GLYPHOSATE (50%)

FOR LARGE AREAS

**When mixed 1.3 fl. oz. of product with 1 gallon of water.
1See inside booklet for complete list of weeds controlled.

ACTIVE INGREDIENT:
Glyphosate [N-(phosphonomethyl)glycine]
in the form of its isopropylamine salt .......... 50.0%
OTHER INGREDIENTS: .................................. 50.0%
TOTAL 100.0%

THIS PRODUCT CONTAINS: 4.8 lbs. per U.S. gallon of the active ingredient glyphosate in the form of its isopropylamine salt. Equivalent to 3.6 lbs. per U.S. gallon of the acid glyphosate.

FOR LARGE OUTDOOR AREAS, FARM YARDS, DRIVEWAYS, VACANT LOTS, FENCE LINES & INDUSTRIAL SITES

Rain-fast in hours
Covers up to 4.5 acres**
Makes up to 100 gallons**
CONCENTRATE 50%

Super Weed & Grass Killer

GLYPHOSATE (50%)

Rain-fast in hours
Covers up to 4.5 acres**
Makes up to 100 gallons**

950/9-2015 AP050815
EPA REG. NO. 2217-845
EPA EST. NO. 2217-KS-2

Manufactured by:
PBI/GORDON CORPORATION
1217 WEST 12TH STREET
KANSAS CITY, MO 64101

Available exclusively for:
TRACTOR SUPPLY COMPANY
5401 VIRGINIA WAY
BRENTWOOD, TN 37027
For customer support,
call: 1-888-376-9601
www.TractorSupply.com

NET CONTENTS: 1 GAL. (128 FL. OZ.)

See inside pages for complete Precautionary Statements and Directions for Use (including First Aid and Storage and Disposal).

**When mixed 1.3 fl. oz. of product with 1 gallon of water.
TABLE OF CONTENTS

Precautionary Statements .......................... 3
Product Information .................................. 5
Spray Preparation and Tank Mixtures ............... 6
Application Equipment and Techniques .......... 7
  • Ground Equipment
  • Hand Held High Volume
Weeds Controlled ................................... 9
  • Annuals and Specific Use Directions .......... 9
  • Perennials and Specific Use Directions ... 11
  • Woody Brush and Trees and
    Specific Use Directions ...................... 13
Noncropland Sites ................................... 16
  • Lawn and Turf ................................. 17
  • Shelterbelts and Landscape Plantings .... 18
  • Nurseries .................................... 19
  • Farmsteads .................................. 20
Storage and Disposal ............................... 21

GROUNDWORK®
CONCENTRATE 50%

Super Weed & Grass Killer

ACTIVE INGREDIENT:
Glyphosate (N-(phosphonomethyl)glycine)
in the form of its isopropylamine salt .......... 50.0%

OTHER INGREDIENTS: ............................. 50.0%

THIS PRODUCT CONTAINS: TOTAL 100.0%
4.8 lbs. per U.S. gallon of the active ingredient glyphosate in
the form of its isopropylamine salt. Equivalent to 3.6 lbs. per
U.S. gallon of the acid, glyphosate.

KEEP OUT OF REACH OF CHILDREN
CAUTION
READ THE ENTIRE LABEL FIRST.
OBSERVE ALL PRECAUTIONS AND
FOLLOW DIRECTIONS CAREFULLY.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals
CAUTION: Causes moderate eye irritation. Harmful if absorbed through the skin. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE):
Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistant category chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical resistant gloves category A such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber ≥ 14 mils, and shoes plus socks.

Engineering Control Statements:
When handlers use enclosed cabs 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:
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

| FIRST AID |
|------------------|-----------------------------------------------|
| **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 the 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 center 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 mouth-to-mouth if possible. |
|                   | • Call a poison control center or doctor for treatment advice. |
| **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. |

Have the product container or label with you when calling a poison control center or doctor or going for treatment.
DOMESTIC ANIMALS:
This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.) If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ENVIRONMENTAL HAZARDS:
Do not contaminate water when disposing of equipment washwater. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation. In case of spill or leak, soak up with an absorbent and remove to a landfill.

PHYSICAL OR CHEMICAL HAZARDS:
Combustible. Do not use or store near heat or open flame.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

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 registration.

AGRICULTURAL USE REQUIREMENTS
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 4 hours.

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: coveralls, chemical resistant gloves category A such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber ≥ 14 mils, and shoes plus socks.
NON-AGRICULTURAL USE REQUIREMENTS
The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (40 CFR Part 170) for agricultural pesticides. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep people and pets off treated areas until spray solution has dried.

PRODUCT INFORMATION:
• This product mixes readily with water and is intended to be applied as a foliar spray for the control or destruction of many herbaceous or woody plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.
• This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control.
• Visible effects are gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts. Unless otherwise specified on this label, delay application until vegetation has emerged and reached the growth stages described for control. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.
• Always use the higher rate of this product per acre within the specified range when weed growth is heavy or dense.
• Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.
• Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the specified stage for treatment.
• Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.
• This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.
• Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified in this labelling. Mixing this product with herbicides or other materials not specified on this label may result in reduced performance.
• For best results, spray coverage should be uniform and complete.
• The maximum rates stated on this product labelling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing
products does not exceed stated maximum use rates.

