

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Washington, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 29, 2014

Jeffrey Birk
BASF Corporation
P.O. Box 13528
Research Triangle Park, NC 27709

Subject:

Label Amendment (update respirator equipment)

Sahara DG Herbicide EPA Reg. No. 241-372

Application Dated June 11, 2014

Dear Mr. Birk:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3. (emphasis added)

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Kable Bo Davis
Product Manager 25
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

2 7 Herbicide Group 1 DG herbicide

# Bareground vegetation control in specified noncropland areas

# Active Ingredients: Active Ingredients: Imazapyr 2-14 5-dihydro-4-methyl-4-11-methylrireal Imazapyr 2-14 5-dihydro-14-dimethylrireal divron (3-12-4-dichiornineny)

diuron (3-13-4-dichloropheny)

Other Ingredients:

Total:

EPA Reg. No. 241-372

# KEEP OUT OF REACH OF CHILDREN

# GAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta; busque a alguien para que se la explique a usted en detalle. d no entiende la etiqueta; pusque a alguien para que se la explique a usted en di Il vou do not understand this label, find someone to explain it to you in detail.)

See inside for complete First Aid Precautionary Statements Directions for Use See inside for complete cirst Aid Frecautionary Statements, utrections for Use Site restrictions.

Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions. In case of an emergency endangering life or property involving this product.

ACCEPTED

07/29/2014

Under the Federal Insecticide, Fungicide and Rodenicide Act as amended, for the pesticide registered under

EPA Reg. No. 241-372

Net Contents:



7.78%

62.22% 30.00% 100.00%

FIRST AID		
If in eyes	<ul> <li>Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
HOTLINE NUMBER		

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

#### **Precautionary Statements**

#### **Hazards to Humans and Domestic Animals**

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

#### **Personal Protective Equipment (PPE)**

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

- Long-sleeved shirt and long pants
- · Shoes plus socks
- Groundboom-applicators must also wear chemicalresistant gloves made out of any waterproof material

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

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made out of any waterproof material
- A NIOSH-approved dust/mist filtering respirator with any R, P or HE filter or a NIOSH-approved number prefix TC-84A
- Chemical-resistant apron when mixing, loading, or cleaning equipment or spills

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Wash hands with plenty of soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
   Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Physical and Chemical Hazards**

Spray solutions of **Sahara® DG herbicide** should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

**DO NOT** mix, store, or apply **Sahara DG** or spray solutions of **Sahara DG** in unlined steel (except stainless steel) containers or spray tanks.

#### **Environmental Hazards**

This product is toxic to plants. Drift and runoff may be hazardous to plants in water adjacent to treated areas. **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 washwater or rinsate. See **Directions For Use** for additional precautions and requirements.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in <u>Washington Toxics</u> Coalition, et al. vs. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web Site: http://www.epa.gov/espp.

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#### **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 possession of the user at time of application.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Observe all precautions and limitations in this label and the labels of products used in combination with **Sahara® DG**. **herbicide**. Keep containers closed to avoid spills and contamination.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions, and **Conditions of Sale and Warranty** are to be followed.

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water; food or feed by storage or disposal of this product.

#### **Pesticide Storage**

Store in original container and keep closed. Store in a cool, dry place.

#### **Pesticide Disposal**

Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

# Container Handling (for paper or plastic bags)

**Nonrefillable Container. DO NOT** reuse or refill this container. After completely emptying container into application equipment, dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

#### In Case of Spill

In case of large-scale spill of this product, call:

• CHEMTREC

1-800-424-9300

BASF Corporation

1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation

1-800-832-HELP (4357)

#### Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

**Sahara DG** is a dispersible granule to be mixed with water and a spray adjuvant and applied as a spray solution to railroads, utility, pipeline, and highway rights-of-way; fence rows, farmyards, and around farm buildings; nonirrigation ditchbanks; and industrial noncropland areas such as utility plant sites, petroleum tank farms, pumping installations, and storage areas where bareground is desired. **Sahara DG** may also be used for weed control under paved surfaces.

#### **Herbicidal Activity**

**Sahara DG** will control most annual and perennial grass and broadleaf weeds in addition to many brush and vine species. **Sahara DG** will provide residual control of weeds that germinate in the treated areas.

For annual weed control, **Sahara DG** may be applied preemergence or postemergence to weeds; however, a late preemergence to early postemergence application is the method of choice in most situations.

For perennial weed control, **Sahara DG** is only effective when applied postemergence and will not control perennial weeds that are not emerged at the time of application.

For maximum activity, weeds should be growing vigorously at time of postemergence application and spray solution should include a spray adjuvant (for specific recommendations see **Adjuvants** section).

