

241-417

1-12-2007

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

JAN 12 2007

Dr. Jeffery Birk
BASF Corporation
26 Davis Drive
P.O Box 13528
Research Triangle Park, NC 27709-3528

Subject: Journey Herbicide
EPA Registration No. 241-417
Revised labeling submitted September 7 2006

Dear Dr. Birk:

The amended labeling referred to above is acceptable provided that you adhere to the following conditions:

1. Make all of the changes specified on in the document "Summary of Comments on Journey 2006-04-256-0155 (rev2006-10-04).qxd"

2. The container label must be securely attached to the container and contain:

- The registrant's name and address
- The product name, brand, or trademark
- The ingredient statement
- The signal word
- "Keep Out of Reach of Children"
- Precautionary statements, including Hazards to Humans and Domestic Animals
- The EPA Registration Number and the EPA Establishment Number
- Storage and Disposal Statements

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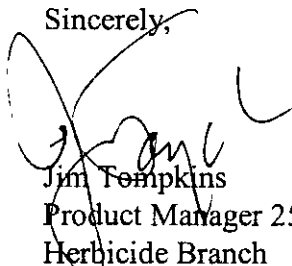
- Referral Statement to the Directions for Use Booklet and Worker Protection Standard statements
- Net weight or measurement of contents

3 Submit two copies of final printed labeling within 30 days of receipt of this letter.

This labeling supercedes all previously accepted labeling for this product except for supplemental labeling. A stamped copy of the label is enclosed for your records.

If you have any questions about this letter, you may call Tobi Colvin-Snyder at 703-305-7801.

Sincerely,



Jim Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

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The Chemical Company



FOR SELECTIVE WEEDING, GRASS, FORB AND BRUSH ESTABLISHMENT AND TURF GROWTH SUPPRESSION ON PASTURES, RANGELAND AND NONCROP AREAS

ACTIVE INGREDIENTS:

Imazapic, (+)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid* 8.13%
Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt* 21.94%

INERT INGREDIENTS: 69.93%
TOTAL: 100.00%

*Equivalent to 8.13% (+)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid and 16.26% N-(phosphonomethyl) glycine acid. (1 gallon contains 0.75 pounds of imazapic and 1.5 pounds of glyphosate active ingredient as the free acids)

EPA Reg. No. 241-417

U.S. Patent No. 4798619

EPA Est. No. _____

KEEP OUT OF REACH OF CHILDREN. CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

In case of an emergency endangering life or property involving this product, call day or night, 1-800-832-HELP (4357).

See inside booklet for complete First Aid, Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty.

Net contents: _____

BASF Corporation
Agricultural Products
26 Davis Drive
Research Triangle Park, NC 27709

ACCEPTED with COMMENTS in EPA Letter Dated

JAN 12 2007

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

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FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
<p>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).</p>	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

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

Environmental Hazards

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

DO NOT contaminate water when 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

Journey® 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 orna-

mental 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 residential lawns.

DIRECTIONS FOR USE

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

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

DO NOT use **Journey** on food or feed crops except as recommended by this label or supplemental labeling.

DO NOT cut treated area for hay within seven days after treatment.

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

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 **Journey**. See **Tolerance of Trees and Brush To Journey Herbicide** section of this label.

Observe all cautions and limitations on this label and on the labels of products used in combination with **Journey**. **DO NOT** use **Journey** other than in accordance with the instructions set forth on this label. The use of **Journey** not consistent with this label may result in injury to desirable vegetation. Keep containers closed to avoid spills and contamination.

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

DO NOT exceed 32 ounces of **Journey** per acre in a 12-month period.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls
- chemical-resistant gloves made of any waterproof material
- shoes plus socks

NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Noncrop weed control is not within the scope of the Worker Protection Standard. See the **General Information** section of this label for a description of noncrop sites.

DO NOT enter treated areas without protective clothing until sprays have dried.

Storage and Disposal

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

- **Pesticide Storage:**
KEEP FROM FREEZING.
DO NOT store below 20° F.
- **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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

I. GENERAL INFORMATION

Journey® 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 pastures, rangeland (see **Guidelines For Rangeland Use** section), Conservation Reserve Program (CRP) land and noncropland areas including noncropland areas that may be grazed or cut for hay. Examples of noncropland areas include, but are not limited to, railroad, utility, pipeline and highway rights-of-way, railroad crossings, utility plant sites, petroleum tank farms, pumping installations, nonagricultural fence rows, storage areas, non-irrigation ditchbanks, prairie sites, airports, industrial turf, recreational and non-residential turf. **Journey** may be used for the release of unimproved common Bermudagrass, vegetation management prior to the establishment of certain native prairiegrasses, forbs, other grasses, desirable brush species and wildflowers (see appropriate sections) and for wildlife habitat management.

Journey 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 **Journey** activity. When adequate soil moisture is present, **Journey** will provide residual control of susceptible germinating weeds. Activity on established weeds will depend on the weed species and rooting depth. **Journey** is rainfast one hour after application.

Journey will control annual and perennial grasses and broadleaf weeds and vine species. **Journey** 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 **Journey** to their foliage. This product may be applied either preemergence or postemergence to the weeds; however, postemergence 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.

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

Some yellowing of unimproved common Bermudagrass 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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Journey® herbicide should not be applied to newly seeded or sprigged grass stands, but may be applied prior to new seeding of certain species.

MANAGING OFF-TARGET MOVEMENT

Spray Drift: Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or nontarget crops) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity or temperature inversions.

To minimize spray drift, the applicator should be familiar with and take into account the following drift reduction advisory information. Additional information may be available from state enforcement agencies or the Cooperative Extension on the application of this product.

The best drift management strategy and most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Wind, Temperature and Humidity** and **Temperature Inversions**).

Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - **DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift. **DO NOT** use nozzles producing a mist droplet spray.

