



**M A N A**



# Sweep<sup>®</sup>

**HERBICIDE**

**Dispersible Granules**

<b>ACTIVE INGREDIENT:</b>	<b>% BY WT.</b>
Bromacil: [5-bromo-3-sec-butyl-6-methyluracil] .....	40.0%
Diuron: [3-(3,4-dichlorophenyl)-1,1-dimethylurea] .....	40.0%
<b>INERT INGREDIENTS:</b> .....	<b>20.0%</b>
<b>TOTAL</b>	<b>100.0%</b>

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

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

EPA Reg. No. 66222-173      EPA Est. No. 11603-ISR-001

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS &**  
**DOMESTIC ANIMALS**  
**CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.



Manufactured for:  
**Makhteshim Agan**  
**of North America, Inc.**  
3120 Highwoods Blvd  
Suite 100  
Raleigh, NC 27604

S3641A/06

EPA 110508/Rev E

**Net Contents: 6 Pounds**

## FIRST AID

**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 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 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 further 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.

## 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 resistance category selection chart.

### **Pilots, flaggers, and groundboom applicators must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks

In addition to the above PPE, groundboom applicators must also wear chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

### **Mixers, loaders, other applicators, and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride.
- A NIOSH approved dust/mist filtering respirator with any N, R, P, or HE filter or with approval number prefix TC-21C
- Chemical-resistant apron when mixing, loading, or cleaning equipment or spills

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

## ENGINEERING CONTROLS STATEMENT

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

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection.

## USER SAFETY RECOMMENDATIONS

### **Users should:**

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

## **ENVIRONMENTAL HAZARDS**

For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Bromacil is known to leach through soil and has been found in groundwater as a result of normal field use. Users are advised not to apply in areas where soils are permeable, particularly where groundwater is used for drinking water. Consult with the pesticide state lead agency for information regarding soil permeability and aquifer vulnerability in your area.

## **GENERAL INFORMATION**

Sweep is formulated as a dispersible granule to be mixed in water. It is to be sprayed in citrus for selective weed control and on non-crop areas for non-selective control of weeds. Sweep controls many annual weeds at the lower label rates and certain perennial weeds at the highest label rates.

Moisture is necessary to move Sweep into the root zone of susceptible weeds and brush. Application to moist soil or to soil where moisture from rainfall or sprinkler irrigation occurs within 14 days of application will provide the best control. Symptoms of control will be slow to appear because the product must first move into the root zone of the susceptible plants. The level and length of weed and brush control will be dependent upon the amount of herbicide applied, soil texture, amount of moisture applied, and other soil and water management practices.

## **USE PRECAUTIONS AND RESTRICTIONS**

If you plan to use Sweep for selective weed control in citrus or for non-selective weed control in non-crop areas, adhere to the following:

1. Do not use in any recreational areas or around homes.
2. To prevent injury or loss to desirable plants and trees:
  - a. Do not apply except as instructed by this label.
  - b. Thoroughly clean all traces of Sweep from application equipment - tank, pump, hoses, etc.- immediately after use by thoroughly washing/rinsing with several changes of water after removing nozzle tips and screens (clean these parts separately).
  - c. Do not drain or clean equipment near desirable trees or other plants, or onto areas where roots of desirable trees and plants may extend, or onto areas where Sweep may be washed or moved into contact with roots of desirable trees and plants.
  - d. Do not use on lawns, walks, driveways, tennis courts, or similar areas.
  - e. Prevent drift of dry powder or spray to desirable plants.
  - f. Do not store and handle Sweep around fertilizers, insecticides, fungicides, or seeds.
  - g. Do not use in home fruit plantings or in citrus orchards interplanted to other trees or desirable plants.
3. Do not apply Sweep through any type of irrigation system.
4. Do not graze cattle in treated areas.
5. Only citrus may be planted into treated areas and only after one year of the last application.
6. Other crops may not be planted until 2 years after the last application.

## MIXING

Sprayers should be properly calibrated with clean water only and checked regularly during operation. It is important to accurately measure Sweep and to only mix enough spray mixture for the job at hand. The spray tank should not be overfilled. Excess spray mixture should be diluted and applied at labeled rates/uses. It should never be discharged at a single location in the field/grove or at the mixing/loading location. Do not store or mix near well site.

