

241-365

07/09/1996

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JUL - 9 1996

Mr. John J. Wrubel
American Cyanamid Co.
P.O. Box 400
Princeton, NJ 08543

Dear Mr. Wrubel:

Subject: Minor Changes
PLATEAU Herbicide
EPA Reg. No. 241-365
Your submission dated June 12, 1996

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable and a stamped copy is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

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PLATEAU™ herbicide

RECD EPA 7/DPD2

FOR WEED CONTROL AND TURF GROWTH SUPPRESSION
ON ROADSIDES AND OTHER NONCROP AREAS

ACTIVE INGREDIENT:

'96 JUN 17 P12 :29

(±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid, (ammonium salt of*) 23.6%

INERT INGREDIENTS..... 76.4%

TOTAL..... 100.0%

*Equivalent to 22.2% (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid

(1 gallon contains 2.0 pounds of active ingredient as the free acid)

EPA Reg. No. 241-365

EPA Est. No.

ACCEPTED
with COMMENTS
In EPA Letter Dated
JUL - 9 1996

KEEP OUT OF REACH OF CHILDREN

CAUTION!/PRECAUCION!

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
241-365

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF INHALED: Remove victim to fresh air.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF IN EYES: Flush with plenty of water.

See Next Page for Additional Precautionary Statements

In case of an emergency endangering life or property involving this product, call collect, day or night, area code 201-835-3100

American Cyanamid Company
Agricultural Products Division
Specialty Products Department
Wayne, NJ 07470 ©1996

Net Contents: 2.5 Gallons

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION!

Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

For terrestrial use only. 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 disposing of equipment washwaters or rinsate.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

IMPORTANT

DO NOT use on food or feed crops. For the maintenance of non crop sites, PLATEAU herbicide may be applied to non-irrigation ditches and low lying areas when water has drained, but may be isolated in pockets due to uneven or unlevel conditions. DO NOT treat the inside of irrigation ditches. DO NOT rinse equipment on or near desirable trees or ornamental 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 on lawns.

DIRECTIONS FOR USE

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

This labeling must be in the possession of the user at the time of pesticide application.

DO NOT use on areas to be grazed, or cut for hay.

DO NOT use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

Observe all cautions and limitations on this label and on the labels of products used in combination with PLATEAU herbicide. Do not use PLATEAU herbicide other than in accordance with the instructions set forth on this label. The use of PLATEAU herbicide not consistent with this label may result in injury to turf. Keep containers closed to avoid spills and contamination.

DO NOT apply to the foliage of desirable trees or ornamental plants. When making applications around desirable trees or ornamental plants, small areas should be tested to determine the tolerance of a particular species to soil applications of PLATEAU herbicide. Applications to the foliage or within the drip line of American Linden or Basswood (*Tilia americana* and *T. heterophylla*) may result in severe injury or death of the tree.

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DO NOT apply this product through any type of irrigation system.

DO NOT exceed 12 ounces of PLATEAU herbicide per acre in one year.

STORAGE AND DISPOSAL

PROHIBITIONS:

KEEP FROM FREEZING

DO NOT store below 20°F.

DO NOT contaminate water, food or feed by storage or disposal.

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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by State and local authorities by burning. If burned, stay out of smoke.

DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Turf injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above. **CYANAMID DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

BUYER'S EXCLUSIVE REMEDY AND AMERICAN CYANAMID'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF PLATEAU herbicide. In no case shall Cyanamid or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

American Cyanamid Company makes no other express or implied warranty, including other express or implied warranty of **FITNESS** or of **MERCHANTABILITY**. User assumes the risk of any use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable by American Cyanamid Company.

USES WITH OTHER PRODUCTS (TANK-MIXES)

If this product is used in combination with any other product except as specifically recommended in writing by American Cyanamid Company then American Cyanamid Company shall have no liability for any loss, damage, or injury arising out of its use in any such combination not so specifically recommended. If used in combination recommended by American Cyanamid Company, the liability of American Cyanamid Company shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the American Cyanamid Company product in such combination use, and in any event shall be limited to return of the amount of the purchase price of the American Cyanamid Company product.

GENERAL INFORMATION

PLATEAU herbicide is an aqueous solution to be mixed with water and an adjuvant and applied as a spray solution to provide weed control and/or turf height suppression on noncropland areas such as railroad, utility, pipeline and highway rights-of-way, railroad crossings, utility plant sites, petroleum tank farms, pumping installations, non-agricultural fence rows, storage areas, non-irrigation ditchbanks, prairie sites, airports, industrial turf, recreational and non-residential turf and other similar areas. PLATEAU herbicide may be used for the release of unimproved bermudagrass, bahiagrass, smooth brome grass, wheatgrass, native prairiegrass, wildflowers, crown vetch and certain legumes. PLATEAU herbicide can also be used for weed control during the establishment of native prairiegrasses (see NATIVE PRAIRIEGRASS RENOVATION AND RESTORATION).