Application Height: Making applications at the lowest possible height (aircraft or ground driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft or ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

Wind: Drift potential is lowest between wind speeds of 3 - 10 mph; however, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud, that can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Wind Erosion: Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

Aerial Application Methods and Equipment: Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

Managing spray drift from aerial applications: Applicators must follow these requirements to avoid off-target drift movement: 1) boom length - the distance of the outermost nozzles on the boom must not exceed 3/4

the length of the wingspan or rotor, 2) nozzle orientation - nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees, and 3) application height - without compromising aircraft safety, applications should be made at a height of 10 feet or less above the crop canopy or tallest plants. Applicators must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Ground Application (Broadcast): Use 5 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

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 **Journey® herbicide**. Add **Journey** 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 **Spray Adjuvants For Postemergence Applications**) 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 **Journey** with recommended herbicides, add wettable powders, dispersible granules or other dry formulations first, then ECs, then **Journey**, and then an adjuvant.

SPRAYING INSTRUCTIONS

In areas where spray drift is a concern **Journey** should not be applied during windy or gusty conditions unless applications are being made with an enclosed or shielded spray system and/or the addition of a drift control agent. **DO NOT** apply if rainfall is threatening. Rainfall within 1 hour after postemergence **Journey** 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 0.625 to 13% (0.8 to 17 oz/gallon water) **Journey** plus an adjuvant (see **Spray Adjuvants For Postemergence Applications** section). A methylated seed oil at 1% by

spray volume is the recommended spray adjuvant. When making spot applications, spray coverage should be sufficient to moisten the leaves of the target vegetation, but not to the point of run-off. See section on desired species and **DO NOT** exceed the recommended **Journey** rate per acre. Also see **Weeds Controlled**, **Special Weeds Controlled** and **Residual Bareground Weed Control** sections of this label for specific rate and/or tank mix recommendations. **DO NOT** apply more than 32 oz of **Journey** per acre.

AERIAL APPLICATION

All precautions should be taken to minimize or eliminate spray drift. Fixed wing aircraft and helicopters can be used to apply **Journey**; however, when making applications by fixed wing aircraft maintain appropriate buffer zones to prevent spray drift out of the target area. 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, applications should not be made during inversion conditions, when winds are gusty, or under any other conditions that promote spray drift.

Uniformly apply recommended amount of **Journey** in sufficient spray volume to provide adequate coverage of target area or foliage. Include an adjuvant in the spray solution (See **Spray Adjuvants For Postemergence Applications** 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 **Journey** 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 methylated vegetable oil is the preferred adjuvant for use with **Journey**, and 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. When using spray volumes greater than 30 gallons per acre methylated seed oil or vegetable based seed oil con-

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concentrates should be mixed at a rate of 1% of the total spray volume or alternatively use a nonionic surfactant as described below. Research indicates these oils may aid in deposition and uptake of **Journey® 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 **Journey** uptake through waxy leaf species. The use of fertilizers in a tank mix without a non-ionic surfactant or a methylated seed oil is not recommended and may result in herbicide failure.

TANK MIXES

Journey may be tank mixed with **Pendulum® AquaCap™ herbicide** for additional control of late season annual grasses and certain broadleaves. For additional weed control, **Journey** may be tank mixed with **Accord®, Roundup Pro®, Roundup Ultra®, glyphosate, Arsenal®, diuron, Campaign®, Finale®, Garlon® 3A, MSMA, Vanquish®, Overdrive®, Sahara® DG, Oust®, Escort®, or Tordon® herbicides**, or other labeled products. A compatibility test is advised for products not listed. Tank mixtures with 2,4-D and other phenoxy type herbicides have resulted in reduced control of perennial grass weeds.

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

FOR WEED CONTROL IN PASTURE AND RANGELAND

For the control of undesirable weeds in pasture and rangeland (see **Guidelines For Rangeland Use** section), apply **Journey** at rates up to 32 oz per acre as a broadcast treatment or as a 0.625% to 13% solution with 1.0% MSO for spot treatments. See appropriate sections of this label for specific use directions.

Journey applied to desirable forage grasses will cause injury, delayed green-up, growth suppression and possible mortality. Use of spot treatments and/or localized broadcast applications should be considered when applications are to be made with desirable forage grasses present.

GRAZING AND HAYING RESTRICTIONS

There are no grazing restrictions with **Journey**.

DO NOT cut grass for hay until 7 days after **Journey** treatment.

GUIDELINES FOR RANGELAND USE

Journey may be applied to rangeland for the control of undesirable vegetation in order to achieve one or more of the following vegetation management objectives:

1. The control of undesirable (non-native, invasive and noxious) plant species.
2. The control of undesirable vegetation in order to aid in the establishment of desirable rangeland plant species.
3. The control of undesirable vegetation in order to aid in the establishment of desirable rangeland vegetation following a fire.
4. The control of undesirable vegetation for purposes of wildfire fuel reduction.
5. The release of existing desirable rangeland plant communities from the competitive pressure of undesirable plant species.
6. The control of undesirable vegetation for purposes of wildlife habitat improvement.

To ensure the protection of threatened and endangered plants when applying **Journey** to rangeland:

1. Federal agencies must follow NEPA regulations to ensure protection of threatened and endangered plants.
2. State agencies must work with the Fish and Wildlife Service or the Service's designated state conservation agency to ensure protection of threatened and endangered plants.
3. Other organizations or individuals must operate under a Habitat Conservation Plan if threatened or endangered plants are known to be present on the land to be treated.

Please see the appropriate section(s) of this label for specific use directions for the desired rangeland vegetation management objective.

Journey should only be applied to a given rangeland acre as specific weed problems arise. For the control of annual weed species such as cheatgrass, downy brome and Medusahead rye, a single application of **Journey** that coincides with the successful establishment and/or release of desirable rangeland vegetation and the use of available IPM can provide effective, sustainable control of the annual weed problem. For difficult to control perennial weed species such as leafy spurge, dalmatian toadflax and Russian knapweed, a single broadcast application of **Journey** should be effective in most cases. If needed, spot treatments with **Journey** can be used to control any remnant plants or new seedlings that may emerge. Long-term control of undesirable weed species ultimately

depends on the successful use of land management practices that promote the growth and sustainability of desirable rangeland plant species.