## CROP ROTATION BIOASSAY

In sites where Sweep has been used, a field bioassay should be completed prior to planting any desired crop. In arid climates (10 inches of rainfall or less) or areas where drought conditions have prevailed for one or more years, a field bioassay should be completed prior to planting any desired crop. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production. The test strip should cross the entire field including knolls and low areas. The results from the bioassay may require the two-year crop rotation interval to be extended.

## SPRAY PREPARATION

**Mixing in water:** Fill tank 1/2 full with water. Start agitation system, add Sweep and continue adding water. Add separately each additional component of any tank-mix while adding water. Continue agitation throughout.

**Mixing in liquid fertilizer:** A fertilizer solution may be used in the spray mixture. Small quantities should be tested for compatibility by the following procedures before full scale mixing:

1. Put 1 pint fertilizer solution in a quart jar.
2. Mix 2 teaspoons Sweep with 2 tablespoons of water; mix thoroughly and add to fertilizer solution.
3. Close jar and shake well.
4. If other herbicides are used in the mixture, pre-mix 2 teaspoonfuls of dry materials or 1 teaspoonful of liquids with 2 tablespoons of water; add to Sweep fertilizer solution mixture.
5. Close jar and shake well.
6. Watch mixture for several seconds; check again in 30 minutes.
7. If mixture does not separate, foam, gel, or become lumpy, it may be used.

Provided the above procedure shows the mixture to be compatible, prepare the tank mixture as follows: add the fertilizer solution to the spray tank first; with agitator running, add the required amount of Sweep and mix thoroughly.

**Mixing with other herbicides:** Determine the tank mixture partner(s) compatibility with Sweep by following the directions above. For Step 1 above, use 1 pint of water instead of the liquid fertilizer. Provided the above procedure shows the mixture to be compatible, Sweep may be used in this tank mixture.

## SPRAY TANK CLEANOUT

Thoroughly clean all traces of Sweep from application equipment immediately after use. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Dispose of the equipment washwater by applying it to a use site listed on this label.

## **RESISTANCE**

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

## **INTEGRATED PEST MANAGEMENT**

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## **DIRECTIONS FOR USE**

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

Sweep herbicide should only be used in accordance with recommendations on this label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in *Washington Toxics Coalition et al vs EPA*. Col-132C (W.D.W.A.). For information, please refer to HYPERLINK "<http://www.epa.gov/espp/wtc/>" [www.epa.gov/espp/wtc/](http://www.epa.gov/espp/wtc/).

## **AGRICULTURAL USES**

### **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 12 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 made of any waterproof material
- Shoes plus socks

### **APPLICATION INFORMATION**

Sweep should be applied as a band or broadcast treatment with a calibrated fixed-boom power sprayer with nozzles equipped with 50 mesh or larger screens. Shut off spray booms when starting, turning, slowing or stopping because higher than labeled use rates may be applied and injury to the crop or successive crops could occur. Use rates provided below for Sweep are expressed for broadcast treatments. If band treatments are applied, then proportionately less Sweep should be used. A minimum of 10 gallons spray volume per acre should be used to insure proper suspension of the product in the spray tank. Sufficient spray volume should be used to allow for uniform coverage of the sprayed area. Continuous agitation in the spray tank with mechanical or hydraulic means (do not use air agitation) is necessary to keep Sweep in suspension. If bypass or return line agitation is used, it should terminate at the bottom of the tank to decrease foaming. When using Sweep alone or in tank mixture, thoroughly re-agitate if allowed to settle.

Applications should be made at any time of the year provided rainfall or overhead irrigation is available to activate the herbicide, preferably just before or just after weeds have germinated. Best results are obtained when Sweep is applied to bare ground. If weeds are already present, a tank mixture of Sweep with a foliar active herbicide is recommended (See Tank Mixtures section of the label). Control dense populations of hard-to-kill weeds with other herbicides before making an application of Sweep.

**WEEDS CONTROLLED (annuals)**

Barnyardgrass	<i>Echinochloa crus-gali</i>
Brome, downy (cheatgrass)	<i>Bromus tectorum</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouseear	<i>Cerastium vulgatum</i>
Clovers, (annual)	<i>Trifolium spp.</i>
Filaree	<i>Erodium spp.</i>
Fleabane, flaxleaved (hairy)	<i>Conyza bonariensis</i>
Foxtail	<i>Setaria spp.</i>
Goatweed	<i>Scoparia dulcis</i>
Groundsel	<i>Senecio spp.</i>
Horseweed (marestail)	<i>Conyza canadensis</i>
Johnsongrass	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colona</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarter	<i>Chenopodium album</i>
Lettuce, wild	<i>Lactuca serriola</i>
Mustard, wild	<i>Brassica kaber</i>
Natalgrass (red top)	<i>Rhynchelytrum repens</i>
Nightshade (annual)	<i>Solanum spp.</i>
Pigweed	<i>Amaranthus spp.</i>
Pineappleweed	<i>Matricaria matricariodes</i>
Puncturevine, common	<i>Tribulus terrestris</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scraba</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Sandbur (sandspur)	<i>Cenchrus spp.</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Sowthistle, annual	<i>Sonchus oleraceus</i>
Spanishneedles	<i>Bidens pilosa</i>
Thistle, Russian	<i>Salsola australis</i>