PLATEAU herbicide is readily absorbed through leaves, stems, and roots and is translocated rapidly throughout the plant, with accumulation in the meristematic regions. Treated plants stop growing soon after spray application. Chlorosis appears first in the newest leaves, and necrosis spreads from this point. In perennials, the herbicide is translocated into, and kills, underground storage organs which prevents regrowth. Chlorosis and tissue necrosis may not be apparent in some plant species for several weeks after application. Complete kill of plants may not occur for several weeks after application. Adequate soil moisture is important for optimum PLATEAU herbicide activity. When adequate soil moisture is present, PLATEAU herbicide will provide residual control of susceptible germinating weeds. Activity on established weeds will depend on the weed species and rooting depth. PLATEAU herbicide is rainfast one hour after application.

PLATEAU herbicide will control annual and perennial grasses and broadleaf weeds and vine species. PLATEAU herbicide will provide residual control of labeled weeds which germinate in the treated area. Certain brush species and ornamentals may be injured by direct application of PLATEAU herbicide to their foliage. This product may be applied either preemergence or postemergence to the weeds. However, post emergence application is the method of choice in most situations, particularly for perennial species. For maximum activity, weeds should be growing vigorously at the time of postemergence applications and the spray solution should include an adjuvant (See "Adjuvants" Section). These solutions may be applied as a broadcast or as a spot treatment using backpack, or ground equipment.

PLATEAU herbicide may be applied in the dormant or growing season for weed control.

Depending on the turf type being treated, some yellowing of turf may occur with applications during the growing season. Depending on weather conditions, yellowing will usually disappear in 2 to 4 weeks.

PLATEAU herbicide should not be applied to newly seeded or sprigged grass stands, unless otherwise stated in this label. See COASTAL BERMUDAGRASS and PRAIRIEGRASS RENOVATION AND RESTORATION sections.

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MIXING INSTRUCTIONS

Fill the spray tank one-half to three-quarters full with clean water. Use a calibrated measuring device to measure the required amount of PLATEAU herbicide. Add PLATEAU herbicide to the spray tank while agitating. Fill the remainder of the tank with water.

For postemergence applications, add a surfactant to the spray tank (See Adjuvants section of this label for specific recommendations). Maintain agitation while spraying to ensure a uniform spray mixture. An antifoaming agent may be added to the tank if needed.

When tank-mixing PLATEAU herbicide with recommended herbicides, add wettable powders, dispersible granules or other dry formulations first, then EC's, then PLATEAU herbicide, and then an adjuvant.

SPRAYING INSTRUCTIONS

DO NOT apply during windy or gusty conditions unless applications are being made with an enclosed or shielded spray system. DO NOT apply if rainfall is threatening. Rainfall within 1 hour after PLATEAU herbicide application may reduce weed control.

GROUND APPLICATIONS:

Uniformly apply with properly calibrated ground equipment in 2 or more gallons of water per acre. Application equipment, specially designed to make low volume application should be used when making applications using less than 10 gallons of water per acre. A spray pressure of 20 to 40 psi is recommended.

Adjust the boom height to ensure proper coverage of weed foliage or soil surface (according to the manufacturer's recommendation). Avoid overlaps when spraying.

DO NOT apply by helicopter, airplane, or other aerial equipment.

SPRAY ADJUVANTS FOR POSTEMERGENCE APPLICATIONS

Postemergence applications of PLATEAU herbicide require a spray adjuvant. See "Special Weed Control" section. Due to variations in surfactant contents, certain surfactants containing high amounts of alcohols, paraffin based petroleum oils, and other compounds which can increase phytotoxicity to desirable vegetation, it is recommended to chose a low phytotoxic surfactant.

Methylated Seed Oils or Vegetable Oil Concentrates: Instead of a surfactant, a methylated vegetable-based seed oil concentrate containing 5 to 20% surfactant and the remainder of the methylated vegetable oil may be used at the rate of 1.5 to 2 pints per acre. Methylated seed oils provide their greatest effects at 30 GPA or less. At spray volumes above 50 GPA, their advantage appears negated. Research indicates these oils may aid in deposition and uptake of PLATEAU herbicide for hard-to-control perennials, waxy leaf species or when plants are under moisture or temperature stress.

Nonionic Surfactants: Use a nonionic surfactant at the rate of 0.25% v/v or higher (see manufacturer's label) of the spray solution (0.25% v/v is equivalent to 1 quart in 100 gallons). For best results, select a nonionic surfactant with a HLB (hydrophilic to lipophilic balance) ratio between 12 and 17 and having at least 60% surfactant in the formulated product (alcohols, fatty acids, oils, ethylene glycol or diethylene glycol should not be considered as surfactants to meet the above requirements).

Silicone-Based Surfactants: See manufacturer's label for specific rate recommendations. Silicone-based surfactants may reduce the surface tension of the spray droplet allowing greater spreading on the leaf surface as compared to conventional nonionic surfactants. However, some silicone-based surfactants may dry too quickly, limiting herbicide uptake and higher spray volumes may exhibit "run-off".

