UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

AUG - 7 2006

Ms. Ann M. Tillman
United Phosphorous, Inc.
423 Reverview Plaza
Trenton, NJ 08611

Dear Ms. Tillman:

Subject: Bromo-D Herbicide (Update Label and Clarify Non-Crop Uses)
EPA Registration No. 70506-84
Application Dated May 18, 2006

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. Based on recent revisions of the Diuron RED Labeling Requirements Charts, revise your list of Personal Protective Equipment (PPE) within the Precautionary Statements, to read as below. Please note the paragraph "Some materials...on an EPA Chemical Resistance Category Selection Chart" is to be retained in its current position.

"All pilots, flaggers, and groundboom applicators must wear:
-Long-sleeved shirt and long pants and
-Shoes plus socks"

"All mixers, loaders, other applicators, and all other handlers must wear:
-Long-sleeved shirt and 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"

2. Add the following paragraph to your Engineering Controls

"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)].

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Pilots, supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240 (d)(5)] for dermal protection. In addition, flaggers must wear long-sleeved shirt, long pants, shoes and socks."

3. Revise the first bullet of the User Safety Recommendations to read "Wash hands **thoroughly with soap and water after handling and** before eating, drinking, chewing gum, using tobacco, or using the toilet."

4. Revise the first sentence of the Environmental Hazards to read "**For Terrestrial Uses**, do not apply directly to water..."

5. Revise your "Notice of Conditions of Sale and Warranty and Liability Limitation" as per the attachment entitled "Warranty Disclaimers on FIFRA Labels Issue Paper". These revisions are required for all labels submitted to the Agency.

6. Add the following statement to your label.

Use of this product in certain portions or California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. v. EPA, C01-0132C, (W.D. WA). For further information, please refer to [www.epa.gov/espp/wtc/].

Submit one copy of your final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling supersedes all previously accepted ones. A stamped copy of labeling is enclosed for records.

Sincerely,

Vickie Kibbles for
James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

3 8 19

ACCEPTED
with COMMENTS
In EPA Letter Dated:

AUG - 7 2006

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 70506-84

BROMO-D™

Herbicide

ACTIVE INGREDIENTS:	By Weight
Bromacil: (5-bromo-3-sec-butyl-6-methyluracil)	40.0%
Diuron: (3-(3,4-dichlorphenyl)-1,1-dimethylurea)	40.0%
OTHER INGREDIENTS:	20.0%
TOTAL:	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
	•

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical treatment, contact the National Pesticide Information Center 1-800-858-7378.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

See inside label booklet for additional PRECAUTIONARY STATEMENTS

EPA Est. No. 037429-GA-001

EPA Reg. No. 70506-84

Manufactured for:
United Phosphorus Inc.
423 Riverview Plaza
Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

Net Weight:

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

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

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.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- *Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride*
- Dust mist respirator
- Shoes plus socks

Mixers and loaders must also wear:

- apron

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 CONTROL STATEMENT

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

User Safety Recommendations

Users should:

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

Bromacil is known to leach through soil and has been found in ground water as a result of normal field use. Users are advised not to apply in areas where soils are permeable, particularly where ground water is used for drinking water. Consult with the pesticide state lead agency for information regarding soil permeability and aquifer vulnerability in your area.

DIRECTIONS FOR USE

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

AGRICULTURAL USE REQUIREMENTS

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 such as polyethylene or polyvinylchloride
- 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.

Noncrop 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.

GENERAL INFORMATION

BROMO-D Herbicide is a selective herbicide for use in citrus and in non-crop areas. BROMO-D Herbicide controls many annual weeds at lower rates and perennial weeds at the highest rates allowed by this label.

As this product must be absorbed through the root system of weeds, best results are obtained if treatment is made just before or after weeds have germinated to moist soil and moisture is supplied by rainfall or sprinkler irrigation within two weeks of application. Weed control symptoms are slow to appear and may not become apparent until the chemical 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, rainfall, soil texture, and other soil and water management practices.

USE PRECAUTIONS AND RESTRICTIONS

To avoid injury to or loss of desirable trees or other plants, observe the following use guidelines:

- Do not apply this product using any type of irrigation system.
- Except as recommended, do not apply 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.