FOR THE CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED COMMON AND COASTAL BERMUDAGRASS WITHIN NONCROPLAND AREAS ONLY

Common Bermudagrass: Journey® herbicide may be used on unimproved common Bermudagrass turf such as roadsides, utility rights-of-way, railroad crossings, airports, non-irrigation drainage ditches and other such noncrop-land sites. Depending on application timing and Journey rate, some foliar, stolon, and seedhead suppression may occur for up to eight weeks after application. Apply Journey at a rate of 11 to 32 oz per acre 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 Journey. **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 Journey application as some internode suppression may prevent Bermudagrass from quickly recovering from mowing.

Applications made during transition from dormancy to full green-up will significantly delay green-up and subsequent Bermudagrass growth. It is recommended that Journey applications not be made during transition unless the delay in green-up and growth can be tolerated.

Journey will cause unacceptable injury and/or death if used on turf type Bermudagrass.

Established Coastal Bermudagrass: Journey at 11 to 21.3 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 Journey rate increases. However, coastal Bermudagrass is not as tolerant as common Bermudagrass, and care should be taken not to exceed the recommended rates. **DO NOT** use on hybrid varieties such as Tifton 85, New World, etc. **DO NOT** apply to grass under stress from drought, disease, insects or other causes.

Winter Annual Weed Control: Apply Journey at the rate of 16 to 32 oz per acre while winter weeds are actively growing. Early spring applications may delay green-up of Bermudagrass turf.

Summer Annual Weeds: For best results, apply Journey at the rate of 16 to 21 oz 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 Journey at the rate of 16 to 32 oz per acre postemergence after weeds have produced adequate foliage for herbicide uptake. For a particular

weed see **Special Weed Control** section below.

Bahiagrass Control: Apply Journey at the rate of 16 to 32 oz per acre postemergence. See **Special Weed Control** section below for recommendations.

TALL FESCUE CONTROL

Tall fescue can be controlled by using Journey at the rate of 32 oz per acre plus methylated seed oil at 2 pints per acre. The addition of nitrogen fertilizer (See **Spray Adjuvants For Postemergence Applications** section) 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, Journey may be tank mixed with Accord® herbicide, Roundup Pro® herbicide, or glyphosate. Fall applications of Journey at 21.3 to 32 oz/A plus Accord or Roundup Pro at 8 to 48 oz/A will result in best control of existing tall fescue and new germinating seedlings. With spring applications use Journey at 16 to 32 oz/A, plus Accord or Roundup Pro at 16 to 48 oz/A. Use higher rates for older, mature fescue stands. Burning the fescue stand, where permitted, during the winter dormant period will aid in control by removing plant residues that can interfere with spray coverage. Mowing the fescue several times the summer before fall or spring applications 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 Journey and glyphosate products need foliage present for herbicide uptake and satisfactory control.

Tall Fescue Conversion To Big Bluestem, Little Bluestem and Indiangrass: Journey can be used for the control of tall fescue in the fall prior to the spring establishment of big bluestem, little bluestem and Indiangrass. Other prairiegrass species and forbs that may be included in the seed mix will have varying tolerance to this treatment. Journey control of tall fescue is best when applied in the fall, but spring applications can be effective when the tall fescue stand has been weakened by mowing, burning or a combination of the two. Journey should be applied in the fall or spring at a rate of 32 oz per acre plus 32 oz of Roundup Pro, Accord or glyphosate and 32 oz per acre of methylated seed oil. This application will provide control of established tall fescue stands along with residual control of tall fescue seedlings that germinate in the spring. Burning the fescue stand, where permitted, during the winter dormant period will aid in control by removing plant residues that can interfere with spray coverage and provide a better seedbed for planting. Mowing the fescue several times the summer before fall or spring applications 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 Journey and Roundup products need foliage present for herbicide uptake and satisfactory control.

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SITE PREPARATION PRIOR TO THE ESTABLISHMENT OF DESIRABLE PLANT SPECIES

Journey® herbicide may be used to control noxious weeds and other undesirable vegetation in preparation for the establishment of desirable plant species including some native prairiegrasses, other grasses, desirable brush, wildflowers and legumes. Because of the residual weed control characteristics of **Journey**, only certain desirable species can be planted following a **Journey** application. Desirable plant species other than those listed below may be established following a **Journey** application, but significant stand thinning or stand loss may occur. Desirable plant species tolerance will also be determined by the time duration between the **Journey** application and planting, the density of undesirable vegetation at the time of application and environmental factors. A longer time interval and higher undesirable vegetation cover will increase seeded desirable species tolerance.

For site preparation in noncropland areas prior to prairiegrass, wildflower and/or legume establishment, apply **Journey** preemergence or postemergence to the existing vegetation during active growth, at a rate of 10.7 to 32 oz per acre. In prepared seedbeds, a maximum of 10.7 oz per acre should be used in the spring prior to planting tolerant wildflower and legume species. Always include a spray adjuvant, preferably a methylated seed oil, at one quart per acre. See **Weeds Controlled** and **Special Weed Control** sections of this label for specific use recommendations. For rangeland applications to control cheatgrass, Medusahead, annual mustards, etc., apply **Journey** preemergence or early postemergence to these weeds prior to planting. For best results for cheatgrass control, apply **Journey** late summer or fall before cheatgrass emerges and prior to planting desirable species. **Journey** can also be used as a site preparation in this manner prior to planting sage brush seedlings. The native prairiegrass, other grasses and wildflower species listed below, may be planted at any time in the spring following the **Journey** application.

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TOLERANT GRASS SPECIES WHEN PLANTED AFTER SITE PREPARATION WITH JOURNEY® HERBICIDE.

Common Name	Genus species	Journey Rate (oz/A) ¹	
		Prairiegrass	Prior to Seeding
Big Bluestem	<i>Andropogon gerardii</i>		10.7 - 32.0
Little Bluestem	<i>Schizachyrium scoparium</i>		10.7 - 32.0
Indiangrass	<i>Sorghastrum nutans</i>		10.7 - 32.0
Sideoats Grama	<i>Bouteloua curtipendula</i>		10.7 - 21.3 ²
Blue Grama	<i>Bouteloua gracilis</i>		10.7 - 21.3 ²
Buffalograss	<i>Buchloe dactyloides</i>		10.7
Eastern Gamagrass	<i>Tripsacum dactyloides</i>		10.7 - 16.0 ²
Needlegrass	<i>Stipa</i> spp.		5.4 - 10.7
Sherman Big Bluegrass	<i>Poa secunda</i>		5.4 - 16.0
Sandberg's Bluegrass	<i>Poa sandbergii</i>		5.4 - 10.7
Wheatgrass	Various spp.		5.4 - 16.0 ³
Bottlebrush Squirreltail	<i>Sitanian hystrix</i>		5.4 - 10.7
Russian Wildrye	<i>Elymus junceus</i>		5.4 - 10.7 ³
Basin Wildrye	<i>Elymus cinereus</i>		5.4 - 10.7

¹High rates may result in stunting and growth suppression.