Fertilizer/Surfactant Blends: Nitrogen-based liquid fertilizers such as 28%N, 32%N, 10-34-0, or ammonium sulfate, may be added at the rate of 2 to 3 pints per acre in combination with the recommended rate of nonionic surfactant or methylated seed oil. Research indicates that nitrogen based fertilizers aid in the burndown of annual weeds and increase PLATEAU herbicide uptake through waxy leaf species. However, fertilizers may increase phytotoxicity to desired species. The use of fertilizers in a tank-mix without a nonionic surfactant or a methylated seed oil is not recommended and may result in herbicide failure.

TANK MIXES

PLATEAU herbicide may be tank-mixed with PENDULUM herbicide for additional control of late season annual grasses and certain broadleaves. For additional weed control, PLATEAU herbicide may be tank-mixed with Accord¹, RoundupPro¹, glyphosate, ARSENAL⁵, Diuron², Campaign¹, Finale⁶, Garlon 3A³, MSMA, Vanquish⁴, Oust², Escort², or other labeled products. A compatibility test is advised for products not listed. 2,4-D and other phenoxy type herbicides have resulted in reduced control of perennial grass weeds.

Consult manufacturer's labels for specific rates and weeds controlled. Always follow the more restrictive label when making an application involving tank-mixes.

FOR THE CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED BERMUDAGRASS

PLATEAU herbicide may be used on unimproved bermudagrass turf such as roadsides, utility rights-of-way, railroad crossings, airports, non-irrigation drainage ditches and other such noncropland sites. There is a differential tolerance between bermudagrass types (See below paragraphs). Depending on bermudagrass type, timing of application, and PLATEAU herbicide rate, some foliar, stolon, and seedhead suppression may occur. **IMPORTANT:** Apply PLATEAU herbicide after bermudagrass has reached full green-up. Spring applications made prior to full green-up may delay green-up. Always add a surfactant when applying PLATEAU herbicide. **DO NOT** apply to grass under stress from drought, disease, insects or other causes. Simultaneous mow/spray operations may suppress internode development. After mowing, allow adequate foliage regrowth prior to PLATEAU application as some internode suppression may prevent bermudagrass from quickly recovering from mowing.

Common Bermudagrass: Common bermudagrass is the most tolerant bermudagrass to PLATEAU herbicide. Tank-mixes with Roundup Pro, Accord or glyphosate, will improve the weed control spectrum, but may increase turf phytotoxicity. Some stolon internode shortening and seedhead suppression may occur for the first 8 weeks.

Sprigged Coastal Bermudagrass: PLATEAU herbicide at 4 to 6 oz per acre may be applied at sprigging for weed control to aid in the establishment of coastal bermudagrass.

Established Coastal Bermudagrass: PLATEAU herbicide at 6 to 12 oz per acre will provide control of labeled weeds as well as foliar and seed head suppression of established coastal bermudagrass. Depending on environmental conditions and weed pressure, the longevity of suppression and weed control increases as the PLATEAU herbicide rate increases. Tank-mixes with Roundup Pro, Accord or glyphosate, may result in death or excessive injury of coastal bermudagrass.

Turf Type Bermudagrass: Turf type bermudagrass varieties show a high degree of variation in tolerance to PLATEAU herbicide. PLATEAU herbicide at rates of 4 to 6 oz per acre will provide some annual weed control and foliar & seedhead suppression. Rates above 6 oz per acre may result in excessive injury or death of turf type bermudagrass.

SEE ABOVE SECTIONS FOR PLATEAU HERBICIDE RATES AND TIMINGS FOR SPECIFIC BERMUDAGRASS TYPES WITH REGARD TO WEED CONTROL AND TURF TOLERANCE.

Winter Annual Weed Control: Apply PLATEAU herbicide at the rate of 10 to 12 oz. per acre prior to winter weed germination or while winter weeds are actively growing. This time frame generally occurs from late September to mid-December depending on location in the United States.

Summer Annual Weeds: For best results, apply PLATEAU herbicide at the rate of 8 to 12 oz per acre pre-emergence or early postemergence before weeds have reached 6 inches in height. Larger weeds may be controlled depending on susceptibility, growing conditions, tank-mix partner and adjuvant selection.

Perennial Weeds: Apply PLATEAU herbicide at the rate of 8 to 12 oz per acre postemergence after weeds have produced adequate foliage for herbicide uptake. For a particular weed see "Special Weed Control" section below. The addition of Accord or RoundupPro herbicide may increase control.

Bahiagrass Control: Apply PLATEAU herbicide at the rate of 10 to 12 oz per acre postemergence. See SPECIAL WEED CONTROL section below for recommendations. The addition of Roundup Pro or Accord herbicide at 12 to 16 oz per acre may increase control.

FOR FOLIAR AND SEEDHEAD SUPPRESSION OF BAHIAGRASS, COOL SEASON GRASSES AND SUPPRESSION OF SOME ANNUAL WEEDS

Bahiagrass: PLATEAU herbicide may be used at the rate of 2 to 6 oz per acre to suppress growth and seedhead development of bahiagrass in unimproved areas. In North and South Carolina it is recommended to use PLATEAU herbicide at the rate of 2 oz per acre as higher rates may cause turf thinning. Depending on rate of PLATEAU herbicide used, surfactant and environmental conditions, temporary turf discoloration may occur. For optimum performance, application should be made after green-up. Applications may be made before or after mowing. If applied prior to mowing, raise mowing height to leave adequate existing foliage as new growth will be suppressed. If applied after mowing, allow adequate foliage to remain by increasing mower height or allowing time for foliar regrowth prior to application. **DO NOT** apply to turf under stress (drought, cold, insect, disease, etc.) or severe injury may occur.