- Do not use in any recreational areas or in or around homes, in home fruit plantings, on lawns, walks, tennis courts, driveways, or other similar areas.
- Do not use in citrus orchards interplanted to other trees or desirable plants.
- Do not allow dry powder or spray to drift to desirable plants.
- Keep from contact with seeds, insecticides, fungicides, and fertilizers.
- Do not store near well sites.
- Do not graze cattle in treated areas.
- Thoroughly clean all traces of BROMO-D Herbicide 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 one year after last application. Do not replant to other crops within two years after last application as injury may result.

When Preparing for Use:

- Calibrate sprayers only with clean water away from well sites.
- Regularly inspect spray equipment.
- Mix only enough BROMO-D Herbicide for the specific application.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Ensure accurate measurement of pesticides.
- Avoid over-filling of spray tank.
- Dilute and agitate excess solution and apply at labeled rates/uses.

Tank Mixture Specific Guidelines:

- BROMO-D Herbicide may be tank mixed with other suitable herbicides registered for use on citrus or non-agricultural use. Use only those herbicides approved for use on citrus if applying to citrus and use only those herbicides approved for use in non-agricultural areas if applying to non-agricultural areas. Refer to the label(s) of the other products being added to the tank mix for any additional use information or restrictions. Before applying a tank mixture, read and observe all label directions for each product. *Follow the most restrictive label guidelines.*
- BROMO-D Herbicide may also be tank mixed with appropriate adjuvants used with herbicides in citrus or non-agricultural uses. Use only those adjuvants approved for use on citrus if applying to citrus and use only those adjuvants approved for use in non-agricultural areas if applying to non-agricultural areas.
- When tank mixing with BROMO-D Herbicide, completely mix the product in the spray tank carrier before adding any other herbicide or spray adjuvant. A small compatibility test (see below) should be performed prior to adding the products into the spray tank using a combination of products not previously used. Refer to the Spray Preparation section of this label for further information.
- The spray tank contents must be thoroughly re-agitated if they are allowed to settle for any period of time.

APPLICATION INFORMATION

IMPORTANT NOTE: BROMO-D Herbicide use rates listed on this label are for broadcast treatments. For band treatments, use proportionately less.

Follow the application guidelines below:

- Apply using a properly calibrated fixed-boom power sprayer.
- Because over application of the herbicide may result in injury to the crop or successive crops, the spray booms must be shut off while starting, turning, slowing or stopping.
- Use sufficient spray volume, a 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.
- Prior to and during application, continuous agitation is necessary to keep the product in suspension. Agitate spray tank contents by mechanical or hydraulic means; *do not use air agitation*. Note: If a by-pass or return line is used, it should terminate at the bottom of the tank to minimize foaming.
- Nozzle screens should be 50 mesh or larger.
- Best results are obtained if BROMO-D Herbicide is applied to bare ground. If dense populations of hard-to-kill weed species are present, control of these weeds prior to application of BROMO-D Herbicide is recommended. If weeds are present at the time of application, tank mixtures with foliar active herbicides are recommended (refer to the Tank Mixture Specific Guidelines section of this label for guidelines on using BROMO-D Herbicide in a tank mixture).

SPRAY PREPARATION

Mixing in Water – Fill tank half full with water. Start agitation system and while continuing to add water, add BROMO-D Herbicide and each additional component of any tank-mix separately. Be sure to agitate the entire time.

Test for Mixing with Other Herbicides – Determine the tank mixture partner(s) compatibility with BROMO-D Herbicide by following the directions below. If the testing procedure shows the mixture to be compatible, BROMO-D Herbicide may be used in the tank mixture.

1. Put 1 pint of water into a quart jar with a tightly sealing lid.
2. In a separate container, combine 2 teaspoons of BROMO-D Herbicide with 2 tablespoonfuls of water; mix thoroughly and add to the water.
3. Close the jar and shake well.
4. If additional herbicides are to be used in the mixture, follow steps two and three above for each additional herbicide.
5. Once all components of the tank mix are combined in the test jar, watch the mixture for several seconds and then check again in 30 minutes. If mixture does not separate, foam, gel or become lumpy, it may be used.