USE PRECAUTIONS:
• AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.
• Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended.
• The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle types that will result in splatter or fine particles (mist) which are likely to drift.
• AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.
• NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

SPRAY PREPARATION AND TANK MIXTURES:
Groundwork® Concentrate 50% Super Weed & Grass Killer is a soluble concentrate that dissolves readily in clean water (free of mud or clay). Reduced results may occur if water containing soil is used, such as water from ponds or unlined ditches.

Additional surfactants are not required for this formulation.

Groundwork® Concentrate 50% Super Weed & Grass Killer

Alone With Water As Diluent:
1. Determine spray volume needed for the treated area. Add one-half the required amount of clean water to the spray tank.

2. Measure the specified amount of product and add Groundwork® Concentrate 50% Super Weed & Grass Killer slowly with agitation, and complete filling the tank with water.

3. Mix thoroughly and continue agitation while spraying.

Colorants or Dyes:
Colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's directions.

Tank Mixtures of Groundwork® Concentrate 50% Super Weed & Grass Killer:
1. Always predetermine the compatibility of labeled tank mixtures of this herbicide with water carrier by mixing small proportional quantities in advance.

2. Fill the sprayer tank one-half full with water and start agitation.

3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.

4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.

5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.

6. Continue filling the sprayer tank with water and add the required amount of Groundwork® Concentrate 50% Super Weed & Grass Killer near the end of the filling process.

7. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water-soluble liquid.
8. Maintain good agitation at all times, until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

**Sprayer Cleanup:**

**CLEAN THE ENTIRE SPRAYER AFTER APPLICATION OF THIS PRODUCT.** Failure to clean the sprayer thoroughly may result in injury to desirable crops which are subsequently sprayed.

**APPLICATION EQUIPMENT AND TECHNIQUES:**

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

- **Ground equipment** – Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage. Boom sprayers equipped with appropriate flat fan nozzles, tips, and screens are suitable for broadcast applications.

Spray volumes of 3-30 gallons per acre with spray pressures adjusted to 20-40 psi are appropriate. Use higher spray volumes within the specified range for dense weed populations.

- **Hand-held and high-volume spray equipment** – knapsack and backpack sprayers, pump-up pressure sprayers, sprayguns, handwands, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage. Applications should be made on a spray-to-wet basis, spray coverage should be uniform and complete. Use only coarse sprays.

**SPRAY PREPARATION FOR APPLICATIONS WITH HAND-HELD HIGH VOLUME EQUIPMENT:**

Specific use directions for annuals, perennials, woody brush, and trees are presented in the section named **WEEDS CONTROLLED.** Identify the target weed species, note the weed growth stages and select the appropriate spray concentration presented in **WEEDS CONTROLLED.**

Spray concentrations for application with high volume equipment made on a spray-to-wet basis range from 1.0-2.25% vol/vol. Use the lower spray concentrations in the range for annual weeds and the higher spray concentration for perennial and hard-to-control species. The spray preparation chart for applications on a spray-to-wet basis is shown below in Table 1.

<table>
<thead>
<tr>
<th>Volume (gallons)</th>
<th>1.0%</th>
<th>1.25%</th>
<th>1.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon</td>
<td>1.3 fl. oz.</td>
<td>1.6 fl. oz.</td>
<td>2.0 fl. oz.</td>
</tr>
<tr>
<td>25 gallons</td>
<td>1.0 qt.</td>
<td>1.25 qt.</td>
<td>1.5 qt.</td>
</tr>
<tr>
<td>50 gallons</td>
<td>2.0 qt.</td>
<td>2.25 qt.</td>
<td>3.0 qt.</td>
</tr>
<tr>
<td>100 gallons</td>
<td>1.0 gal.</td>
<td>1.25 gal.</td>
<td>1.50 gal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume (gallons)</th>
<th>1.75%</th>
<th>2.25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon</td>
<td>2.2 fl. oz.</td>
<td>2.8 fl. oz.</td>
</tr>
<tr>
<td>25 gallons</td>
<td>1.75 qt.</td>
<td>2.25 qt.</td>
</tr>
<tr>
<td>50 gallons</td>
<td>3.5 qt.</td>
<td>4.5 qt.</td>
</tr>
<tr>
<td>100 gallons</td>
<td>1.75 gal.</td>
<td>2.25 gal.</td>
</tr>
</tbody>
</table>

When using application methods that result in less than complete coverage, use a 6.0% spray concentration for annual and perennial weeds and a 6.0-9.0% spray concentration for woody brush and trees.

If a straight-stream nozzle is used, start the application at the top of the target vegetation and spray...
from top to bottom in a "zig-zag" motion. Ensure that at least 50% of the leaf surface is contacted by the spray. Small open-branched trees need only be treated from one side. If foliage is thick or there are multiple root sprouts, application must be made from several sides to ensure adequate coverage.

The spray preparation chart for these applications is shown in Table 2.

<table>
<thead>
<tr>
<th>Volume (gallons)</th>
<th>6.0%</th>
<th>9.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon</td>
<td>7.7 fl. oz.</td>
<td>11.5 fl. oz.</td>
</tr>
<tr>
<td>25 gallons</td>
<td>6.0 qt.</td>
<td>9.0 qt.</td>
</tr>
<tr>
<td>50 gallons</td>
<td>3.0 gal.</td>
<td>4.5 gal.</td>
</tr>
<tr>
<td>100 gallons</td>
<td>6.0 gal.</td>
<td>9.0 gal.</td>
</tr>
</tbody>
</table>

**SPRAY DRIFT MANAGEMENT:**

DRIFT MAY CAUSE DAMAGE TO ANY OTHER VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

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.