<u>PLATEAU</u>	<u>PHYTOTOXICITY</u>	<u>LENGTH OF SUPPRESSION</u>
2 oz	none to low	partial to season long
3 to 6 oz	low to moderate	season long

Cool Season Grasses: Apply PLATEAU herbicide at 2 to 4 oz per acre for foliar and seedhead suppression of certain cool season grasses such as tall fescue and Kentucky bluegrass. Add a surfactant to the 2 oz rate of PLATEAU herbicide for optimum performance. The addition of a surfactant to 4 oz of PLATEAU herbicide may cause excessive turf injury or mortality of tall fescue. Apply PLATEAU herbicide at 8 to 12 oz. per acre for foliar and seedhead suppression of crested wheatgrass. Other wheatgrass species may also be suppressed, however, apply PLATEAU herbicide to a limited area to determine effectiveness. Tank-mixes with 2,4-D or products containing 2,4-D may decrease the effectiveness of PLATEAU herbicide. Tank-mixes with Garlon, Tordon, Transline, and Vanquish may decrease the potential of turf injury.

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DO NOT apply to turf under stress or severe injury may occur.

FOR CONTROL OF UNDESIRABLE WEEDS IN SMOOTH BROMEGRASS AND CRESTED WHEATGRASS

PLATEAU herbicide may be used on unimproved smooth brome grass and crested wheatgrass in noncropland areas. For other types of wheatgrass species, make application to small area to determine tolerance to PLATEAU herbicide. PLATEAU herbicide provides control of labeled grass and broadleaf weeds (See WEEDS CONTROLLED and SPECIAL WEED CONTROL sections). Treatment of smooth brome grass and wheatgrass with PLATEAU herbicide may result in foliar height and seedhead suppression.

Smooth Brome grass: Use PLATEAU herbicide at 4 to 8 oz per acre in the spring for weed control and growth suppression after smooth brome grass has reached 100% green-up. Applications prior to 100% green-up may delay green-up. Rates from 8 to 12 oz per acre may be applied in the spring but may result in excessive growth suppression. For fall applications (see SPECIAL WEED CONTROL section), PLATEAU herbicide may be used at 8 to 12 oz per acre for control of perennial weeds.

FOR CONTROL OF UNDESIRABLE WEEDS IN CROWN VETCH

PLATEAU herbicide may be applied at the rate of 4 oz per acre to newly seeded crown vetch beds to aid in the establishment of vetch and reduce weed competition.

PLATEAU herbicide at 8 to 12 oz per acre may be used on unimproved established crown vetch in noncropland areas. PLATEAU herbicide provides control of labeled grass and broadleaf weeds (Refer to the "Weeds Controlled" and "Special Weed Control" section for specific rates). Treatment of crown vetch beds with PLATEAU herbicide may cause internode shortening and some minor tip chlorosis depending on timing of application.

NATIVE PRAIRIEGRASS RENOVATION AND RESTORATION

PLATEAU herbicide may be applied at the rate of 4 to 12 oz per acre to newly established or existing stands of big bluestem, little bluestem, Indiangrass, sideoats grama and blue grama (see below for details) in such areas as roadsides, industrial sites, prairie restoration sites, drainage ditch banks, and other such noncropland areas. PLATEAU herbicide controls many annual and perennial grass and broadleaf weeds. Weed competition is reduced allowing prairiegrass seedling to establish. PLATEAU herbicide is also effective for control of noxious weeds in established prairiegrass stands and must be applied postemergence as a foliar treatment to perennial weeds. **IMPORTANT: ALWAYS ADD AN ADJUVANT** when applying PLATEAU herbicide. For optimum results, use a Methylated Seed Oil at 1.5 to 2 pints per acre or the combination of a Methylated Seed Oil (1.5 to 2 pints per acre) plus Nitrogen Fertilizer at 1 quart per acre as the adjuvant (See "ADJUVANTS" Section).

Establishment: For optimum results in establishing prairiegrass stands with PLATEAU herbicide, make application 7 to 10 days after planting when targeted annual weeds have emerged but are less than 6 inches tall. PLATEAU herbicide may also be applied at planting as a pre-emergence treatment.

