.

Uniformly apply PROWL plus atrazine tank mixtures in 220 litres or more water per hectare by ground equipment.

APPLICATION RATE:

PROWL 480 EC	+	Atrazine 90 WP or 90 WG
3.5 L/ha		1.7 kg/ha

PRECAUTIONS:

1. DO NOT INCORPORATE or serious corn injury will result.
2. Early postemergence application must be made before the 2-leaf stage of annual grasses and not beyond the 4th leaf stage of corn.
3. DO NOT USE on corn grown in peat or muck soils.
4. DO NOT apply more than once during a season.
5. Follow rotational cropping restrictions on atrazine labels. Observe all instructions, precautions and limitations on atrazine labels.
6. DO NOT add oils or surfactants to post-emergence applications.

(c) PROWL plus cyanazine (BLADEX 90 DF<sup>1</sup>)

APPLICATION TIMING:

- A) Pre-emergence (after planting, before weeds or crop emerge)
- B) Post-emergence (before the 2-leaf stage of annual grasses and up to the 3-leaf stage of corn).

This tank mixture will control:

Grasses	Broadleaf weeds
Green foxtail	Lamb's-quarters
Yellow foxtail	Redroot pigweed
Fall panicum	Ragweed
Barnyard grass	Velvetleaf*
Proso millet**	

\* Early postemergence application only.

**\*\*Apply early post emergence only for partial control or suppression of proso millet.**  
Effective management of this weed includes both herbicide application followed by cultivation to control weed escapes.

Uniformly apply PROWL plus BLADEX tank mixture in 220 litres or more water per hectare by ground equipment.

APPLICATION RATE:

PROWL 480 EC	+	BLADEX 90 DF
3.5 L/ha		2.5 kg/ha

(1) BLADEX 90 DF is a trademark of E. I. DuPont de Nemours

PRECAUTIONS:

1. DO NOT INCORPORATE or serious corn injury will result.
2. Early postemergence application must be made before the 2-leaf stage of annual grasses and not beyond the 3-leaf stage of corn.
3. DO NOT USE on corn grown in peat or muck soils.
4. DO NOT USE BLADEX Liquid 480 g/L flowable formulation postemergence on corn.
5. Follow cropping restrictions on BLADEX labels. Observe all precautions and limitations on BLADEX labels.
6. DO NOT apply more than once per season.
7. DO NOT apply PROWL plus BLADEX early postemergence under extended cold (under 10'C), wet weather conditions or when cold wet conditions are predicted as serious corn injury can result.
8. DO NOT add oil or surfactants to postemergence applications.
9. Apply in water ONLY.

(d) PROWL plus dicamba (BANVEL(2) 480 EC)

APPLICATION TIMING

- (A) Preemergence - (After planting, before weeds or crop emerge.)
- (B) Postemergence - (Before the 2-leaf stage of annual grasses and up to the 4-leaf stage of corn.)

This tank mixture will control:

Grasses	Broadleaf weeds
Green foxtail	Lamb's-quarters
Barnyard grass	Redroot pigweed
	Ragweed

## Velvetleaf

Uniformly apply PROWL plus BANVEL tank mixture in 220 litres or more per hectare by ground equipment.

### APPLICATION RATE:

	PROWL 480 EC	+	BANVEL 480 EC
Pre-emergence	3.5 L/ha		1.25 L/ha
Post-emergence	3.5 L/ha		600 mL to 1.25 L/ha

2. BANVEL is a trademark of Sandoz Agro Inc.

### PRECAUTIONS:

1. DO NOT INCORPORATE or serious corn injury will result.
2. DO NOT add oil or surfactant to post-emergence applications.
3. DO NOT apply if the temperature exceeds 25°C at application time.
4. DO NOT apply more than once per season.
5. Early postemergence applications must be made before the 2 leaf stage of annual grasses.
6. DO NOT USE on corn grown in peat or muck soils.
7. Apply in water ONLY.

### MIXING INSTRUCTIONS FOR CORN

Respective sections of this label define those recommended PROWL tank-mixtures registered for application in water:

#### Step I

Fill tank one-half to three quarters full with clean water and agitate.

#### Step II

Prior to adding PROWL, add the tank-mix ingredients in the order listed below:

##### (i) 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.

##### (ii) DRY FLOWABLE WATER DISPERSIBLE GRANULE formulations:

Add the granules to the partially filled tank while agitating.  
After complete mixing, add PROWL to the tank.

### Step III

Fill the remainder of the tank with water while agitating.

### Step IV

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

#### FOLLOW CROP RESTRICTIONS

1. PROWL treated land may be planted to corn or soybeans in the year following application. Refer to the labels of the tank-mix partner for rotational cropping restrictions.
2. DO NOT plant any crop other than corn in the year of application. Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on PROWL treated land applied the previous spring.

#### DRY BULB ONIONS (Direct seeded only)

#### Post-emergence application:

PROWL can be applied at the loop and 2 true leaf stage of crop development. Uniformly apply the recommended rate of PROWL in 250 or more litres of water per hectare by ground equipment. PROWL treatments will NOT control emerged weeds. Destroy existing weeds before applying PROWL. PROWL treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within seven (7) days after application.

#### Weed Species Controlled:

The following grass and broad-leaf weeds species are controlled by PROWL at the rates recommended:

Barnyard grass (*Echinochloa crus-galli*)  
Crab grass (*Digitaria spp*)  
Green Foxtail (*Setaria viridis*)  
Yellow Foxtail (*Setaria glauca*)  
Common Chickweed (*Stellaria media*)  
Lamb's-Quarters (*Chenopodium album*)  
Pigweed (*Amaranthus spp*)

#### APPLICATION RATES:

Broadcast Rate per Hectare of PROWL for Direct Seeded Dry Bulb Onions on Muck Soil.

Timing	Amount of PROWL 480 per hectare
Loop stage of onion growth	6.25 litres
2 true leaf stage of onion growth	6.25 litres

Application at both growth stages is required for season-long control, however, note the precautions in the Follow Crop Rotation section. Sequential applications of other herbicides may be required for broad spectrum weed control. Consult the labels of the other herbicides for weeds controlled and proper time for application.

#### PRECAUTIONS:

- . DO NOT use PROWL on green (bunching) onions and on onions grown from sets.
- . DO NOT use on onions grown in mineral soils.
- . Livestock cannot be fed pendimethalin treated onions.

#### MIXING INSTRUCTIONS FOR ONIONS

##### Step I

Fill tank one-half to three quarters full with clean water and agitate.

##### Step II

Add PROWL to the partially-filled tank while agitating.

##### Step III

Fill the remainder of the tank with water while agitating.

##### Step IV

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

#### CULTURAL PRACTICES FOLLOWING APPLICATION

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. When cultivating for any reason, it should be shallow.

In the case of a crop failure land treated with PROWL can

be reseeded only with the original crop (onions).

FOLLOW CROP RESTRICTIONS FOR ONIONS

Pendimethalin, the active ingredient in PROWL 480 herbicide, has the potential to carry over and harm rotational crops following onions in muck soils.

1. ONLY onions may be planted in the year of PROWL application.
2. Carrots and direct seeded lettuce may be planted into soil which was treated with PROWL the previous year.

There is insufficient information to clearly define what rotational crops can be planted or what recropping intervals are appropriate. Recrop injury may be reduced by 1) using only one application per season (i.e., loop stage) and 2) ploughing treated land to a depth of 30 cm prior to planting other crops.

Do not plant any succeeding crops other than carrots or direct seeded lettuce within 12 months of the last PROWL application.

\*\*\*\*\*

This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.

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