



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
241-401

Date of Issuance:
SEP 17 1999

Term of Issuance:
Conditional

Name of Pesticide Product:
Habitat Release
herbicide

NOTICE OF PESTICIDE:
 X Registration
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

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

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5), 3(g), or 4 when the Agency requires all registrants of similar products to submit such data.

2. Make the following label changes listed below before you release the product for shipment:

a. Add the phrase, "EPA Reg. No. 241-401".

b. When labels are printed assure that the Signal Word CAUTION - PRECAUCION and Keep Out Of The Reach Of Children meet the type size required by 40 CFR 156.10(h)(1)(iv).

Signature of Approving Official:

Date:

9-17-99

c. The Agency has recently revised its recommended First Aid statements for pesticide products and intends to issue a PR Notice announcing the changes in the near future. In the interim we are encouraging registrants to begin using the new statements. The new statements were developed as part of the Consumer Labeling Initiative in close cooperation with poison control center personnel and other medical experts. While it is not mandatory that you revise your label at this time, you are strongly encouraged to substitute the revised statements (below) for those statements currently on the label at your next label printing:

FIRST AID

If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor.
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 the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

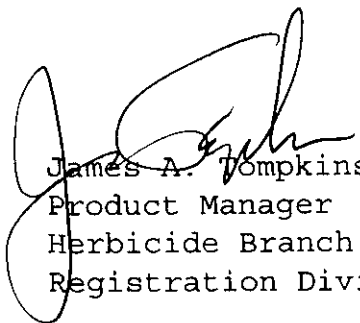
Have the product container or label with you when calling a poison control center or doctor or going for treatment.

3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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EPA Reg. No. 241-401

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



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

Enclosure

HABITAT™ Release herbicide

ACTIVE INGREDIENT:

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid)* 53.1%

INERT INGREDIENT..... 46.9%

TOTAL..... 100.0%

*Equivalent to 43.3% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid or 4 pounds acid per gallon.

EPA Reg. No. 241-

U.S. Patent No. 4,798,619

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

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.)

STATEMENT OF PRACTICAL TREATMENT

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF IN EYES: Flush with plenty of water. Get medical attention if irritation persists.

IF ON SKIN: Wash with plenty of soap and water.

In case of emergency endangering life or property involving this product, call collect, day or night, Area Code 973-683-3100.

See next page for*Additional Precautionary Statements

AMERICAN CYANAMID COMPANY
NORTH AMERICA AGRICULTURAL PRODUCTS DIVISION
SPECIALTY PRODUCTS DEPARTMENT
ONE CAMPUS DRIVE
PARSIPPANY, NJ 07054 ©1999

Net Contents:

™ Trademark of American Cyanamid Company

**ACCEPTED
with COMMENTS
In EPA Letter Dated:
SEP 17 1999**

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
241-401

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS

CAUTION!

Harmful if inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- 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.

<p>USER SAFETY RECOMMENDATIONS</p> <p>Users should:</p> <ol style="list-style-type: none"> 1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
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ENVIRONMENTAL HAZARDS

For terrestrial uses, 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. This herbicide is phytotoxic at extremely low concentrations. Nontarget plants may be adversely affected from drift.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of HABITAT Release herbicide should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

DO NOT mix, store, or apply HABITAT Release herbicide or spray solutions of HABITAT Release herbicide in unlined steel (except stainless steel) containers or spray tanks.

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.

HABITAT Release herbicide should be used only in accordance with recommendations on the leaflet label. Keep containers closed to avoid spills and contamination.

HABITAT Release herbicide may be applied using helicopters, ground operated sprayers such as all terrain vehicles, low-volume hand-operated spray equipment such as back-pack and pump-up sprayers, and tree injection equipment.

Observe all cautions and limitations in the package labels of products used in combination with HABITAT Release herbicide.

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
- shoes plus socks

7/20

NON-AGRICULTURAL 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

PROHIBITIONS: DO NOT store below 10°F.
DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

IMPORTANT

DO NOT use on food or feed crops. DO NOT use on Christmas trees. DO NOT treat irrigation ditches, or water used for crop irrigation or for domestic uses. For terrestrial uses, DO NOT apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Keep from contact with fertilizers, insecticides, fungicides, and seeds to prevent unintentional exposure of desirable vegetation with HABITAT Release herbicide. DO NOT apply or drain or flush equipment on or near desirable non-conifer 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 side trim desirable vegetation with this product. Prevent drift of spray to desirable plants.

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241 294
HABITAT
Release

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

GENERAL INFORMATION

HABITAT Release herbicide is a surfactant free aqueous solution to be mixed in water and generally applied as a post-emergent spray for control of most annual and perennial grasses,

broadleaf weeds, vines, brambles, and hardwood brush and trees for the establishment and maintenance of wildlife openings and wildlife habitat management in forestry and terrestrial noncrop sites, such as railroad, utility, pipeline and highway rights-of-way, utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, non-irrigation ditchbanks and other similar areas. HABITAT Release herbicide may also be mixed in water and used for stump and cut-stem treatment for control of unwanted woody vegetation.