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Rates and Control: PLATEAU herbicide applied at 4 oz per acre will provide control and/or suppression of some annual grass and broadleaf weeds. PLATEAU herbicide applied at 6 to 8 oz per acre will provide control of annual grass and broadleaf weeds and control or suppression of many perennial weeds. PLATEAU herbicide at 8 oz per acre may result in height suppression or injury of established, sideoats grama, blue grama and buffalograss. Rates above 4 oz. per acre may result in injury or stand reduction when applied to seedling sideoats grama, blue grama or buffalograss. PLATEAU herbicide applied at 10 to 12 oz per acre will provide control of annual and perennial grasses and broadleaf weeds (See "WEEDS CONTROLLED" section). However, rates above 8 oz of PLATEAU herbicide per acre may result in some height suppression of prairiegrass. The duration and intensity of suppression are directly related to weed pressure, soil type and environmental conditions. Less herbicide is needed under low weed pressure, light soils, low rainfall, and short growing seasons.

Established Stands: For optimum results, apply PLATEAU herbicide as an early postemergence application to annual grasses and broadleaf weeds. For perennial weed control, see "SPECIAL WEED CONTROL" section. The use of high rates may result in foliar and/or seed head height suppression of established stands of prairiegrass. This effect is more likely to occur under conditions of light soils, low weed pressure, low rainfall, and short growing seasons. Use the lower rates for light weed infestations or when mixing with wildflowers and legumes (See "Wildflower" Section for rate tolerance). Use higher rates to broaden and lengthen weed control spectrum.

Switchgrass (*Panicum virgatum*): PLATEAU herbicide is not recommended for the establishment of switchgrass as severe injury or death may result. Mature switchgrass planting can be reclaimed from certain perennial weeds such as tall fescue, leafy spurge, johnsongrass, etc., with PLATEAU herbicide at rates of 10 to 12 oz per acre. However, severe stunting and injury is imminent. DO NOT apply PLATEAU herbicide to switchgrass if such severe injury can not be tolerated.

SideOats and Blue Grama- New Seedlings: For weed control to aid in establishment, apply 4 oz PLATEAU herbicide per acre plus a surfactant after seedling grama has emerged. Higher rates may be used, but should be tested on a small area as environmental conditions and soil types may vary grama tolerance. Preemergence treatments of PLATEAU herbicide may result in stand thinning or loss and is influenced by herbicide rate, environmental conditions, soil types and weed pressure.

Tall Fescue Control: Tall fescue can be controlled by using PLATEAU herbicide at the rate of 12 oz per acre plus Methylated Seed Oil at 1.5 to 2 pints per acre in established stands of big bluestem, little bluestem, and indiagrass. The addition of Nitrogen fertilizer (See "ADJUVANTS" Section) to the above mix will aid in control. Tall fescue must be actively growing for optimum control. If tall fescue has reached summer dormancy control may be poor.

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NATIVE PRAIRIEGRASS RENOVATION AND RESTORATION

Common Name	Prairiegrass Genus species	PLATEAU herbicide Rate (oz/A) ¹	
		New Seeding ²	Established
Big Bluestem	<i>Andropogon gerardii</i>	4-12	4-12
Little Bluestem	<i>Andropogon scoparius</i>	4-12	4-12
Indiangrass	<i>Sorghastrum nutans</i>	4-12	4-12
Sideoats Grama	<i>Bouteloua curtipendula</i>	4 ³	4-8
Blue Grama	<i>Bouteloua gracilis</i>	4 ³	4-8
Buffalograss	<i>Buchloe dactyloides</i>	4	4-8

¹ High rates may result in stunting and growth suppression.

² Application timing relative to grass seeding and should be based on requirements to achieve effective weed control.

³ PLATEAU herbicide applications to newly seeded sideoats and blue grama may result in some stand thinning.

WILDFLOWER ESTABLISHMENT AND MAINTENANCE

Certain wildflowers have shown tolerance to PLATEAU herbicide applied pre-emergence and/or postemergence. Postemergence is the method of choice as more species respond positively to this treatment. Some stunting of the wildflowers may occur the first growing season when treated with PLATEAU herbicide.

Apply PLATEAU herbicide at the rate of 4 to 12 oz per acre plus either a silicone-based or nonionic surfactant. See below chart for tolerance and timing of application. Use the lower rate when low weed pressure and the higher rates as weed pressure increases. Some stunting of wildflowers may occur and is dependent on weed pressure, variety, environmental conditions, PLATEAU herbicide rate, and surfactant selection.

Application of PLATEAU herbicide in conjunction with an organophosphate insecticide may cause an increase in wildflower injury.

PLATEAU herbicide application made during wildflower bloom, may cause bloom drop.

Wildflower and Legume tolerance to PLATEAU herbicide (maximum rate, oz/A).