**WEEDS CONTROLLED (perennials) (at maximum rates and repeat treatments)**

Balsamapple vine (seedling)	<i>Momordica charantia</i>
Bermudagrass	<i>Cynodon dactylon</i>
Drymary	<i>Drymaria spp.</i>
Guineagrass	<i>Panicum maximum</i>
Milkweed vine (strangler)	<i>Morrenia odorata</i>
Quackgrass	<i>Agropyron repens</i>
Vines (seedlings)	



**NOTE:** Best control of perennial weeds is obtained when the highest rates of Sweep are applied. Repeat applications are usually necessary to control perennials. To improve control of perennials, cultivate prior to treatment. After treatment with Sweep, avoid cultivation as long as weed control is holding. Working the soil after treatment could result in reduced weed control.

## **CITRUS**

Sweep may be applied in citrus for control of the annual and perennial weeds listed above. Applications should be made at any time of the year provided rainfall or overhead irrigation is available to activate the herbicide, preferably just before or just after weeds have germinated. The degree and duration of control will vary with the amount of herbicide applied, soil texture, rainfall and other conditions. It is noncorrosive to equipment, nonflammable, and nonvolatile.

Apply Sweep as a band or broadcast treatment beneath and/or between trees. Avoid contact of foliage and fruit with spray or mist. Avoid overlapping and shut off spray boom while starting, turning, or stopping, as injury to trees may result. Temporary yellowing of citrus leaves may occur following treatment.

- a. Do not use on soils with less than 1% organic matter.
- b. Do not use on poorly drained soils, gravelly soils or thinly covered or exposed subsoils.
- c. Do not treat trees planted in irrigation furrows.
- d. Do not treat diseased or stressed citrus trees.
- e. Do not use in citrus groves interplanted with other desirable trees or plants or in areas where roots of desirable trees or plants may extend, as injury to desirable trees or plants may result.
- f. Do not use in home citrus plantings.
- g. Do not apply at less than 60-day intervals when making multiple applications to trees less than 4 years old or 80-day intervals to trees 4 years old and older. A maximum of 2 applications of product per year is permitted.

All traces of Sweep must be removed from the application equipment immediately after use. Remove nozzles and screens and clean separately. Several changes of water should be run through the application equipment.

## **CALIFORNIA, ARIZONA**

### **Trees Established for at least Three Years:**

Apply Sweep in late fall or early winter before winter annuals become established. Wait to apply treatment until after the soil has been settled by fall or early winter rains. Apply as needed: 4 to 5 pounds Sweep per acre on course soils (1-2% organic matter) and 5-6 pounds Sweep per acre on fine soils (2.5% or greater organic matter). Alternatively, apply 3-4 pounds per acre in the fall and 2-4 pounds in the spring. Do not exceed 6 pounds per acre per year. If problem weeds like groundsel or puncturevine are present at the location, use the highest rates allowed on this label according to soil type. These rates will also suppress low levels of bermudagrass and yellow nutsedge. Best results will occur if this treatment is applied annually.

## FLORIDA

Apply Sweep as a band treatment only in Florida citrus groves. Do not apply trunk to trunk . The use of Sweep is prohibited for weed control in non-bedded citrus groves located on any permeable, better drained soil identified in the intended site of application. Permeable, better drained soils which occur in citrus producing areas of the state include soils unnamed and characteristic of quartzzipsamments, and the following soil series classifications:

Adamsville	Archbold	Astatula
Bahiahonda	Broward	Canaveral
Candler	Cocoa	Dade
Florahome	Fort Meade	Gainseville
Lake	Lakewood	Neilhurst
Orlando	Orsino	Palm Beach
Paola	Satellite	St. Augustine
St. Lucie	Tavares	

## APPLICATION INSTRUCTIONS

Since all use rates for Sweep are expressed for broadcast treatments, use proportionately less per acre for band treatments in Florida. Multiple applications may be required for control of some problem weeds. Note: Do not apply more than 16 pounds per acre of Sweep per year. This corresponds to 6.4 pounds per treated acre of bromacil and 6.4 pounds per treated acre of diuron. These amounts represent the maximum allowable use rates for bromacil and diuron on citrus inclusive of all formulations of bromacil or diuron that might be used.