**Importance of 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 Inversion sections of this label).

**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** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. 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 backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the 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 larger droplets than other nozzle types.
- **Boom Length** - For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application** - Applications should not be made at a height greater than 10 feet above the top of the largest plants. 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 cross-wind, the swath will be displaced downwind. 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 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 Inversion** - Applications must 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 temperature 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 connected cloud (under low wind conditions) indicates an air inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing. Sensitive Areas: This 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).

### WEEDS CONTROLLED

**ANNUAL WEEDS:**

Apply to actively growing grass and broadleaf weeds. Allow at least 3 days after treatment before disturbing vegetation. After this period, weeds may be mowed, tilled or burned. To prevent seed production, applications should be made prior to seedhead formation.

This product may be used as a broadcast treatment or spot treatment for annual weeds with any of the application equipment listed on this label in noncropland sites.

<table>
<thead>
<tr>
<th>Application</th>
<th>Directions for Annual Weeds Only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spray Concentration, vol/vol%</td>
</tr>
<tr>
<td>Spot treatments, hand held high volume equipment</td>
<td>1.0%</td>
</tr>
<tr>
<td>Broadcast treatments</td>
<td>---</td>
</tr>
</tbody>
</table>

**Broadcast Application:**

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

Use 1.7 pints of this product per acre when weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2.6 pints of this product per acre per 100 gallons of spray solution.

Spray volumes of 3 to 10 gallons per acre for ground applications.
Hand-Held High-Volume Application:
Use a 1.0% vol/vol solution of this product in water and apply to foliage of vegetation to be controlled.

This product will provide full or partial control of the following annual weeds when applied as directed. Annual weeds will continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating seeds.

WEEDS SPECIES:
Anoda, spurred
Barnyardgrass *Echinochloa crus-galli*
Bassia, fivehook *Bassia hyssopifolia*
Bittercress
Black nightshade
Bluegrass, annual *Poa annua*
Bluegrass, bulbous *Poa bulbosa*
Brome, downy
Brome, Japanese
Carolina geranium
Carpetweed
Cheatgrass
Cheeseweed, *Malva parviflora*
Chervil
Chickweed
Chickweed, mouseear, *Cerastium vulgatum*
Cocklebur
Copperleaf hophornbeam
Corn speedwell
Crabgrass, *Digitaria spp.*
Dwarf dandelion, *Krigia cespitosa*
Eclipta
False dandelion
Falseflax, smallseed *Camelina microcarpa*
Fiddleneck *Amsinckia spp.*
Filarue
Flaxleaf fleabane *Conyza bonariensis*
Fleabane *Erigeron spp.*
Florida pusley
Foxtail *Setaria spp.*
Foxtail, Carolina *Alopecurus carolinianus*

Goosegrass
Groundsel, common *Senecio vulgaris*
Henbit
Horseweed/marestail *Conyza canadensis*
Itchgrass
Johnsongrass, seedling
Knotweed
Kochia, *Kochia scoparia*
Lambsquarters, common *Chenopodium album*
Lettuce, prickly *Lactuca seriola*
Mayweed
Medusahead
Morningglory, *Ipomoea spp.*
Mustard, blue *Chorispora tenella*
Mustard, tansy *Descurainia pinnata*
Mustard, tumble *Sisymbrium altissimum*
Mustard, wild *Brassica kaber*
Oats, wild *Avena fatua*
Panicum, *Panicum spp.*
Penny cress, field *Thlaspi arvensis*
Pigweed, redroot *Amaranthus retroflexus*
Pigweed, smooth *Amaranthus hybridus*
Plains/tickseed *Coreopsis spp.*
Puncturevine
Purslane, common
Ragweed, common *Ambrosia artemisiifolia*
Ragweed, giant *Ambrosia trifida*
Rocket, London *Sisymbrium iring*
Sandbur, field *Cenchrus spp.*
Shattercane *Sorghum bicolor*
Shepherdspurse *Capsella bursa-pastoris*
Sicklepod
Signal grass, broadleaf *Brachiaria platyphylla*
Smartweed, ladysthumb
Smartweed, Pennsylvania *Polygonum pensylvanicum*
Sowthistle, annual *Sonchus oleraceus*
Spanish needles
Speedwell, purslane
Spurge, annual
Spurge, prostrate
Spurge, spotted
Spurry, umbrella *Holosteum umbellatum*
Starthistle, yellow
Stinkgrass *Eragrostis cilianensis*
Sunflower *Helianthus annuus*
Teaweed/prickly sida
Texas panicum
Thistle, Russian *Salsola kali*
Velvetleaf, *Abutilon theophrasti*
Virginia copperleaf
Virginia pepperweed
Witchgrass, *Panicum capillare*
Woolly cupgrass
Yellow rocket

**PERENNIAL WEEDS:**
This product may be used as a broadcast treatment or spot treatment for perennial weeds with any of the application equipment listed on this label in noncropland sites.

