

CERTIFIED

MAR 30 2005

Ms. Mandy Styles  
Helena Chemical Company  
225 Schilling Boulevard, Suite 300  
Collierville, TN 38017

Dear Ms. Styles:

**SUBJECT:** Applications For Reregistration - Pendimethalin  
Prowl Herbicide + Propanil  
EPA Registration No. 5905-495

We compared the most recently accepted label (1/30/03 with Agency comments) to the Pendimethalin RED. This label requires further revisions. Revisions in the product's labeling are required in order to comply with the RED. You must submit three (3) copies of revised labels within 21-days from the date of this letter. If it is not possible to correct these deficiencies within the 21-day period, the Agency will take appropriate action on this application. Submit revised draft labeling incorporating:

1. Please confirm the product name for our records; "Setre Prowl Herbicide + Propanil" or Prowl Herbicide + Propanil".
2. We encourage you to add the common name "Propanil" to the label in front of the chemical name in the ingredient statement.
3. The following revisions must be made to the User Safety Recommendations section. "Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing."

4. Revise the First Aid statements by adding “or clothing” to the “IF on skin” statement and add the “IF Inhaled” statement:

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

5. The “Hazards to Humans and Domestic Animals” statements must be revised to read, “Causes substantial but temporary eye injury. Harmful if swallowed, absorbed through skin or inhaled. Do not get in eyes. Avoid contact with skin or clothing. Avoid breathing spray mist.”
6. Revise the “Personal Protective Equipment” (PPE) section to read, “Personal Protective Equipment”:

Some materials that are chemical resistant to this product are made of barrier laminate, butyl, nitrile or neoprene rubber or viton. If you want more options, follow the instructions for category F on an EPA chemical-resistant category selection chart.

Mixers, loaders, applicators and all other handlers must wear:

- Long-sleeved shirt and long pants,
- Socks and shoes,
- Goggles or face shield, and
- Chemical resistant gloves.

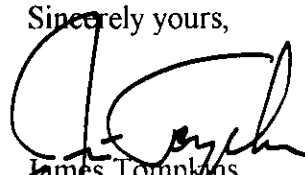
7. A minor revision should be made to the “early entry” glove statement to read, “Chemical resistant gloves such as or made of any waterproof material.”
8. Spray drift text on the draft label should be revised to correct a minor error in the “Swath Adjustment” text appearing in the RED. It should read “When applications are made with a crosswind the swath will be displaced downwind.”

3/11

9. Either add chemigation instructions or a statement prohibiting use in chemigation systems.

Should you have any questions or concerns regarding this letter, please contact James Tompkins at (703) 305-5697.

Sincerely yours,

A handwritten signature in black ink, appearing to read "James Tompkins". The signature is stylized with a large initial "J" and a cursive "Tompkins".

James Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)

# Prowl® Herbicide + Propanil

FOR DRY-SEEDED RICE

**ACTIVE INGREDIENT:**

3', 4'-dichloropropionanilide .....	33.70%
Pendimethalin: N-(1-Ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine ...	11.25%

**INERT INGREDIENTS:** ..... 55.05%

**TOTAL** ..... 100.00%

This product contains the toxic inert ingredient monochlorobenzene.

This product contains 3 pounds propanil and 1 pound pendimethalin.

**KEEP OUT OF REACH OF CHILDREN**

**WARNING - AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

See Additional Precautionary Statements Inside

EPA REG. NO.: 5905-495

EPA EST. NO.:

NET CONTENTS:

ACCEPTED  
with COMMENTS  
in EPA Letter Dated  
**MAR 30 2005**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

5905-495

MANUFACTURED BY  
HELENA CHEMICAL COMPANY  
MEMPHIS, TN 38119

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

Causes substantial but temporary eye injury. Do not get in eyes, on skin or on clothing. Harmful if swallowed or inhaled. Avoid breathing spray mist. Wash thoroughly after handling. Use with adequate ventilation. Keep container closed.

#### FIRST AID

**For Eye Contact:** Flush eyes with large amounts of clean water for at least 15 minutes. Consult a physician.

**For Skin Contact:** Wash affected area with soap and water.

**For Ingestion:** Induce vomiting by immediately giving two glasses of water to drink and touch back of throat with finger. Call a physician. Never give anything by mouth to an unconscious person. This product contains monochlorobenzene.