Mixing in Liquid Fertilizer – A fertilizer solution may be used in the spray mixture. Use the procedure above to test for compatibility before full-scale mixing, but in Step 1, in place of the 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 BROMO-D Herbicide 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 BROMO-D Herbicide 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.

VERIFICATION OF SAFE ROTATIONAL USE IN ARID CLIMATES

In arid climates (areas that experience 10 inches of rainfall or less in a year) or areas that have experienced drought conditions for one or more years, a field bioassay should be conducted prior to planting any desired crop(s). The bioassay may consist of a test strip of the crop and should cross the entire field, including high and low lying portions. If a test strip of the crop(s) intended for production is not successfully grown to maturity, it may be necessary for the two-year crop rotation interval to be extended.

WEED RESISTANCE TO HERBICIDES

Weeds may become resistant to any herbicide if an herbicide is used in the same field repeatedly over several years. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product with a different mode of action.

The following suggestions will assist in managing herbicide resistance:

- It may be necessary to change cropping practices within and between crop seasons. For example, using a combination of tillage, retreatment, tank-mixtures and/or sequential herbicide applications that have different modes of action.
- Preventing weeds from going to seed (by mowing, tilling, etc.) will prevent the spread of resistant plants.
- 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 such as 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.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. 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 designated 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 ¾ 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, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

WEEDS CONTROLLED

ANNUALS

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

Spanishneedles	*Bidens pilosa*
Thistle, Russian	*Salsola australis*

PERENNIALS
(Maximum rates and repeat treatments)

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

Note: Partial control of perennials usually occurs with a single treatment; repeat applications are required to control perennials. Control of perennials may be improved by cultivation prior to treatment; otherwise, avoid working the soil as long as weed control continues otherwise effectiveness of the treatment may be reduced. Multiple applications may improve control of hard-to-kill weeds.

CITRUS

NOTE: BROMO-D Herbicide use rates listed on this label are for broadcast treatments. For band treatments, use proportionately less.

BROMO-D Herbicide may be applied as a broadcast or band treatment beneath and/or between trees. Be sure to review the specific use instructions for use in your State (below) before using this product.

Important considerations for use of BROMO-D Herbicide on Citrus:

- Following treatment, temporary yellowing of citrus leaves may occur.
- When spraying, avoid contact of spray with leaves or fruit.
- 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 use on diseased or stressed trees.
- Do not use on trees planted in irrigation furrows.
- 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.
- Do not use in home citrus plantings.
- Do not apply more than 8 pounds product (6.4 pounds active ingredient), 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.
- BROMO-D Herbicide 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.
- Do not apply this product in a way that will contact worker or other persons, either directly or through drift.

STATE SPECIFIC USE INSTRUCTIONS

CALIFORNIA, ARIZONA

Trees Established for at least Three Years: Best results occur when applied in late fall or early winter, but before winter annuals become well established. Application should be made after the first fall or early winter rains have settled the soil.

- For the initial treatment, apply 4-5 pounds BROMO-D Herbicide per acre on coarse soils containing 1-2% organic matter and 5-6 pounds per acre on fine soils or soils with organic matter of 2 ½% or more and repeat as needed.
- Alternatively, apply 3-4 pounds per acre in the fall and repeat at 2-4 pounds per acre in the spring.
- When treating to control groundsel or puncturevine, use the highest rate allowed by this label. These rates will also suppress low density stands of bermudagrass and yellow nutsedge. Repeat annually for best results.
- *Do not exceed 6 pounds per acre per year.*

FLORIDA

The use of BROMO-D Herbicide 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 quartzipsamments, and the following soil series classifications:

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

Treated areas may be planted to citrus trees one year after the last BROMO-D Herbicide application. Do not replant to other crops within two years after the last BROMO-D Herbicide application as plant injury may result.

Application Instructions

In Florida, apply BROMO-D Herbicide as a band treatment only *using a properly calibrated fixed-boom power sprayer.* **Do not use Trunk to Trunk.**

NOTE: All use rates of BROMO-D Herbicide are expressed for broadcast treatments. For band treatments as required in Florida, use proportionately less.