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<u>Species</u>	<u>Genus Species</u>	<u>PRE</u>	<u>POST¹</u>
Alfalfa*	<i>Medicago sativa</i>	--	12**
Bird's Eyes	<i>Gilia tricolor</i>	0	8
Bishop's Flower***	<i>Anuni majus</i>	0	8
Blackeyed Susan	<i>Rudbeckia hirta</i>	12	12
Blanketflower	<i>Gaillardia aristata</i>	0	12
Bundleflower, Illinois	<i>Desmanthus illinoensis</i>	4	12***
Catchfly	<i>Silene armeria</i>	0	4
Chickory	<i>Cichorium intybus</i>	4	--
Clover, Crimson	<i>Trifolium incarnatum</i>	12	6
Coneflower, Upright Prairie**	<i>Ratibida columnifera</i>	4	12
Coneflower, Purple	<i>Echinacea purpurea</i>	8	12
Coreopsis, Dwarf Red Plains*	<i>Coreopsis tinctoria</i> var. Gay Feather	12	--
Coreopsis, Plains*	<i>Coreopsis tinctoria</i>	12	12
Cornflower	<i>Centaurea cyanus</i>	0	12
Cosmos* sp.	<i>Cosmos</i> sp.	12	12
Cosmos, Yellow*	<i>Cosmos sulphureus</i>	12	12
Daisy, Ox-eye	<i>Chrysanthemum leucanthemum</i>	6	12
Daisy, Shasta	<i>Chrysanthemum maximum</i>	12	12
Flax, Blue	<i>Linum perenne</i>	0	4
Gayfeather, Spiked (Liatris)	<i>Liatris pycnostachya</i>	4	--
Indian Blanket*	<i>Gaillardia pulchella</i>	0	6
Johnny Jump-ups	<i>Viola cornuta</i>	8	--
Leadplant	<i>Amorpha canescens</i>	--	12**
Lupine	<i>Lupinu perennis</i>	12	--
Lespedeza, Bicolor	<i>Lespedeza</i>	8	12**
Lespedeza, Sericea	<i>Lespedeza cuneata</i>	4	8**
Mexican Hat	<i>Ratibida columnaris</i>	4	12
Lemon Mint**	<i>Monarda citriodora</i>	0	4
Partridgepea	<i>Cassia fasciculata</i>	4	--
Poppy, Red Corn	<i>Papaver</i> sp.	8	12
Poppy, Corn	<i>Papaver rhoeas</i>	6	--
Prairieclover, Purple***	<i>Petalostemon purpureum</i>	4	4
Sweetclover*	<i>Melilotus</i> sp.	--	12
Tickclover	<i>Desmodium</i> sp.	4	--
Vetch, Crown*	<i>Coronilla varia</i>	4	12**
Yarrow, Gold	<i>Achillea filipendulina</i>	0	8

¹ Apply after wildflowers have emerged and set mature leaves.

*Height suppression may occur at the high rates.

**Perennial plants only.

***At higher rates, stand reduction may occur.

Pre-emergence and/or postemergence rates may be increased up to 12 oz per acre per year once plants have established as perennial. Try on a limited area to verify tolerance in a specific area.

Due to the diversity of species and varieties which exist in areas where wildflowers are grown, the response to PLATEAU herbicide may vary greatly. Careful testing on desirable species is recommended to determine if area-wide applications can be made.

The suitability of PLATEAU herbicide use on wildflower species not listed, should be determined by treating a small number of such wild flowers at an appropriate rate, not to exceed 12 oz per acre per year. Treated wildflowers should be evaluated 1 to 2 months following application for possible injury. **THE USER ASSUMES RESPONSIBILITY FOR ANY DAMAGE OR OTHER LIABILITY.**

SPECIAL WEED CONTROL

ALWAYS ADD AN ADJUVANT to PLATEAU herbicide (see "ADJUVANTS" section). Research has shown Methylated Seed Oil (MSO) surfactants provide PLATEAU herbicide with superior control of perennial weeds. This effect is not always observed and is most prevalent on waxy leaf species, perennials and weeds under stress conditions. For the weeds listed below, it is recommended to use a MSO for best results. The use of nonionic surfactants or silicone based surfactants may result in less than acceptable control.

Johnsongrass & Itchgrass: For best results, apply PLATEAU herbicide at the rate of 8 to 12 oz per acre after johnsongrass or itchgrass has reached 18 to 24 inches in height at the whorl. The addition of Accord or RoundupPro at the rate of 8 to 16 oz per acre may improve control after culm elongation or in dense stands. Use higher herbicide rates as density increases. Larger grass than specified above can be controlled.

Dallisgrass, Bahiagrass, Vaseygrass, *Paspalum* spp., Smutgrass: For best results, apply PLATEAU herbicide at the rate of 10 to 12 oz per acre postemergence after grass has reached 100% green-up. The addition of Accord or RoundupPro at the rate of 12 to 16 oz per acre will improve efficacy. Use higher herbicide rates as target grass weed densities and/or maturity increase. The addition of PENDULUM will provide increased preemergence control of these grasses from seed.

Leafy Spurge: PLATEAU herbicide should be used in either of the two methods below. For best results, apply PLATEAU herbicide at 8 oz per acre in the fall, at least 2 weeks prior to a killing frost (late August through mid-October) followed by 4 oz per acre the following spring (late May - June). PLATEAU herbicide may also be applied at 12 oz per acre in the fall but do not apply PLATEAU herbicide to this acreage the following spring. For best results, always use a methylated seed oil at 2 pints plus 2 pints per acre of Nitrogen fertilizer (See Adjuvant Section). Efficacy may be reduced without this adjuvant combination. The use of nonionic and silicone based surfactants have resulted in little or no control of leafy spurge. Approximate dates for fall timing in North and South Dakota is August through September 15; for Nebraska and Iowa is September through mid-October. This application should be made after good soil moisture is present but prior to a killing frost.