Residual weed control from **Sahara DG** application depends on the weed spectrum present, rate applied, and weather conditions. Longer residual control can be achieved in areas with sensitive weed species, higher **Sahara DG** use rates, lower precipitation, and cooler soil temperatures. Extremes in weather conditions, such as higher than average rainfall, can significantly affect the residual control of **Sahara DG** and shorten the overall length of control.

#### Precautions for Avoiding Injury to Nontarget Plants

Untreated trees can occasionally be affected by root uptake of **Sahara DG** through movement into the topsoil. Injury or loss of desirable trees or other plants may result if **Sahara DG** is applied on or near desirable trees or other plants, on areas where their roots extend, or in locations where the treated soil may be washed or moved into contact with their roots.

Treatment of powdery dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off-target movement and possible damage to desirable plants when soil particles are moved by water and/or wind. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to **Sahara DG** may injure or kill most crops.

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#### **Managing Off-target Movement**

#### **Aerial Application**

- Applicators must use a coarse or coarser droplet size
   (ASABE S572) or, if specifically using a spinning atomizer
   nozzle, applicators must use a volume mean diameter
   (VMD) of 385 microns or greater for release heights
   below 10 feet. Applicators must use a very coarse or
   coarser droplet size or, if specifically using a spinning
   atomizer nozzle, applicators must use a VMD of
   475 microns or greater for release heights above 10 feet.
   Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.
- Applicators are required to use upwind swath displacement.
- The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.
- Applications with wind speeds less than 3 mph and with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.
- DO NOT apply by air if sensitive nontarget crops are within 100 feet of the application site.

#### **Ground Boom Application**

- Applicators must use a nozzle height below 4 feet above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators must use a volume mean diameter (VMD) of 385 microns or greater.
- Applications with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

#### **Adjuvants**

Postemergence applications of **Sahara® DG herbicide** require a spray adjuvant.

#### **Nonionic Surfactant**

Use nonionic surfactant (NIS) at the rate of 0.25% volume to volume (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 NIS with a hydrophilic to lipophilic balance (HLB) ratio between 12 and 17 and having at least 70% surfactant in the formulated product (alcohols, fatty acids, oils, ethylene glycol, or diethylene glycol should not be considered as surfactants to meet the requirements above).

#### Methylated Seed Oil or Vegetable Oil Concentrate

Instead of surfactant, methylated seed oil (MSO) or vegetable-based seed oil concentrate may be used at the rate of 1.5 to 2 pints/A. When using spray volumes greater than 30 gallons/A, MSO or vegetable-based seed oil concentrate should be mixed at a rate of 1% of the total spray volume or, alternatively, use NIS, as described above. Research indicates these oils may aid in **Sahara DG** deposition and uptake by plants under moisture or temperature

stress. Methylated seed oil is the adjuvant of choice and will increase control of perennial weeds.

#### **Silicone-based Surfactant**

See manufacturer's label for specific rate recommendations. Silicone-based surfactant may reduce surface tension of spray droplets allowing greater spreading on the leaf surface compared to conventional nonionic surfactant. However, some silicone-based surfactants may dry too quickly, limiting herbicide uptake.

#### Fertilizer/Surfactant Blend

Nitrogen-based liquid fertilizers, such as 28%N, 32%N, 10-34-0, or ammonium sulfate (AMS), may be added at the rate of 2 to 3 pints/A in combination with the recommended rate of NIS, MSO or vegetable/seed oil concentrate. Use of fertilizers in a tank mix without NIS, MSO or vegetable/seed oil concentrate is not recommended.

#### **Tank Mixes**

Sahara DG may be tank mixed with Arsenal®
PowerLine™ herbicide, Clarity® herbicide, Pendulum®
AquaCap™ herbicide, Plateau® herbicide, Finale®
herbicide, Garlon® 3A specialty herbicide,
Karmex® DF herbicide (diuron), Oust® XP herbicide,
Roundup PRO® herbicide, or Vanquish® herbicide.
Tank mixes with 2,4-D or products which contain 2,4-D
have resulted in reduced perennial weed control.

Consult manufacturer's labels for specific rates and weeds controlled. Always follow the most restrictive label when making a tank mix application.

#### **Application Instructions**

#### **Application Restrictions**

- **DO NOT** apply more than a maximum of 19 lbs of **Sahara DG** (12 lbs of diuron) per acre in areas of high rainfall or dense vegetation.
- **DO NOT** apply more than a maximum of 12.85 lbs of **Sahara DG** (8 lbs of diuron) per acre in all other areas.
- DO NOT make more than two applications per year.
- Minimum Retreatment Interval 90 days

Maintain agitation throughout mixing and application to keep **Sahara DG** suspended in spray mixture.