<table>
<thead>
<tr>
<th>Application</th>
<th>Directions for Perennial Weeds Only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spray Concentration, vol/vol%</td>
</tr>
<tr>
<td>Spot treatments, hand held high volume equipment</td>
<td>1.0-2.25%</td>
</tr>
<tr>
<td>Broadcast treatments</td>
<td>5.1-8.4</td>
</tr>
</tbody>
</table>

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations, for dense/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

Specific use directions for certain perennial weeds are presented in the following section.

- Apply to actively growing perennial weeds.
- Best results are obtained when soil moisture is adequate for active weed growth.
- Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.
- **NOTE:** If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the specified stages.
- Fall treatments must be applied before a killing frost.
- Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. When applied as specified under the conditions described, this product will provide full or partial control for the following perennial weeds:

  - Anise/Fennel *Foeniculum vulgare*
  - Artichoke, Jerusalem *Helianthus tuberosus*
  - Bahiagrass *Paspalum notatum*
  - Bermudagrass *Cynodon dactylon*
  - Bermudagrass, water (knotgrass) *Paspalum distichum*
  - Bindweed, field *Convolvulus arvensis*
  - Bluegrass, Kentucky *Poa pratensis*
  - Blueweed, Texas *Helianthus ciliaris*
  - Brackenfern *Pteridium aquilinum*
  - Bromegrass, smooth *Bromus inermis*
  - Bursage, woolly-leaf
  - Canarygrass, reed *Phalaris arundinacea*
  - Clover, red *Trifolium pratense*
  - Clover, white *Trifolium repens*
  - Dallisgrass *Paspalum dilatatum*
  - Dandelion *Taraxacum officinale*
  - Dock, curly *Rumex crispus*
  - Dogbane, hemp *Apocynum cannabinum*
  - Fescue *Festuca spp.*
  - Fescue, tall *Festuca arundinacea*
  - German ivy
  - Guineagrass *Panicum maximum*
  - Hemlock, poison *Conium maculatum*
  - Horsenettle *Solanum carolinense*
Horseradish *Armoracia rusticana*
Johnsongrass *Sorghum halepense*
Kikuyugrass *Pennisetum clandestinum*
Knapweed *Centaurea repens*
Lantana *Lantana camara*
Lespedeza, common *Lespedeza striata*
Lespedeza, serices *Lespedeza cuneata*
Milkweed *Asclepias spp.*
Muhly, wirestem *Muhlenbergia frondosa*
Mullein, common *Verbascum thapsus*
Napiergrass *Pennisetum purpureum*
Nightshade, silverleaf *Solanum elaeagnifolium*
Nutsedge, purple, *Cyperus rotundus*
yellow, *Cyperus esculentus*
Orchardgrass *Dactylis glomerata*
Pampasgrass *Cortaderia jubata*
Pepperweed, perennial
Quackgrass *Agropyron repens*
Redvine*
Ryegrass, perennial *Lolium perenne*
Smartweed, swamp *Polygonum coccineum*
Spurge, leafy*
Starthistle, yellow *Centaurea soistitialis*
Sweet potato, wild *Ipomoea pandurata* *
Thistle, artichoke*
Thistle, Canada
Timothy *Phleum pratense*
Trumpetcreeper*
Vaseygrass *Paspalum urvillei*
Velvetgrass *Holcus spp.*
Wheatgrass, western
*Partial control*

**Bermudagrass:** Apply 8.4 pints of this product per acre as a broadcast spray, or as a 1.75% solution with hand-held equipment. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.

**Bindweed, field; silverleaf nightshade; Texas blueweed:** Apply 6.8-8.4 pints of this product per acre as a broadcast spray, west of the Mississippi River and 5.1-6.8 pints per acre, east of the Mississippi River. With hand-held equipment, use a 1.75% solution. Apply when target plants are actively growing and are at or beyond full bloom.

For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

**Brackenfern:** Apply 5.1-6.8 pints of this product per acre as a broadcast spray or as a 1.0-1.25% solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Dogbane, hemp; knapweed; horseradish:** Apply 6.8 pints of this product per acre as a broadcast spray or as a 1.75% solution with hand-held equipment. Apply when target plants are actively growing, and most have reached the late bud to flower stage of growth. For best results apply in late summer or fall.

**Fescue, tall:** Apply 5.1 pints of this product per acre as a broadcast spray or as a 1.25% solution with hand-held equipment. Apply when the plants are actively growing, and most have reached the boot to head stage of growth. When applied prior to boot stage, control may be reduced.

**Guineagrass:** Apply 5.1 pints of this product per acre as a broadcast spray or as 1.0% solution with hand-held equipment. Apply when plants are actively growing and most have reached at least the 7-leaf stage of growth.

**Johnsongrass; Kentucky bluegrass; smooth bromegrass; reed canarygrass; orchardgrass; perennial ryegrass; timothy; western wheatgrass:** Apply 3.4-5.1 pints of this product per acre as a broadcast spray or as a 1.0% solution with hand-held equipment. Apply when target plants are actively growing, and most have reached the boot to head stage of growth. When applied prior to boot stage, control may be reduced. In fall, apply before plants have turned brown.
Lantana: Apply this product as a 1.0-1.25% solution with hand-held equipment. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher rate for plants that have reached the woody stage of growth.

Milkweed, common: Apply 5.1 pints of this product per acre as a broadcast spray or as a 1.75% solution with hand-held equipment. Apply when plants are actively growing and have reached the late bud to flower stage of growth.

