**GROUP** 

2

HERBICIDE

# PERMIT WG HERBICIDE

PERMIT® WG HERBICIDE is a selective herbicide for control of nutsedge and listed broadleaf weeds.

# AGRICULTURAL Wettable Granules

ACTIVE INGREDIENT: HALOSULFURON, present as methyl ester.......72.6%



## READ THE LABEL AND BOOKLET BEFORE USING

## KEEP OUT OF REACH OF CHILDREN

Registration No. 31210
PEST CONTROL PRODUCTS ACT

Net Contents: 10 - 600 g

Read the entire label before using this product. Use only according to label instructions. Read "NOTICE TO USER" before buying or using. If terms are not acceptable, return at once unopened.

Canyon Group L.L.C. P.O. Box 5569 Yuma, AZ 85366-5569

GOWAN CONTACT:

Product Information: 1-800-883-1844

In case of a medical emergency involving this product, call 1-888-478-0798 For 24-hour emergency assistance (spill, leak or fire) call Chemtrec<sup>®</sup> at 1-800-424-9300

#### **FIRST AID**

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

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

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

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

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: 1-888-478-0798. FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300. For other product information, contact Gowan Company or see Material Safety Data Sheet.

#### **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants or coveralls
- Chemical-resistant gloves made of any waterproof material
- 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.

#### **PRECAUTIONS**

## **KEEP OUT OF REACH OF CHILDREN**

- Harmful if swallowed. May irritate eyes. Avoid contact with eyes
- Restricted entry intervals (REI):
  - For hand detasseling field corn grown for seed, DO NOT enter or allow worker entry into treated areas during the REI of 14 days.
  - o For other activities, DO NOT enter or allow worker entry into treated areas during the REI of 12 hours.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such
  as houses, cottages, schools and recreational areas is minimal. Take into consideration wind
  speed, wind direction, temperature inversions, application equipment and sprayer settings.

## **Users should:**

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

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., consult the CropLife Canada website at <a href="https://www.croplife.ca">www.croplife.ca</a>.

#### **ENVIRONMENTAL HAZARDS**

TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body

#### **STORAGE**

Keep PERMIT WG HERBICIDE package closed to prevent spills and contamination. To prevent contamination store this product away from food or feed.

#### **DISPOSAL**

#### RECYCLABLE CONTAINERS:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1) Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2) Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

#### NON-RECYCLABLE CONTAINERS:

Do not reuse this container for any purpose. Thoroughly empty the contents of the container into the application device. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product, contact the manufacturer or the Provincial Regulatory Agency. Contact the manufacturer and the Provincial Regulatory Agency in case of a spill, and for clean-up of spills.

#### **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

Chemtrec® is a registered trademark of American Chemistry Council, Inc. PERMIT® is a registered trademark of Nissan Chemical Industries Ltd. © 2011 Gowan Company, L.L.C.

2

# PERMIT WG HERBICIDE

PERMIT® WG HERBICIDE is a selective herbicide for control of nutsedge and listed broadleaf weeds.

# AGRICULTURAL Wettable Granules

ACTIVE INGREDIENT: HALOSULFURON, present as methyl ester.......72.6%



## READ THE LABEL AND BOOKLET BEFORE USING

## **KEEP OUT OF REACH OF CHILDREN**

Registration No. 31210
PEST CONTROL PRODUCTS ACT

Net Contents: 10 - 600 g

Read the entire label before using this product. Use only according to label instructions. Read "NOTICE TO USER" before buying or using. If terms are not acceptable, return at once unopened.

Canyon Group L.L.C. P.O. Box 5569 Yuma, AZ 85366-5569

CANADIAN CONTACT:

Product Information: 1-800-883-1844

In case of a medical emergency involving this product, call 1-888-478-0798

## **SAFETY INFORMATION**

#### **FIRST AID**

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

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

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

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

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: 1-888-478-0798.
FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.
For other product information, contact Gowan Company or see Material Safety Data Sheet.

#### **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants or coveralls
- · Chemical-resistant gloves made of any waterproof material
- 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.