## When using Sahara DG in combination with other diuron-containing products:

- **DO NOT** apply more than a total of 12 lbs of diuron/A per application in high rainfall or dense vegetation areas.
- DO NOT apply more than a total of 8 lbs of diuron/A per application in all other areas.
- **DO NOT** make more than two applications of diuroncontaining products per year with at least 90 days between treatments.

**Sahara DG** controls many annual weeds when applied preemergence or postemergence, and many perennial weeds when applied postemergence (see **Weeds Controlled** section).

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Mix Sahara® DG herbicide in water and apply with properly calibrated equipment to deliver the desired gallons per acre of spray volume in a uniformly distributed spray pattern across the treated area. Apply Sahara DG at a minimum of 7 lbs of product/A. Rates as low as 5 lbs of Sahara DG/A may be used but must be tank mixed with another herbicide (see Tank Mixes section). For retreatment purposes within the same growing season, Sahara DG rates less than 7 lbs/A may be used. DO NOT apply more than a total of 19 lbs/A of Sahara DG in a 12-month period in areas with high rainfall or dense vegetation. A maximum of 12.85 lbs/A of Sahara DG may be applied in all other areas.

The length of residual weed control achieved with **Sahara DG** may be significantly affected by rainfall amounts. For the desired residual control with increasing rainfall amounts, apply higher rates of **Sahara DG**. As a general guideline, use the following **Sahara DG** rates for different annual rainfall amounts. Actual use rates will vary depending on length of residual control desired, weed pressure, and environmental conditions.

Average Annual Rainfall	Sahara DG Rate
(inches)	(lbs/A)
less than 15	*7 to 10
15 to 35	8 to 13
more than 35	13 to 19

<sup>\*</sup>For initial applications, **Sahara DG** may be used at rates as low as 5 lbs/A to 6 lbs/A but must be tank mixed with another herbicide (see **Tank Mixes** section).

#### **Cleaning Spray Equipment**

Clean application equipment after using this product by thoroughly flushing with water.

#### **Postemergence Application**

Always use a spray adjuvant (see **Adjuvants** section) when making postemergence application. For optimum performance on tough-to-control perennial weeds, apply at a total volume of 100 gallons/A or less in combination with 1 quart/A MSO. For quicker burndown or brown-out of target weeds, **Sahara DG** may be tank mixed with products such as **Roundup PRO® herbicide** or **Finale® herbicide** (see **Tank Mixes** section of this label for other products and specific recommendations).

#### Spot Treatment and Crack-and-crevice Treatment

Sahara DG may be used as an initial or follow-up treatment to control escapes or weed encroachment in a bareground situation including cracks and crevices in paved surfaces such as roadways, runways, and parking areas. To prepare the spray solution, thoroughly mix in each gallon of water at least 0.5 to 1 pound of Sahara DG plus an adjuvant. DO NOT exceed the maximum use rate per acre for the area being treated. For increased burndown, include Roundup PRO, Finale, or similar products

(see **Tank Mixes** section for other products and specific recommendations).

#### **Under Paved Surfaces Application**

**Sahara DG** can be used under asphalt, pond liners, and other paved areas, **ONLY** in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots of desirable plants.

Apply **Sahara DG** only where the area to be treated has been prepared according to good construction practices. If rhizomes, stolons, tubers, or other vegetative plant parts are present in the site, they should be removed by scalping with a grader blade to a depth sufficient to ensure their complete removal.

Applications should be made to the soil surface only when final grade is established. **DO NOT** move soil following **Sahara DG** application.

Apply **Sahara DG** in sufficient water (at least 100 gallons/A) to ensure thorough and uniform wetting of soil surface including shoulder areas. Add **Sahara DG** at 19 lbs product/A to clean water in the spray tank during the filling operation. Agitate before spraying.

If the soil is not moist before treatment, incorporation of **Sahara DG** is needed for herbicide activation. **Sahara DG** can be incorporated into the soil to a depth of 4 to 6 inches using a rototiller or disc. Rainfall or irrigation of 1 inch will also provide uniform incorporation. **DO NOT** allow treated soil to wash or move into untreated areas.

**IMPORTANT:** Paving should follow **Sahara DG** applications as soon as possible. **DO NOT** apply where the chemical may contact the roots of desirable trees or other plants.

**DO NOT** apply under pavement on residential properties, such as driveways or parking lots, or in recreational areas, such as under bike or jogging paths, golf cart paths, or tennis courts, or where landscape plantings could be anticipated.

Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend into the treated area. Roots of trees and shrubs may extend a considerable distance beyond the branch extremities or the drip line.

#### **Restrictions and Limitations**

- DO NOT use in California.
- DO NOT use on food or feed crops.
- **DO NOT** treat irrigation ditches, or water used for crop irrigation, or for domestic purposes.
- Keep from contact with fertilizers, insecticides, fungicides, and seeds.
- DO NOT drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- DO NOT use on lawns, walks, driveways, tennis courts, or similar areas.
- **DO NOT** side trim desirable vegetation with this product. Prevent drift of spray to desirable plants.
- DO NOT enter or allow others to enter treated areas until sprays have dried.

