

BROMACIL

GROUP

5

HERBICIDE

# Bristol

**For Selective Control of Weeds in Citrus and Pineapple and  
Non-Selective Weed and Brush Control in Non-Cropland Areas.**

**ACTIVE INGREDIENT:**

Bromacil: 5-bromo-3-sec-butyl-6-methyluracil. . . . . 80.0%

**OTHER INGREDIENTS:** . . . . . 20.0%

**TOTAL:** . . . . . **100.0%**

## **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.)

**See label booklet for complete First Aid, Precautionary Statements,  
Directions For Use, and Storage and Disposal.**

**Manufactured For:**

**Sharda USA LLC** 

7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

EPA Reg. No. 83529-168

EPA Est. No. **GH** 70815-GA-001; **MA** 83411-MN-001;

**MC** 89332-GA-001; **SC** 39578-TX-001; **TX** 07401-TX-001

The EPA Establishment Number is identified by the circled letters  
above that match the first two letters in the batch number.

**Net Contents: 5 Pounds**

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

##### Applicators and other handlers must wear:

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

##### Mixers and Loaders must wear:

- A non-powered air purifying respirator equipped with a N, R, P, or HE series filter (NIOSH approved number prefix 84A) for mixing and loading.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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.

#### USER SAFETY RECOMMENDATIONS

##### Users should:

- Wash hands 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

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 wash waters or rinsate.

##### Groundwater Advisory

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.

### Non-Target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## DIRECTIONS FOR USE

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

This product can only be used in accordance with the Directions for Use 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 regulations.

### 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
- 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 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.

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

### PRODUCT INFORMATION

**Bristol** is to be mixed in water and applied as a spray for non-selective weed and brush control in non-cropland areas and for selective weed control in certain crops. **Bristol** controls many annual weeds at lower rates and perennial weeds and brush at the highest rates allowed by this label. **Bristol** also may be used for control of perennial grasses. It is non-corrosive to equipment, non-flammable and non-volatile.

Moisture is necessary to move the herbicide into the root zone of weeds. Best results are obtained if treatment is made to moist soil, and moisture is supplied by rainfall or sprinkler irrigation within 2 weeks after application.

Weed control symptoms are slow to appear and may not become apparent until the herbicide has been carried into the root zone of the weeds by moisture. The degree and duration of control will vary with the amount of herbicide applied, soil texture, rainfall, and other soil and water management practices.

#### Use Precautions:

- Avoid storage of pesticides near well sites.
- Calibrate sprayers only with clean water away from the well site.
- Regularly inspect spray equipment.
- Mix only enough **Bristol** for the specific application.
- Ensure accurate measurement of pesticides.
- Avoid over-filling the spray tank.
- Dilute and agitate excess spray solution and apply at labeled rates/uses.

#### Use Restrictions:

- Do not use **Bristol** in any recreational areas or around homes, on lawns, walks, tennis courts, driveways, or other similar areas.
- Injury to or loss of desirable trees or other plants may result from failure to observe the following:
  - Do not apply (except as specified for crop use) or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
  - Prevent drift of dry powder or spray to desirable plants.
  - Keep from contact with fertilizers, insecticides, fungicides, and seeds.
  - Thoroughly clean all traces of **Bristol** from application equipment immediately after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens; clean these parts separately.

- Treated areas may be planted to citrus or pineapple 1 year after last application. Do not replant to other crops within 2 years after last application as injury may result.
- Do not apply this product through any type of irrigation system.
- Do not graze cattle in treated areas.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Aerial application of this product is prohibited.

### Crop Rotation Bioassay

In sites where **Bristol** has been used, a field bioassay must be completed before planting any desired crop. In arid climates (10 inches of rainfall or less) or areas where drought conditions have prevailed for 1 or more years, a field bioassay must be completed before 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 must cross the entire field including high and low-lying areas. The results from the bioassay may require the 2-year crop rotation interval to be extended.

