241-365

09/12/1997

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SEP 1 2 1997

John J. Wrubel American Cyanamid Company P.O. Box 400 Princeton, NJ 08543-0400

Dear Mr. Wrubel:

Subject: Revised Labeling Plateau Herbicide EPA Registration No 241-365 Your Submission Dated September 5, 1997

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. On page 10 delete "In general,". This phrase is too broad and implies that this product may be applied differently than specified in the directions for use.

b. On page 11 and 13 wherever it appears, delete "User assumes all risks". This phrase negates the precautionary statements appearing on the labeling. If phytotoxic injury may result from use of this product, add phytotoxicity precautions statements such as those that appear in the Switchgrass directions for use on page 11.

2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

James A. Tompkins Product Manager (25) Herbicide Branch Registration Division (7505C)

Enclosure

PLATEAU herbicide

FOR WEED CONTROL, NATIVE GRASS ESTABLISHMENT AND TURF GROWTH SUPPRESSION ON ROADSIDES AND OTHER NONCROP AREAS

ACTIVE INGREDIENT:

(±)-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	<u>76.4%</u>
TOTAL	00.0%

*Equivalent to 22.2% (<u>+</u>)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1<u>H</u>-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

Patent No. 4798619

KEEP OUT OF REACH OF CHILDREN

CAUTION!/PRECAUCION!



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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 973-683-3100.

AMERICAN CYANAMID COMPANY <u>NORTH AMERICA AGRICULTURAL PRODUCTS DIVISION</u> <u>SPECIALTY PRODUCTS DEPARTMENT</u> <u>ONE CAMPUS DRIVE</u> <u>PARSIPPANY, NJ 07054 ©1997</u>

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Net Contents: 1.0 Gallon

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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.

DO NOT use organophosphate insecticides on PLATEAU herbicide treated areas unless severe injury or loss of stand can be tolerated.

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 desired vegetation. Keep containers closed to avoid spills and contamination.

When making new plantings of prairiegrass or wildflowers, carry-over from persistent herbicides such as sulfonyl-urea, imidazolinone, triazine, substituted urea, dinitroanaline, and other herbicides applied the previous year may result in compounded injury or death of desirable vegetation when treated with PLATEAU herbicide.

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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.

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.

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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, Conservation Reserve Program (CRP) land (see USE OF PLATEAU HERBICIDE ON CONSERVATION RESERVE PROGRAM LAND section), 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 bromegrass, wheatgrass, <u>"wildtype"</u> common Kentucky bluegrass, 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.

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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.

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.

SPOT TREATMENTS:

To prepare the spray solution, thoroughly mix in water 0.75 to 1.5% (1 to 1.3 oz/gallon water) PLATEAU herbicide plus an adjuvant (see "SPRAY ADJUVANTS FOR POSTEMERGENCE APPLICATIONS" section). A methylated seed oil is the recommended spray adjuvant. See section on desired species and do not exceed the recommended PLATEAU rate per acre. Also see "WEEDS CONTROLLED" and "SPECIAL WEEDS CONTROLLED" sections for specific rate and/or tank-mix recommendations.

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

AERIAL APPLICATION:

All precautions should be taken to minimize or eliminate spray drift. Fixed wing aircraft and helicopters can be used to apply PLATEAU herbicide, however, DO NOT make when making applications by fixed wing aircraft unless <u>maintain</u> appropriate buffer zones ban be maintained to prevent spray drift out of the target area₃ or when treating open tracts of land, or where spray drift as a result of fixed wing aircraft application can be tolerated. Aerial equipment designed to minimize spray drift such as a helicopter equipped with a MICROFOIL boom, or THRU-VALVE boom or raindrop nozzles, must be used and calibrated. Except when applying with a MICROFOIL boom, a drift control agent may be added at the recommended label rate. To avoid drift,

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applications should not be made during inversion conditions, when winds are gusty, or under any other conditions which promote spray drift.

Uniformly apply recommended amount of PLATEAU herbicide in 5 or more gallons of water per acre, using enough volume to provide adequate coverage of target area or foliage. Include an adjuvant in the spray solution (See "Adjuvants" Section). A foam reducing agent may be added at the recommended rate, if needed.

IMPORTANT: Thoroughly clean application equipment, including landing gear, immediately after use of this product. Prolonged exposure of this product to uncoated steel (except stainless steel) surfaces may result in corrosion and failure of the exposed part. The maintenance of an organic coating (paint) may prevent corrosion.

Avoid overlaps when spraying.

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 choose 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, ARSENAL[®] herbicide, Diuron², Campaign¹, Finale⁵, 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.

DO NOT tank mix with organophosphate insecticides or use the same year as PLATEAU herbicide.

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. Early spring applications may delay green-up of bermudagrass turf. This time frame generally occurs from late September to mid December depending on location in the United States.

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Summer Annual Weeds: For best results, apply PLATEAU herbicide at the rate of 8 to 12 oz per acre preemergence 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 Roundup Pro 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 THE CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED CENTIPEDE GRASS

<u>PLATEAU</u> herbicide may be applied at a rate of 4 to 8 oz per acre to established centipede grass for the control of annual broadleaf and grass weeds. Apply PLATEAU herbicide after centipede grass has reached full greenup. 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 centipede grass from quickly recovering from mowing.

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>	PHY TOTOXICITY	LENGTH OF SUPPRESSION
2 oz	none to low	partial to season long
3 to 6 oz	low to moderate	season long

For winter annual weed control, apply 8 oz of PLATEAU herbicide when bahiagrass is dormant, but when weeds are actively growing. This can be followed by 3 to 4 oz of PLATEAU herbicide in the spring after bahiagrass green-up for the suppression of seedheads and foliage.

Cool Season Grasses:

KY31 Tall Fescue and "Wildtype Common" Kentucky Bluegrass: Apply PLATEAU herbicide at 2 to 4 oz per acre for foliar and seedhead suppression of certain cool season grasses such as <u>"KY31"</u> tall fescue and <u>"wildtype common"</u> 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. <u>Application to turf type tall fescue or Kentucky bluegrass may result in severe injury or</u> loss of stand.