#### **Weed Control**

Sahara® DG herbicide will provide preemergence or postemergence control with residual control of the following target vegetation species at the specified rates. Residual control refers to control of newly germinating seedlings. In general, annual weeds may be controlled by preemergence or postemergence applications of Sahara DG. For established biennials and perennials, postemergence applications of Sahara DG are recommended. Refer to Application Instructions section for use rate directions. Sahara DG must be used only in accordance with directions on this label.

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 (pigweed, kochia, and Russian thistle) may not be effectively controlled by this and/or other herbicides (Oust® XP herbicide) with the ALS/AHAS enzyme-inhibiting site of action. If naturally occurring ALS/AHAS-resistant biotypes are present in an area, Sahara DG should be tank mixed or applied sequentially with an appropriate registered herbicide having a different site of action to ensure control.

Annual bluegrass  Poa annua  A Annual ryegrass  Lolium multiflorum  A Annual sweet  Anthoxanthum  A vernalgrass  Odoratum  Bahiagrass'  Paspalum notatum  P Barnyardgrass  Echinochloa crusgalli  A Beardgrass  Andropogon spp.  P Bermudagrass'  Andropogon spp.  P Bermudagrass'  Andropogon gerardii  P Broadleaf signalgrass  Brachiaria platyphylla  A Canada bluegrass  Poa compressa  P Cattail  Typha spp.  P Cheat  Bromus secalinus  A Cogongrass  Imperata cylindrica  P Downy brome  Bromus tectorum  A Fall panicum  P Fall panicum  Pennisetum villosum  P Fescue  Festuca spp.  A Goosegrass  Eleusine indica  A Goineagrass  Panicum multiflorum  A Goosegrass  Panicum multiflorum  A Goosegrass  Panicum multiflorum  A Fallaian ryegrass  Lolium multiflorum  A Johnsongrass  Sorghum halepense  P Kentucky bluegrass  Poa pratensis  P Kentucky bluegrass  Pacpliairia mutica  P Peppergrass  Dactylis glomerata  P Peppergrass  Parachiaria mutica  P Peppergrass  Peppergrass  Peppergrass  P Peppergrass  Peppergrass  Peppergrass  P Peppergrass  Peppergrass  P Peppergrass  Peppergrass  P Peragmites  Phragmites australis  P Prairie threeawn  Aristida oligantha  P	Weeds Controlled			
Annual bluegrass	Common Name	Scientific Name	Habit <sup>2</sup>	
Annual bluegrass	Grass Weeds		<b>365.89</b> 3	
Annual sweet vernalgrass odoratum  Bahiagrass' Paspalum notatum P  Barnyardgrass Echinochloa crusgalli A  Beardgrass Andropogon spp. P  Bermudagrass <sup>7,8,8</sup> Cynodon dactylon P  Big bluestem' Andropogon gerardii P  Broadleaf signalgrass Brachiaria platyphylla A  Canada bluegrass Poa compressa P  Cattail Typha spp. P  Cheat Bromus secalinus A  Cogongrass Imperata cylindrica P  Crabgrass Digitaria spp. A  Dallisgrass' Paspalum dilatatum P  Downy brome Bromus tectorum A  Fall panicum Aichotomiflorum  Feathertop Pennisetum villosum P  Fescue Festuca spp. A/P  Foxtail Setaria spp. A  Goosegrass Eleusine indica A  Guineagrass Panicum maximum P  Italian ryegrass Lolium multiflorum A  Johnsongrass Sorghum halepense P  Kentucky bluegrass Poa pratensis P  Kyllinga Cyperus brevifolius A  Lovegrass Brachiaria mutica P  Penpergrass Lepidium virginicum A  Phragmites Phragmites australis P  Prairie cordgrass Spartina pectinata P  Prairie threeawn Aristida oligantha P  Reed canarygrass Phalaris arundinacea P	Annual bluegrass			
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Barnyardgrass	vernalgrass	odoratum		
Beardgrass Andropogon spp. P Bermudagrass <sup>7,8,9</sup> Cynodon dactylon P Big bluestem <sup>7</sup> Andropogon gerardii P Broadleaf signalgrass Brachiaria platyphylla A Canada bluegrass Poa compressa P Cattail Typha spp. P Cheat Bromus secalinus A Cogongrass Imperata cylindrica P Crabgrass Digitaria spp. A Dallisgrass <sup>7</sup> Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum Panicum A dichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Brachiaria mutica P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Bahiagrass <sup>7</sup>	Paspalum notatum	Р	
Bermudagrass'. 8.9 Cynodon dactylon Big bluestem' Andropogon gerardii P Broadleaf signalgrass Brachiaria platyphylla A Canada bluegrass Poa compressa P Cattail Typha spp. P Cheat Bromus secalinus A Cogongrass Imperata cylindrica P Crabgrass Digitaria spp. A Dallisgrass' Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum A Gichotomiflorum P Fescue Festuca spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Brachiaria mutica P Paragrass Brachiaria mutica P Paragrass Phagmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea P	Barnyardgrass -	Echinochloa crusgalli	A	