### 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.

### RESISTANCE MANAGEMENT

**Bristol** contains bromacil, classified in the uracil chemical class as a Group 5 herbicide, Inhibitor of photosynthesis at photosystem II site A. Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Bristol** and other Group 5 herbicides. Weed species with acquired resistance to Group 5 herbicides may eventually dominate the weed population if Group 5 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Bristol** or other Group 5 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices including mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds must be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program must consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than 2 applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to Sharda USA LLC or their representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

## MANDATORY SPRAY DRIFT MANAGEMENT

### Ground Boom Applications:

- User must only apply with nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use coarse or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site. Do not apply when wind speeds exceed 15 miles per hour at the application site for pineapple fields in Hawaii and Puerto Rico.
- Do not apply during temperature inversions.

### Boomless Ground Applications:

- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

**THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.**

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### BOOM HEIGHT - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with uniform deposition of the spray on the target area.

### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### Boom-less Ground Applications

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

## APPLICATION INSTRUCTIONS

Apply **Bristol** with a properly calibrated fixed-boom power sprayer as a band or broadcast treatment. **Bristol** use rates listed on this label are expressed for broadcast treatments. For band treatments, use proportionately less. Use sufficient spray volume (minimum of 10 gallons per acre) to provide uniform coverage of the treated areas and to allow proper dispersion and suspension of the product in the spray tank. Continuous agitation in the spray tank is required to keep the product in suspension. Agitate spray tank contents by mechanical or hydraulic means. If a by-pass or return line is used, it must terminate at the bottom of the tank to minimize foaming. Do not use air agitation. Spray booms must be shut off while starting, turning, slowing, or stopping. Over application of the herbicide may result in injury to the crop or successive crops. Nozzle screens must be 50-mesh or larger. Mechanically-pressurized handgun application of this product on citrus and pineapple is prohibited.

## TANK MIXING PROCEDURES

**Bristol** may be tank mixed with other suitable herbicides registered for agricultural and non-agricultural use. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

If there is no prior use experience with the tank mixture combination, a compatibility test must be performed before adding the products into the spray tank. See the below **Spray Preparation** section for further information.

When using **Bristol** alone or in combination, thoroughly re-agitate the spray tank contents if allowed to settle.

### Spray Preparation

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

**Mixing with Other Herbicides:** Determine the tank mixture partner(s) compatibility with **Bristol** by following the directions below. Provided the below procedure shows the mixture to be compatible, **Bristol** may be used in this tank mixture.

1. Put 1 pint of water into a quart jar with a tightly sealing lid.
2. In a separate container, mix 2 teaspoonfuls of **Bristol** with 2 tablespoons of water; mix thoroughly and add to the water.
3. Close jar and shake well.
4. If additional herbicides are to be used in the mixture, follow steps 2 and 3 above for each additional herbicide.
5. Once all components of the tank mix are combined in the test jar, watch the mixture for 1 hour. If mixture does not separate, foam, gel or become lumpy, it may be used.

**Mixing with Liquid Fertilizer (Citrus Only):** A fertilizer solution may be used in the spray mixture only when applying to citrus. Use the procedure above to test for compatibility before full-scale mixing, but in Step 1, in lieu of water, use the liquid fertilizer.

If the above procedure indicates the desired mixture will be compatible, prepare the tank mixture as follows:

1. Add the fertilizer solution to the spray tank first.
2. In a separate container, mix the required amount of **Bristol** with water to form a slurry that can be poured.
3. With the agitator running, slowly add the slurry to the tank and mix thoroughly.

### Spray Tank Clean Out

Thoroughly clean all traces of **Bristol** 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 wash water by applying it to a use-site listed on this label.

## WEEDS CONTROLLED

Partial control of perennials can result with only a single treatment of **Bristol**. Repeat applications are required to control perennials. Control of perennials may be improved by cultivation before treatment, otherwise, avoid working the soil as long as weed control continues or else effectiveness of the treatment may be reduced. Multiple applications may improve control of hard-to-kill weeds.

