



The Chemical Company

Habitat[®]

herbicide

Supplemental Label

For the control of undesirable vegetation growing within specified aquatic, pasture/rangeland, industrial noncropland sites, and rights-of-way, fence rows, nonirrigation ditchbanks, establishment and maintenance of wildlife openings, for the release of unimproved Bermudagrass and Bahiagrass, for bareground weed control, and for use under certain paved surfaces

This supplemental label expires December 31, 2010.

EPA Reg. No. 241-426

Active Ingredient:

isopropylamine salt of imazapyr: (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-3-pyridinecarboxylic acid)* 28.7%

Other Ingredients: 71.3%

Total: 100.0%

* Equivalent to 22.6% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-3-pyridinecarboxylic acid or 2 pounds acid per gallon.

Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA-approved container label for Habitat[®] herbicide, EPA Reg. No. 241-426.

This supplemental label must be in the possession of the user at the time of application.

Directions For Use

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

Observe all cautions and limitations on this label and on the labels of products used in combination with **Habitat**.

DO NOT use **Habitat** other than in accordance with the instructions set forth on this label. Keep containers closed to avoid spills and contamination.

Read and follow the **First Aid, Precautionary Statements, Environmental Hazards, and Storage and Disposal** statements on the **Habitat** container label.

General Use Precautions and Restrictions

Applications may be made for the control of undesirable vegetation growing within specified aquatic,

pasture/rangeland, industrial noncropland sites, and railroad, utility, and highway rights-of-way, and fence rows. Aquatic sites consist of standing and flowing water, estuarine/marine, wetland and riparian areas. Industrial noncropland sites include utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, and nonirrigation ditchbanks. **Habitat** may also be used for the establishment and maintenance of wildlife openings, for the release of unimproved Bermudagrass and Bahiagrass, for bareground weed control, and for use under certain paved surfaces.

Noncropland Sites

- **DO NOT** apply more than 1.5 lbs acid equivalent (ae) imazapyr (equivalent to 96 ozs of **Habitat**) per acre per year.

Pasture/Rangeland Sites

- For spot treatment only.
- **DO NOT** treat more than 1/10 of the available area to be grazed or cut for hay.
- **DO NOT** apply more than 0.75 lb ae imazapyr (equivalent to 48 ozs of **Habitat**) per acre per year.

Aquatic Sites

- **DO NOT** apply more than 1.5 lbs ae imazapyr (equivalent to 96 ozs of **Habitat® herbicide**) per acre per year.
- **Public waters.** Application of **Habitat** to water can only be made by federal or state agencies, such as Water Management District personnel, municipal officials, and the U.S. Army Corps of Engineers, or those applicators who are licensed or certified as aquatic pest control applicators and are authorized by the state or local government. Treatment to other than nonnative invasive species is limited to only those plants that have been determined to be a nuisance by a federal or state government entity.
- **Permitting.** Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.
- **Aerial application.** Aerial application to aquatic sites is restricted to helicopter only.
- **Irrigation water.** Application to water used for irrigation that results in **Habitat** residues > 1.0 ppb **MUST NOT** be used for irrigation purposes for 120 days after application or until **Habitat** residue levels are determined by laboratory analysis or other appropriate means of analysis to be 1.0 ppb or less. When applications are made within 500 feet of an active irrigation intake, **DO NOT** irrigate for at least 24 hours following application to allow for dissipation.

General Information

Habitat is an aqueous solution to be mixed with water and a surfactant and applied as a spray solution to control undesirable vegetation growing within specified aquatic, pasture/rangeland, industrial noncropland sites, and railroad, utility, and highway rights-of-way, and fence rows. Aquatic sites consist of standing and flowing water, estuarine/marine, wetland, and riparian areas. Industrial noncropland sites include utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, and nonirrigation ditchbanks. **Habitat** may also be used for the establishment and maintenance of wildlife openings, for the release of unimproved Bermudagrass and Bahiagrass, for bareground weed control, and for use under certain paved surfaces.