Big bluestem? Andropogon gerardii P Broadleaf signalgrass Brachiaria platyphylla A Canada bluegrass Poa compressa P Cattail Typha spp. P Cheat Bromus secalinus A Cogongrass Imperata cylindrica P Crabgrass Digitaria spp. A Dallisgrass? Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum Panicum A dichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Brachiaria mutica P Paragrass Brachiaria mutica P Paragrass Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Beardgrass	Andropogon spp.	Р	
Broadleaf signalgrass Brachiaria platyphylla A Canada bluegrass Poa compressa P Cattail Typha spp. P Cheat Bromus secalinus A Cogongrass Imperata cylindrica P Crabgrass Digitaria spp. A Dallisgrass' Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum A dichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Brachiaria mutica P Paragrass Brachiaria mutica P Paragrass Phragmites australis P Pragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Phalaris arundinacea P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Bermudagrass <sup>7,8,9</sup>	Cynodon dactylon	P	
Canada bluegrass  Poa compressa  P Cattail  Typha spp.  P Cheat  Bromus secalinus  A Cogongrass  Imperata cylindrica  P Crabgrass  Digitaria spp.  A Dallisgrass  Paspalum dilatatum  P Downy brome  Bromus tectorum  A Fall panicum  Panicum  dichotomiflorum Feathertop  Pennisetum villosum  P Fescue  Festuca spp.  A Goosegrass  Eleusine indica  A Guineagrass  Panicum maximum  P Italian ryegrass  Lolium multiflorum  A Johnsongrass  Sorghum halepense  P Kentucky bluegrass  Poa pratensis  P Kyllinga  Cyperus brevifolius  A Lovegrass  Eragrostis spp.  A/P Maidencane  Arundinaria amabilis  P Orchardgrass  Dactylis glomerata  P Paragrass  Phragmites australis  P Prairie cordgrass  Spartina pectinata  P Prairie threeawn  Aristida oligantha  P Quackgrass  Palaris arundinacea  P Rattail fescue  Vulpia myuros  A Reed canarygrass  Phalaris arundinacea	Big bluestem <sup>7</sup>	Andropogon gerardii	Р	
Cattail Typha spp. P Cheat Bromus secalinus A Cogongrass Imperata cylindrica P Crabgrass Digitaria spp. A Dallisgrass' Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum Panicum dichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Phagmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Phalaris arundinacea P Reed canarygrass Phalaris arundinacea	Broadleaf signalgrass	Brachiaria platyphylla	Α	
Cheat Bromus secalinus A Cogongrass Imperata cylindrica P Crabgrass Digitaria spp. A Dallisgrass' Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum Panicum dichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Canada bluegrass	Poa compressa	Р	
Cogongrass   Imperata cylindrica   P   Crabgrass   Digitaria spp.   A   Dallisgrass'   Paspalum dilatatum   P   Downy brome   Bromus tectorum   A   Fall panicum   Panicum   A   dichotomiflorum   P   Feathertop   Pennisetum villosum   P   Fescue   Festuca spp.   A   P   Foxtail   Setaria spp.   A   Goosegrass   Eleusine indica   A   Guineagrass   Panicum maximum   P   Italian ryegrass   Lolium multiflorum   A   Johnsongrass   Sorghum halepense   P   Kentucky bluegrass   Poa pratensis   P   Kentucky bluegrass   Fragrostis spp.   A   P   A   A	Cattail	Typha spp.	Р	
Crabgrass Digitaria spp. A Dallisgrass' Paspalum dilatatum P Downy brome Bromus tectorum A Fall panicum Panicum A Feathertop Pennisetum villosum P Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Cheat	Bromus secalinus	Α	
Dallisgrass' Paspalum dilatatum P Downy brome Bromus tectorum A Fali panicum Panicum A Gichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Cogongrass	Imperata cylindrica	Р	
Downy brome Bromus tectorum A Fall panicum Panicum dichotomiflorum Feathertop Pennisetum villosum P Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Crabgrass.	Digitaria spp.	A	
Fall panicum  Panicum dichotomiflorum  Feathertop Pennisetum villosum P Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P, Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Dallisgrass <sup>7</sup>	Paspalum dilatatum	Р	
Feathertop Pennisetum villosum P Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Brachiaria mutica P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Downy brome	Bromus tectorum	A	