Nutsedge, purple, yellow: Apply 5.1 pints of this product per acre as a broadcast spray or as a 1.0% solution with hand-held equipment to control existing plants or immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

Pampasgrass: Apply a 1.75% solution of this product with hand-held equipment when plants are actively growing.

Quackgrass; Kikuyugrass; wirestem muhly: Apply 3.4-5.1 pints of this product per acre as a broadcast spray or as a 1.0% solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches high (3 to 4 leaf stage of growth) and actively growing. Allow 3 or 4 more days after application before tillage.

Wild sweet potato: Apply as a 1.75% solution with hand-held equipment. Apply to actively growing weeds at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the specified stage of growth before retreatment.

Thistle, Canada, artichoke: Apply 3.4-5.1 pints of this product per acre as a broadcast spray or as a 1.50% solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2.25% solution as a spray-to-wet application. Apply when plants are actively growing and are at or beyond the bud stage of growth.

Other perennials listed on this label: Apply 5.1-8.4 pints of this product per acre as a broadcast spray or as a 1.0-1.75% solution with hand-held equipment. Apply when target plants are actively growing, and most have reached early head or early bud stage of growth.

WOODY BRUSH AND TREES:
When applied as specified under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

Alder, Alnus spp.
Ash Fraxinus spp.*
Aspen, quaking Populus tremuloides
Beech
Birch, Betula spp.
Blackberry, Rubus spp.
Blackgum
Bracken
Broom: French Cytisus monspessulanus
    Scotch Cytisus scoparius
Buckwheat, California Erodognum fasciculatum*
Cascara pagrada Rhamnus purshiana*
Catsclaw Acacia greggi*
Ceanothus, Ceanothus spp.
Chamise, Adenostoma fasciculatum
Cherry: Bitter Prunus emarginata
    Black Prunus serotina
    Pin Prunus pensylvanica
Coyotebrush, Baccharis pilularis
Creep, Virginia Parthenocissus quinquefolia*
Deerweed
Dewberry, Rubus trivialis
Dogwood, Cornus spp.
Elderberry, Sambucus spp.
Elm, Ulmus spp.*
Eucalyptus, bluegum Eucalyptus spp.
Gorse
As per the previous note, if brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the specified stages of growth.

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

This product may be used as a broadcast treatment or spot treatment for woody brush and trees with any of the application equipment listed on this label in noncropland sites.
<table>
<thead>
<tr>
<th>Application</th>
<th>Directions for Woody Brush and Trees Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot treatments, hand held high volume equipment as full cover spray.</td>
<td>Spray Concentration, vol/vol%</td>
</tr>
<tr>
<td></td>
<td>1.0-2.25%</td>
</tr>
<tr>
<td>Spot treatments, hand held high volume equipment without full coverage.</td>
<td>6.0-9.0%</td>
</tr>
<tr>
<td>Broadcast treatments</td>
<td>—</td>
</tr>
</tbody>
</table>

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

Specific use directions for certain woody brush and trees are presented in the following section.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal.

Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Applied as a 6.0-9.0% solution as a directed application as described in the HAND-HELD AND HIGH-VOLUME EQUIPMENT section, this product will control or partially control all the species listed in this section of this label. Use the higher rate for dense stands and larger woody brush and trees.

Apply this product as follows to control or partially control the following woody brush and trees:

Alder; blackberry; dewberry; honeysuckle; post oak; raspberry: For control, apply 5.1-6.8 pints per acre of this product as a broadcast spray or as a 1.0-1.5% solution with hand-held equipment.

Aspen, quaking; hawthorn; trumpet creeper: For control, apply 3.4-5.1 pints of this product per acre as a broadcast spray or as a 1.0-1.5% solution with hand-held equipment.

Birch; elderberry; hazel; salmonberry; thimbleberry: For control, apply 3.4 pints per acre of this product as a broadcast spray or as a 1.0% solution with hand-held equipment.

Broom, French and Scotch: For control, apply a 1.5-2.0% solution with hand-held equipment.

Buckwheat, California; hasardia; monkey flower, tobacco tree: For partial control of these species, apply 1.0-1.75% solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw: For partial control, apply as a 1.5-1.75% solution with hand-held equipment when at least 50% of the new leaves are fully developed.

Cherry, bitter, black, pin; oak, southern red; sweetgum; Prunus: For control, apply 3.4-8.4 pints of this product per acre as a broadcast spray or as a 1.25-1.75% solution with hand-held equipment.

Coyotebrush: For control, apply a 1.5-1.75% solution with hand-held equipment when at least 50% of the new leaves are fully developed.

Dogwood; hickory; saltcedar: For partial control, apply a 1.25-2.25% solution of this product with hand-held equipment or 6.8-8.4 pints per acre as a broadcast spray.
**Eucalyptus, blue gum:** For control of eucalyptus resprouts, apply a 1.75-2.0% solution of this product with hand-held equipment when resprouts are 6-12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

**Holly, Florida; wax myrtle, southern:** For partial control, apply this product as a 1.75% solution with hand-held equipment.

**Kudzu:** For control, apply 6.8 pints of this product per acre as a broadcast spray or as a 1.75-2.0% solution with hand-held equipment. Repeat applications will be required to maintain control.

**Maple, red:** For control, apply as a 1.0-1.50% solution with hand-held equipment when at least 50% of the new leaves are fully developed. For partial control, apply 3.4-8.4 pints of this product per acre as a broadcast spray.