Application Methods. **Habitat** may be selectively applied by using low-volume directed application techniques or may be broadcast applied by using ground equipment, watercraft, or aircraft (aerial applications to aquatic sites must be made by helicopter). In addition, **Habitat** may also be applied using cut stump, cut stem, and frill and girdle treatment techniques within noncropland, pasture/rangeland, and aquatic sites (see **Aerial Applications** and **Ground Applications** sections of the leaflet label for additional details).

Noncropland Uses

Applications may be made for the control of undesirable vegetation growing within industrial noncropland sites. Industrial noncropland sites include utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, and nonirrigation ditchbanks. **Habitat** may also be used for the establishment and maintenance of wildlife openings, for the release of unimproved Bermudagrass and Bahiagrass, for bareground weed control, and for use under certain paved surfaces.

Tank Mixes and Application Rates for Low-volume Foliar Brush Control*

Target Vegetation	Habitat Rate	Tank Mix
Mixed hardwoods without elm, locust, or pine	1.0 to 1.5% by volume	Surfactant
Mixed hardwoods containing elm, locust, and pine	0.5 to 1.0% by volume	Accord® at 2% to 3% by volume plus surfactant
Mixed hardwoods with locust and pine but no elm	0.5 to 1.0% by volume	Krenite® at 2% to 5% by volume plus surfactant
Mixed hardwoods with locust and elm but no pine	0.5 to 1.0% by volume	Escort® at 2 ozs/A or 2.3 grams/gal plus surfactant
*Tank mixes with 2,4-D or products containing 2,4-D have resulted in reduced efficacy of Habitat .		

Mixing Chart

% Solution	Habitat per gallon of mix (ounces)	Habitat per 4-gallon backpack (ounces)
0.5%	0.6	2.6
1.0%	1.3	5.1
2.0%	2.6	10.2
3.0%	3.8	15.4
5.0%	6.4	25.6

Measuring Chart

128 ounces	=	1 gallon
16 ounces	=	1 pint
8 pints	=	1 gallon
4 quarts	=	1 gallon
2 pints	=	1 quart

FOR THE SELECTIVE CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED BERMUDAGRASS AND BAHAGRASS

Habitat® herbicide may be used on unimproved Bermudagrass and Bahiagrass turf such as roadsides, utility rights-of-way, and other noncropland industrial sites. The application of **Habitat** on established common and coastal Bermudagrass and Bahiagrass provides control of labeled broadleaf and grass weeds. Competition from these weeds is eliminated, releasing the Bermudagrass and Bahiagrass. Treatment of Bermudagrass with **Habitat** results in a compacted growth habit and seed-head inhibition.

Uniformly apply with properly calibrated ground equipment using at least 10 gallons of water per acre.

IMPORTANT: Temporary yellowing of grass may occur when treatment is made after growth commences.

DO NOT add surfactant in excess of the recommended rate (1 oz per 25 gallons of spray solution). **DO NOT APPLY** to grass during its first growing season.

DO NOT APPLY to grass that is under stress from drought, disease, insects, or other causes.

DOSAGE RATES AND TIMING

Bermudagrass. Apply **Habitat** at 6 to 12 ozs per acre when the Bermudagrass is dormant. Apply **Habitat** at 6 to 8 ozs per acre after the Bermudagrass has reached full green-up. Applications made during green-up will delay green-up. Include a surfactant in the spray solution (see **IMPORTANT** note above).

For additional preemergence control of annual grasses and small-seeded broadleaf weeds, add

Pendulum® AquaCap™ herbicide at the rate of 3.1 to 6.3 pints per acre. Consult the **Pendulum AquaCap** label for weeds controlled and for other use directions and precautions.