Annuals	
Barleygrass ( <i>Echinochloa crus-galli</i> )	Panicum, Texas ( <i>Panicum texanum</i> )
Crabgrass ( <i>Digitaria</i> spp.)	Puncturevine, Common ( <i>Tribulus terrestris</i> )
Crowfootgrass ( <i>Dactyloctenium aegyptium</i> )	Purslane, Common ( <i>Portulaca oleracea</i> )
Henbit ( <i>Lamium amplexicaule</i> )	Purslane, Horse ( <i>Trianthema portulacastrum</i> )
Lambsquarters, Common ( <i>Chenopodium album</i> )	Pusley, Florida ( <i>Richardia scabra</i> )
Mullein, Turkey ( <i>Eremocarpus setigerus</i> )	Sandbur (Sandspur) ( <i>Cenchrus</i> spp.)
Mustard ( <i>Brassica</i> spp.)	Sedge, Annual ( <i>Cyperus compressus</i> )
Natalgrass (Red Top) ( <i>Rhynchelytrum repens</i> )	Sprangletop ( <i>Leptochloa</i> spp.)
Perennials	
Bahiagrass ( <i>Paspalum notatum</i> )	Pangolagrass ( <i>Digitaria decumbens</i> )
Bermudagrass ( <i>Cynodon dactylon</i> )	Paragrass ( <i>Panicum purpurascens</i> )
Johnsongrass ( <i>Sorghum halepense</i> )	Torpedograss ( <i>Panicum repens</i> )
Nutsedge ( <i>Cyperus</i> spp.)	

## AGRICULTURAL USES

**Bristol** use rates listed on this label are for broadcast treatments. For band treatments, use proportionately less.

### CITRUS

Apply **Bristol** as a band or broadcast treatment beneath and/or between trees.

#### Precautions:

- Avoid contact of citrus foliage and fruit with spray or mist.
- Temporary yellowing of citrus leaves may occur following treatment.

#### Restrictions:

- Do not use on soils with less than 1% organic matter, as injury to citrus trees may result.
- Do not use on poorly drained soils, gravelly soils, or thinly covered or exposed subsoils.
- Do not treat trees planted in irrigation furrows.
- Do not treat diseased or stressed trees.
- Do not use in citrus groves inter-planted with other desirable trees or plants or in areas where roots of desirable plants or trees may extend, as injury may result.
- Do not use in home citrus plantings.
- Do not apply more than 8 lbs. (6.4 lbs. a.i.) of **Bristol**, inclusive of all bromacil formulations, per treated acre per year.
- When making multiple applications in a single growing season, do not apply at less than 60-day intervals.
- **Bristol** may be applied 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.
- (PHI): Do not harvest citrus until 7 days after the last application.

#### United States

(except FLORIDA and TEXAS, see below for State specific instructions.)

**NOTE:** The following applies to trees that are 4 or more years old.

**For Control of Annual Weeds** - Apply 2 - 4 lbs. of **Bristol** per acre. Apply anytime of the year, preferably shortly before or after weed growth begins when adequate moisture is available.

**For Control of Perennial Weeds** - Best results are obtained if application is made shortly before or shortly after weed growth begins; if dense growth is present, remove tops and spray the ground. Effects on perennial weeds are slow to appear, usually taking place over a period of several months.

Make a single application per year using the rates listed below during the period from Winter to early Summer:

Soil Texture	Pounds of Bristol per Acre
Sand, Loamy Sand	4 - 5
Sandy Loam	5 - 6
Silt Loam, Clay Loam	6 - 8

Alternatively, except for Texas, make 2 applications of 3 - 4 lbs. **Bristol** per acre per year. In Texas and Louisiana, apply in Spring and Summer; in California and Arizona, apply in Fall and Spring.

**NOTE:** Partial control usually occurs with a single treatment; repeat applications are required to control perennials. Control of perennials may be improved by cultivation before treatment; otherwise, avoid working the soil as long as weed control continues or else effectiveness of the treatment may be reduced.

Bristol controls the following:	Area/States
Bermudagrass	All areas of the United States
Johnsongrass	Texas
Nutsedge	California and Texas

## Texas

### Restrictions:

In Texas, do not apply more than 3 lbs. **Bristol** per acre per year.

For control of the annual weeds listed above, apply 2 - 3 lbs. of **Bristol** per acre. Use the lower rate for 1- to 2-year-old trees and the higher rate for trees more than 2 years old.