Canada Thistle: Spring applications of 12 oz PLATEAU herbicide plus 2 pints of Methylated Seed Oil per acre applied postemergence to Canada thistle will provide control and/or suppression of above ground biomass. For best results, apply when thistle is in the rosette to early bolt. Applications made at flowering will provide knock down of existing foliage but may result in root sucker sprouting.

Tall Fescue Control: Tall fescue can be controlled by using PLATEAU herbicide at the rate of 12 oz plus Methylated Seed Oil at 1.5 to 2 pints per acre. The addition of Accord, glyphosate or RoundupPro and/or Nitrogen fertilizer (See "ADJUVANTS" Section) to the above mix will aid in control. Tall fescue must be actively growing for optimum control. If tall fescue has reached summer dormancy control may be poor.

Resistant Biotypes: Naturally occurring biotypes (a plant within a given species that has a slightly different, but distinct genetic makeup from other plants of the same species) of some weeds listed on this label may not be effectively controlled by this and/or other herbicides (Oust²) with the ALS/AHAS enzyme inhibiting mode of action. If naturally occurring ALS/AHAS resistant biotypes are present in an area, PLATEAU herbicide should be tank-mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

WEEDS CONTROLLED

PLATEAU herbicide, 4 oz per acre

<u>Common Name</u>	<u>Genus Species</u>	<u>PRE¹</u>	<u>POST²</u>	<u>Annual/Biennial/Perennial³</u>
<u>BROADLEAVES</u>				
Beggarweed, Florida	<i>Desmodium tortuosum</i>	X	2	SA
Cocklebur, Common	<i>Xanthium strumarium</i>	S	6	SA
Lambsquarters, Common	<i>Chenopodium album</i>	X	2	SA
Morningglory				
Entireleaf	<i>Ipomoea hederacea</i>	S	3	SA
Ivyleaf	<i>Ipomoea hederacea</i>	S	3	SA
Tall	<i>Ipomoea purpurea</i>	S	3	SA
Pigweed	<i>Amaranthus sp.</i>	X	6	SA
Radish, Wild	<i>Raphanus raphanistrum</i>	S	4	SA
Ragweed, Common	<i>Ambrosia artemisiifolia</i>	X	2	SA
Ragweed, Giant	<i>Ambrosia trifida</i>	S	4S	SA
Sicklepod	<i>Senna obtusifolia</i>	X	4	SA
Sida, Prickly	<i>Sida spinosa</i>	X	2	SA
Starbur, Bristly	<i>Acanthospermum hispidum</i>	X	2	SA
Velvetleaf	<i>Abutilon theophrasti</i>	S	4S	SA
<u>GRASS WEEDS</u>				
Crabgrass				
Large (Hairy)	<i>Digitaria sanguinalis</i>	X	4	SA
Smooth	<i>Digitaria ischaemum</i>	X	4	SA
Foxtail, Giant	<i>Setaria faberi</i>	X	6	SA
Goosegrass	<i>Elusine indica</i>	S	2	SA
Johnsongrass (Seedling)	<i>Sorghum halepense</i>	X	12	SA
Panicum, Fall	<i>Panicum dichotomiflorum</i>	S	6	SA
Shattercane	<i>Sorghum bicolor</i>	X	12	SA
<u>SEDGES</u>				
Nutsedge				
Yellow	<i>Cyperus esculentus</i>	S	4S	P
Purple	<i>Cyperus rotundus</i>	S	4S	P
Sedge	<i>Juncus sp.</i>	S	4S	A/P

¹X = control, S = suppression in northern United States only

²Maximum plant height at time of application

³Growth habit: A=Annual, SA=Summer Annual, WA=Winter Annual, B=Biennial P=Perennial

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PLATEAU herbicide, 8 to 12 oz per acre