#### **PRECAUTIONS**

#### KEEP OUT OF REACH OF CHILDREN

- · Harmful if swallowed. May irritate eyes. Avoid contact with eyes
- Restricted entry intervals (REI):
  - For hand detasseling field corn grown for seed, DO NOT enter or allow worker entry into treated areas during the REI of 14 days.
  - For other activities, DO NOT enter or allow worker entry into treated areas during the REI of 12 hours.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such
  as houses, cottages, schools and recreational areas is minimal. Take into consideration wind
  speed, wind direction, temperature inversions, application equipment and sprayer settings.

#### **Users** should:

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

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., consult the CropLife Canada website at <a href="https://www.croplife.ca">www.croplife.ca</a>.

#### **ENVIRONMENTAL HAZARDS**

TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body

#### STORAGE

Keep PERMIT WG HERBICIDE package closed to prevent spills and contamination. To prevent contamination store this product away from food or feed.

#### **DISPOSAL**

#### RECYCLABLE CONTAINERS:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1) Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2) Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

#### NON-RECYCLABLE CONTAINERS:

Do not reuse this container for any purpose. Thoroughly empty the contents of the container into the application device. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product, contact the manufacturer or the Provincial Regulatory Agency. Contact the manufacturer and the Provincial Regulatory Agency in case of a spill, and for clean-up of spills.

#### **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

## DIRECTIONS FOR USE

## **GENERAL INFORMATION**

PERMIT WG HERBICIDE is a wettable granule formulation that selectively controls certain broadleaf weeds and nutsedges in selected crops. PERMIT WG HERBICIDE is effective both preemergence and postemergence. PERMIT WG HERBICIDE can be absorbed through roots, shoots and foliage and is translocated within the plant. The level of weed control following PERMIT WG HERBICIDE application is dependent upon application rate, weed species and size at application time, and growing conditions. For best results, applications should be made to actively growing weeds at the heights defined in the "USE RATE GUIDE" sections of this label. Heavy infestations should be treated early before the weeds

become too competitive with the crop. When early post-emergence treatments are used (in corn), sequential applications may be required to control later weed flushes. Soon after PERMIT WG HERBICIDE is applied, growth of susceptible weeds is inhibited, and susceptible weeds are no longer competitive with the crop. Following growth inhibition, the leaves and growing point begin to discolor. Complete control typically occurs within 7 to 14 days depending on the weed size, species and growing conditions.

#### FOR OPTIMUM RESULTS

The level of weed control following PERMIT WG HERBICIDE application is dependent upon application rate and method, weed species, size and infestation intensity at application time, and growing conditions. Soon after PERMIT WG HERBICIDE is applied, growth of susceptible weeds is inhibited, and they are no longer competitive with the crop. Following growth inhibition, the leaves and growing point begin to discolor.

- Follow mixing instructions regarding adjuvants.
- For pre-emergence applications:
  - Higher rates may provide a longer duration of residual control.
  - If susceptible weeds are present prior to crop emergence, use an adjuvant as directed in the "Adjuvants" section.
  - Activating soil moisture is necessary for optimum pre-emergent weed control.
  - Pre-emergent weed control may be improved by incorporating PERMIT WG HERBICIDE with irrigation (1/2 1 1/4 cm maximum).
- For post- emergence applications
  - Control is optimal if weeds are treated while young and actively growing. Larger weeds necessitate the use of higher rates. See weeds table for additional details.
  - Treat actively growing nutsedge plants at the 3-5 leaf stage.
  - Wait to overhead sprinkler irrigate for 2 to 3 days after a post-emergence application
  - Avoid applications when weeds are under drought, stress, disease, or insect damage.
- Heavy infestations should be treated early before the weeds become too competitive with the crop.
- A timely cultivation may be necessary to control suppressed weeds, weeds that were bigger than
  the maximum recommended size at application, weeds that emerge after an application, or weed
  species not on the PERMIT WG HERBICIDE label. For best results, wait to cultivate treated soil
  area for 7-10 days after a post-emergence application of PERMIT WG HERBICIDE unless specified
  otherwise.
- Annual weeds may have multiple flushes of seedlings, or treated perennials may sometimes re-grow
  from underground stems or roots, depending upon rainfall and other environmental conditions. To
  maximize control of such weeds, it may be necessary to use sequential applications of PERMIT WG
  HERBICIDE.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, PERMIT WG HERBICIDE is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to PERMIT WG HERBICIDE and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of PERMIT WG HERBICIDE or other Group 2 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.

- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticides resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Gowan Company at 1-800-883-1844.

## **APPLICATION EQUIPMENT AND INSTRUCTIONS**

APPLY BY GROUND EQUIPMENTONLY

- PERMIT WG HERBICIDE can be applied as a broadcast or band application. For band applications, use proportionally less spray mixture based on the area actually sprayed so that a full rate is not concentrated into the band. Consult the "Crop Recommendations" section of this label for the rates and procedures that are appropriate for your growing region.
- For best results, avoid applications when weeds are under drought, stress, disease, or insect damage. Rainfall or irrigation occurring within 4 hours after application may also reduce effectiveness.
- Apply PERMIT WG HERBICIDE uniformly with properly calibrated ground equipment in 100 or more litres of water per hectare. Other water based spray carriers may be used for directed applications, avoiding contact with crop foliage. Select spray volumes that ensure thorough and uniform weed coverage. Choose nozzles which provide optimum spray distribution and coverage at the appropriate pressure (psi). Thoroughly clean equipment prior to mixing spray solution. Avoid streaking, skips, overlaps and spray drift during applications.
- Do not apply this product through any type of irrigation system.
- Avoid disturbing (e.g. cultivation) treated areas for at least 7 days following application.

<u>Field sprayer application</u>: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

**DO NOT** apply by air.

#### **Buffer zones:**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands) and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of Application		Buffer Zones (metres) Required for the Protection of:		
	Crop	Freshwater Habitat of Depths:		Terrestrial
		Less than 1 m	Greater than 1 m	Habitat
Field	Proso millet	10	4	15
Sprayer	Dry beans and grain sorghum	10	5	20
	Sweetcorn and popcorn	15	5	30

Field corn and field corn grown for seed	15	10	40
--	----	----	----

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray drift buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes

#### MIXING INSTRUCTIONS

Fill the spray tank to about three-fourths of the desired volume and begin agitation. Add the recommended amount of PERMIT WG HERBICIDE. Complete the filling process while maintaining agitation. Remove the hose from the mixing tank immediately after filling to avoid siphoning back into the carrier source. Add nonionic surfactant and other adjuvants as the last ingredients in the tank. Spray solutions should be applied within 24 hours after mixing.

#### **ADJUVANTS**

Unless otherwise stated, use a nonionic surfactant (NIS) in spray solution for post emergent applications or for preemergence applications where susceptible weeds are present prior to crop emergence. For tank-mixes with Permit WG Herbicide, crop oil concentrates may be used instead of nonionic surfactants. Use ONLY the lowest labeled rate of nonionic-type surfactants that contain at least 80% active ingredients. Use of Permit WG Herbicide without an adjuvant when weeds are present may result in reduced efficacy.

Fertilizer solution (e.g. UAN or high quality spray grade ammonium sulfate (e.g. 21-0-0)) may be added to the spray solution if PERMIT WG HERBICIDE is being tank mixed with a companion herbicide which requires the use of a fertilizer additive. Refer to the companion product label for further directions. DO NOT use liquid nitrogen fertilizer solutions or suspensions as the total carrier because excessive crop injury may occur.

## **TANK MIXES**

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Gowan Company at 1-800-883-1844 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Gowan Company.

Before mixing in the spray tank, it is recommended that compatibility be tested by mixing all components in a small container in proportionate quantities. For tank mixtures, add individual formulations to a spray tank in the following sequence: water soluble bags, dry flowables, emulsifiable concentrates, drift control additive, water soluble liquids followed by nonionic surfactant or crop oil concentrate.

### **USE PRECAUTIONS**

- DO NOT apply by air.
- Do not apply PERMIT WG HERBICIDE using air assisted (air blast) field crop sprayers.