²Journey applications prior to seeding sideoats and blue grama may result in thinning or loss of stand at higher rates.

³Different species of wheatgrass (*Agropyron*, *Elytrigia*, *Elymus*, *Pascopyrum*, *Pseudoroegneria*) may show stand thinning at higher rates depending on soil type and environmental conditions.

TOLERANT WILDFLOWER AND LEGUME SPECIES WHEN PLANTED IN THE SPRING FOLLOWING A FALL OR SPRING SITE PREPARATION TREATMENT WITH JOURNEY

Common Name	Genus Species	Maximum Journey Rate (oz/A) ¹	
		Fall Applied	Spring Applied
Blackeyed Susan	<i>Rudbeckia hirta</i>	21.3	10.7
Bundletflower, Illinois	<i>Desmanthus illinoensis</i>	10.7	10.7
Chickory	<i>Cichorium intybus</i>	10.7	10.7
Clover, Crimson	<i>Trifolium incarnatum</i>	21.3	10.7
Coneflower, Upright Prairie	<i>Ratibida columnifera</i>	10.7	10.7
Coneflower, Purple	<i>Echinacea purpurea</i>	21.3	10.7
Coreopsis, Dwarf Red Plains	<i>Coreopsis tinctoria</i> var. Gay Feather	10.7	10.7
Coreopsis, Plains	<i>Coreopsis tinctoria</i>	16.0	10.7
Coreopsis, Lance Leaved	<i>Coreopsis lanceolata</i>	32.0	10.7
Cosmos spp.	<i>Cosmos</i> spp.	21.3	10.7
Cosmos, Yellow	<i>Cosmos sulphureus</i>	21.3	10.7
Daisy, Ox-eye	<i>Chrysanthemum leucanthemum</i>	21.3	10.7
Daisy, Shasta	<i>Chrysanthemum maximum</i>	10.7	10.7
Gayfeather, Spiked (<i>Liatris</i>)	<i>Liatris pycnostachya</i>	10.7	10.7
Johnny Jump-ups	<i>Viola cornuta</i>	21.3	10.7
Lupine, Perennial	<i>Lupinu perennis</i>	32.0	10.7
Lespedeza, Bicolor	<i>Lespedeza</i>	21.3	10.7
Mexican Hat	<i>Ratibida columnaris</i>	10.7	10.7
Partridgepea	<i>Cassia fasciculata</i>	32.0	10.7
Phlox, Drummond	<i>Phlox drummondii</i>	32.0	10.7
Poppy, California	<i>Eschscholzia californica</i>	10.7	10.7
Poppy, Red Corn	<i>Papaver</i> sp.	21.3	10.7
Poppy, Corn	<i>Papaver rhoeas</i>	16.0	10.7
Prairieclover, Purple	<i>Petalostemon purpureum</i>	10.7	10.7
Sunflower	<i>Helianthus annuus</i>	16.0	10.7
Tickclover	<i>Desmodium</i> sp.	10.7	10.7
Vetch, Crown	<i>Coronilla varia</i>	10.7	10.7

¹Height suppression or stand reduction may occur at maximum use rate.

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TOLERANCE OF TREES AND BRUSH TO JOURNEY® HERBICIDE

The following tolerance information is provided as a general guideline when it is desirable or necessary to make **Journey** applications around and under desirable tree and brush species. **DO NOT** use **Journey** on nursery, orchard, ornamental plantings, new plantings, seedling trees or fiber farms. It is suggested that **Journey** be tried on a limited basis to determine tolerance in your area. **Journey** may be used at rates up to 32 oz per acre for weed control in and around established trees, on pasture, rangeland (see **GUIDELINES FOR RANGELAND USE** section) and noncropland areas such as roadsides, prairies and similar areas used for wildlife cover, erosion control, wind breaks, etc. Tree and brush species known to have acceptable tolerance to **Journey** when applied under the canopy are listed below. Tolerance is based upon trees with a minimum of 2 inch DBH. Application around and under tree and brush species that are under stress due to drought, disease, insect damage or other factors may be more susceptible to injury from **Journey** and may result in severe injury or death. Some species may exhibit tip chlorosis and minor necrosis. Foliar contact will increase injury to include defoliation and mortality. Application methods that minimize foliar contact with desirable tree and brush species must be used to achieve an acceptable level of tolerance.

BRUSH AND TREE SPECIES TOLERANCE TO JOURNEY AT 32 OZ PER ACRE¹ WHEN APPLIED AROUND AND BENEATH, WITH NO FOLIAR OR STEM CONTACT