<u>Crested Wheatgrass</u>: Apply PLATEAU herbicide at <u>8 to 12 6 to 10</u> 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. DO NOT apply to turf under stress or severe injury may occur.

FOR CONTROL OF UNDESIRABLE WEEDS IN SMOOTH BROMEGRASS, <u>WILDTYPE</u> COMMON KENTUCKY BLUEGRASS AND CRESTED WHEATGRASS

PLATEAU herbicide may be used on unimproved smooth bromegrass, <u>"wildtype"</u> common Kentucky bluegrass 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 bromegrass and wheatgrass with PLATEAU herbicide may result in foliar height and seedhead suppression.

Smooth Bromegrass and "<u>Wildtype</u>" Common Kentucky Bluegrass: Use PLATEAU herbicide at 4 to 8 oz per acre in the spring for weed control and growth suppression after smooth bromegrass and <u>"wildtype</u>" common Kentucky bluegrass have 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 SPECAL 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.

<u>PLATEAU</u> herbicide should be applied during winter dormancy or early spring to reduce potential injury. <u>Applications made after May, may result in increased injury or defoliation</u>. Addition of surfactants such as <u>dilimenene based or crop oil concentrates will increase injury</u>. Fall applications during the period of active crown vetch growth may result in severe injury or loss of stand.

NATIVE PRAIRIEGRASS RENOVATION AND RESTORATION

PLATEAU herbicide may be applied at the rate of 4-2 to 12 oz per acre to newly established or existing stands of big-bluestem, little bluestem, Indiangrass, sideoats grama and blue grama labeled species (see below for details) in such areas as roadsides, industrial sites, prairie restoration sites, drainage ditch banks, and other such noncropland areas. Certain local ecotypes or varieties may be suppressed by PLATEAU herbicide. Many factors such as poor seedling vigor, cool temperatures, poor soil, planting depth, excessive moisture, disease, insects and dry weather after emergence can all result in poor stands. Additional stress of herbicide residue, poor soils and other factors contributing to poor seedling vigor can also increase injury and could result in mortality,

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American Cyanamid can not be held responsible for such unforeseen factors. It is suggested to try PLATEAU herbicide on a small area if tolerance is not known. PLATEAU herbicide controls many annual and perennial grass and broadleaf weeds. Weed competition is reduced allowing prairiegrass seedlings 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).

PLATEAU herbicide may be applied at a rate of up to 4 oz per acre to Federal Conservation Reserve Program (CRP) land for the establishment or release of big bluestem, little bluestem, Indiangrass, sideoats and blue grama.

Establishment: For optimum results in establishing <u>mixed</u> prairiegrass stands with PLATEAU herbicide, make application <u>at planting</u>. 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. <u>PLATEAU</u> herbicide will control annual weeds preemergence or early postemergence. See "WEEDS CONTROLLED" section for maximum height of weeds and see below for more details on best rate and timing for prairiegrass and wildflower species. Postemergence applications may result in stand thinning due to variability in seedling grasss tolerance to the use of spray adjuvants. Seedling grasses are generally more tolerant to the use of spray adjuvants after they have reach the five leaf stage. When planting into a field which was row cropped the previous year, compounded injury may occur from herbicide carry-over (See "DIRECTIONS FOR USE" section).

Rates and Control: PLATEAU herbicide applied at 4 oz per acre will provide control and/or suppression of some annual grass and broadleaf weeds particularly in the states of Wisconsin, Michigan, Minnesota, South Dakota, North Dakota, and Nebraska. 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 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 initial height suppression of prairiegrass. The duration and intensity of suppression are directly related to weed pressure, soil type and environmental conditions. (In general, apply PLATEAU herbicide at 2 to 6 oz per acre to fields cropped the previous year, when annual weeds are the larget and/or if grass/forb mixtures are used. PLATEAU herbicide at 2 to 6 oz per acre will provide control and/or suppression of many annual grass and broadleaf weeds. Use lower rates when in the northern most U.S., dry climates or for late season plantings into clean seedbeds. Use higher rates in heavy weed pressure, heavy residue, high organic matter, high rainfall and long growing season (southern portions of Illinois, Indiana, Missouri and Ohio, etc.). Apply PLATEAU herbicide at 8 to 12 oz per acre for giant ragweed or for perennial weed control/suppression. PLATEAU herbicide rates of 8 to 12 oz per acre may result in stunting or stand thinning. The duration and intensity of suppression are directly related to weed pressure, chemical residue, soil type and environmental conditions. See below for details for particular grass tolerances and timings.

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.

Big Bluestem, Little Bluestem and Indiangrass: PLATEAU herbicide may be applied at the rate of 4 to 12 oz per acre at planting, or any time thereafter, including after seedling grasses have emerged or to perennial stands (dormant or actively growing). See weed control section for desired rate. Use the lower rates in Wisconsin,

Michigan, Minnesota, South Dakota, North Dakota, and Nebraska and higher rates as rainfall and/or growing season increases.

Switchgrass (*Panicum virgatum*): PLATEAU herbicide is not recommended for the establishment of <u>pure</u> switchgrass <u>stands</u> as severe injury or death may result. <u>PLATEAU herbicide may be applied at a rate of 2 to 4</u> oz per acre if switchgrass is planted in mixed stands with tolerant species, but only if some stand thinning or loss of stand can be tolerated. 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: User assumes all risks when making applications of PLATEAU herbicide to monoculture stands of sideoats and blue grama. PLATEAU herbicide may be applied at the rate of 2 to 8 oz/A plus an adjuvant to aid in the establishment of sideoats and blue grama after new seedlings have emerged and reached the five (5) leaf stage. When using PLATEAU herbicide at 8 oz per acre it is not recommended to use in combination with a methylated seed oil adjuvant as stand thinning may occur. The lower rates may provide adequate weed suppression in early summer plantings in the states of Wisconsin, Michigan, Minnesota, South Dakota, North Dakota, and Nebraska and other states where growing degree days are short. Sideoats and blue grama have shown tolerance to PLATEAU herbicide at 2 to 4 oz/A, applied pre-emergence at planting, however, some stand thinning may occur. For weed control in established stands use 4 to 10 oz/A of PLATEAU herbicide. Up to 12 oz/A of PLATEAU herbicide may be applied, but may result in foliar and/or seedhead suppression, or in the injury of sideoats and blue grama, depending on surfactant choice, soil type, variety, weed pressure and environmental conditions.