- Do not apply this product through any type of irrigation system.
- Do not apply more than 186 g of PERMIT WG HERBICIDE per hectare per 12-month period (includes applications to the crop and to row middles/furrows).
- Typically sequential applications should be a minimum of 21 days apart.
- Excessive amounts of water (greater than 2.5 cm) from rainfall or sprinkler irrigation soon after a
  pre-emergent application may cause crop injury. This potential injury can be enhanced if seeding
  depth is too shallow.
- Within 4 hours of a PERMIT WG HERBICIDE application, avoid using overhead sprinkler irrigations or making applications when conditions favor rainfall.
- Broadcast applications of PERMIT WG HERBICIDE over plastic mulch may result in significant crop injury when spray residue is concentrated in the plant hole by irrigation or rainfall. Properly crowned beds may minimize the potential for this injury.
- PERMIT WG HERBICIDE can cause injury or crop failure under cool and wet growing conditions
  that delay early seedling emergence, vigor or growth. Be especially cautious during the first planting
  of the season when these conditions are likely to occur.
- PERMIT WG HERBICIDE may delay maturity of treated crops.
- PERMIT WG HERBICIDE should not be applied if the crop or target weeds are under stress due to drought, water saturated soils, low fertility (especially low nitrogen levels) or other poor growing conditions.
- Use of soil or foliar-applied organophosphate insecticides on PERMIT WG HERBICIDE-treated crops may increase the potential for crop injury and/or the severity of the crop injury.
- Avoid spray drift outside of targeted area.
- PERMIT WG HERBICIDE may be applied to labeled crops (including cultivars and/or hybrids of these), however the user assumes responsibility for such use. Not all hybrids/varieties have been tested for sensitivity to PERMIT WG HERBICIDE. For untested varieties, a small amount of the field should be sprayed to determine potential sensitivity to its use. Any plant injury arising from the use of PERMIT WG HERBICIDE is the responsibility of the user.
- Thoroughly clean application equipment immediately after PERMIT WG HERBICIDE use and prior to spraying another crop.
- Temporary yellowing or stunting of the crop may occur following PERMIT WG HERBICIDE applications.
- Under certain environmental conditions, PERMIT WG HERBICIDE applied over the top of a blooming crop may result in some bloom loss.
- Refer to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop restrictions

### **SPRAYER TANK CLEANOUT**

To avoid injury to desirable crops, clean all mixing and spray equipment before and immediately following applications of PERMIT WG HERBICIDE as follows:

- 1. Drain tank; thoroughly rinse spray tank, boom, and hoses with clean water. Remove the nozzles and screens and clean separately in a bucket containing agent and water. Loosen and physically remove any visible deposits.
- 2. Fill the tank with clean water and 1 litre of household ammonia (containing 3% ammonia) for every 100 litres of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom, and nozzles with the cleaning solution and then drain the tank.
- 3. Remove the nozzles and screens and clean separately in a bucket containing agent and water.
- 4. Repeat step 2.
- 5. Rinse the tank, boom, and hoses with clean water.
- 6. The rinsate may be disposed of on-site or at an approved disposal facility.

<sup>\*</sup> Equivalent amount of an alternate strength ammonia solution can be used in the clean out procedure. Carefully read and follow the individual cleaner instructions.