Common Name	Genus species	Tolerance²
Apple (Var. Winesap)³	<i>Malus sylvestris</i>	Yes
Ash, Blue	<i>Fraxinus quadrangulata</i>	Yes
Ash, Green	<i>Fraxinus pennsylvanica</i>	No
Azalea	<i>Rhododendron</i> spp.	No
Basswood	<i>Tilia heterophylla</i>	No
Boxelder	<i>Acer negundo</i>	Yes
Buckeye, Ohio	<i>Aesculus glabra</i>	Yes
Cedar-juniper, Western	<i>Thuja plicata</i>	Yes
Cherry, Black³	<i>Prunus serotina</i>	No
Cherry, Choke	<i>Prunus virginiana</i>	No
Cherry, Sweet³	<i>Prunus avium</i>	No
Cottonwood	<i>Populus deltoides</i>	Yes
Cottonwood, Narrow Leaf	<i>Populus</i> spp.	Yes
Currant species	<i>Ribes</i> spp.	Injury⁵
Dogwood, Flowering	<i>Cornus</i> spp.	Yes
Dogwood, Grey	<i>Cornus racemosa</i>	Yes
Dogwood, Red Twig	<i>Cornus</i> spp.	Yes
Douglas Fir	<i>Pseudotsuga menziesii</i>	Yes
Elm, American	<i>Ulmus americana</i>	Yes
Elm, Siberian	<i>Ulmus pumila</i>	Yes
Elm, Slippery	<i>Ulmus rubra</i>	Yes
Gooseberry	<i>Ribes</i> spp.	Injury⁵
Hackberry	<i>Celtis occidentalis</i>	Yes
Hawthorn	<i>Crataegus</i> spp.	Yes
Juniper, Chinese	<i>Juniperus chinensis</i>	Yes
Juniper, Western	<i>Juniperus osteosperma</i>	Yes
Lilac	<i>Syringa</i> spp.	No
Linden, American	<i>Tilia americana</i>	No
Locust, Black	<i>Robinia pseudoacacia</i>	Yes
Locust, Honey	<i>Gleditsia triacanthos</i>	Yes
Maple, Red	<i>Acer rubrum</i>	Yes
Maple, Sugar	<i>Acer saccharum</i>	Yes
Mulberry, Red	<i>Morus rubra</i>	Yes
Mulberry, White	<i>Morus alba</i>	Yes
Oak, Black	<i>Quercus velutina</i>	Yes
Oak, Live	<i>Quercus virginiana</i>	Yes
Oak, Southern Red	<i>Quercus falcata</i>	Yes
Oak, White	<i>Quercus alba</i>	Yes
Olive, Russian	<i>Elaeagnus angustifolia</i>	Yes
Osage Orange	<i>Maclura pomifera</i>	Yes
Peach (Var. Elberta)³	<i>Prunus persica</i>	Yes

BRUSH AND TREE SPECIES TOLERANCE TO JOURNEY® HERBICIDE AT 32 OZ PER ACRE¹ WHEN APPLIED AROUND AND BENEATH, WITH NO FOLIAR OR STEM CONTACT (continued)

Common Name	Genus species	Tolerance ²
Photinia, Red Tip	<i>Photinia fraseri</i>	Yes
Pine, Lodgepole	<i>Pinus contorta</i>	Yes
Pine, White ⁴	<i>Pinus strobus</i>	Yes
Pittosporum, Japanese	<i>Pittosporum tobira</i>	Yes
Plum species	<i>Prunus</i> spp.	Yes
Poplar, Yellow (Tulip)	<i>Liriodendron tulipifera</i>	Yes
Privet, Common	<i>Ligustrum vulgare</i>	Yes
Rabbitbrush species	<i>Chrysothamnus</i> spp.	Yes
Redbud	<i>Cercis canadensis</i>	Yes
Redcedar, Eastern	<i>Juniperus virginiana</i>	Yes
Rose, Multiflora	<i>Rosa multiflora</i>	Yes ⁵
Sage, Big	<i>Artemisia tridentata</i>	Yes
Sage, Fringe	<i>Artemisia frigida</i>	Yes
Sage, Silver	<i>Artemisia cana</i>	Yes
Sagebrush, Big	<i>Artemisia tridentata</i>	Yes
Sagebrush, Fringed	<i>Artemisia frigida</i>	Yes
Saltcedar	<i>Tamarix</i> spp.	Yes
Serviceberry	<i>Amelanchier alnifolia</i>	Yes
Snowberry, Western	<i>Symphoricarpos occidentalis</i>	Yes
Spruce species	<i>Picea</i> spp.	Yes ⁴
Sugarberry	<i>Celtis laevigata</i>	Yes
Sweetgum	<i>Liquidambar styraciflua</i>	Yes
Sycamore	<i>Plantanus occidentalis</i>	Yes
Tree-of-Heaven	<i>Ailanthus altissima</i>	Yes
Walnut, American Black	<i>Juglans nigra</i>	Yes
Willow	<i>Salix</i> spp.	Yes

¹ Not intended for nursery, orchard, ornamental plantings, new plantings or seedling trees.

² Yes = Tolerant

No = Not tolerant, severe injury or death.

³ 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 will occur. Injury can be reduced or eliminated if applied in fall after color change or leaf drop.

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WILDLIFE HABITAT MANAGEMENT

Journey® herbicide may be used to control exotic and other undesirable vegetation for purposes of wildlife habitat management and enhancement within terrestrial noncrop sites including riparian and tree areas. Applications can be made to control undesirable vegetation prior to the establishment of desirable species and to release desirable species that may be present in the soil, but suppressed by competitive vegetation. See specific sections of this label for weed control information.

USE OF JOURNEY ON FEDERAL CONSERVATION RESERVE PROGRAM (CRP) LAND

Journey may be used prior to planting desirable species on Federal Conservation Reserve Program (CRP) land at rates up to 32 oz per acre per year (see minimum plant-back intervals below). See appropriate section of this label for specific instructions for the intended use and desirable species tolerance. **DO NOT** use rates higher than 32 oz per acre per year on CRP land. **DO NOT** apply after newly seeded desirable species have begun to emerge. Failure to do so can result in significant stand loss.

ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying **Journey**. Planting rotational crops earlier than the recommended interval may result in crop injury. ^A

Journey Use Rate (oz/A)	Minimum Plant Back Interval (Months After Journey Herbicide Application)				
	<4	12	12	18	26
5-8	12	14	22	30	44
9-12	12	18	24	36	48
Rotational Crops	Bahiagrass CLEARFIELD® corn hybrids Peanuts Rye Wheat	Snap beans Southern peas Soybeans Tobacco	Barley Cotton ¹ Grain sorghum Oats	Field corn ² All crops not otherwise listed or included for use on this label ³	Canola ² Potatoes ² Red table beets ² Sugar beets ²

¹ For Arizona, New Mexico, Oklahoma, and Texas only: Depending on the **Journey** use rate, cotton may be planted 18 to 24 months after **Journey** application in the states of Arizona, New Mexico, Oklahoma, and Texas unless drought conditions develop the year of **Journey** application. **DO NOT** rotate to cotton at 18 to 24 months after **Journey** application if less than 15 inches of rainfall or irrigation is received from the time of **Journey** application through November 1 of the same year. If drought conditions develop the year of **Journey** application, cotton may be planted 26, 30 and 40 months after **Journey** application.