Buffalograss: Apply PLATEAU herbicide at the rate of -4 - 2 to 4 oz/A for control or suppression of labeled weeds and to aid in the establishment of newly sprigged buffalograss. For established stands, PLATEAU herbicide may be applied at the rate of -4 - 2 to 8 oz/A for weed control. Higher rates may cause some turf discoloration and stunting. PLATEAU herbicide may be applied to dormant buffalograss to control winter annual weeds. Turf type buffalograss may express different tolerance level to PLATEAU herbicide than wild type buffalograss. Some turf types can tolerate low rates of PLATEAU herbicide at seeding. Consult seed dealer for details.

Eastern Gamagrass. User assumes all risk. Apply PLATEAU herbicide at 2 to 6 oz per acre at planting prior to gammagrass emergence. Stand thinning and stunting is imminent. Adverse conditions, poor soils, or added stress to the gammagrass could result in stand mortality. Postemergence application to seedlings will cause mortality. On established Eastern gammagrass, apply PLATEAU herbicide at 2 to 8 oz per acre prior to gammagrass breaking dormancy. Some stunting will occur and increases as the PLATEAU herbicide rate increases. Applications made during or after green-up may result in foliar and seedhead suppression and possible mortality of weak plants.

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 2 pints per acre in established stands of or to prepare a seed bed for big bluestem, little bluestem, and indiangrass. 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 the boot stage or has reached summer dormancy, control may be poor. For improved control of tall fescue, PLATEAU herbicide may be tank mixed with Accord, Roundup Pro, or glyphosate. Fall applications of PLATEAU herbicide at 8 to12 oz/A plus 24 to 64 oz/A Accord or Roundup Pro will result in best control of existing tall fescue and new germinating seedlings. With spring applications of PLATEAU herbicide at 6 to 12 oz/A, plus a Accord or Roundup Pro at 32 to 64 oz/A, use higher rates for older, mature fescue stands and lower PLATEAU herbicide rates when planting forbs. When using 8 oz/A of PLATEAU herbicide in the fall with a glyphosate product, it is recommended to apply 4 oz/A PLATEAU herbicide in the spring at planting for annual weed and seedling fescue control. Burning the fescue stand, where permitted, the following spring, just prior to

green-up, will aid in control and provide a better seedbed for planting. Mowing the fescue several times the summer before fall application, will weaken the fescue root system, making it more susceptible to herbicides. Always allow for at least 10 inches of regrowth, following the last mowing before spraying, as both PLATEAU herbicide and glyphosate products need foliage present for herbicide uptake and satisfactory control.

Prairiegrass		PLATEAU herbi	cide Rate (oz/A) ²
Common Name	Genus species	New Seeding	Established
Big Bluestem	Andropogon gerardii	4-12	4-12
Little Bluestem	Andropogon scoparius	4-12	4-12
Indiangrass	Sorghastrum nutans	4-12	4-12
Bushy Bluestem	Andropogon glomeratus		4-12
King Ranch Bluestem	Bothriochloa ischaemum		4-12
Silver Beard Bluestem	Bothriochloa saccharoides		4-12
Broomsedge	Andropogon virginicus		4-12
Fingergrass, Rhodes grass	Choris spp.		4-12
Needlegrass	Stipa spp.		4-12
Kearny (Plains) Threeawn	Aristida longespica		4-12
Prairie Threeawn	Aristida oligantha		4-12
Prairie Sandreed	Calamovilfa longifolia	÷	<u>4-12</u>
Sideoats Grama	Bouteloua curtipendula	.8 <u>2−8</u> ³	<u>2-</u> 12
Blue Grama	Bouteloua gracilis	8 <u>2-8</u> 3	<u>2-</u> 12
Buffalograss	Buchloe dactylodes	₀ - 4 - <u>2-4</u>	<u>-4-2</u> -8
Eastern Gammagrass	<u>Tripsacum dactyloides</u>	<u>2-63</u>	<u>2-8</u>

NATIVE PRAIRIEGRASS RENOVATION AND RESTORATION

¹ See individual grass sections for application timing.

 2 High rates may result in stunting and growth suppression.

³ PLATEAU herbicide preemergence applications to newly seeded sideoats and blue grama may results in some stand thinning or loss of stand.

WILDFLOWER ESTABLISHMENT AND MAINTENANCE

User assumes all risk. Due to high degree of variation in genotypes, ecotypes and varieties of wildflowers, tolerances to PLATEAU herbicide may be reduced under certain soil types and environmental conditions. Preemergence applications of low use rates (4 oz/A) to tolerant species, result in the least amount of injury, but may not eliminate it. Postemergence applications of PLATEAU herbicide can result in injury or death of some genotypes, and should be used only as a rescue treatment when weed competition threatens the stand. Use of certain spray adjuvants can also increase wildflower injury and loss of stand. Although most legumes listed in the tolerance table are tolerant to 4 oz/A of PLATEAU herbicide preemergence, some stand thinning may occur. Legumes are more tolerant to post applications, but chlorosis or stunting is possible. Recommendations listed in the tables below are designed for mixed grass/wildflower stands. Less than satisfactory results may occur from applications to monoculture stands. It is recommended to try on a small scale to determine degree of satisfaction on monoculture stands.

For use in wildflower beds: Certain wildflowers have shown tolerance to PLATEAU herbicide applied preemergence and/or postemergence. Apply PLATEAU herbicide at the rate of 4 to 6 oz per acre plus a silicone or nonionic surfactant to wildflower beds when weed competition threatens establishment or preservation of stand. Do not use a methylated seed oil or add fertilizer after seedling wildflowers have emerged or severe injury or death of some species may occur. Do not use if injury can not be tolerated. Species listed in the table below will outgrow early phytotoxicity. Higher rates may cause delayed flowering and/or height suppression of some species. Late postemergence applications (at bolting, bud or bloom set) on seedling and established beds will delay or prevent bloom. Combinations with PENDULUM[®] herbicide will provide broad spectrum grass and broadleaf weed control (see PENDULUM herbicide label for tolerant species).