#### PERSONAL PROTECTIVE EQUIPMENT

##### Mixers and Loaders must wear:

- Long-sleeved shirt and long pants
- Chemical Resistant gloves
- Shoes plus socks

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

#### ENGINEERING CONTROL STATEMENT

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

#### USER SAFETY RECOMMENDATIONS

User should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

3

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

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

- Long-sleeved shirt and long pants
- Chemical Resistant gloves
- Shoes plus socks.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

### PHYSICAL HAZARDS

**FLAMMABLE LIQUID.** Do not use, pour, spill or store near heat or open flame.

### GENERAL INFORMATION

**PROWL® HERBICIDE + PROPANIL** is a postemergence treatment which combines the direct contact action of propanil and the residual activity of pendimethalin (PROWL). Since the residual activity of pendimethalin provides pre-emergence control for certain annual grasses which can germinate after this pre-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 barnyard grass (watergrass) is in the 1 to 3 leaf stage of growth with an occasional 4 leaf plant (make application when sprangletop is less than ½ inch in height).

Do not use in California. DO NOT use this treatment in water seeded rice.

### SPRAYING INSTRUCTIONS

#### AERIAL APPLICATION

For aerial application, apply the recommended rate in 10 to 12 gallons of water per acre to insure adequate coverage. Avoid drift or accidental application from turning aircraft on cotton, soybeans, corn, safflower,

seedling legumes, vegetables, orchards, vineyards, gardens, shrubs, and ornamentals. To minimize drift, DONOT 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.

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

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

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

### **AERIAL DRIFT REDUCTION ADVISORY INFORMATION**

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information. This section is advisory in nature and does not supersede the mandatory label requirements.

### **INFORMATION ON DROPLET SIZE**

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

### **CONTROLLING DROPLET SIZE**

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

Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**BOOMLENGTH**

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

**APPLICATION HEIGHT**

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

**SWATH ADJUSTMENT**

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

**WIND**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**TEMPERATURE AND HUMIDITY**

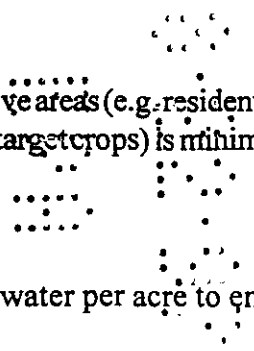
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**TEMPERATURE INVERSIONS**

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

**SENSITIVE AREAS**

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



**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 foaming. Nozzle screens must be no finer than 50 mesh. DO NOT apply 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 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 pendimethalin.

While the residual activity of pendimethalin 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 pendimethalin is activated by moisture, pendimethalin 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 delay application if there is a chance of rain within 6 to 8 hours.

**WEED SPECIES CONTROLLED**

**PROWL® HERBICIDE + PROPANIL** provides direct contact control of the weeds listed below:

- Barnyardgrass (*Brachiaria* spp.)
- Crabgrass, large (*Digitaria sanguinalis*)
- Croton, woolly (*Croton capitatus*)
- Foxtail (*Setaria* spp.)
- Goosegrass (*Eleusine indica*)
- Gulf Cockspur (*Echinochloa crus-galli*)
- Hoorahgrass (*Fimbristylis miliacea*)
- Mexican weed (*Cyperus polystachyus*)
- Paragrass (*Panicum purpurascens*)
- Pigweed, redroot (*Amaranthus retroflexus*)
- Redweed (*Melochia corchorifolia*)
- Sour Dock (*Rumex crispus*)

- Spearhead (Rhynchospora corniculata)
- Tall Indigo or Coffee Bean (Sesbania exalta)
- Texas Millet (Panicum texanum)
- Wiregrass (Eleocharis spp.)

The following grass species are controlled by the residual activity of **PROWL® HERBICIDE + PROPANIL** 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.)

<b>BROADCAST RATE PER ACRE OF PROWL® HERBICIDE + PROPANIL</b>	
<b>Soil Texture</b>	<b>PROWL® HERBICIDE + PROPANIL</b>
<b>COARSE</b>	
sandy loams	3 qts.
<b>MEDIUM</b>	
sandy clay loams, *sandy clays, loams, silts, silt loams	4 qts.
<b>FINE</b>	
silty clay loams, *clay loams, silty clays, clays	4 qts.

1) The addition of 0.75 lbs. of propanil is necessary to obtain maximum contact kill.

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

Water drained from treated rice fields must not be used to irrigate other crops or released within ½ mile upstream of a potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of a potable water intake in a standing body of water such as a lake, pond or reservoir.

Do not drain water from treated fields into areas where catfish farming is practiced.

Do not apply to fields where commercial crayfish farming is practiced and do not drain water from treated fields into area where crayfish farming is practiced.

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

**DO NOT** apply in liquid fertilizer.

**DO NOT** make more than one application per season.

**DO NOT** bale or use rice straw for feed or bedding.

**CONDITIONS OF SALE - LIMITED WARRANTY  
AND LIMITATIONS OF LIABILITY AND REMEDIES**

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary

or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man, or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against the Company exceed the price of the product which causes the alleged loss, damage, injury, or other claim. The Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income.

The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability, and remedies.

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