## WEEDS CONTROLLED BY PERMIT WG HERBICIDE

C = Control, S = Suppression, NA = No Activity

WEED SPECIES	SCIENTIFIC NAME	PREEMERGENT ACTIVITY*	POSTEMERGENT ACTIVITY	WEED HEIGHT (cm) 35 - 47 g/ha	WEED HEIGHT (cm) 70 – 93 g/ha
Amaranth, spiny <sup>2</sup>	Amaranthus spinosus	C <sup>2</sup>	C <sup>2</sup>	3 to 8	3 to 15
Bindweed, hedge	Calystegia sepium	NA	S	3 to 5	3 to 10
Burcucumber	Sicyos angulatus	NA	S	3 to 8	3 to 31
California arrowhead <sup>3</sup>	Sagittaria montevidensis	NA	C <sup>3</sup>	3 to 5	3 to 10
Chickweed, common	Stellaria media	С	NA		
Cocklebur, common	Xanthium strumarium	С	С	3 to 23	3 to 36
Corn spurry	Spergula arvensis	С	С	3 to 5	3 to10
Deadnettle, purple	Lamium purpureum	С	NA		
Devils Claw	Probiscidea louisiana	NA	С	3 to 5	3 to 10
False daisy	Ecilpta prostrata	С	S	3 to 5	3 to 10
Fleabane, Philadelphia	Erigeron philadelphicus	NA	С	3 to 8	3 to 8
Galinsoga, hairy	Galinsoga quadriradiata	С	С	3 to 5	3 to 10
Groundsel, common	Senecio vulgaris	С	NA		
Horseweed/Marestail <sup>2</sup>	Erigeron canadensis	C <sup>2</sup>	NA		
Horsetail	Equisetum arvense	NA	S	3 to 5	3 to 10
Jimsonweed	Datura stramonium	С	NA		
Kochia <sup>2</sup>	Kochia scoparia	C <sup>2</sup>	S <sup>2</sup>	3 to 8	3 to 15
Ladysthumb	Polygonum persicaria	С	С	3 to 5	3 to 10
Lambsquarters, common	Chenopodium album	С	NA		
Lettuce, prickly	Lactuca serriola	С	NA		
Mallow, common	Malva neglecta	С	NA		
Flower-of-an-hour	Hibiscus trionum	С	С	3 to 8	3 to 31
Stinking chamomile	Anthemis cotula	С	NA		
Milkweed, common	Asclepias syriaca	NA	S	3 to 13	3 to 31
Milkweed, honeyvine	Cyanchum laeve	NA	S	3 to 13	3 to 31
Morningglory, ivyleaf <sup>3</sup>	Ipomoea hederacea	NA	s <sup>3</sup>		3 to 8
Morningglory, common <sup>3</sup>	Ipomoea purpurea	NA	S <sup>3</sup>		3 to 8
Mustard, wild	Sinapis arvensis	С	С	3 to 8	3 to 15

WEED SPECIES	SCIENTIFIC NAME	PREEMERGENT ACTIVITY*	POSTEMERGENT ACTIVITY	WEED HEIGHT (cm) 35 - 47 g/ha	WEED HEIGHT (cm) 70 – 93 g/ha
Nutsedge, Yellow <sup>1</sup>	Cyperus esculentus	S	c <sup>1</sup>	8 to 15	8 to 31
Pigweed, redroot <sup>2</sup>	Amaranthus retrofiexus	C <sup>2</sup>	C <sup>2</sup>	3 to 8	3 to 15
Pigweed, smooth <sup>2</sup>	Amaranthus hybridus	C <sup>2</sup>	C <sup>2</sup>	3 to 8	3 to 15
Plantain, broadleaved	Plantago major	С	NA		
Pokeweed, common	Phytolacca Americana	NA	С	3 to 8	3 to 15
Purslane	Portulaca oleracea	S	NA		
Radish, wild	Raphanus raphanistrum	С	С	3 to 8	3 to 15
Ragweed, common	Ambrosia artemisiifolia	C <sup>2</sup>	C <sup>2</sup>	3 to 23	3 to 31
Ragweed, giant	Ambrosia trifida	NA	C <sup>2</sup>	3 to 8	3 to 15
Shepherdspurse	Capsella bursa- pastoris	С	S	3 to 5	3 to 10
Sida, prickly	Sida spinosa	NA	S	3 to 5	3 to 10
Smartweed, Pennsylvania	Polygonum pensylvanicum	С	S	3 to 5	3 to 10
Sunflower, common	Helianthus annuus	С	С	3 to 31	3 to 38
Velvetleaf	Abutilon theophrasti	С	С	3 to 23	3 to 31
Volunteer canola <sup>4</sup>	Brassica rapa	С	С	3 to 8	
Willowherb, fringed	Epilobium ciliatum	С	NA		
Yellowcress, creeping	Rorippa sylvestris	С	С	3 to 5	3 to 10

Heavy infestations of nutsedge may require sequential applications. An earlier treatment may be required to prevent nutsedge from competing with the crop.

Certain biotypes of this weed species are known to be resistant to ALS herbicides. Where these ALS-resistant biotypes are known to exist, an appropriate registered herbicide, active against the weed and with another mode of action, should be used alone or in tank mixtures with PERMIT WG HERBICIDE to control these biotypes.

Use maximum label rates for best results.