Feathertop Pennisetum villosum P Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Fall panicum		Α	
Fescue Festuca spp. A/P Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Poa pratensis P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea				
Foxtail Setaria spp. A Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea				
Goosegrass Eleusine indica A Guineagrass Panicum maximum P Italian ryegrass Lolium multiflorum A Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea				
GuineagrassPanicum maximumPItalian ryegrassLolium multiflorumAJohnsongrassSorghum halepensePKentucky bluegrassPoa pratensisPKyllingaCyperus brevifoliusALovegrassEragrostis spp.A/PMaidencaneArundinaria amabilisPOrchardgrassDactylis glomerataPParagrassBrachiaria muticaPPeppergrassLepidium virginicumAPhragmitesPhragmites australisPPrairie cordgrassSpartina pectinataPPrairie threeawnAristida oliganthaPQuackgrassAgropyron repensPRattail fescueVulpia myurosAReed canarygrassPhalaris arundinaceaP				
Italian ryegrass  Lolium multiflorum  A  Johnsongrass  Sorghum halepense  P  Kentucky bluegrass  Poa pratensis  P  Kyllinga  Cyperus brevifolius  A  Lovegrass  Eragrostis spp.  A/P  Maidencane  Arundinaria amabilis  P  Orchardgrass  Dactylis glomerata  P,  Paragrass  Brachiaria mutica  P  Peppergrass  Lepidium virginicum  A  Phragmites  Prairie cordgrass  Spartina pectinata  P  Prairie threeawn  Aristida oligantha  P  Rattail fescue  Vulpia myuros  A  Reed canarygrass  P  A				
Johnsongrass Sorghum halepense P Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Guineagrass	Panicum maximum	Р	
Kentucky bluegrass Poa pratensis P Kyllinga Cyperus brevifolius A Lovegrass Eragrostis spp. A/P Maidencane Arundinaria amabilis P Orchardgrass Dactylis glomerata P, Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Italian ryegrass	Lolium multiflorum	· A	
KyllingaCyperus brevifoliusALovegrassEragrostis spp.A/PMaidencaneArundinaria amabilisPOrchardgrassDactylis glomerataPParagrassBrachiaria muticaPPeppergrassLepidium virginicumAPhragmitesPhragmites australisPPrairie cordgrassSpartina pectinataPPrairie threeawnAristida oliganthaPQuackgrassAgropyron repensPRattail fescueVulpia myurosAReed canarygrassPhalaris arundinaceaP		Sorghum halepense	Р	
Lovegrass Eragrostis spp. A/P  Maidencane Arundinaria amabilis P  Orchardgrass Dactylis glomerata P,  Paragrass Brachiaria mutica P  Peppergrass Lepidium virginicum A  Phragmites Phragmites australis P  Prairie cordgrass Spartina pectinata P  Prairie threeawn Aristida oligantha P  Quackgrass Agropyron repens P  Rattail fescue Vulpia myuros A  Reed canarygrass Phalaris arundinacea P	Kentucky bluegrass	Poa pratensis	Р	
MaidencaneArundinaria amabilisPOrchardgrassDactylis glomerataPParagrassBrachiaria muticaPPeppergrassLepidium virginicumAPhragmitesPhragmites australisPPrairie cordgrassSpartina pectinataPPrairie threeawnAristida oliganthaPQuackgrassAgropyron repensPRattail fescueVulpia myurosAReed canarygrassPhalaris arundinaceaP	Kyllinga	Cyperus brevifolius	Α	
Orchardgrass Dactylis glomerata P, Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea P	Lovegrass .	Eragrostis spp.	. A/P	
Paragrass Brachiaria mutica P Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea	Maidencane	Arundinaria amabilis	Р	
Peppergrass Lepidium virginicum A Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea P	Orchardgrass	Dactylis glomerata	Ρ,	
Phragmites Phragmites australis P Prairie cordgrass Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea P	Paragrass	Brachiaria mutica	Р	
Prairie cordgrass · Spartina pectinata P Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea P	Peppergrass	Lepidium virginicum	Α	
Prairie threeawn Aristida oligantha P Quackgrass Agropyron repens P Rattail fescue Vulpia myuros A Reed canarygrass Phalaris arundinacea P	Phragmites	Phragmites australis	Р	
Quackgrass       Agropyron repens       P         Rattail fescue       Vulpia myuros       A         Reed canarygrass       Phalaris arundinacea       P	Prairie cordgrass	Spartina pectinata	Р	
Rattail fescue Vulpia myuros A . Reed canarygrass Phalaris arundinacea P	Prairie threeawn	Aristida oligantha	Р	
Rattail fescue Vulpia myuros A . Reed canarygrass Phalaris arundinacea P	Quackgrass		Р	
Reed canarygrass Phalaris arundinacea P	Rattail fescue		Α .	
			Р	
			Ā	