HABITAT Release herbicide may be applied in forestry sites (land managed for timber production) on areas defined as puddles, potholes, berms of ditches, drainage ditches, intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains, and transitional areas between upland and lowland sites except in the state of California. It is permissible to treat marshes, swamps, and bogs after water has receded, as well as seasonally dry flood deltas except in the state of California.

HABITAT Release herbicide is also recommended for control of undesirable vegetation along forest roads, non-irrigation ditchbanks, and the establishment and maintenance of wildlife openings except in the state of California.

SYMPTOMOLOGY:

HABITAT Release herbicide is readily absorbed through foliage and roots and is translocated rapidly throughout the plant, with accumulation in the meristematic regions. Treated plants stop growing soon after spray application. Chlorosis first appears in the youngest leaf tissue. In perennials, the herbicide is translocated into the roots, thus preventing most resprouting. Chlorosis and tissue necrosis may not be apparent in some plant species for several weeks after application. Woody plants, brush, and trees normally do not display the full extent of herbicide control until several months following application.

WILDLIFE HABITAT MANAGEMENT

HABITAT Release herbicide may be used to control exotic and other undesirable vegetation for purposes of wildlife habitat enhancement, within forestry as well as terrestrial noncrop sites. Applications can be made to control undesirable vegetation (see WEEDS CONTROLLED section) prior to planting desirable species and to release desirable plant species (see TOLERANT PLANT SPECIES section). Spot, directed foliar and cut stump and stem treatments can be made to selectively control unwanted plants for wildlife habitat management and enhancement. See below for specific application directions.

RECOMMENDED APPLICATION RATES

HABITAT Release herbicide should be applied at the following use rates depending upon the vegetation to be controlled and the type of application being made.

Target Vegetation	Application Type	Recommended Use Rate
Hardwood trees and brush	Directed foliar or spot spray	1-2% by volume
	Stump or cut stem	<u>Dilute</u> – 6 fluid oz./gallon of water <u>Concentrate</u> – undiluted to 32 fluid oz./gallon of water
	Broadcast	24 – 40 oz./acre
Herbaceous weeds	Broadcast	4-10 fluid oz./acre
	Directed	0.4-0.6 fluid oz./gallon of water

See specific use directions in appropriate section.

MIXING AND APPLICATION INSTRUCTIONS

Helicopter Spray Equipment: Thoroughly mix the recommended amount of HABITAT Release herbicide in 5 to 30 gallons of water per acre and uniformly apply with properly calibrated aerial equipment. A suitable nonionic surfactant may be added to the spray solution to enhance control of undesirable vegetation. All precautions should be taken to minimize or eliminate spray drift. Applications should not be made under windy or gusty conditions. The use of controlled droplet booms and nozzle configurations is recommended. A drift control agent may be added at the recommended label rate except when applying with a MICROFOIL™ boom, THRU- VALVE™ boom or other similar equipment. A foam reducing agent may be added at the recommended label rate, if needed.

IMPORTANT: DO NOT make applications by fixed wing aircraft. Maintain adequate buffer zones. Thoroughly clean application and mixing equipment, including landing gear, immediately after use. Prolonged exposure of this product to uncoated steel (except stainless steel) surfaces may result in corrosion and failure of the exposed part.

Broadcast Application With Ground Operated Spray Equipment: Thoroughly mix and apply the recommended amount of HABITAT Release herbicide in 5 to 60 gallons of water per acre. A suitable nonionic surfactant may be added to the spray solution to enhance control of undesirable vegetation. A drift control agent and a foam reducing agent may be added at the recommended label rates, if needed. If desired, a spray pattern indicator may be added at the recommended label rate.

For best results, uniformly cover the foliage of the vegetation to be controlled with the spray solution.

IMPORTANT: DO NOT spray under windy or gusty conditions. Maintain adequate buffer zones. Clean application and mixing equipment after using this product by thoroughly flushing with water.

Side Trimming: DO NOT side trim with HABITAT Release herbicide unless severe injury or death of the treated tree can be tolerated. HABITAT Release herbicide is readily translocated and can result in death of the entire tree.

UNDESIRABLE HARDWOOD VEGETATION CONTROL

Directed Foliar or Spot Spray Applications

When making directed or spot spray applications with ground spray equipment, or low-volume hand-operated spray equipment, thoroughly mix a solution of 1 to 2 percent by volume of HABITAT Release herbicide and a minimum of 1/4 percent by volume nonionic surfactant in water.

To mix the spray solution, add the volume of HABITAT Release herbicide and nonionic surfactant indicated in the table below to the desired amount of water.