² After the recommended rotational interval listed for these selected crops and for all crops not otherwise listed or included for use on this label, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls, and include variations in soil such as type and pH. If no crop injury is evident in the test strip, then the intended rotational crop may be planted the following year.

Use of **Journey** in accordance with label directions is expected to result in normal growth of plant-back 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. If crop injury is a concern, then a bioassay with the desired crop is recommended prior to planting.

SPECIAL WEED CONTROL

ALWAYS ADD AN ADJUVANT to **Journey**® herbicide (see **SPRAY ADJUVANTS FOR POSTEMERGENCE APPLICATIONS** section). Research has shown Methylated Seed Oil (MSO) surfactants provide **Journey** 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 an 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 **Journey** at the rate of 21 to 32 oz per acre after Johnsongrass or itchgrass has reached 18 to 24 inches in height at the whorl. Use the higher herbicide rates as density increases. Larger grass than specified above can be controlled.

Dallisgrass, Bahiagrass, Vaseygrass, Paspalum spp., Smutgrass: For best results, apply **Journey** at the rate of 16 to 32 oz per acre postemergence after grass has reached 100% green-up. Use the 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.

FOR FOLIAR AND SEEDHEAD SUPPRESSION OF WARM AND COOL SEASON GRASSES IN NONCROP AREAS

Journey may be used to suppress growth and seedhead development of some warm and cool season grasses in noncropland sites. Depending on the rate of **Journey** used, surfactant and environmental conditions, temporary turf discoloration may occur. The specific rate of **Journey** to be used will vary with grass type and environmental conditions. Within a recommended rate range, it is recommended that the lower rate of **Journey** be tried on a small area of grass first to determine what **Journey** rate is required to achieve the desired outcome. Higher use rates will result in greater suppression, but may also be accompanied by greater yellowing and turf injury. Use of a surfactant may increase turf yellowing and injury. If a surfactant is necessary for weed control or the performance of a tank mix partner, use a nonionic surfactant at 0.25% v/v. **DO NOT** use a methylated seed oil or crop oil adjuvants when using **Journey** for grass seedhead suppression. 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. **Journey** should not be applied to turf type Bermudagrass or to grass being grown for hay or forage, as unacceptable turf injury and a reduction in grass forage and hay yield may result.

Journey recommendations for grass seedhead suppression:

- **Common Bermudagrass:** Apply **Journey** at 8-12 oz/A to actively growing Bermudagrass that has reached full green-up.
- **Bahiagrass:** Apply **Journey** at 8 oz/A to actively growing Bahiagrass that has reached full green-up.
- **Tall fescue:** Apply **Journey** at 6 - 10 oz/A to tall fescue after green-up but prior to seedhead development.
- **Smooth bromegrass:** Apply **Journey** at 8 - 12 oz/A to smooth bromegrass after green-up but prior to seedhead development.
- **Reed canarygrass:** Apply **Journey** at 8-12 oz/A to reed canarygrass after green-up but prior to seedhead development.

RESIDUAL BAREGROUND WEED CONTROL

For sensitive areas and use around desirable vegetation, **Journey** at 32 oz/A may be tank mixed with **Pendulum**® **AquaCap**™ herbicide, **Roundup Pro**®, **Escort**®, **Karmex**®, 2,4-D, diuron, **Endurance**®, or other labeled products to provide total vegetation control. For other bareground areas, **Journey** at 32 oz per acre may be tank mixed with **Arsenal**® herbicide, **Sahara**® **DG** herbicide, **Krovar**®, **Oust**®, **Tordon**®, **Vanquish**® herbicides, or other labeled products to provide total bareground weed control. For maximum weed control, use 2 pints per acre of methylated seed oil as an adjuvant.

Spot Treatments: **Journey** may be applied as a spot treatment to control weed encroachment in bareground or total vegetation control situations 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 0.625 to 13% volume/volume (0.8 to 17 oz per gallon) **Journey** plus a methylated seed oil adjuvant. Spray target vegetation to wet, but not to the point of runoff.

USE UNDER PAVED SURFACES

Applications should be made to the soil surface only when final grade is established. **DO NOT** move soil following **Journey** application. Apply **Journey** in sufficient water to ensure thorough and uniform wetting of the soil surface, including the shoulder area. Add **Journey** at a rate of 32 oz per acre to clean water in the spray tank during the filling operation. Agitate before spraying. If soil is not moist prior to treatment, incorporation of **Journey** will improve control. **Journey** can be incorporated into the soil to a depth of two inches using a rototiller or disc. Rainfall or irrigation totaling one inch is also sufficient to incorporate **Journey** into the soil surface. **DO NOT** allow treated soil to wash or move into untreated area.