Trees Established Less than One Year: For control of annual weeds, apply 2 to 4 pounds of BROMO-D Herbicide 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 first year.

Trees Established One to Three Years: For control of annual weeds, apply 2 to 4 pounds of BROMO-D Herbicide 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 to 8 pounds per treated acre as needed to maintain weed control. Do not apply more than 16 pounds of BROMO-D Herbicide per treated acre per year.

Annual Weeds Controlled

Annual clovers	Lambsquarter
Barnyardgrass	Natalgrass (red top)
Chickweed	Nightshade (annual)
Cheatgrass	Pigweed
Crabgrass	Pineappleweed
Filaree	Puncturevine
Fleabane	Purslane
Florida pusley	Ragweed
Foxtail	Russian thistle
Goatweed	Sandbur (sandspur)
Groundsel	Shepherdspurse
Horseweed	Sowthistle (annual)
Johnsongrass (seedling)	Spanish needles
Junglerice	Wild lettuce

Kochia	Wild mustard

Perennial Weeds Controlled

Balsamapple vine (seedling)	Guineagrass
Bermudagrass	Milkweed (strangler)
Heartleaf	Quackgrass
Drymary	Vine (seedling)

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 BROMO-D Herbicide. 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 prior to 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 BROMO-D Herbicide.

LOUISIANA

Trees Established for at least Three Years:

- Make a single application of 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 ½% or more).
- Alternatively, make two applications per year at rates of 2 pounds per acre on coarser soils and 3 pounds per acre on finer soils; make the second application when needed to maintain weed control.
- For maximum suppression of perennials, use the highest rate allowed by this label.
- Do not apply more than 6 pounds per acre per year.

TEXAS

Trees Established Less than One Year:

- Apply 2-4 pounds BROMO-D Herbicide per acre as needed to maintain weed control.
- A second application may be made when needed to maintain weed control, however 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 BROMO-D Herbicide per acre.
- A second application may be made when needed to maintain weed control, however do not apply more than 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 ½% or more).
- Use the higher rate for maximum suppression of perennials.

- Do not use more than 6 pounds per acre per year.

NON-AGRICULTURAL USES

Use Restrictions – State of Florida

In Florida, the use of BROMO-D Herbicide (bromacil + diuron) is prohibited in Hardee, Highland, Polk, Orange and Lake Counties. For Non-Agricultural Usage in all other areas of the state, do not apply more than 16 pounds of BROMO-D Herbicide per acre per year. This amount corresponds to 6.4 pounds of bromacil and 6.4 pounds of diuron, the active ingredients in BROMO-D Herbicide. The maximum allowable use rate for bromacil is 6.4 pounds per acre per year inclusive of all bromacil formulations.

Recommendations for Non-Agricultural Uses of BROMO-D Herbicide

BROMO-D Herbicide is recommended for control of undesirable vegetation in non-agricultural areas such as airports, rights of way (railroad, highway, pipeline and utility) and sewage disposal areas; uncultivated agricultural areas such as farmyards, fuel storage areas, fence rows, barrier strips; and industrial sites such as lumberyards, pipeline and tank farms.

Combination with other herbicides broadens the spectrum of weeds controlled. In addition, total vegetation control can be achieved with higher rates of BROMO-D Herbicide plus residual-type companion herbicides.

To improve the control of emerged weeds, add surfactant at 0.25% by volume.

Do NOT apply this product to:

- Open water (such as creeks, estuaries, lakes, reservoirs, rivers, streams or salt water bays);
- When water is present in fresh water wetlands (such as 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.

Application Information

Apply BROMO-D Herbicide using a properly calibrated fixed-boom power sprayer with sufficient spray volume (minimum of 10 gallons per acre) 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 BROMO-D Herbicide are expressed for broadcast treatments. For band treatments, use proportionately less.

Notes for Non-Agricultural Uses:

- For small areas, a hand sprayer or sprinkling can may be used. When applying to a small area, ¼ cupful of BROMO-D Herbicide per 200 sq. ft. is approximately 15 pounds per acre.
- Use a spray volume of at least 40 gallons per acre to ensure uniform coverage.
- 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 non-performance may increase. For best performance results, make sure the treatment area is stable after the application for the desired weed control period.