(continued)

77000	Controlled¹ (continued)	Growth
Common Name	Scientific Name	Habit <sup>2</sup>
Grass Weeds (continue		
Saltgrass <sup>7, 8, 9</sup>	Distichlis stricta	Р
Sand dropseed <sup>7</sup>	Sporobolus	Р
	cryptandrus	
Sandbur	Cenchrus spp.	Α
Smooth brome	Bromus inermis	P
Sprangletop6,7	Leptochloa spp.	Α
Timothy .	Phleum pratense	Р
Torpedograss	Panicum repens	Р
Vaseygrass	Paspalum urvillei	Р
Velvetgrass	Holcus lanatus	Α
Wild barley	Hordeum spp.	Α
Wild oats	Avena fatua	А
Wirestem muhly	Muhlenbergia frondosa	Р
Witchgrass	Panicum capillare	Α
Broadleaf Weeds		
Arrowwood	Pluchea sericea	Α
Ageratum	Asteraceae	Р
	houstonianum	
Broom snakeweed <sup>3</sup>	Gutierrezia sarothrae	<u>Р</u>
Bull thistle	Cirsium vulgare	В
Burdock	Arctium spp.	В
Canada thistle <sup>7</sup>	Cirsium arvense	Р
Carolina geranium	Geranium carolinianum	Α
Carpetweed	Mollugo verticillata	Α
Clover	Trifolium spp.	A/P
Cocklebur	Xanthium strumarium	Α
Common chickweed	Stellaria media	Α
Common ragweed	Ambrosia artemisiifolia	Α
Corn spurry	Spergula arvensis	·P
Dandelion	Taraxacum officinale	P
Dayflower	Commelina spp.	A/P
Desert camelthorn	Alhagi pseudalhagi	Р
Diffuse knapweed	Centaurea diffusa	A
Dock	Rumex spp.	P
Dogfennel	Eupatorium capillifolium	
Filaree	Erodium spp.	A
Fleabane	Erigeron spp.	— <u>A</u>
Giant ragweed <sup>7</sup>	Ambrosia trifida	A
Goldenrod		^
	Solidago spp. Chrysothamnus	P
Grey rabbitbrush	nauseosus	Г
Gromwell `	Lithospermum spp.	A
Groundcherry	Physalis spp.	A/P
Hawksbeard	Crepis spp.	A

Weeds	Controlled¹ (continued)	Cuandle
Common Name	Scientific Name	Growth Habit <sup>2</sup>
Broadleaf Weeds (con	ntinued)	
Hoary vervain	Verbena stricta	Р
Horsenettle	Solanum carolinense	P
Horseweed	Conyza canadensis	·A
Indian mustard	Brassica juncea	Α
Japanese bamboo	Polygonum cuspidatum	P
Knawel	Scleranthus annuus	Α
Kochia <sup>3</sup>	Kochia scoparia	· A
Lambsquarters	Chenopodium album	Α
Lespedeza	Lespedeza spp.	Р
Little mallow	Malva parviflora	В
Marigold	Tagetes spp.	Р
Milkweed	Asclepias spp.	Р
Miner's lettuce	Montia perfoliata	Α
Morningglory	Ipomoea spp.	A/P
Mullein	Verbascum spp.	В
Nettleleaf goosefoot	Chenopodium murale	A
Oxeye daisy	Chrysanthemum	Р
	leucanthemum	
Pennycress ·	Thlaspi spp.	Α .
Pepperweed	Lepidium spp.	A
Pigweed <sup>6</sup>	Amaranthus spp.	A
Pineapple weed	Matricaria	Р
Di. I .	matricarioides	
Plantain	Plantago spp.	<u>P</u>
Pokeweed	Phytolacca americana	P
Prickly sida	Sida spinosa	A
Primrose	Oenothera kunthiana	P
Puncturevine	Tribulus terrestris	<u>A</u>
Purple loosestrife <sup>3</sup>	Lythrum salicaria	P
Purslane	Portulaca spp.	A
Ragweed	Ambrosia spp.	A
Rush skeletonweed <sup>3</sup>	Chondrilla juncea	B
Russian knapweed	Centaurea repens	P
Russian thistle <sup>3</sup>	Salsola kali	<u> </u>
Saltbush	Atriplex spp.	A
Sesbania	Sesbania spp.	A
Sicklepod	Cassia obtusifolia	A
Silverleaf nightshade	Solanum elaeagnifolium	P
Shepherd's purse	Capsella bursa-pastoris	A
Smartweed	Polygonum spp.	A/P
Sorrell	Rumex spp.	Р
Sowthistle	Sonchus spp.	Α
Speedwell	Veronica spp.	Α
Stinging nettle <sup>3</sup>	Urtica dioica	Р