For prairiegrass/wildflower mixtures For wildflower mixes in prairie or roadside type plantings: Where some wildflower injury (phytotoxicity, height suppression) can be tolerated, apply PLATEAU herbicide at the rate to achieve desired weed control, but not to exceed tolerance rate listed in the table below. Wildflower injury can be reduced or eliminated with pre-emergence applications. To minimize injury, apply PLATEAU herbicide at 4 oz per acre at planting to tolerant species listed below. If postemergence application is made to established prairiegrass/wildflower mixtures, use the lowest rate of PLATEAU herbicide necessary to achieve desired weed control (see "WEEDS CONTROLLED" section). Postemergence application can result in stand thinning or death due to vast variation in seed sources, varieties and genotypes. It is recommended that a small area be tested prior to full application for tolerance of desired species. The rates listed below are for those species in which acceptable tolerance has been confirmed on the varieties/genotypes being treated.

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

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Seedling Wildflower and Legume Tolerance to PLATEAU herbicide (maximum rate¹, oz/A).

Annan Nama	Conus Spacies	PRF	POST
Common Name	Medianzo activa	INE	8
Alfana Del Dias Forma	Medicugo suliva	0	1
Baby Blue Eyes	Cilin triaglar	0	
Bird's Eyes		0	
Bisnop's Flower	Anuni majus De ll'estriste	0 0 /	/ 4 ·
Blackeyed Susan	Ruabeckia niria	°/	0
Blanketflower	Gaillardia aristala	. 0	0
Bundleflower, Illinois	Desmanthus illinoensis		12
Catchfly	Silene armeria		4
Chickory	Cichorium intybus	/ 4	6
Clover, Crimson	Trifolium incarnatum	8	6
Clover, White	Trifolium repens	0	8
Coneflower, Upright Prairie	Ratibida columnifera	4	6
Coneflower, Purple	Echinacea purpurea	8	8
Coreopsis, Dwarf Red Plains	Coreopsis tinctoria var. Gay Feather	4	6
Coreopsis, Plains	Coreopsis tinctoria	6	6
Coreopsis, Lance Leaved	Coreopsis lanceolata /	- 12	· `
Cornflower	Centaures cyanus	0	6
Cosmos spp.	Cosmos spp.	8	8
Cosmos, Yellow	Cosmos sulphareus	8	8
Daisy, Ox-eye	Chrysanthemum xeucanthermum	8	8
Daisy, Shasta	Chrysanthemum maximum	4	8
Flax, Blue	Linum perenne	0	4
Five Spot	Nemophila maculata	0	4
Gayfeather, Spiked (Liatris)	Liatris pycnostachya	4	
Indian Blanket	Gaillardia pulchella	0	6
Johnny Jump-ups	Viola cornuta	8	8
Lupine, Perennial	Lupinu perennis	12	6
Lespedeza, Bicolor	Lespedeza	8	· 8
Lespedeza, Sericea /	Lespedeza cuneata	<u> </u>	8
Mexican Hat	Ratibida columnaris	$\sqrt{4}$	6
Lemon Mint	Monarda citriodora	\mathbf{v}	4
Partridgepea /	Cassia fasciculata	12	12
Phlox, Drummond	Phlox drummondii	12	0
Poppy, California	Eschscholzia californica	4	
Poppy, Red Corn	Papaver sp.	8	$\setminus 6$
Poppy, Corn	Papaver rhoeas	6	à
Prairieclover, Purple	Petalostermon purpureum	4	12
Sunflower /	Helianthus annuus	6	0 \
Tickclover	Desmodium sp.	. 4	\
Vetch, Crown	Coronilla varia	4	
Yarrow, Gold	Achillea filipendulina	0	8 2

¹Height suppression or stand reduction may occur at maximum use rate. For legumes, at least three true haves should be present before a postemergence application. ² May not flower Seedling Wildflower and Legume Tolerance to PLATEAU herbicide (4 oz/A)-¹ in mixed grass/forb stands

Common Name	Genus Species	PRE	POST
Alfalfa	Medicago sativa	No	Yes
Baby Blue Eves	Nemophila menziestii	No	Yes
Bird's Eves	Gilia tricolor	No	Yes
Bishop's Flower	Anuni majus	No	Yes
Blackeved Susan	Rudbeckia hirta	Yes	Yes
Blanketflower	Gaillardia aristata	No	Yes
Bundleflower, Illinois	Desmanthus illinoensis	Yes	Yes
Catchfly	Silene armeria	No	Yes
Chicory	Cichorium intybus	Yes	Yes
Clover, Crimson	Trifolium incarnatum	Yes	Yes
Clover, White	Trifolium repens	No	Yes
Coneflower, Purple	Echinacea purpurea	Yes	Yes
Coneflower, Upright Prairie	Ratibida columnifera	Yes	Yes
Coreopsis, Dwarf Red Plains	Coreopsis tinctoria var. Gay Feather	Yes	Yes
Coreopsis, Lance Leaved	Coreopsis lanceolata	Yes	Yes
Coreopsis, Plains	Coreopsis tinctoria	Yes	Yes
Cornflower	Centaurea cyanus	No	Yes
Cosmos, Garden	Cosmos bipinnatus	Yes	Yes
Cosmos, Yellow	Cosmos sulphureus	Yes	Yes
Daisy, Ox-eye	Chrysanthemum leucanthermum	Yes	Yes
Daisy, Shasta	Chrysanthemum maximum	Yes	Yes
Five Spot	Nemophila maculata	No	Yes
Flax, Blue	Linum perenne	No	Yes
Indian Blanket	Gaillardia pulchella	No	Yes
Johnny Jump-ups	Viola cornuta	Yes	Yes
Lemon Mint	Monarda citriodora	No	Yes
Lespedeza, Bicolor	Lespedeza	Yes	Yes
Lespedeza, Sericea	Lespedeza cuneata	No	Yes
Lupine, Perennial	. Lupinu perennis	Yes	Yes
Mexican Hat	Ratibida columnaris	Yes	Yes
Partridgepea	Cassia fasciculata	Yes	Yes
Phlox, Drummond	Phlox drummondii	Yes	No
Poppy, California	Éschscholzia californica	Yes	No
Poppy, Corn	Papaver rhoeas	Yes	Yes
Poppy, Red Corn	Papaver sp.	Yes	Yes
Prairieclover, Purple	Petalostermon purpureum	Yes	Yes
Tickclover	Desmodium sp.	Yes	
Vetch, Crown	Coronilla varia	Yes	
Vetch, Hairy	Vicia villosa	Yes	
Yarrow, Gold	Achillea filipendulina	No	Yes