For best results in the control of perennial weeds, make 2 applications, the first in Spring and the second in the Summer.

## Florida

The use of **Bristol** 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 including unnamed soils and soils with characteristics of quartzsammets, and the following soil series classifications:

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

Treated areas may be planted to citrus trees 1 year after the last **Bristol** application. Do not replant to other crops within 2 years after the last **Bristol** application as plant injury may result.

### Application Instructions

Apply **Bristol** as a band treatment only using a properly calibrated fixed-boom power sprayer. **Do not use Trunk to Trunk.** Use sufficient spray volume (minimum of 10 gals. per acre) to provide uniform coverage of the treated area and to allow proper dispersion and suspension of the product in the spray tank. Continuous agitation in the spray tank is required to keep the product in suspension. Avoid contact of foliage and fruit with spray or mist.

**NOTE:** All use rates of **Bristol** are expressed for broadcast treatments. For band treatments as required in Florida, use proportionately less.

**Trees Established Up to 3 Years:** For control of annual weeds, apply 2 - 3 lbs. of **Bristol** per treated acre as needed to maintain weed control. Do not apply more than 6 lbs. of **Bristol** per treated acre within any 6-month period, or more than 8 lbs. per treated acre per year.

**Trees Established 3 or More Years:** For control of annual weeds, apply 2 - 4 lbs. of **Bristol** per treated acre as needed to maintain weed control. Do not apply more than 4 pounds per treated acre in any 1 application. Do not use more than 8 lbs. of **Bristol** per treated acre per year.

### Weeds Controlled

Annual Weeds				
Barnyardgrass	Florida Pusley	Mustard	Purslane	Sprangletop
Crabgrass	Henbit	Natalgrass (Red Top)	Sandspur	Texas Panicum
Crowfootgrass	Lambsquarters	Puncturevine	Sedge (Annual)	Turkey Mullein
Perennial Weeds				
Bahiagrass	Johnsongrass	Pangolagrass	Paragrass	Torpedograss
Bermudagrass	Nutsedge			

**NOTE:** Use the highest rates allowed by this label for best control of perennial weeds listed on this label. Partial control of perennial weeds can result with only a single treatment of **Bristol**. Repeat applications are required (in season and/or annually) for best control of the perennial weeds on this label. Control of perennials may be improved by cultivation before treatment, otherwise, avoid working the soil as long as weed control continues or else effectiveness of the treatment may be reduced.

### Application Timing

Allow a minimum interval of 60 days between applications of **Bristol**.



## PINEAPPLE\*

\*Not for use in California.

### Precaution:

- Treated areas may be planted to citrus or pineapple 1 year after last application.

### Restrictions:

- Do not replant to other crops within 2 years after last application as injury may result.
- When making multiple applications, do not apply at less than 60-day intervals.
- (PHI): Do not harvest pineapple until 125 days after the last application.

### Hawaii and Florida

Apply 2 - 6 lbs. per acre broadcast before the planting material begins to grow for control of seedling weeds including amaranthus, balsamapple, chloris, crabgrass, Floras paintbrush, foxtail, goosegrass (wiregrass), and Hialoa. Use the lower rates in low rainfall areas (5" - 10" annually) and on clean-culture fields; use the higher rates in high rainfall areas (above 10" annually) and for transmulch fields. Follow with either 2 - 4 lbs. per acre as a directed interline spray as needed before differentiation or apply 2 lbs. per acre broadcast as needed up to differentiation. Do not apply more than 10 lbs. of **Bristol** total per acre per plant crop.

For ratoon crop, apply 1 - 4 lbs. per acre broadcast after harvesting plant crop but before differentiation. Do not apply more than 4 lbs. total per acre per ratoon crop.

### Puerto Rico

For control of seedling weeds including crabgrass, goosegrass, jungle rice, pigweed, and purslane, apply 2 - 4 lbs. **Bristol** per acre broadcast immediately after planting and before planting material begins to grow.

## NON-AGRICULTURE USES

**Bristol** is advised for control of undesirable vegetation for extended periods of time in non-crop areas including railroads, highway and pipeline rights-of-way, petroleum tank farms, lumberyards, storage areas, and industrial plant sites.