For control of Johnsongrass in Bermudagrass turf, apply **Habitat** at 8 ozs per acre, plus **Roundup® herbicide** at 12 ozs per acre, plus surfactant. For additional control of broadleaves and vines, **Garlon® 3A** may be added to the above mix at the rate of 1 to 2 pints per acre. Observe all precautions and restrictions on the **Garlon 3A** and **Roundup** labels.

Bahiagrass. Apply **Habitat** at 4 to 8 ozs per acre when the Bahiagrass is dormant or after the grass has initiated green-up but has not exceeded 25% green-up. Include a surfactant in the spray solution. (see **ADJUVANTS** section for specific recommendations on surfactants).

Weeds Controlled in Unimproved Bermudagrass and Bahiagrass:

Bedstraw (*Galium* spp.)
Bishopweed (*Ptilimnium capillaceum*)
Buttercup (*Ranunculus parviflorus*)
Carolina geranium (*Geranium carolinianum*)
Fescue (*Festuca* spp.)
Foxtail (*Setaria* spp.)
Little barley (*Hordeum pusillum*)

Seedling Johnsongrass (*Sorghum halepense*)
Wild carrot (*Daucus carota*)
White clover (*Trifolium repens*)
Yellow woodsorrel (*Oxalis stricta*)

GRASS GROWTH AND SEED-HEAD SUPPRESSION

Habitat may be used to suppress growth and seed-head development of certain turfgrass in unimproved areas. When **Habitat** is applied to desirable turf, it may result in temporary turf damage and/or discoloration. Effects to the desirable turf may vary with environmental conditions. For optimum performance, application should be made prior to culm elongation. Applications may be made before or after mowing. If applied prior to mowing, allow at least 3 days of active growth before mowing. If applied following a mowing, allow sufficient time for the grasses to recover before applying this product or injury may be amplified.

DO NOT APPLY to turf under stress (drought, cold, insect damaged, etc.) or severe injury or death may occur.

Bermudagrass. Apply **Habitat** at 6 to 8 ozs per acre from early green-up to prior to seed-head initiation.

DO NOT add a surfactant for this application.

Cool Season Unimproved Turf. Apply **Habitat** at 2 ozs per acre plus 0.25% nonionic surfactant. For increased suppression, **Habitat** may be tank mixed with such products as **Campaign®** (24 ozs per acre) or **Embark®** (8 ozs per acre). Tank mixes may increase injury to desirable turf. Consult each product label for recommended turf species and other use directions and precautions. Tank mixes with 2,4-D or products containing 2,4-D may decrease the effectiveness of **Habitat**.

TOTAL VEGETATION CONTROL WHERE BAREGROUND IS DESIRED

Habitat is an effective herbicide for preemergence or postemergence control of many annual and perennial broadleaf and grass weeds where bare ground is desired. **Habitat** is particularly effective on hard-to-control perennial grasses. **Habitat** at 1.5 to 6 pints per acre can be used alone or in tank mix with herbicides approved for use in bare ground. The degree and duration of control are dependent on the rate of **Habitat** used, tank mix partner, the volume of carrier, soil texture, rainfall, and other conditions.

Consult manufacturer labels for specific rates and weeds controlled. Always follow the more restrictive label restrictions and precautions for all products used when making an application involving tank mixes.

Applications of **Habitat** may be made any time of the year. Use equipment calibrated to deliver desired gallons per acre spray volume and uniformly distribute the spray pattern over the treated area.

Postemergence Applications. Always use a spray adjuvant (see **ADJUVANTS** section of this label) when

making a postemergence application. For optimum performance on tough-to-control annual grasses, applications should be made at a total volume of 100 gallons per acre or less. For quicker burndown or brown-out of target weeds, **Habitat® herbicide** may be tank mixed with **Roundup® herbicide**. Tank mixes with 2,4-D, or products containing 2,4-D, may reduce the performance of **Habitat**. Always follow the more restrictive label restrictions and precautions for all products used when tank mixing.