¹ For legumes, at least three true leaves should be present before a postemergence application.

Perennial Wildflower and Legume Tolerance to PLATEAU herbicide (maximum rate¹, oz/A) in mixed grass/forb stands.

Common Name	Genus Species	PRE	POST ²
Flax. Blue	Linum perenne	0	6
Indian Blanket	Gaillardia pulchella	0	6
Blanketflower	Gaillardia aristata	0	8
Chickory	Cichorium intybus	4	6
Daisy. Shasta	Chrysanthemum maximum	4	8
Prairieclover, Purple	Petalostermon purpureum	4	12
Coneflower, Upright Prairie	Ratibida columnifera	6	6
Mexican Hat	Ratibida columnaris	6	6
Poorjoe	Diodia teres	8	
Lupine	Lupinu perennis	8	6
Coneflower, Purple	Echinacea purpurea	8	8
Daisy, Ox-eye ³	Chrysanthemum leucanthermum	8	. 8
Leadplant	Amorpha canescens	8	8
Lespedeza, Bicolor	Lespedeza	8	8
Milkweed, Common	<u>Asclepias syriaca</u>	- <u>8</u>	· <u></u>
Yarrow, Gold ³	Achillea filipendulina	8	8
Blackeyed Susan	Rudbeckia hirta	8	10
Johnny Jump-ups	Viola cornuta	8	12
Sweetclover	Melilotus sp.	12	8
Alfalfa (established)	Medicago sativa	12	12
Bundleflower, Illinois	Desmanthus illinoensis	-4- <u>12</u>	12
Lespedeza, Sericea	Lespedeza cuneata	12	12
Partridgepea	Cassia fasciculata	12	12
Sensitive vine	Mimosa strigillosa	12	12
Vetch, Crown	Coronilla varia	12	12
Violet, Wild	Viola spp.	12	12

¹ Height suppression or stand reduction may occur at maximum use rate. For legumes, at least three true leaves should be present before a postemergence application.

² Postemergence application should be made early post on the flowers to reduce injury and increase flower set. ³ Will not flower.

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Wildflower Establishment with PLATEAU herbicide 4 oz/A + PENDULUM herbicide 2 LB <u>a.i.</u>/A¹

Common Name	Genus Species	PRE ²	POST ³
Blackeyed Susan	Rudbeckia hirta	Yes	Yes
Blanketflower	Gaillardia pulchella	No	Yes
Bundleflower, Illinois	Desmanthus illinoensis	>50% thinning	Yes
Clover, Crimson	Trifolium incarnatum	>50% thinning	Yes
Coneflower, Clasping	Dracopsis amplexicaulis	Yes	Yes
Coneflower, Upright Prairie	Ratibida columnifera	No	OK
Coneflower, Purple	Echinacea purpurea	Yes	Yes
Coreopsis, Dwarf Red Plains	Coreopsis tinctoria var. Gay Feather	OK stunting	OK stunting
Coreopsis, Plains	Coreopsis tinctoria	OK stunting	Yes
Coreopsis, Lance Leaved	Coreopsis lanceolata	25% thinning	Yes
Cornflower	Centaurea cyanus	No	OK 20% thinning
Cosmos, Garden	Cosmos bipinnatus	OK 10% thinning	OK stunting
Cosmos, Yellow	Cosmos sulphureus	Yes	Yes
Daisy, Ox-eye	Chrysanthemum leucanthermum	25% thinning	Yes
Daisy, Shasta	Chrysanthemum maximum	marginal-OK 20% thinning	Yes
Lupine, Perennial	Lupinu perennis	Yes	≤50% thinning
Partridgepea	Cassia fasciculata	25% thinning	Yes
Poppy, California	Eschscholzia californica	Yes	25% injury stunting, thinning
Sunflower	Helianthus annuus	, OK. stunting	. No
Yarrow, Gold	Achillea filipendulina	OK thinning	ОК

 $\frac{1}{2}$ lbs ai/A = 2.4 qts of PENDULUM herbicide 3.3 EC or 3.3 lbs of PENDULUM herbicide WDG

² Preemergence at planting

³ Postemergence to seedlings

Yes = no injury

No = results in no wildflower germination or unacceptable injury to seedling flowers.

OK = can be used if thinning and/or stunting can be tolerated or if establishment is threatened by weed competition.

Pro-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. <u>Try on a limited area to verify tolerance in a specific area.</u>

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 herbicide 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 to 12 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. Consecutive year applications will optimize long term control. PLATEAU herbicide at 12 oz/A applied spring or fall, or 4 oz/A in the spring following an 8 oz/A fall treatment may result in excessive injury to cool season grasses in some areas. For best results, always use a methylated seed oil at 2 pints per acre. plus 2 Two pints per acre of Nitrogen fertilizer (See Adjuvant Section) may also be added to the spray tank to increase leafy spurge control, however, this may increase injury to desired species of grasses and forbs. 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 late August through September 15; for Nebraska and Iowa is mid 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 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.