### Restrictions:

- Do not apply to:
  - Open water (including creeks, estuaries, lakes, reservoirs, rivers, streams, or saltwater bays);
  - When water is present in freshwater wetlands (including bogs, marshes, potholes, or swamps);
  - Saltwater marshes within tidal areas;
  - Ditches, banks along waterways, or impervious substrates; or
  - Areas near desirable plants where roots of these plants may extend.
- **Florida:** The use of **Bristol** 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 8 lbs. (6.4 lbs. a.i.) of **Bristol** per acre per year, including all bromacil formulations.

### Application Information

Apply **Bristol** using a properly calibrated fixed-boom power sprayer with sufficient spray volume to provide uniform coverage of the treated area and to allow proper dispersion and suspension of the product in the spray tank. All use rates of **Bristol** are expressed for broadcast treatments. For band treatments, use proportionately less. For small areas, a hand sprayer or sprinkling can be used.

### Notes for Non-Agricultural Uses

- When preparing to spray a small area, 1/4 cup of **Bristol** per 200 sq. ft. is approximately 15 lbs. per acre.
- Use a spray volume of at least 40 gals. per acre to ensure uniform coverage.

### Application Timing

Apply **Bristol** as a pre-emergence spray before or during the rainy season when weeds are actively germinating or growing. Moisture is required to move **Bristol** into the root zone of weeds for pre-emergence control. For best pre-emergence weed control, apply before rainfall, and weed germination.

### Application Rates

Apply **Bristol** at the rates indicated by weed type in the tables below. When applied at lower rates, **Bristol** provides short-term control of the weeds listed; when applied at higher rates, weed control is extended.

**NOTE:** Use the higher levels of the dosage ranges listed when applying on adsorptive soils (for example, those high in organic matter or carbon).

When applied just before or just after emergence of annuals, rates as low as 2 lbs. per acre control many annual weeds and grass in low rainfall areas and gives short term control in higher rainfall areas.

Annual Broadleaf Weeds and Grasses	
3 - 6 Lbs. per Acre	
Brome, Downy ( <i>Bromus tectorum</i> )	Mullein, Turkey ( <i>Eremocarpus setigerus</i> )
Cheat ( <i>Bromus secalinus</i> )	Oat, Wild ( <i>Avena fatua</i> )
Crabgrass ( <i>Digitaria</i> spp.)	Puncturevine, Common ( <i>Tribulus terrestris</i> )
Foxtails ( <i>Setaria</i> spp.)	Ragweed, Common ( <i>Ambrosia artemisiifolia</i> )
Lambsquarters, Common ( <i>Chenopodium album</i> )	Ryegrass, Italian ( <i>Lolium multiflorum</i> )
Perennial Broadleaf Weeds and Grasses	
7 - 15 Lbs. per Acre	
Bahiagrass ( <i>Paspalum notatum</i> )	Goldenrod ( <i>Solidago</i> spp.)
Bermudagrass ( <i>Cynodon dactylon</i> )	Johnsongrass ( <i>Sorghum halepense</i> )
Bluegrass ( <i>Poa</i> spp.)	Natalgrass (Redtop) ( <i>Rhynchelytrum repens</i> )
Brome, Smooth ( <i>Bromus inermis</i> )	Nutsedge ( <i>Cyperus</i> spp.)
Broomsedge ( <i>Andropogon virginicus</i> )	Plantain ( <i>Plantago</i> spp.)
Carrot, Wild ( <i>Daucus carota</i> )	Purpletop ( <i>Verbena bonariensis</i> )
Dandelion, Common ( <i>Taraxacum officinale</i> )	Quackgrass ( <i>Agropyron repens</i> )
Dogfennel ( <i>Eupatorium capillifolium</i> )	

Application rates as low as 5 lbs. per acre will control many perennial weeds and grasses in areas with low or seasonal rainfall.

Where limited rainfall (usually less than 4") occurs during the active growth period, including some areas of the West, **Bristol** may not provide satisfactory control of hard-to-kill, deep-rooted perennial weeds including johnsongrass.