Application Timing

Apply BROMO-D Herbicide as a preemergence spray prior to or during the rainy season when weeds are actively germinating or growing. Moisture is required to activate and move BROMO-D Herbicide into the root zone of weeds for preemergence control. For best preemergence weed control, apply prior to rainfall and weed germination.

In arid regions of the Western U.S., to ensure adequate moisture for activation and even dispersion of the herbicide in the soil profile, BROMO-D Herbicide should be applied several weeks prior to the fall freeze or shortly after spring thaw to coincide with periods of higher seasonal moisture. *Do not treat frozen or saturated soils, or soils that are non-receptive to percolation.*

Retreatments of BROMO-D Herbicide may be made when annual weeds and grasses reappear on sites where weed growth has been controlled. Apply 4-6 pounds of BROMO-D Herbicide per acre.

Application Rates

Apply BROMO-D Herbicide at the rates indicated by weed type in the tables below. When applied at lower rates, BROMO-D Herbicide 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).

Weeds Controlled

BROMO-D Herbicide effectively controls the following broadleaf weeds and grasses when applied at the rates shown.

Broadleaf Weeds – 6 to 8 pounds per acre	
Clovers (annual)	*Trifolium spp.*
Fiddleneck	*Amsinckia intermedia*
Filaree	*Erodium spp.*
Knapweed, diffuse	*Centaurea diffusa*
Lambsquarter, common	*Chenopodium album*
Lettuce, prickly	*Lactuca serriola*
Mustards	*Brassica spp.*
Pigweed	*Amaranthus spp.*
Ragweed	*Ambrosia spp.*
Sunflower, common	*Helianthus annuus*
Thistle, Russian	*Salsola iberica*

Broadleaf Weeds – 8 to 12 pounds per acre	
Carrot, wild	*Caudus carota*
Dandelion, common	*Taraxacum officinale*
Dock, curly	*Rumex crispus*
Knapweed, spotted	*Centaurea maculosa*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Marestail, common (horseweed)	*Conyza canadensis*
Parsnip, wild	*Pastinaca sativa*
Plantain	*Plantago spp.*
Puncturevine	*Tribulus terrestris*

Spurge	*Euphorbia spp.*
Thistle, milk	*Silybum marianum*
Yarrow, common	*Achillea millefolium*

Broadleaf Weeds – 12 to 16 pounds per acre

Cinquefoil, common	*Potentilla Canadensis*
Goldenrod	*Solidago spp.*
Milkweed, common	*Asclepias syriaca*

Grasses – 6 to 8 pounds per acre

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

Grasses – 8 to 12 pounds per acre

Bahiagrass	*Paspalum notatum*
Crabgrass	*Digitaria spp.*
Goosegrass	*Eleusine indica*
Rye	*Secale cereale*
Vaseygrass	*Paspalum urvillei*

Grasses – 12 to 16 pounds per acre

Bluegrass	*Poa spp.*
Dropseed, sand*	*Sporobolus cryptandrus*
Fescue	*Festuca spp.*
Saltgrass*	*Distichlis spp.*

*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 in 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 BROMO-D Herbicide 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.

In areas of high rainfall (40 inches or more per year) and/or dense vegetation (greater than 90% weed ground cover) apply 19 to 30 pounds of product per acre (***except in Florida***).

SPECIAL USES

UNDER ASPHALT AND CONCRETE PAVEMENT

Important Precautions when Applying Under Asphalt

- Do not use Bromcil/Diuron 40+40 DF 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.

Application Information

BROMO-D Herbicide may 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.

BROMO-D Herbicide 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 gallons per acre. Agitate the tank continuously to keep BROMO-D Herbicide in suspension.

Application Timing

BROMO-D Herbicide 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 BROMO-D Herbicide at 17 to 30 pounds per acre. Use a higher rate on hard to control weeds and/or for longer term weed control.

Tank Mixtures

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

STORAGE AND DISPOSAL

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

Pesticide Storage: Store product in original container only.

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: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT INFORMATION

READ BEFORE USING PRODUCT

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 should be followed carefully. The Directions for Use of this product reflect the opinion of experts based on field use and tests. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by

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