Fall applications of PLATEAU herbicide at 8 to12 oz/A plus a Accord or Roundup Pro at 24 to 64 oz/A will result in best control of existing tall fescue and new germinating seedlings. With spring applications of PLATEAU herbicide at 6 to 12 oz/A, plus Accord or Roundup Pro at 32 to 64 oz/A, use higher rates for older, mature fescue stands and lower PLATEAU herbicide rates when planting forbs. When using 8 oz/A of PLATEAU herbicide in the fall with Accord or Roundup Pro, it is recommended to apply 4 oz/A PLATEAU herbicide in the spring at planting for annual weed and seedling fescue control. Burning the fescue stand, where permitted, the following spring, just prior to green-up, will aid in control and provide a better seedbed for planting. Mowing the fescue several times the summer before fall application, will weaken the fescue root system, making it more susceptible to herbicides. Always allow for at least 10 inches of regrowth, following the last mowing before spraying, as both PLATEAU herbicide and Roundup products need foliage present for herbicide uptake and satisfactory control.

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.

SOFT RESIDUAL BAREGROUND WEED CONTROL

PLATEAU herbicide at 12 ounces per acre may be tank mixed with ARSENAL herbicide, PENDULUM herbicide, SAHARA® herbicide, Roundup Pro, Escort, Oust, Karmex², diuron, or other labeled products to provide total vegetation control. For maximum weed control, use 2 pints per acre of methylated seed oil as an adjuvant. The addition of a nitrogen fertilizer may aid in weed control (see ADJUVANTS section for recommendation).

Spot Treatments: PLATEAU herbicide may be used to control weed encroachment in bareground or total vegetation control situations. To prepare the spray solution, thoroughly mix in each gallon of water 3 to 5% volume/volume (4.0 oz to 5.4 oz per gallon) PLATEAU herbicide plus a methylated seed oil adjuvant.

USE OF PLATEAU HERBICIDE ON FEDERAL CONSERVATION RESERVE PROGRAM (CRP) LAND

PLATEAU herbicide may be used on Federal Conservation Reserve Program (CRP) land at rates up to 4 oz. per acre per year (see minimum plant-back intervals below). See appropriate section of this label for specific instructions for the intended use. DO NOT use rates higher than 4 oz per acre per year on CRP land.

MINIMUM PLANT-BACK INTERVALS (months after PLATEAU herbicide application)				
4	9	18	26	40
Bahiagrass Rye Wheat	Field Corn Snapbeans Southern Peas Soybeans Tobacco	Barley Cotton* Grain Sorghum Oats Sweet Corn	All crops not otherwise listed	Canola Potatoes Red Table Beets Sugar Beets

*For <u>Arizona</u>, New Mexico, Oklahoma, and Texas only: Cotton may be planted 18 months after PLATEAU herbicide application in the states of <u>Arizona</u>, New Mexico, Oklahoma, and Texas unless drought conditions develop the year of PLATEAU herbicide application. DO NOT rotate to cotton at 18 months after PLATEAU herbicide application if less than 15 inches of rainfall or irrigation is received from the time of PLATEAU herbicide application through November 1 of the same year. If drought conditions develop the year of PLATEAU herbicide application, cotton may be planted 26 months after PLATEAU herbicide application.

Use of PLATEAU herbicide in accordance with label directions is expected to result in normal growth of plantback crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, plant-back crop injury is always possible.

TOLERANCE OF TREES AND BRUSH TO PLATEAU HERBICIDE

DO NOT use PLATEAU herbicide on nursery, orchard, ornamental plantings, new plantings or seedling trees. It is suggested that PLATEAU herbicide be tried on a limited basis to determine tolerance in your area. User assumes all risk. PLATEAU herbicide may be used at rates up to 12 oz per acre for general weed control in and around established trees on roadsides, prairies and other noncropland areas used for wildlife cover, erosion control, wind breaks, etc. Tree and brush species known to have acceptable tolerance to PLATEAU herbicide when applied under the canopy and/or to the foliage are listed below. Tolerance is based upon trees with a minimum of 2 inch DBH. Some species may exhibit tip chlorosis and minor necrosis. Foliar contact may increase injury to include defoliation and terminal death.

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Tolerant Brush and Tree Species to PLATEAU herbicide at 12 oz per Acre1

Common Name	Genus Species	Tolerance by Application Method ²		
	<u></u>	Directed below foliage	<u>To foliage</u>	
Walnut, American Black	Juglans nigra	Yes	No	
Locust. Black	Robinia pseudoacacia	Yes	Yes	
Locust, Honey	Gleditsia triacanthos	Yes	<u>NR</u>	
Elm, American	<u>Ulmus americana</u>	Yes	Yes	
Elm, Slippery	<u>Ulmus rubra</u>	Yes	Yes	
Maple, Sugar	Acer saccharum	· <u>Yes</u>	<u>NR</u>	
Maple, Red	Acer rubrum	Yes	<u>NR</u>	
Boxelder	Acer negundo	Yes	<u>Injury</u>	
Ash, Green	Fraxinus pennsylvanica	Yeş	<u>NR</u>	
Ash, Blue	Fraxinus quadrangulata	Yes	NR	
Dogwood, Grey	Cornus racemosa	Yes	<u>Injury</u>	
Poplar, Yellow (Tulip)	<u>Liriodendron tulipfera</u>	Yes	<u>NR</u>	
Oak, Black	<u>Quercus velutina</u>	Yes	<u>NR</u>	
Oak, White	<u>Quercus alba</u>	Yes	<u>NR</u>	
Oak, Southern Red	Quercus falcata	Yes	<u>NR</u>	
Redcedar, Eastern	Juniperus virginiana	Yes	Yes	
Cottonwood	<u>Populus deltoides</u>	Yes	<u>NR</u>	
Sycamore	<u>Plantanus occidentalis</u>	Yes	<u>No</u>	
Hackberry	<u>Celtis occidentalis</u>	Yes	Yes	
Sugarberry	<u>Celtis laevigata</u>	Yes	Yes	
Cherry, Sweet ³	<u>Prunus avium</u>	Yes	NR	
Cherry, Black ³	<u>Prunus serotina</u>	Yes	No	
<u>Peach (Var. Elberta)³</u>	Prunus persica	Yes	<u>NR</u>	
<u>Apple (Var. Winesap)³</u>	<u>Malus sylvestris</u>	Yes	NR	
<u>Pine, White⁴</u>	<u>Pinus strobus</u>	Yes	Yes	
Tree-of-Heaven	<u>Ailanthus altissima</u>	Yes	NR	
<u>Osage Orange</u>	<u>Maclura pomifera</u>	Yes	NR	
Mulberry, Red	<u>Morus rubra</u>	Yes	<u>NR</u>	
Mulberry, White	<u>Morus alba</u>	Yes	<u>NR</u>	
<u>Buckeye, Ohio</u>	<u>Aesculus glabra</u>	Yes	<u>NR</u>	
Rose, Multiflora	<u>Rosa multiflora</u>	<u>Yes⁵</u>	No	

1_Not intended for nursery, orchard, ornamental plantings, new plantings or seedling trees.