**Trees Established Less Than One Year:** For control of annual weeds, apply 2-4 pounds of Sweep per treated acre as needed to maintain weed control. Do not apply more than 6 pounds per treated acre during any 6 month period nor more than 8 pounds per treated acre during the 1st year.

**Trees Established One to Three Years:** For control of annual weeds, apply 2-4 pounds of Sweep per treated acre. A second application may be made when needed to maintain weed control, but do not exceed 8 pounds per treated acre per year.

**Trees Established Three or More Years:** Apply 4-8 pounds per treated acre as needed to maintain weed control. Do not apply more than 16 pounds of Sweep per treated acre per year.

## LOUISIANA

**Trees Established for at least Three Years:** On course soils, apply Sweep at 2 to 4 pounds per acre whereas on finer soils (2.5% or greater organic matter) apply Sweep at 4 to 6 pounds per acre. Use the highest labeled rates for suppression of perennials. Alternatively, make two applications per year for weed control using 2 pounds per acre on coarse soils and 3 pounds per acre on finer soils. In either case, do not apply more than 6 pounds Sweep per treated acre per year.

## TEXAS

**Trees Established Less Than One Year:** Apply 2-4 pounds of Sweep per acre as needed to maintain weed control. Do not apply at less than 60 day intervals. Do not apply more than 6 pounds per acre per year.

**Trees Established One or Two Years:** Apply 2-4 pounds of Sweep per acre. A second application may be made when needed to maintain weed control, but do not exceed 6 pounds per acre per year.

**Trees Established Three or More Years:** Make one to two applications per year as needed to maintain weed control. Use 2-4 pounds per acre on coarser soils (sands, loamy sands, sandy loams) and 4-6 pounds per acre on finer soils (silt loams, clay loams, or soils with organic matter of 2.5% or more). Use the higher rate for maximum suppression of perennials. Do not use more than 6 pounds per acre per year.

## TANK MIXTURES

To achieve a broader spectrum of weed control in citrus, Sweep may be tank mixed with other herbicides registered for use in citrus. Be sure to follow the use information and restrictions on the labels of the tank-mix herbicides. The label guidelines that are the most restrictive must be followed. Adjuvants used with herbicides in citrus may also be tank-mixed with Sweep.

Note: If the user has no experience with a particular tank mixture, a jar-compatibility test should be performed to determine chemical compatibility of the products before they are mixed in the spray tank. See the SPRAY PREPARATION section of this label above for additional details.

## NON-AGRICULTURAL USES

### 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 for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Non-crop weed control is not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter the treated area until sprays have dried.

### USE RESTRICTIONS – STATE OF FLORIDA

In the state of Florida, the use of Sweep is prohibited in the counties of Hardee, Highland, Polk, Orange, and Lake. For non-agricultural usage in all other areas of the state, do not apply more than 16 pounds per acre per year of Sweep. This corresponds to 6.4 pounds per treated acre of bromacil and 6.4 pounds per treated acre of diuron. These amounts represent the maximum allowable use rates for bromacil and diuron inclusive of all formulations of bromacil or diuron that might be used.

### APPLICATION INFORMATION

For general weed control in uncultivated non-agricultural areas (for example, airports, highway, railroad and utility rights-of-way, sewage disposal areas), uncultivated non-crop producing areas (for example, farmyards, fuel storage areas, fence rows, barrier strips) and outdoor industrial sites (for example, lumberyards, pipeline and tank farms) apply Sweep using a properly calibrated fixed-boom power sprayer. Use rates provided below

for Sweep are expressed for broadcast treatments. If band treatments are applied, then proportionately less Sweep should be used. A minimum of 10 gallons spray volume per acre should be used to insure proper suspension of the product in the spray tank. Sufficient spray volume should be used to allow for uniform coverage of the sprayed area. Continuous agitation in the spray tank with mechanical or hydraulic means (do not use air agitation) is necessary to keep Sweep in suspension. If bypass or return line agitation is used, it should terminate at the bottom of the tank to decrease foaming. When using Sweep alone or in tank mixture thoroughly re-agitate if allowed to settle.