**Maple, sugar; oak; northern pin, red:** For control, apply as a 1.0-1.50% solution with hand-held equipment when at least 50% of the new leaves are fully developed.

**Poison ivy; poison oak:** For control, apply 6.8-8.4 pints of this product per acre as a broadcast spray or as a 1.75-2.0% solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora:** For control, apply 3.4 pints of this product per acre as a broadcast spray or as a 1.0% solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black; sagebrush, California; chamise; tallow tree, Chinese:** For control of these species, apply a 1.0% solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Tanoak resprouts:** For suppression or partial control, apply a 2.25% solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

**Willow:** For control, apply 5.1 pints of this product per acre as a broadcast spray or as a 1.0% solution with hand-held equipment.

**Other woody brush and trees listed:** For partial control, apply 3.4-8.4 pints of this product per acre as a broadcast spray or as a 1.0-2.0% solution with hand-held equipment.

**NONCROP SITES:**
This product may be used to control the listed weeds in terrestrial noncrop sites within these areas:

**Terrestrial Non-Food Crop:** Ornamental and/or shade trees, ornamental woody shrubs and vines, Christmas tree plantings, ornamental plants, ornamental turf, golf course turf, industrial areas, outdoor buildings/structures, rights-of-way/fence rows/hedgerows, nonagricultural uncultivated areas/solls, ornamental lawns and turf, cemeteries, vacant lots, paths/patios, paved areas (private roads/sidewalks), recreational areas, urban areas, golf courses, parks, schools, shelterbelts, farm yards, nurseries (plants grown or maintained for commercial or research purposes and includes, but is not limited to trees, turfgrass, flowers, shrubs, ornamentals, and seedlings).

**Outdoor Residential:** Ornamental and/or shade trees, ornamental herbaceous plants, ornamental lawns and turf, ornamental woody shrubs and vines, household/domestic dwellings outdoor premises.

This product may be used as a broadcast treatment or spot treatment with any of the application equipment listed on this label in noncropland sites.

- For spot treatments: Specific use directions for annuals, perennials, woody brush, and trees are presented in the section named WEEDS CONTROLLED. See Tables 1 and 2.
For broadcast treatments: Specific use directions for noncropland sites including dosage rates, spray volumes, and restrictions are presented in Tables 3-5.

Table 3. Directions for Noncropland Use Patterns, Dosage Rates, Spray Volumes, Restrictions, and Comments for Broadcast Applications Appropriate for Each Site.

<table>
<thead>
<tr>
<th>Site</th>
<th>Major Weed Species</th>
<th>Amount of Product, Pints/Acre</th>
<th>Spray Volume, Gals./Acre</th>
<th>Amount of Product, fl. oz./1000 sq. ft.</th>
<th>Spray Volume, Gals./1000 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn &amp; turf seedbeds (Prior to establishment)</td>
<td>Many annual and perennial grasses and broadleaf weeds, including johnsongrass, bermudagrass, annual bluegrass, crabgrass, lambsquarters, ragweed, fescue, and quackgrass</td>
<td>Annual weeds: 1.6-3.3</td>
<td>≤ 25</td>
<td>0.6-1.2</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Turfgrasses for sod production</td>
<td></td>
<td>Perennial weeds: 3.3-8.4</td>
<td>≤ 25</td>
<td>1.2-3.0</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

Precautions, Restrictions & Comments – SITE PREPARATION (preplant, preemergence, renovation): This product may be applied before planting or renovation of turf. Applications must be made prior to the emergence of the crop to avoid crop injury. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

This product does not provide residual control.

Tank Mixtures Refer to container label of companion herbicide(s).

Precautions, Restrictions & Comments – Groundwork® Concentrate 50% Super Weed & Grass Killer may be tank mixed with residual herbicides listed below for improved emerged and/or residual weed control. Always refer to the container label of the companion herbicide(s) for the respective precautions, limitations, directions for use, weeds controlled, and application methods. Groundwork® Concentrate 50% Super Weed & Grass Killer may be tank mixed with the following herbicides:

- **Tupersan® Herbicide Wettable Powder** (EPA Reg. No. 10163-213-2217) is a selective preemergent herbicide to control certain annual weed grasses in turf grown for grass seed and sod production. Tupersan® Herbicide may be applied at the time of seeding without causing injury to germinating seeds of many common temperate region grasses.
Table 4. Directions for Noncropland Use Patterns, Dosage Rates, Spray Volumes, Restrictions, and Comments for Broadcast Applications Appropriate for Each Site.

<table>
<thead>
<tr>
<th>Site</th>
<th>Major Weed Species</th>
<th>Amount of Product, Pints/Acre</th>
<th>Spray Volume, Gals./Acre</th>
<th>Amount of Product, fl. oz./1000 sq. ft.</th>
<th>Spray Volume, Gals./1000 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelterbelts, windbreaks, &amp; landscape plantings</td>
<td>Most herbaceous &amp; woody plants</td>
<td>Annual weeds: 1.6-3.3</td>
<td>≤ 25</td>
<td>0.6-1.2</td>
<td>&lt; 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perennial weeds: 3.3-8.4</td>
<td>≤ 25</td>
<td>1.2-3.0</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

Precautions, Restrictions & Comments – SITE PREPARATION: Apply to actively growing plants. For crops, desirable plants and trees, avoid contact with foliage, green stems or fruit because severe injury or destruction may result.