(continued)

Weeds	Controlled¹ (continued)	
Common Name	Scientific Name	Growth Habit <sup>2</sup>
Broadleaf Weeds	ontinued	
Sunflower	Helianthus spp.	Α
Sweet clover	Melilotus spp.	A/B
Tansymustard	Descurainia pinnata	·A
Texas thistle	Cirsium texanum	Р
Velvetleaf	Abutilon theophrasti	Α
Western ragweed	Ambrosia psilostachya	P
Wild buckwheat	Polygonum convolvulus	Α
Wild carrot	Daucus carota	В
Wild lettuce	Lactuca spp.	A/B
Wild parsnip	Pastinaca sativa	В
Wild radish	Raphanus raphanistrum	В
Wild turnip	Brassica campestris	В
Woollyleaf bursage	Franseria tomentosa	Р
Yellow starthistle	Centaurea solstitialis	Α
Yellow woodsorrel	Oxalis stricta	Р
Vines and Brambles		
Blackberry⁴	Rubus spp.	P
Dewberry⁴	Rubus spp.	Р
Field-bindweed	Convolvulus arvensis	Р
Greenbriar	Smilax spp.	Р
Hedge bindweed	Calystegia sepium	Α
Honeysuckle	Lonicera spp.	P
Kudzu⁵	Pueraria lobata	Р
Morningglory	Ipomoea spp.	A/P
Poison ivy	Rhus radicans	Р
Redvine	Brunnichia cirrhosa	Р
Trumpetcreeper <sup>7</sup>	Campsis radicans	P
Virginia creeper <sup>7</sup>	Parthenocissus quinquefolia	P
Wild buckwheat	Polygonum convolvulus	Р
Wild grape	Vitis spp.	Р
Wild rose	Rosa spp.	Р

(continued)

Weeds	s Controlled¹ (continued)	
Common Name	Scientific Name	Growth Habit <sup>2</sup>
Brush Species		
Alder	Alnus spp.	P
American beech.	Fagus grandifolia	P
Ash	Fraxinus spp.	Р
Bald cypress	Taxodium distichum	P
Bigleaf maple	Acer macrophyllum	P
Black locust <sup>10</sup>	Robinia pseudoacacia	Р
Black gum	Nyssa sylvatica	P
Boxelder	Acer negundo	Р
Cherry	Prunus spp.	P
Chinaberry	Melia azedarach	Р
Dogwood	Cornus spp.	Р
Elm <sup>11</sup>	Ulmus spp.	Р
Hawthorn	Crataegus spp.	Р
Hickory	Carya spp.	Р
Honeylocust <sup>10</sup>	Gleditsia triacanthos	Р
Maple	Acer spp.	Р
Mulberry	Morus spp.	Р
Oak	Quercus spp.	Р
Persimmon	Diospyros virginiana	Р
Pine <sup>10</sup>	Pinus spp.	Р
Poplar	Populus spp.	Р
Privet	Ligustrum vulgare	Р
Red alder	Alnus rubra	Р
Red maple	Acer rubrum	Р
Russian olive	Elaeagnus angustifolia	P
Sassafras	Sassafras albidum	Р
Sourwood	Oxydendrum arboreum	Р
Sweetgum	Liquidambar styraciflua	P
Water willow	Justicia americana	Р
Willow .	Salix spp.	Р
Yellow poplar	Liriodendron tulipifera	P

<sup>&#</sup>x27;Use higher rates for heavy or well-established infestations.

 $<sup>^{2}</sup>$ Growth Habit. A = Annual, B = Biennial, P = Perennial

<sup>&</sup>lt;sup>3</sup> For best results, early postemergence applications are required.

<sup>\*</sup>Degree of control is species dependent. Some *Rubus* species may not be completely controlled.

<sup>&</sup>lt;sup>5</sup>Use a minimum of 75 GPA. Control of established stands may require repeat applications.

<sup>&</sup>lt;sup>6</sup>Control is species dependent. Tank mix with Pendulum<sup>6</sup> AquaCap<sup>™</sup> herbicide for preemergence control and/or a postemergence application of a labeled herbicide may be required.

<sup>&</sup>lt;sup>7</sup>Requires a minimum of 12.85 pounds **Sahara® DG herbicide**/A.

<sup>&</sup>lt;sup>8</sup> For best results, tank mix with **Oust<sup>®</sup> XP herbicide**.

<sup>&</sup>lt;sup>9</sup>Control of established stands may require repeat applications.

<sup>&</sup>lt;sup>10</sup>Tank mix with glyphosate or triclopyr.

<sup>11</sup> Tank mix with glyphosate.

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