2 Yes = Tolerant

No = Not Tolerant, Severe injury or death

NR = Not Recommended due to insufficient tolerance data

<u>3</u> Not for use on ornamental or fruit bearing trees

4 Applications made just before or during candling may cause candle injury or death.

5 Possible defoliation and/or death. Some species may exhibit tip chlorosis and minor necrosis. If spray contacts foliage then defoliation and terminal death may occur.

WEEDS CONTROLLED

PLATEAU herbicide, 4 to 6 oz per acre

Common Name	Genus Species	PREI	POST ²	Annual/Biennial/Perennial ³
BROADLEAVES	·			
Bedstraw Catchweed	Galium anarine	х	4	SA
Beggarweed Florida	Desmodium tortuosum	$\frac{1}{X}$	$\frac{1}{2}$	\overline{SA}
Buffalohur	Solanum rostratum		x	SA
Cocklebur Common	Yanthium strumarium	· ·	6	SA
Lemberwarters Common	Chanonodium album	x	2	SA
Lamosquarters, Common	Chenopoulum album		2	571
Entireleaf	Inomora hederacea	S	3	SA
Liniferent	Inomoea hederacea	S	3	SA
Tall	Inomoga purpurga	S	3	SA
Tall Mustand Wild	Prossing kahar	v	v	SA S
Nustard, wild	Amananthus sp	v <u>A</u> V	· <u>A</u>	SA SA
Pigweed	Amaraninus sp.	л	1	B
Queen Anne's Lace	Daucus carola	·	· ±	D SA
Kadish, Wild	Raphanus raphanistrum	s v	4	
Yellow Rocket	Barbarea vulgaris	· <u>A</u>	4	
Sicklepod	Senna obtusifolia	X	4	SA
Sida, Prickly	Sida spinosa	Х	2	SA
Smartweed	.			
<u>Ladysthumb</u>	<u>Polygonum persicaria</u>	<u>X</u>	<u>X</u>	<u>SA</u>
Pennsylvania	<u>Polygonum pensylvanicum</u>	- <u>X</u>	۰ <u>X</u>	<u>SA</u>
Swamp	<u>Polygonum coccineum</u>	<u>X</u>	<u>'X</u>	<u>SA</u>
Starbur, Bristly	Acanthospermum hispidum	Х	2	SA
Velvetleaf	Abutilon theophrasti	: S <u>X</u>	<u>.48 6</u>	SA
GRASS WEEDS				
Brome, Downy	Bromus tectorum	. X	. 4	WA
Crabgrass	<u></u>		<u> </u>	
Large (Hairy)	Digitaria sanguinalis	x	4	. SA
Smooth	Digitaria ischaemum	x	4	SA
Foxtail Giant	Setaria faheri	x	6	SA
Goosegrass	Flusing indica	S S	2	SA
Johnsongrass (Seedling)	Sorahum halanansa	x	12	SA SA
Danicum Fall	Panicum dichotomiflomm	л с	6	5A 5 A
Shatteroane	Songhum bicolon	o v	12	
Snattercane	Sorgnum Dicolor	Λ	12	5A
<u>SEDGES</u>				
Nutsedge				
Yellow	Cyperus esculentus	· S	4S	Р
Purple	Cyperus rotundus	S	4S	Р
Sedge	Juncus sp.	S	4S	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

•					25/28
Common Name	PLATEAU herbicide,	8 to 12 oz	per acre	A must /D 1/D 1/3	
<u>Common Name</u>	Genus Species	PRET	<u>P051-</u>	Annual/Biennial/Perennial?	•
BROADLEAVES:					
Anoda, Spurred	Anoda cristata	Х	6	SA	
Bedstraw, Catchweed	<u>Galium aparine</u>	<u>X</u>	<u>X</u>	<u>A</u>	
Bedstraw, Swamp	<u>Galium spp.</u>	<u>X</u>	<u>X</u>	<u>A</u>	
Beggarweed, Florida	Desmodium tortuosum	Х	6	SA	
Bindweed, Field	Convolvulus arvensis		6 <u>X</u>	Р	
Buffalobur	<u>Solanum rostratum</u>	·	X	<u>SA</u>	
Burclover	Medicago sp.		4	SA	
Chickweed, Common	Stellaria media	Х	6	SA	
Cocklebur, Common	Xanthium strumarium	Х	6	SA	
Crownbeard, Golden	Verbisina encelioides	Х	2		
Dock, Curly	Rumex crispus	Х	6	В	
Fiddleneck	Amsinckia sp.		x	SA	
Fleabane. Annual	Erigeron annuus		x	Δ	
Geranium, Cranesbill	Geranium maculatum	x	x	D D	
Ground Cherry	Physalis heteronhulla	<u>A</u>	A V		
Hemlock Poison	Conjun maculatum	 v	<u>A</u> 6	. <u>r</u> D	
Henhit	Lamium annericante	· V	0		
Houndstongue Bristly	Comoglossum officingle	A V	S V	WA/B	,
Indigo Hainy	Undigoforg hirauta		<u>A</u>	B	
limsonweed	Datum atmosfera	A V	2.	P	
Koobio*	Datura stramontum	X	6	SA	•
Lombaguartens Community	Kochia scoparia	. <u>X</u>	3	SA	
Lamosquarters, Common	Chenopodium album	Х	3	SA	
Morninggiory					•
Cypressvine	Ipomoea quamoclit	X	6	SA	
Entireleaf	Ipomoea hederacea	Х	6	SA	
lvyleat	Ipomoea hederacea	X	6	SA	
Pitted	Ipomoea lacunosa	Х	6	SA	
Smallflower	Jacquemontia tamnifolia	Х	6	SA	
Tall	Ipomoea purpurea	. X	6	• SA	
<u>Mustard, Wild</u>	<u>Brassica kaber</u>	. <u>X</u>	<u>X</u>	SA	
Nightshade, Silverleaf	Solanum elaeagnifolium	X	6	P	
Pigweed	Amaranthus sp.	Х	6	SA	
Plantain, Narrowleaf	<u>Plantago lanceolata</u>	X	×x	, B	
Poinsettia, Wild	Euphorbia heterophylla	x	$\overline{6}$	SĀ	
Puncture Vine	Tribulus terrestris		х	SA	
Purslane, Common	Portulaca oleracea	$\frac{1}{X}$	4	SA	
Pusley, Florida	Richardia scapra	X	4	SA	
Queen Anne's Lace	Daucus carota	X	x	B	
Ragweed			71	В	
Common	Ambrosia artemisiifolia	x	3	5 4	
Giant	Ambrosia trifida	S	6	5A 5A	
Western	Ambrosia nyilostachya	S	e v	5A A/D	
Rocket Vellow	Barbarea yulaaris	· • •	v v		
Senna Coffee	Cassia occidentalia		÷ <u>∧</u>	<u>WA</u>	
Sicklenod	Sanna obtivitatia		4		
Sida Prickly	Sida eniuena		0	SA	
Smartweed	siaa spinosa	Х	6	SA	
	Deluzio	. ,			
	rolygonum persicaria	9 <u>X</u>	* <u>X</u>	4 <u>SA</u>	