- **Barrier® Ornamental Landscaping Herbicide (EPA Reg. No. 2217-675)** can be used for residual weed control in these noncropland areas: near trees, shrubs, hedges, woody ornamentals, nonbearing fruit trees (ornamental), and certain groundcovers established in shelterbelts, windbreaks, and landscape plantings.

| Nursery: Field grown nursery stock for conifers, broadleaf evergreens, deciduous trees, shrubs & groundcovers. | Most herbaceous & woody plants | Annual weeds: 1.6-3.3          | ≤ 25                     | 0.6-1.2                               | < 1                             |
|                                                                                                             |                             | Perennial weeds: 3.3-8.4       | ≤ 25                     | 1.2-3.0                               | < 1                             |

Precautions, Restrictions & Comments – SITE PREPARATION: This product may be used for site preparation prior to transplanting these crops. Allow a minimum of 3 days between application and transplanting.

MIDDLES (between rows): This product will control or suppress annual and perennial weeds and groundcovers growing between the rows. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

Apply when weeds and grasses are succulent and new growth is from 1-6 inches high. For mature woody weeds, late germinating weeds and grasses, and for perennials – retreatment or spot treatment may be necessary.

Do not allow spray to contact green stems, fruit or foliage as injury may result. Do not spray under windy conditions and use a shield for young trees.

(continued on page 18)
Table 4. Directions for Noncropland Use Patterns, Dosage Rates, Spray Volumes, Restrictions, and Comments for Broadcast Applications Appropriate for Each Site. (continued)

<table>
<thead>
<tr>
<th>Site</th>
<th>Major Weed Species</th>
<th>Amount of Product, Pints/Acre</th>
<th>Spray Volume, Gals./Acre</th>
<th>Amount of Product, fl. oz./1000 sq. ft.</th>
<th>Spray Volume, Gals./1000 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Christmas trees</td>
<td>Most herbaceous &amp; woody plants</td>
<td>Annual weeds: 1.6-3.3</td>
<td>≤ 25</td>
<td>0.6-1.2</td>
<td>&lt; 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perennial weeds: 3.3-8.4</td>
<td>≤ 25</td>
<td>1.2-3.0</td>
<td></td>
</tr>
</tbody>
</table>

Precautions, Restrictions & Comments – SITE PREPARATION: This product may be used prior to planting Christmas trees.
Precautions should be taken to protect nontarget plants during site preparation applications.

| • Flowers (annual, biennial & perennial) | Annual broadleaf weeds and grasses such as chickweed, crabgrass, fall panicum, foxtail, kochia, lambquarters, mustard, pigweed, ragweed, smartweed, velvetleaf. | Annual weeds: 1.6-3.3 | ≤ 25 | 0.6-1.2 | < 1 |
|                                          | Perennial weeds: 3.3-8.4                | ≤ 25                      | 1.2-3.0 | < 1 |

Precautions, Restrictions & Comments – SITE PREPARATION: Apply as a foliar spray to actively growing weeds. Avoid contact of spray drift, or mist with desirable species.
This product will not provide residual control.
Table 5. Directions for Noncropland Use Patterns, Dosage Rates, Spray Volumes, Restrictions, and Comments for Broadcast Applications Appropriate for Each Site.

<table>
<thead>
<tr>
<th>Site</th>
<th>Major Weed Species</th>
<th>Amount of Product, Pints/Acre</th>
<th>Spray Volume, Gals./Acre</th>
<th>Amount of Product, fl. oz./1000 sq. ft.</th>
<th>Spray Volume, Gals./1000 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmsteads, farm roads, roadsides, fence rows, rights-of-way, farm buildings, golf courses, industrial areas, parks, cemeteries &amp; other noncropland sites</td>
<td>Annual and perennial weeds including crabgrass, foxtail, johnsongrass, kochia, morningglory, multiflora rose, pigweed, trumpetcreeper, thistle, woody brush</td>
<td>Annual weeds: 0.8-3.3</td>
<td>3-40</td>
<td>0.3-1.2</td>
<td>≤ 1.0</td>
</tr>
<tr>
<td></td>
<td>Perennial weeds: 3.3-8.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Woody brush &amp; trees: 3.3-8.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Precautions, Restrictions & Comments – SITE PREPARATION (preplant, preemergence, renovation): TRIM AND EDGE: This product may be used to trim and edge around trees, buildings, sidewalks and roads in noncropland sites.

BARE GROUND: Repeated applications of this product may be used on emerged weeds to maintain bare ground.

NONSELECTIVE POSTEMERGENCE:
Annuals and perennials: Apply to foliage of emerged weeds. Apply at early growth stages of annual weeds and when perennial weeds are approaching maturity.

Woody brush and trees: Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Reduced performance may result if fall treatments are made following a frost.