Spot Treatments. **Habitat** may be used as a follow-up treatment to control escapes or weed encroachment in a bareground situation. To prepare the spray solution, thoroughly mix in each gallon of water 0.5% to 5% **Habitat** plus an adjuvant. For increased burndown, include **Roundup** as a tank mixture. For added residual weed control, or to increase the weed spectrum, add **Pendulum® AquaCap™ herbicide**, **Overdrive® herbicide** or diuron. Always follow the more restrictive label restrictions and precautions for all products used when tank mixing.

FOR CONTROL OF UNDESIRABLE WEEDS UNDER PAVED SURFACES

Habitat 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.

Use **Habitat** 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, remove them by scalping with a grader blade to a depth sufficient to ensure their complete removal.

IMPORTANT: Follow **Habitat** applications with paving as soon as possible. **DO NOT** apply where the chemical may contact the roots of desirable trees or other plants.

This product is not recommended for use under pavement on residential properties, such as driveways or parking lots, or for use 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 roots may extend into the treated area. Roots of trees and shrubs may extend a considerable distance beyond the branch extremities (drip line).

Apply to the soil surface only when final grade is established. **DO NOT** move soil following **Habitat** application.

Apply **Habitat** in sufficient water (at least 100 gals per acre) to ensure thorough and uniform wetting of the soil surface, including the shoulder areas. Add **Habitat** at a rate of 6 pints per acre (2.2 fluid ounces per 1000 square feet) to clean water in the spray tank during the filling operation. Agitate before spraying.

If the soil is not moist prior to treatment, incorporation of **Habitat** is needed for herbicide activation. Incorporate **Habitat** 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.

Spot Treatments and Crack and Crevice Treatments

Use **Habitat** as an initial or follow-up treatment to control weed escapes or weed encroachment in a bareground situation, including cracks and crevices in paved surfaces such as roadways, runways, and parking areas.

FOR SPOT TREATMENT WEED CONTROL IN GRASS PASTURE AND RANGELAND

For the control of undesirable vegetation in grass pasture and rangeland, **Habitat** may be applied as a spot treatment at a rate of 2 to 48 fluid ounces of product per treated acre using any of the described ground application methods. Spot applications to grass pasture and rangeland may not exceed more than 1/10 of the area to be grazed or cut for hay. See appropriate sections of this label for specific use directions for the application method and vegetation control desired.

DO NOT apply more than 48 fluid ounces per acre per year.

Grazing and Haying Restrictions

- There are no grazing restrictions following **Habitat** application.
- **DO NOT** cut forage grass for hay for 7 days after **Habitat** application.

Instructions for Rangeland Use

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

- Control of undesirable (nonnative, invasive and noxious) plant species
- Control of undesirable vegetation to aid in the establishment of desirable rangeland plant species
- Control of undesirable vegetation to aid in the establishment of desirable rangeland vegetation following a fire
- Control of undesirable vegetation to reduce wildfire fuel
- Release of existing desirable rangeland plant communities from the competitive pressure of undesirable plant species
- Control of undesirable vegetation for wildlife habitat improvement

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

- Federal agencies must follow NEPA regulations to ensure protection of threatened and endangered plants.
- 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.

- 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.

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

Habitat® herbicide should only be applied to a given rangeland acre as specific weed problems arise. 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.

Rotational Crop Instructions

Rotational crops may be planted 12 months after applying **Habitat** at the specified pasture and rangeland rate. Following 12 months after a **Habitat** application and before planting any crop, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted in the previously treated area in the grass pasture/rangeland and grown to maturity. The test strip should include low areas and knolls and include variations in soil type and pH within the treated area. If no crop injury is evident in the test strip, the intended rotational crop may be planted the following year.

Use of **Habitat** in accordance with label directions is expected to result in normal growth of rotational 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, rotational crop injury is always possible.

CONDITIONS OF SALE AND WARRANTY

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

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The Chemical Company