 $<sup>4. \</sup>quad \text{PERMIT WG Herbicide alone will not control imazamox and imaze thap yr tolerant canola (e.g. Clear field * canola)}\\$ 

<sup>\*</sup>Refer to specific crop directions for pre-emergence rates

## **BEAN RECOMMENDATIONS**

CROP	g/ha	COMMENTS
DRY BEANS (Pre-emergence)	35 – 47	Apply uniformly with ground equipment in a minimum of 140 litres of water per hectare.  Direct –seeded:  Preemergence – Apply after seeding but prior to soil cracking. Use the lower rate on lighter textured soils with low organic matter.
	35 - 70	Row Middle/Furrow Applications -PERMIT WG HERBICIDE may be applied between rows of crop for the control of nutsedge and listed broadleaf weeds. Avoid contact of the herbicide with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Reduce rate and spray volume in proportion to area actually sprayed.
	Emerge	only one (1) PERMIT WG HERBICIDE application per season. Apply either Preence or Post-Emergence, but not both. (includes applications to the crop and to row s/furrows)
	informa  NOTE  App dela  Unc mat and For pote  The	t "Use Precautions" and "For Optimum Results" sections for important usage ation.  Not all varieties have been tested for tolerance: Dications of PERMIT WG HERBICIDE may cause temporary stunting and/or ayed maturity which may result in a delayed harvest.  Ider adverse growing conditions (dry or excessive moisture, cool weather, etc.), curity of the treated crop may be delayed which can influence harvest date, yield, it quality.  Untested varieties, a small area of the field should be sprayed to determine ential sensitivity to its use.  The end-user must consider the potential for a delayed harvest BEFORE using this duct.
	PERMIT WG HERBICI DE@ 35 - 47 g PLUS EPTAM 8-E @ 4.25 – 5.25 L	<ul> <li>A tank-mix combination of PERMIT WG HERBICIDE plus EPTAM 8-E will give a broader spectrum of weed control than either product used separately.</li> <li>Caution: Read both the PERMIT WG HERBICIDE and EPTAM 8-E labels carefully before using. Observe all cautions and limitations on labeling of both products.</li> <li>Apply uniformly with ground equipment in a minimum of 140 litres of water per hectare.</li> <li>PREPLANT OR AT PLANTING</li> <li>Incorporation: Apply and incorporate 35 to 47 g PERMIT WG HERBICIDE and 4.25 to 5.25 L of EPTAM 8-E per hectare to a depth of approximately 5 cm just before planting. Use lower rate on lighter textured soils with low organic matter. Refer to EPTAM 8-E label for specific incorporation directions. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs.</li> </ul>

CROP	g/ha		СО	MMENTS	
	Additional \	Veeds conti	rolled with an PERMIT WG HI	ERBICIDE + EPTAM tankmi	ix
	Annual Grasses  Annual Blue Grass			Crabgrass Goosegrass Wild Oats  either Pre- rop and to row clack-eyed beans), onditions, stunting therefore, do not reen beans grown	
	<ul> <li>Consult "Use Precautions" and "For Optimum Results" sections for important usage information.</li> <li>NOTE - Not all varieties have been tested for tolerance:</li> <li>Applications of PERMIT WG HERBICIDE may cause temporary stunting and/or delayed maturity which may result in a delayed harvest.</li> <li>Under adverse growing conditions (dry or excessive moisture, cool weather, etc.), maturity of the treated crop may be delayed which can influence harvest date, yield, and quality.</li> <li>For untested varieties, a small area of the field should be sprayed to determine potential sensitivity to its use.</li> <li>The end-user must consider the potential for a delayed harvest BEFORE using this</li> </ul>				
DRY BEANS	product.			eter per hectare	
(Post-emergence)	35-70	Post Eme	ergence: as a directed spray when planding. Make one broadcast applorop injury. nonionic surfactant (NIS). 5 – 46.7 g/ha for broadleaved	nts have 2-4 trifoliate leaves lication. Directed sprays are	and before recommended to

CROP	g/ha	COMMENTS		
	<ul> <li>Following the final application allow 30 days before harvesting.</li> <li>Make only one PERMIT WG HERBICIDE application per crop cycle. Apply either Pre Emergence or Post-Emergence, but not both.</li> <li>PERMIT WG HERBICIDE may not control ALS resistant weeds.</li> <li>Do not apply more than 70 g of PERMIT WG HERBICIDE per hectare per season.</li> <li>Do not use PERMIT WG HERBICIDE post-emergent on Adzuki beans as significant crop injury may occur.</li> <li>Consult "Use Precautions" and "For Optimum Results" sections for important usage</li> </ul>			
	<ul> <li>information.</li> <li>NOTE - Not all varieties have been tested for tolerance:</li> <li>Applications of PERMIT WG HERBICIDE may cause temporary stunting and/or delayer maturity which may result in a delayed harvest.</li> <li>Under adverse growing conditions (dry or excessive moisture, cool weather, etc.),</li> </ul>			
	maturi and qu • For un	ty of the treated crop may be delayed which can influence harvest date, yield,		
	The en produce	nd-user must consider the potential for a delayed harvest BEFORE using this ct.		