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WEEDS CONTROLLED

Journey[®] herbicide, 10.7 to 16 oz per acre

Common Name	Genus Species	PRE ¹	POST ²	Annual/Biennial/Perennial ³
BROADLEAVES				
Bedstraw, Catchweed	<i>Galium aparine</i>	C	4	WA
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	2	SA
Buffalobur	<i>Solanum rostratum</i>	—	C	SA
Buttercup, Bur	<i>Ranunculus testiculatus</i>	C	C	WA
Cocklebur, Common	<i>Xanthium strumarium</i>	S	6	SA
Lambsquarters, Common	<i>Chenopodium album</i>	C	2	SA
Halogeton	<i>Halogeton glomeratus</i>	C	C	SA
Morningglory				
Entireleaf	<i>Ipomoea hederacea</i>	S	3	SA
Ivyleaf	<i>Ipomoea hederacea</i>	S	3	SA
Tall	<i>Ipomoea purpurea</i>	S	3	SA
Mustards, Annual	Various spp.	C	C	WA
Mustard, Wild	<i>Brassica kaber</i>	C	C	WA
Pigweed	<i>Amaranthus sp.</i>	C	6	SA
Queen Anne's Lace	<i>Daucus carota</i>	—	4	B
Radish, Wild	<i>Raphanus raphanistrum</i>	S	4	WA
Rocket, Yellow	<i>Barbarea vulgaris</i>	C	4	WA
Sicklepod	<i>Senna obtusifolia</i>	C	4	SA
Sida, Prickly	<i>Sida spinosa</i>	C	2	SA
Smartweed				
Ladysthumb	<i>Polygonum persicaria</i>	C	C	SA
Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C	SA
Swamp	<i>Polygonum coccineum</i>	C	C	SA
Starbur, Bristly	<i>Acanthospermum hispidum</i>	C	2	SA
Velvetleaf	<i>Abutilon theophrasti</i>	C	6	SA
GRASS WEEDS				
Brome, Downy	<i>Bromus tectorum</i>	C	4	WA
Cheat	<i>Bromus spp.</i>	C	2	WA
Crabgrass				
Large (Hairy)	<i>Digitaria sanguinalis</i>	C	4	SA
Smooth	<i>Digitaria ischaemum</i>	C	4	SA
Foxtail				
Giant	<i>Setaria faberi</i>	C	6	SA
Green	<i>Setaria viridis</i>	C	4	SA
Yellow	<i>Setaria glauca</i>	C	4	SA
Goatgrass, Jointed	<i>Aegilops cylindrica</i>	C	C	WA
Goosegrass	<i>Eleusine indica</i>	S	2	SA
Johnsongrass (Seedling)	<i>Sorghum halepense</i>	C	12	SA
Medusahead Rye	<i>Taeniatherum caput-medusae</i>	C	2	WA
Panicum, Fall	<i>Panicum dichotomiflorum</i>	S	6	SA
Sandbur	<i>Cenchrus sp.</i>	C	C	A/P
Shattercane	<i>Sorghum bicolor</i>	C	12	SA
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C	SA
Stiltgrass, Japanese	<i>Microstegium vimineum</i>	C	4	A
Vaseygrass	<i>Paspalum urvillei</i>	—	8	P
SEDGES				
Nutsedge				
Yellow	<i>Cyperus esculentus</i>	S	4S	P
Purple	<i>Cyperus rotundus</i>	S	4S	P
Sedge	<i>Juncus sp.</i>	S	4S	A/P

¹ C = control, S = suppression in northern United States only.

² Maximum plant height in inches at time of application.

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

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WEEDS CONTROLLED

Journey® herbicide, 21.3 to 32 oz per acre

Common Name	Genus Species	PRE ¹	POST ²	Annual/Biennial/Perennial ³
BROADLEAVES				
Anoda, Spurred	<i>Anoda cristata</i>	C	6	SA
Baby's Breath ⁴	<i>Gypsophila paniculata</i>	—	C	P
Bedstraw, Catchweed	<i>Gallium aparine</i>	C	C	WA
Bedstraw, Marsh	<i>Gallium</i> spp.	C	C	WA
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	6	SA
Bindweed, Field	<i>Convolvulus arvensis</i>	—	C	P
Buffalobur	<i>Solanum rostratum</i>	—	C	SA
Burclover	<i>Medicago</i> sp.	—	4	SA
Chickweed, Common	<i>Stellaria media</i>	C	6	SA
Cocklebur, Common	<i>Xanthium strumarium</i>	C	6	SA
Cornsalad, Common	<i>Valerianella locusta</i>	—	C	SA
Crownbeard, Golden	<i>Verbisina encelioides</i>	C	2	SA
Dandelion	<i>Taraxacum officinale</i>	—	C	P
Dock, Curly	<i>Rumex crispus</i>	C	6	B
Dyer's Woad	<i>Isatis tinctoria</i>	—	C	
Fiddleneck	<i>Amsinckia</i> sp.	—	C	SA
Flax, Spurge	<i>Thymelaea passerina</i>	C	C	A
Fleabane, Annual	<i>Erigeron annuus</i>	—	C	A
Geranium, Carolina	<i>Geranium carolinianum</i>	—	C	WA/B
Geranium, Cranesbill	<i>Geranium maculatum</i>	C	C	WA/B
Ground Cherry	<i>Physalis heterophylla</i>	—	C	P
Hemlock, Poison	<i>Conium maculatum</i>	C	6	B
Henbit	<i>Lamium amplexicaule</i>	C	3	WA/B
Hoary Cress	<i>Cardaria</i> spp.	—	C	P
Houndstongue, Bristly	<i>Cynoglossum officinale</i>	C	C	B
Indigo, Hairy	<i>Indigofera hirsuta</i>	C	2	P
Jimsonweed	<i>Datura stramonium</i>	C	6	SA
Knapweed, Russian ⁵	<i>Centaurea repens</i>	—	C	P
Knotweed, Prostrate	<i>Polygonum aviculare</i>	C	C	SA
Kochia ⁶	<i>Kochia scoparia</i>	C	3	SA
Lambsquarters, Common	<i>Chenopodium album</i>	C	3	SA
Morningglory				
Cypressvine	<i>Ipomoea quamoclit</i>	C	6	SA
Entireleaf	<i>Ipomoea hederacea</i>	C	6	SA
Ivyleaf	<i>Ipomoea hederacea</i>	C	6	SA
Pitted	<i>Ipomoea lacunosa</i>	C	6	SA
Smallflower	<i>Jacquemontia tamnifolia</i>	C	6	SA
Tall	<i>Ipomoea purpurea</i>	C	6	SA
Mustard, Wild	<i>Brassica kaber</i>	C	C	SA
Mustards, Annual	Various	C	C	WA
Onion, Wild	<i>Allium canadense</i>	C	C	P
Pepperweed, Perennial	<i>Lepidium latifolium</i>	—	C	P
Pigweed ⁸	<i>Amaranthus</i> sp.	C	6	SA
Plantain, Narrowleaf	<i>Plantago lanceolata</i>	C	C	B
Poinsettia, Wild	<i>Euphorbia heterophylla</i>	C	6	SA
Puncture Vine	<i>Tribulus terrestris</i>	—	C	SA
Purslane, Common	<i>Portulaca oleracea</i>	C	4	SA
Pusley, Florida	<i>Richardia scapra</i>	C	4	SA
Queen Anne's Lace	<i>Daucus carota</i>	C	C	B
Ragweed				
Common	<i>Ambrosia artemisiifolia</i>	C	3	SA
Giant	<i>Ambrosia trifida</i>	S	6	SA
Western	<i>Ambrosia psilostachya</i>	—	C	A/P
Rocket, Yellow	<i>Barbarea vulgaris</i>	C	C	WA
Senna, Coffee	<i>Cassia occidentalis</i>	C	4	SA
Sicklepod	<i>Senna obtusifolia</i>	C	6	SA
Sida, Prickly	<i>Sida spinosa</i>	C	6	SA