A broader spectrum of weeds may be controlled by tank-mixing Sweep with other herbicides. Also, higher rates of Sweep applied with residual herbicides will provide total vegetation control. Always add a suitable surfactant at 0.25% v/v when attempting to control emerged weeds.

**Note:** Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gallons per acre to insure uniform coverage. For small areas, a hand sprayer or sprinkling can may be used.

1. Apply a maximum of two applications per year.
2. The minimum retreatment interval is 90 days.
3. A maximum of 12 pounds active ingredient bromacil per year is allowed.
4. A maximum of 12 pounds active ingredient diuron is allowed per year in areas of high rainfall or dense vegetation. A maximum of 8 pounds active ingredient diuron is allowed in all other areas.

## NON-CROP WEED CONTROL

### APPLICATION RATES AND TIMING

Sweep should be applied at the rates provided in the tables below according to weed type. Lower rates of Sweep provide short-term control of the weeds listed whereas higher rates provide more residual control. Always apply as a preemergence spray when weeds are actively germinating or growing. Since moisture is required to move the herbicide into the root zone of the weeds, best preemergence control is obtained when Sweep is applied prior to a rainfall and weed germination. In areas of low and infrequent rainfall, such as the Western U.S., Sweep should be applied well before the fall freeze or immediately after the spring thaw to increase the chances of having adequate moisture to activate and disperse the herbicide in the soil. Do not treat frozen or saturated soils or soils that are nonreceptive to percolation.

Do not apply to sites which have roots of desirable plants growing into the treatment zone as plant injury or death may occur. Do not apply to hard or impervious soils, water saturated soils or to any surface that does not allow the herbicide to be moved into the soil horizon with moisture. Unusually heavy rainfall shortly after application may move the product off-target to the lowest surrounding point and cause plant injury or death. If herbicide treated soil is disturbed by any physical or mechanical means, the herbicide barrier is disrupted and the likelihood of nonperformance may increase. For best performance results, make sure the treatment area is stable after the application for the desired weed control period.

## WEEDS CONTROLLED

Sweep effectively controls the following broadleaf weeds and grasses when applied at the rates shown.

### Broadleaf Weeds: 6-8 pounds per acre

Clovers (annual)	<i>Trifolium spp.</i>
Fiddleneck	<i>Amsinckia intermedia</i>
Filaree	<i>Enulium spp.</i>
Knapweed, diffuse	<i>Centaurea diffusa</i>
Lambsquarter, common	<i>Chenopodium album</i>
Lettuce, prickly	<i>Lactuca serriola</i>
Mustards	<i>Brassica spp.</i>
Pigweed	<i>Amaranthus spp.</i>
Ragweed	<i>Ambrosia spp.</i>
Sunflower, common	<i>Helianthus annuus</i>
Thistle, Russian	<i>Salsola iberica</i>

### Broadleaf Weeds: 8-12 pounds per acre

Carrot, wild	<i>Daucus carota</i>
Dandelion, common	<i>Taraxacum officinale</i>
Dock, curly	<i>Rumex crispus</i>
Knapweed, spotted	<i>Centaurea maculosa</i>
Knotweed, prostrate	<i>Polygonum aviculare</i>
Kochia	<i>Kochia scoparia</i>
Marestail, common (horseweed)	<i>Conyza Canadensis</i>
Parsnip, wild	<i>Pastinaca sativa</i>
Plantain	<i>Plantago spp.</i>
Puncturevine	<i>Tribulus terrestris</i>
Spurge	<i>Euphorbia spp.</i>
Thistle, milk	<i>Silybum marianum</i>
Yarrow, common	<i>Achillea millefolium</i>

### Broadleaf Weeds: 12-16 pounds per acre

Cinquefoil, common	<i>Potentilla Canadensis</i>
Goldenrod	<i>Solidago spp.</i>
Milkweed, common	<i>Asclepias syriaca</i>

**Grasses: 6- 8 pounds per acre**

Barley, foxtail	<i>Hordeum jubatum</i>
Brome	<i>Bromus spp.</i>
Cheat	<i>Bromus secalinus</i>
Cupgrass, Prairie	<i>Eriochloa contracta</i>
Foxtail	<i>Setaria spp.</i>
Oat, wild	<i>Avena fatua</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Quackgrass	<i>Agropyron repens</i>
Wheatgrass, intermediate	<i>Agropyron intermedium</i>