## **CORN RECOMMENDATIONS**

CROP	g/ha	COMMENTS			
SWEETCORN AND	47 - 70	PERMIT WG HERBICIDE may be applied over-the-top or with drop nozzles from the spike through row closure (10-12 leaf stage) of the corn.			
POPCORN		If necessary, a sequential treatment of this product at 47 g per hectare may be applied only with drop nozzles semi-directed or directed to avoid application into the corn plant whorl.			
		Use 47 g/ha for broadleaved weeds. Use 70 g/ha when nutsedge present.			
	dome	weet corn and popcorn, following the last application to foliage, allow 30 days before grazing stic livestock and harvesting forage. Following the last application to foliage, allow 30 days for corn and 65 days for popcorn prior to harvesting silage.			
	popco Do no Consu	ore than 2 applications of PERMIT WG HERBICIDE may be made per season in sweet corn or born with a total application not to exceed 140 g of product per hectare per season. In apply COC or MSO based adjuvants with post-emergent applications. In a second s			
		nder adverse growing conditions (dry or excessive moisture, cool weather, etc.), maturity of the ated crop may be delayed which can influence harvest date, yield, and quality.			
	_	r untested varieties, a small area of the field should be sprayed to determine potential sensitivity to use.			
	• Th	e end-user must consider the potential for a delayed harvest BEFORE using this product.			

4= 00	1
47 - 93	Corn Growth Stage: When used <u>alone</u> , PERMIT WG HERBICIDE can be applied over-the-top or with drop nozzles from the spike through row closure (10-12 leaf stage) stage of field corn. Use 47 g/ha for broadleaved weeds. Use 70-93 g/ha when nutsedge present. PERMIT WG HERBICIDE may be applied up to 2 applications with a total application not to exceed 186 g of product per hectare per season.
	NOTE: Corn height refers to the crop as it stand, not leaf extended.
	TANK MIXTURES FOR CORN
	Refer to "MIXING INSTRUCTIONS," and "USE RATE GUIDES" sections of this label for detailed information on PERMIT WG HERBICIDE application.  Refer to the specific product labels and observe all precautions, mixing and application instructions for all products used in tank mixtures. Be sure to follow the specifications listed on the most restrictive label when planning and making applications.
	Ensure that spray equipment is set up to avoid applying an excessive rate directly over the rows and into the whorl of the cornstalk. To insure good spray coverage of weeds and to reduce the risk of spraying directly into the whorl, tank-mix applications made after corn is 60 cm tall should be directed or semi-directed using drop nozzles.
	NOTE: Corn height refers to the crop as it stand, not leaf extended.
	Tank mixtures for additional broadleaf weed control, including Marksman, 2,4-D, dicamba and atrazine can be added. Refer to the respective product labels for rates and mixing instructions.
	Tank mixtures for additional post emergent grassy weed control, including Accent and Beacon can be added. Refer to the respective product labels for rates and mixing instructions.
	Tank mixtures for additional post emergent grassy and broadleaf weed control, including glyphosate can be added for use on glyphosate tolerant corn varieties. Refer to the respective product labels for rates and mixing instructions.
<ul><li>harvesting</li><li>PERMI g of pro</li><li>Refer to</li></ul>	llowing the last application to foliage, allow 30 days before grazing domestic livestock and forage, and 65 days before harvesting silage.  IT WG HERBICIDE may be applied up to 2 applications with a total application not to exceed 186 oduct per hectare per use season.  to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop
	<ul> <li>Following</li> <li>PERMING</li> <li>Perming</li></ul>

restrictions.