Common Name	Genus Species	PRE ¹	POST ²	Annual/Biennial/Perennial ³
BROADLEAVES:				
Anoda, Spurred	<i>Anoda cristata</i>	X	6	SA
Beggarweed, Florida	<i>Desmodium tortuosum</i>	X	6	SA
Bindweed, Field	<i>Convolvulus arvensis</i>	---	6	P
Burclover	<i>Medicago</i> sp.	---	4	SA
Chickweed, Common	<i>Stellaria media</i>	X	6	SA
Cocklebur, Common	<i>Xanthium strumarium</i>	X	6	SA
Crownbeard, Golden	<i>Verbisina encelioides</i>	X	2	
Fiddleneck	<i>Amsinckia</i> sp.	---	X	SA
Fleabane, Annual	<i>Erigeron annuus</i>	---	X	A
Hemlock, Poison	<i>Conium maculatum</i>	X	6	B
Henbit	<i>Lamium amplexicaule</i>	X	3	WA/B
Indigo, Hairy	<i>Indigofera hirsuta</i>	X	2	P
Jimsonweed	<i>Datura stramonium</i>	X	6	SA
Kochia*	<i>Kochia scoparia</i>	X	3	SA
Lambsquarters, Common	<i>Chenopodium album</i>	X	3	SA
Morningglory				
Cypressvine	<i>Ipomoea quamoclit</i>	X	6	SA
Entireleaf	<i>Ipomoea hederacea</i>	X	6	SA
Ivyleaf	<i>Ipomoea hederacea</i>	X	6	SA
Pitted	<i>Ipomoea lacunosa</i>	X	6	SA
Smallflower	<i>Jacquemontia tamnifolia</i>	X	6	SA
Tall	<i>Ipomoea purpurea</i>	X	6	SA
Nightshade, Silverleaf	<i>Solanum elaeagnifolium</i>	X	6	P
Pigweed	<i>Amaranthus</i> sp.	X	6	SA
Poinsettia, Wild	<i>Euphorbia heterophylla</i>	X	6	SA
Purslane, Common	<i>Portulaca oleracea</i>	X	4	SA
Pusley, Florida	<i>Richardia scapra</i>	X	4	SA
Ragweed				
Common	<i>Ambrosia artemisiifolia</i>	X	3	SA
Giant	<i>Ambrosia trifida</i>	S	6	SA
Western	<i>Ambrosia psilostachya</i>	X		P
Senna, Coffee	<i>Cassia occidentalis</i>	X	4	SA
Sicklepod	<i>Senna obtusifolia</i>	X	6	SA
Sida, Prickly	<i>Sida spinosa</i>	X	6	SA
Spurge				
Leafy	<i>Euphorbia esula</i>	---	FALL*	P
Spotted	<i>Euphorbia maculata</i>	X	4	SA
Toothed	<i>Euphorbia dentata</i>	X	4	SA
Starbur, Bristly	<i>Acanthospermum hispidum</i>	---	6	SA
Thistle				
Bull	<i>Cirsium vulgare</i>	S	X	WA/B
Canada	<i>Cirsium arvense</i>	---	S*	P
Musk	<i>Carduus nutans</i>	S	X	P
Platt	<i>Cirsium canescens</i>	S	X	P
Russian*	<i>Salsola iberica</i>	X	3	A
Vervain, Blue	<i>Verbena hastata</i>	---	S	SA

PLATEAU herbicide, 8 to 12 oz per acre

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<u>Common Name</u>	<u>Genus Species</u>	<u>PRE¹</u>	<u>POST²</u>	<u>Annual/Biennial/Perennial³</u>
GRASS				
Bahiagrass	<i>Paspalum nutatum</i>	S	X*	P
Barley, Little	<i>Hordeum pusillum</i>	X	4	SA
Barnyardgrass	<i>Echinochloa crus-galli</i>	X	6	SA
Cheat	<i>Bromus secalinus</i>	X	4	WA
Crabgrass	<i>Digitaria sp.</i>	X	6	SA
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	X	X	SA
Dallisgrass	<i>Paspalum dilatatum</i>	S	X*	P
Downy Brome	<i>Bromus tectorum</i>	X	4	WA
Dropseed, Tall	<i>Sporobolus cryptandrus</i>	S	X	A/P
Fescue, Tall	<i>Festuca arundinacea</i>	X	X*	P
Foxtail				
Giant	<i>Setaria faberi</i>	X	X	SA
Green	<i>Setaria viridis</i>	X	X	SA
Knotroot	<i>Setaria geniculatus</i>	S	6	SA
Purple Robust	<i>Setaria viridis</i>	S	S	SA
Yellow	<i>Setaria glauca</i>	X	4	SA
Goosegrass	<i>Elusine indica</i>	S	3S	SA
Itchgrass	<i>Rottboellia cochinchinensis</i>	--	X*	SA
Johnsongrass				
Seedling	<i>Sorghum halepense</i>	X	X	SA
Rhizome	<i>Sorghum halepense</i>	--	X*	P
Panicum				
Fall	<i>Panicum dichotomiflorum</i>	X	X	SA
Texas	<i>Panicum texanum</i>	X	X	SA
Ryegrass, Annual (Italian)	<i>Lolium multiflorum</i>	X	X	SA
Sandbur	<i>Cenchrus sp.</i>	S	XS	A/P
Shattercane	<i>Sorghum bicolor</i>	X	X	SA
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	X	X	SA
Smutgrass	<i>Sporobolus indicus</i>	--	X	P
Stinkgrass, Annual	<i>Eragrostis cilianensis</i>	X	2	SA
Vaseygrass	<i>Paspalum urvillei</i>		X	P
SEDGES/RUSHES				
Nutsedge				
Yellow	<i>Cyperus esculentus</i>	S	6	P
Purple	<i>Cyperus rotundus</i>	S	6	P
Rush	<i>Juncus sp.</i>	S	4	A/P

¹X = control, S = suppression in northern United States only

²Maximum plant height in inches at time of application

³Growth habit: A=Annual, SA=Summer Annual, WA=Winter Annual, B=Biennial P=Perennial

*See SPECIAL WEED CONTROL section

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- 1 Trademark of Monsanto Company
- 2 Trademark of E.I. Dupont DeNemours and Company
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- 6 Trademark of AgrEvo Company