**Grasses: 8-12 pounds per acre**

Bahiagrass	<i>Paspalum notatum</i>
Crabgrass	<i>Digitaria spp.</i>
Goosegrass	<i>Eleusine indica</i>
Rye	<i>Secale cereale</i>
Vaseygrass	<i>Paspalum urvillei</i>

**Grasses: 12-16 pounds per acre**

Bluegrass	<i>Poa spp.</i>
Dropseed, sand*	<i>Sporobolus cryptandrus</i>
Fescue	<i>Festuca spp.</i>
Saltgrass*	<i>Distichlis spp.</i>

\*Note: Best control of Saltgrass and Sand Dropseed is achieved from a spring application prior to plant green-up. For control of hard-to-kill perennials such as bermudagrass (*Cynodon dactylon*), bouncingbet (*Saporaria officinalis*), dogbane (*Apocynum spp.*), Johnsongrass (*Sorghum halepense*), and nutsedge (*Cyperus spp.*), apply 19-30 pounds per acre (except Florida).

For extended control of annual weeds and partial control of perennials such as bermudagrass and nutsedge apply 10-18 pounds\* per acre. Use the higher Sweep rates on adsorptive soils (high in organic matter or carbon). Best results occur when application is made just before weed emergence or in the early stages of weed growth.

**Retreating:** Apply 4 to 6 pounds per acre when annual weeds and grasses reappear on sites where weed growth has been controlled.

Small areas: 1/4 cupful of Sweep per 200 sq. ft. is approximately 15 pounds per acre.

**TANK MIXTURES**

To achieve a broader spectrum of weed control in non-crop areas, Sweep may be tank mixed with other herbicides registered for such use. Be sure to follow the use information and restrictions on the labels of the tank-mix herbicides. The label guidelines that are the most restrictive must be followed. Adjuvants used with

herbicides in non-crop areas may also be tank mixed with Sweep.

Note: If the user has no experience with a particular tank mixture, a jar-compatibility test should be performed to determine chemical compatibility of the products before they are mixed in the spray tank. See the SPRAY PREPARATION section of this label above for additional details.

Be sure to thoroughly re-agitate the contents of the spray tank if allowed to settle out.

## **SPECIAL USES UNDER ASPHALT AND CONCRETE PAVEMENT**

### **APPLICATION INFORMATION**

Sweep can be used to control weeds under asphalt and concrete pavement, such as that used in parking lots, highway shoulders, median strips, roadways, and other industrial sites.

Sweep should only be used in an area that has been prepared according to good construction practices. Use sufficient water to ensure uniform coverage, generally 100 gal. per acre. Agitate the tank continuously to keep Sweep in suspension.

### **APPLICATION TIMING AND RATES**

Apply Sweep at 17 to 30 pounds per acre immediately before paving to avoid lateral movement of the herbicide as a result of soil movement due to rainfall or mechanical means. Use higher rates for control of problem weeds and for more residual control.

### **TANK MIXTURES**

To control a broader spectrum of weeds, or for an extended period of weed control, a tank mixture of Sweep at 7 to 15 pounds per acre plus Dupont OUST®XP at 4 to 8 ounces per acre may be used.

### **IMPORTANT PRECAUTIONS: UNDER ASPHALT ONLY**

- Do not use Sweep under pavement in residential properties such as driveways, or in recreational areas, including jogging or bike paths, tennis courts, or golf cart paths.
- Desirable plants may be injured if their roots extend into treated areas or if planted in treated areas.

### **SPRAY DRIFT MANAGEMENT**

The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

**AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.**

### **IMPORTANCE OF DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets (>150-200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **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 Surface Temperature Inversions sections of this label.**

### **Controlling Droplet Size - General Techniques**

- **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 A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **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.

### **Controlling Droplet Size - Aircraft**

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

### **BOOM LENGTH AND HEIGHT**

**Boom Length (aircraft)** - The boom length should not exceed 3/4 of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.

**Boom Height (aircraft)** - Application more than 10 ft. above the canopy increases the potential for spray drift.

**Boom Height (ground)** - Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

### **WIND**

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

### **SURFACE TEMPERATURE INVERSIONS**

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface 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 concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

### **SENSITIVE AREAS**

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

## **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store product in original container only. Store in a cool, dry place.

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

### **CONTAINER DISPOSAL:**

**Nonrefillable Container (flexible-bag-all weights):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

**Nonrefillable Container (rigid-fifty lbs. or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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.

**Nonrefillable Container (rigid-greater than fifty lbs.):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

## LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

MANA Sweep is a registered trademark of a Makhteshim Agan Group Company.