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Pennsylvania	<u>Polygonum pensylvanicum</u>	. <u>X</u>	, <u>X</u>	<u>SA</u>	•
Swamp	Polygonum coccineum	<u>X</u>	<u>X</u>	<u>SA</u>	
Spurge					
Leafy	Euphorbia esula		FALL*	Р	
Spotted	Euphorbia maculata	X	4	SA	
Toothed	Euphorbia dentata	X	4	. SA	
Starbur, Bristly	Acanthospermum hispidum		6	SA	
Starthistle, Yellow	<u>Centaurea solstitialis</u>		<u> </u>	<u>A</u>	
Sunflower	Helianthus annuus	-	18	SA	
Thistle					
Bull	Cirsium vulgare	S	Х	WA/B	
Canada	Cirsium arvense		S*	Р	
Musk	Carduus nutans	S	Х	. ₽ <u>B</u>	
Platt	Cirsium canescens	S	X	Р	
Russian*	Salsola iberica	Х	3	А	
Velvetleaf	<u>Abutilon theophrasti</u>	X	<u>X</u>	<u>A</u>	
Vervain, Blue	Verbena hastata		S	SA	
Woodsorrel, Yellow	<u>Oxalis stricta</u>	<u>X</u>	- <u>X</u>	· <u>P</u>	

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PLATEAU herbicide, 8 to 12 oz per acre

Common Name	Genus Species	PRE	POST ²	Annual/Biennial/Perennial ³
Common Plane	<u></u>			
GRASS		c .	V *	D
Bahiagrass	Paspalum nutatum	S V	λ^{τ}	r C A
Barley, Little	Hordeum pusillum	Х	4	SA
Barley, Squirrel Tail	<u>Hordeum jubatum</u>		$\frac{\mathbf{X}}{\mathbf{x}}$	<u>P</u>
Barnyardgrass	Echinochloa crus-galli	X	6	SA
Cheat	Bromus secalinus	X	4	WA
Crabgrass	<i>Digitaria</i> sp.	Х	6	SA
Crowfootgrass	Dactyloctenium aegyptiium	Х	X	SA
Dallisgrass	Paspalum dilatatum	S	X*	Р
Downy Brome	Bromus tectorum	Х	<u>-4-X</u>	WA
Dropseed, Tall	Sporobolus cryptandrus	S	Х	A/P
Fescue, Tall	Festuca arundinacea	Х	X*	Р
Foxtail				
Giant	Setaria faberi	Х	Х	SA
Green	Setaria viridis	Х	Х	SA
Knotroot	Setaria geniculatus	. S	6	SA
Purple Robust	Setaria viridis	S	S	SA
Yellow	Setaria glauca	Х	4	SA
Garlic, Wild	Allium vineale	. <u>X</u>	• X	P
Goosegrass	Elusine indica	SX.	35	SĀ
Guineagrass	Panicum maximum		Х	Р
Itchgrass	Rottboellia cochinchinensis		X*	ŠĀ
Johnsongrass				
Seedling	Sorghum halepense	Х	Х	SA
Rhizome	Sorghum halepense		X*	Р
Panicum				
Fall	Panicum dichotomiflorum	Х	х	SA
Texas	Panicum texanum	x	x	SA
Ryegrass Annual (Italian)	Lolium multiflorum	x	x	SA SA
Sandbur	Cenchrus sp	S	XS	A/P
Shattercane	Sorghum bicolor	x	X	SA
Signalgrass Broadleaf	Brachiaria platyphylla	x	x	SA
Smiltorass	Sporoholus indicus		X	P
Stinkgrass Annual	Fragrostis cilianensis	x	2	SA SA
Torpedograss	Panicum repens		x	p
Vasevorass	Paspalum urvillei	-	$\frac{\Lambda}{X}$	- P
Wild Oats	Avona fatua		x Y	<u>,</u>
wind Oats	Avenu jaruu	. ===	<u> </u>	· <u>A</u>
<u>SEDGES/RUSHES</u>				
Nutsedge				
Yellow	Cyperus esculentus	<u>\$ X</u>	6 <u>X</u>	Р
Purple	Cyperus rotundus	<u>\$ X</u>	6 <u>X</u>	Р
Rush	Juncus sp.	S	4	A/P

1 X =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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