(Table 5 continued on page 20)
Table 5. Directions for Noncrop Use Patterns, Dosage Rates, Spray Volumes, Restrictions, and Comments for Broadcast Applications Appropriate for Each Site. *(continued)*

<table>
<thead>
<tr>
<th>Tank Mixtures</th>
<th>Refer to container label of companion herbicide(s).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precautions, Restrictions &amp; Comments – Groundwork® Concentrate 50% Super Weed &amp; Grass Killer may be tank mixed with residual herbicides listed below for improved emerged and/or residual weed control. Always refer to the container label of the companion herbicide(s) for the respective precautions, limitations, directions for use, weeds controlled, and application methods. Groundwork® Concentrate 50% Super Weed &amp; Grass Killer may be tank mixed with the following herbicides:</td>
<td></td>
</tr>
<tr>
<td>• Gordon’s Agricultural Products Brushkiller 875 (EPA Reg. No. 2217-639)</td>
<td></td>
</tr>
<tr>
<td>• Gordon’s Amine 400 2,4-D Weed Killer (EPA Reg. No. 2217-2)</td>
<td></td>
</tr>
<tr>
<td>• Gordon’s Hi-Dep® Broadleaf Herbicide (EPA Reg. No. 2217-703)</td>
<td></td>
</tr>
<tr>
<td>• Gordon’s Hi-Dep® IVM Broadleaf Herbicide (EPA Reg. No. 2217-703)</td>
<td></td>
</tr>
</tbody>
</table>

---

**CUT STUMP APPLICATION:**

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100% solution of this product to freshly cut surface immediately after cutting. Delay in applying this product may result in reduced performance. For best results, trees should be cut during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will control, partially control or suppress most woody brush and tree species, some of which are listed below:

- Alder *Alnus* spp.
- Coyote brush *Baccharis consanfuinea* *
- Dogwood *Cornus* spp.*
- Eucalyptus *Eucalyptus* ssp.
- Hickory *Carya* spp.*
- Madrone *Arbutus menziesii*
- Maple *Acer* ssp.*
- Oak *Quercus* ssp.
- Poplar *Populus* ssp.*
- Reed, giant *Arundo donax*
- Saltcedar *Tamarix* ssp.
- Sweetgum *Liquidambar styraciflua* *
- Sycamore *Platanus occidentalis* *
- Tanoak *Lithocarpus densiflorus*
- Willow *Salix* ssp.*

*This product is not approved for this use on these species in the State of California.

**STORAGE AND DISPOSAL**

Do not contaminate water, foodstuffs, feed or seed by storage and disposal.

**PESTICIDE STORAGE:** STORE ABOVE 10°F (-12°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room (68°F or 20°C)

*(continued on next page)*
STORAGE AND DISPOSAL (cont.)

for several days to allow crystals to redissolve, then shake well before using.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip.

Repeat this procedure two more times.

OR

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

LIMITED WARRANTY AND DISCLAIMER.

FOR USE ONLY AS DIRECTED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH ARE HEREBY EXPRESSLY DISCLAIMED. TO THE EXTEND CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. IF THESE TERMS ARE NOT ACCEPTABLE, RETURN THIS PRODUCT UNOPENED IMMEDIATELY TO THE POINT OF PURCHASE, AND THE PURCHASE PRICE WILL BE REFUNDED IN FULL. THE TERMS OF THIS LIMITED WARRANTY STATEMENT CANNOT BE VARIED BY ANY WRITTEN OR VERBAL STATEMENTS OR AGREEMENTS AT THE POINT OF SALE OR ELSEWHERE.

BARRIER® and HI-DEP® are registered trademarks of PBI-Gordon Corporation.

TUPERSAN® is a registered trademark of Gowan Company, L.L.C.

950/9-2015 AP050815
EPA REG. NO. 2217-845
EPA EST. NO. 2217-KS-2

MANUFACTURED BY
PBI/GORDON CORPORATION
1217 WEST 12TH STREET
KANSAS CITY, MO 64101

AVAILABLE EXCLUSIVELY FOR:
TRACTOR SUPPLY COMPANY
5401 VIRGINIA WAY
BRENTWOOD, TN 37027
For customer support, call: 1-888-376-9601
www.TractorSupply.com
THIS PAGE IS BLANK INTENTIONALLY.
THIS PAGE IS BLANK INTENTIONALLY.
**GROUNDWORK®**

**CONCENTRATE 50%**

**Super Weed & Grass Killer**

**KEEP OUT OF REACH OF CHILDREN**

CAUTION

---

**PRECAUTIONARY STATEMENTS**

Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye irritation. Harmful if absorbed through the skin. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

<table>
<thead>
<tr>
<th><strong>FIRST AID</strong></th>
<th>If swallowed:</th>
</tr>
</thead>
</table>
| **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 the 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 center or doctor for treatment advice. |

(continued on next column)

<table>
<thead>
<tr>
<th><strong>FIRST AID (continued)</strong></th>
<th>If inhaled:</th>
</tr>
</thead>
</table>
| If inhaled: | • Move person to fresh air.  
• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.  
• Call a poison control center or doctor for treatment advice. |

| 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. |

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**PHYSICAL OR CHEMICAL HAZARDS:**

Combustible. Do not use or store near heat or open flame.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

950/9-2015  AP050815  
EPA REG. NO. 2217-845  
EPA EST. NO. 2217-KS-2

MANUFACTURED BY

PBI/GORDON CORPORATION  
1217 WEST 12TH STREET  
KANSAS CITY, MO 64101

AVAILABLE EXCLUSIVELY FOR:

TRACTOR SUPPLY COMPANY  
5401 VIRGINIA WAY  
BRENTWOOD, TN 37027  
For customer support, call: 1-888-376-9601  
www.TractorSupply.com