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WEEDS CONTROLLED

Journey® herbicide, 21.3 to 32 oz. per acre (controlled)

Common Name	Genus Species	PRE¹	POST²	Annual/Biennial/Perennial³
BROADLEAVES				
Smartweed				
Ladysthumb	<i>Polygonum persicaria</i>	C	C	SA
Pennsylvania	<i>Polygonum pensylvanicum</i>	C	C	SA
Swamp	<i>Polygonum coccineum</i>	C	C	SA
Spurge				
Leafy	<i>Euphorbia esula</i>	—	FALL*	P
Spotted	<i>Euphorbia maculata</i>	C	4	SA
Toothed	<i>Euphorbia dentata</i>	C	4	SA
Starbur, Bristly	<i>Acanthospermum hispidum</i>	—	6	SA
Sunflower	<i>Helianthus annuus</i>	—	18	SA
Tansymustard	<i>Descurainia pinnata</i>	C	C	WA
Teasel, Common	<i>Dipsacus fullonum</i>	—	C	B
Thistle				
Bull	<i>Cirsium vulgare</i>	S	C	WA/B
Musk	<i>Carduus nutans</i>	S	C	B
Platt	<i>Cirsium canescens</i>	S	C	P
Toadflax, Dalmatian	<i>Linaria dalmatica</i>	---	C*	P
Velvetleaf	<i>Abiton theophrasti</i>	C	C	A
Vervain, Blue	<i>Verbena hastata</i>	—	S	SA
Vervain, Prostrate	<i>Verbena bracteata</i>	—	C	P
Whiteweed	<i>Cardaria</i> spp.	—	C	P
Willowherb	<i>Epilobium</i> spp.	—	C	P
Woodsorrel, Yellow	<i>Oxalis stricta</i>	C	C	P

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WEEDS CONTROLLED (continued)

Journey® herbicide, 21.3 to 32 oz per acre					
Common Name	Genus Species	PRE ¹	POST ²	Annual/Biennial/Perennial ³	
GRASS					
Bahiagrass	<i>Paspalum nutatum</i>	S	C*	P	
Barley, Little	<i>Hordeum pusillum</i>	C	4	WA	
Barley, Squirrel Tail	<i>Hordeum jubatum</i>	—	C	P	
Barnyardgrass	<i>Echinochloa crus-galli</i>	C	6	SA	
Brome	<i>Bromus</i> spp.	C	C	WA	
Japanese	<i>Bromus</i> spp.	C	C	WA	
Red	<i>Bromus</i> spp.	C	C	WA	
Annuals	<i>Bromus</i> spp.	C	C	WA	
Canarygrass, Reed	<i>Phalaris arundinacea</i>	---	C	P	
Cheat	<i>Bromus secalinus</i>	C	4	WA	
Cogongrass	<i>Imperata cylindrica</i>	---	C	P	
Crabgrass	<i>Digitaria</i> sp.	C	6	SA	
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C	C	SA	
Dallisgrass	<i>Paspalum dilatatum</i>	S	C*	P	
Downy Brome	<i>Bromus tectorum</i>	C	C	WA	
Dropseed, Tall	<i>Sporobolus cryptandrus</i>	S	C	A/P	
Fescue, Tall	<i>Festuca arundinacea</i>	C	C*	P	
Foxtail					
Giant	<i>Setaria faberi</i>	C	C	SA	
Green	<i>Setaria viridis</i>	C	C	SA	
Knotroot	<i>Setaria geniculatus</i>	S	6	SA	
Purple Robust	<i>Setaria viridis</i>	S	S	SA	
Yellow	<i>Setaria glauca</i>	C	4	SA	
Garlic, Wild	<i>Allium vineale</i>	C	C	P	
Goatgrass, Jointed	<i>Aegilops cylindrica</i>	C	C	WA	
Goosegrass	<i>Eleusine indica</i>	C	3S	SA	
Itchgrass	<i>Rottboellia cochinchinensis</i>	—	C*	SA	
Johnsongrass					
Seedling	<i>Sorghum halepense</i>	C	C	SA	
Rhizome	<i>Sorghum halepense</i>	—	C*	P	
Medusahead Rye	<i>Taeniatherum caput-medusae</i>	C	C	WA	
Panicum					
Fall	<i>Panicum dichotomiflorum</i>	C	C	SA	
Texas	<i>Panicum texanum</i>	C	C	SA	
Ryegrass					
Annual (Italian)	<i>Lolium multiflorum</i>	C	C	SA	
Perennial	<i>Lolium perenne</i>	—	C	P	
Sandbur	<i>Cenchrus</i> sp.	S	C	A/P	
Shattercane	<i>Sorghum bicolor</i>	C	C	SA	
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C	SA	
Smutgrass	<i>Sporobolus indicus</i>	—	C	P	
Stiltgrass, Japanese	<i>Microstegium vimineum</i>	C	C	A	
Stinkgrass, Annual	<i>Eragrostis cilianensis</i>	C	2	SA	
Torpedograss	<i>Panicum repens</i>	—	C	P	
Vaseygrass	<i>Paspalum urvillei</i>	—	C	P	
Wild Oats	<i>Avena fatua</i>	—	C	A	
SEDGES/RUSHES					
Nutsedge					
Yellow	<i>Cyperus esculentus</i>	C	C	P	
Purple	<i>Cyperus rotundus</i>	C	C	P	
Rush	<i>Juncus</i> sp.	S	4	A/P	

¹ C = control, S = suppression

² Maximum plant height in inches at time of application.

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

⁴ For annual control. The addition of 1-2 pints of 2,4-D will aid in burndown.

⁵ For best control, apply in the fall.

⁶ Some species are tolerant, and resistant biotypes are possible.

* See **SPECIAL WEED CONTROL** section.

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