## **SORGHUM RECOMMENDATIONS**

CROP	g/ha	COMMENTS	
GRAIN SORGHUM (MILO)	47 - 70	Grain Sorghum Growth Stage: PERMIT WG HERBICIDE, alone, can be applied from the 2-leaf through boot stage (before grain head emergence).	
		Temporary stature reduction may occur to the crop following application of PERMIT WG HERBICIDE if the grain sorghum is under stress. This effect will be most evident 7 to 10 days after application. The crop will quickly recover under normal growing conditions.	
	<ul><li>harves</li><li>Only a to exce</li><li>Cons</li></ul>	Following the last application to foliage, allow 30 days before grazing domestic livestock and harvesting forage, and 60 days before harvesting silage.  Only apply PERMIT WG HERBICIDE in a single application with the total application rate not to exceed 70 g of product by weight per hectare per use season.  Consult "Use Precautions" and "For Optimum Results" sections for important usage information.	

## PROSO MILLET RECOMMENDATIONS

CROP	g/ha	COMMENTS
PROSO MILLET	35 - 47	Proso Millet Growth Stage: PERMIT WG HERBICIDE, alone, can be applied from the 2-leaf through boot stage (before grain head emergence).
		Temporary stature reduction may occur to the crop following application of PERMIT WG HERBICIDE if the proso millet is under stress. This effect will be most evident 7-10 days after application. The crop will quickly recover under normal growing conditions. Applications should be made after weed emergence and actively growing. If adding a tank mix, refer to the tank mix section of this label.
		TANK MIXTURES FOR PROSO MILLET
		Refer to "MIXING INSTRUCTIONS," and "USE RATE GUIDES" sections of this label for detailed information on PERMIT WG HERBICIDE application.  Refer to the specific product labels and observe all precautions, mixing and application instructions for all products used in tank mixtures. Be sure to follow the specifications listed on the most restrictive label when planning and making applications.
		Tank mixtures for additional broadleaf weed control, including 2,4-D can be added, refer to the respective product labels for rates and mixing instructions.
	Follov	wing application allow 37 days before feeding millet hay
		wing application allow 50 days before feeding straw
		wing application allow 50 days prior to harvesting grain
	_	ge may be grazed on the day of application (0 day)
		ot exceed 47 g / hectare of PERMIT WG HERBICIDE in a crop season applied as a eapplication.

#### ROTATIONAL CROP INFORMATION

Gowan Company recommends the following re-cropping intervals for crop safety. Planting prior to the intervals shown below may result in crop injury when using PERMIT WG HERBICIDE. Rotation intervals below may need to be extended if drought or cool conditions prevail. Gowan Company recommends that the end user test this product in order to determine its suitability for such intended use. In the event of crop failure, labeled crops may be planted back into the treated area at the user's risk for potential phytotoxicity to the subsequent crop. **Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.** 

#### TIME INTERVAL BEFORE PLANTING

0 Months (immediate plantback)					
Beans (dry, snap)					
1 Month					
Corn, field normal and all herbicide tolerant varieties					
2 M	onths				
Cereals spring (barley, oats, wheat)	Cereals, winter (barley, wheat, rye)				
Corn, seed	Forage grasses				
Proso millet	Sorghum				
3 M	onths				
Corn, sweet and pop					
	onths				
Peanuts	onths				
Tomato	Unitris				
	onths				
Cucumbers	Forage Legumes (alfalfa, clovers)				
Melons	Peas (succulent, field)				
Potatoes	Pumpkins				
Soybean	Squash				
•	lonths				
Peppers					
12 Months					
Eggplant	Radish				
	lonths				
Cabbage	Canola				
Carrot	Mint				
	lonths				
Broccoli	Cauliflower				
Collards	Lettuce				
Onions and Leeks	Sunflowers				
24 Months					
Spinach	lands a				
Strawberries 36 N	I Sugarbooto				
	Sugarbeets				
Table (garden) beets	minated or horizottad, the retational intervals mu				

If a crop treated with halosulfuron is lost, terminated or harvested, the rotational intervals must be adhered to when replanting the same crop, or planting a subsequent crop. Refer to individual product labels to determine rotation crop restrictions when tank mixtures are used.

PERMIT® is a registered trademark of Nissan Chemical Industries Ltd.

Eptam® is a registered trademark of Gowan Company LLC.

\*All other products mentioned are trademarks of their respective companies

© 2011 Gowan Company, L.L.C.