#### Retreating

Apply 2 - 6 lbs. of **Bristol** per acre when annual weeds and grasses reappear on sites where weed growth has been controlled. Do not apply **Bristol** at more than 15 lbs. per acre per year per site.

**NOTE:** Do not apply at less than 60-day intervals when making multiple applications.

#### BRUSH CONTROL

To control undesirable woody plants on non-cropland areas including railroad rights-of-way, storage areas, and industrial plant sites, apply **Bristol** in Spring or Summer as a broadcast or basal (spot) treatment. Do not use where marketable timber or other desirable trees or shrubs are immediately adjacent to the treated area.

#### Broadcast Treatment

Apply 7 - 15 lbs. per acre to control brush including oak, pine, sweet gum, and willow. Use the higher rates on adsorptive soils (those high in organic matter or carbon).

#### Basal (Spot) Treatment

Mix 2.5 lbs. in 5 gals. of water and apply at the rate of 1 - 2 fl. oz. per stem 2" - 4" in basal diameter; wet base of stem to run-off. Treatment controls woody plants including cottonwood, hackberry, maple, oak, poplar, red bud, sweet gum, wild cherry, willow, and winged elm.

#### SPECIAL USES

##### UNDER ASPHALT AND CONCRETE PAVEMENT

#### Application Information

**Bristol** may be used in combination with sulfometuron to control weeds under asphalt and concrete pavement including parking lots, highway shoulders, median strips, roadways, and other industrial sites. **Bristol** must only be used in an area that has been prepared according to good construction practices. Use sufficient water to ensure uniform coverage, generally 100 gals. per acre. Agitate the tank continuously to keep **Bristol** in suspension.

#### Application Timing

**Bristol** should be applied immediately before paving to avoid lateral movement of the herbicide as a result of soil movement due to rainfall or mechanical means.

### Application Rates

Apply **Bristol** at 6 - 15 lbs. per acre. Use a higher rate on hard to control weeds and/or for longer term weed control.

Protect desirable plants as they may be injured if their roots extend into treated areas or if planted in treated areas.

### Tank Mixtures

To control a broader spectrum of weeds, or for an extended period of weed control, a tank **Bristol** at 6 - 15 lbs. per acre plus sulfometuron at 4 - 8 oz. per acre may be used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### Restriction:

- Do not use **Bristol** under pavement in residential properties including driveways or in recreational areas, including jogging or bike paths, tennis courts, or golf cart paths.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store product in original container only.

**PESTICIDE DISPOSAL:** Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

### CONTAINER HANDLING:

**Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Non-Refillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds):** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**All Other Refillable Containers:** Refillable container. Refilling Container: Refill this container with this pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

#### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and to the extent consistent with applicable law, User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

All trademarks are the property of their respective owners.

BROMACIL GROUP 5 HERBICIDE

# Bristol

For Selective Control of Weeds in Citrus and Pineapple and  
Non-Selective Weed and Brush Control in Non-Cropland Areas.

<b>ACTIVE INGREDIENT:</b>	<b>WT. BY %</b>
Bromacil: 5-bromo-3-sec-butyl-6-methyluracil . . . . .	80.0%
<b>OTHER INGREDIENTS:</b> . . . . .	20.0%
<b>TOTAL:</b> . . . . .	100.0%

## 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.)

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing</li><li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	

See label booklet for complete Precautionary Statements  
and Directions For Use.

Manufactured For: Sharda USA LLC, 7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707

EPA Reg. No. 83529-168

EPA Est. No. **GH** 70815-GA-001; **MA** 83411-MN-001; **MC** 89332-GA-001; **SC** 39578-TX-001; **TX** 07401-TX-001

The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

Net Contents: 5 Pounds

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

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

#### ENVIRONMENTAL HAZARDS

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 wash waters or rinsate.

#### Groundwater Advisory

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.

#### Non-Target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## DIRECTIONS FOR USE

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

This product can only be used in accordance with the Directions for Use 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 regulations.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store product in original container only.

**PESTICIDE DISPOSAL:** Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

#### CONTAINER HANDLING:

**Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

OPEN HERE