SPRAY SOLUTION VOLUME	HABITAT Release herbicide		SURFACTANT
	1.0%	2.0%	0.25%
1 gallon	1.3 oz. (2.5 Tblsp)	2.6 oz (5 Tblsp)	0.3 oz. (2 tsp)
5 gallons	6.4 oz. (13 Tblsp)	13 oz (26 Tblsp)	1.6 oz. (3.5 Tblsp)
10 gallons	13 oz.	26 oz.	3.2 oz. (7 Tblsp)
25 gallons	2 pints	4 pints	8.0 oz.
100 gallons	1 gallon	2 gallons	2 pints

Tblsp = tablespoon tsp = teaspoon
2 tablespoons = 1 fluid ounce

IMPORTANT: DO NOT over apply causing runoff from the treated foliage. Avoid direct application to desired plant species as injury may occur. DO NOT apply on or near desirable non-conifer 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 exceed 40 ounces of HABITAT Release herbicide per acre.

Application Tips: For low volume, select proper nozzles to avoid over-application. Proper application is critical to ensure desirable results. Best results are achieved when the spray covers the crown and approximately 70 percent of the plant. The use of an even flat fan tip with a spray angle of 40 degrees or less will aid in proper deposition.

Recommended tip sizes include 4004E or 1504E. For a straight stream and cone pattern, adjustable cone nozzles such as 5500 X3 or 5500 X4 may be used. Attaching a roll-over valve onto a Spraying Systems Model 30 gunjet or other similar spray guns allows for the use of both a flat fan and cone tips on the same gun.

Proper Spray Pattern: Moisten, but do not drench target vegetation causing spray solution to run off.

Low Volume with Backpacks: For brush up to 4 feet tall, spray down on the crown, covering crown and penetrating approximately 70% of the plant.

For brush 4 to 8 feet tall, swipe the sides of target vegetation by directing spray to at least two sides of the plant in smooth vertical motions from the crown to the bottom. Make sure to cover the crown when ever possible.

For brush over 8 feet tall, lace sides of the brush by directing spray to at least two sides of the target in smooth zigzag motions from crown to bottom.

Low Volume with Hydraulic Handgun Application Equipment: Use same technique as described above for individual stem treatments.

Broadcast Applications

For broadcast applications, simulate a gentle rain near the top of target vegetation, allowing spray to contact the crown and penetrate the target foliage without falling to the understory. Herbicide spray solution which contacts the understory may result in severe injury or death of plants in the understory. **DO NOT** exceed 40 ounces of HABITAT Release herbicide per acre.

Stump and Cut Stem Treatments

HABITAT Release herbicide may be used to control undesirable woody vegetation by applying a solution of the herbicide in water to the cambium area of freshly-cut stump surfaces or to cuts on the stem of the target woody vegetation. Applications can be made at any time of the year except during periods of heavy sap flow in the spring. Tree injection and cut stem treatments are most effective in late summer and early fall.

Mixing: HABITAT Release herbicide may be mixed as either a concentrated or dilute solution for stump and cut stem treatments. The dilute solution may be used for applications to the surface of the stump or to cuts on the stem of the target woody vegetation. Concentrated solutions may be used for applications to cuts on the stem. Use of the concentrated solution permits application to fewer cuts on the stem, especially for large diameter trees. Follow the application instructions to determine proper application techniques for each type of solution.

Applications with Dilute Solutions: To prepare a dilute solution, mix 6 fluid ounces of HABITAT Release herbicide with one gallon of water.

For cut stump treatments: Spray or brush the solution onto the cambium area of the freshly cut stump surface. Insure that the solution thoroughly wets the entire cambium area (the wood next to the bark of the stump).

For tree injection treatments: Using standard injection equipment, apply 1 milliliter of solution at each injection site around the tree with no more than one inch intervals between cut edges. Insure that the injector completely penetrates the bark at each injection site.

For frill or girdle treatments: Using a hatchet, machete, or similar device, make cuts through the bark at intervals around the tree with no more than two inch intervals between cut edges. Spray or brush the solution into each cut until thoroughly wet.

Applications with Concentrate Solutions: To prepare a concentrated solution, use undiluted product or mix with up to 75% water, by volume.

For tree injection treatments: Using standard injection equipment, apply 1 milliliter of solution at each injection site. Make at least one injection cut for every three inches of diameter at breast height (dbh) on the target tree. For example, a three inch dbh tree will receive 1 injection cut and a six inch dbh tree will receive 2 injection cuts. On trees requiring more than one injection site, place the injection cuts at approximately equal intervals around the tree.

For frill or girdle treatments: Using a hatchet, machete, or similar device, make cuts through the bark at approximately equal intervals around the tree. Make at least one cut for every three inches of diameter at breast height (dbh) on the target tree. For example, a three inch dbh tree will receive 1 cut and a six inch dbh tree will receive 2 cuts. Spray or brush the solution into each cut until thoroughly wet.

NOTE: Injury may occur to non-target or desirable woody plants if they extend from the same root system or their root systems are grafted to those of the treated tree.

HERBACEOUS WEED CONTROL

HABITAT Release herbicide may be applied as a broadcast treatment using ground sprayers or as a directed treatment using backpack or hand-held sprayers for the control of herbaceous weeds. For broadcast treatments apply HABITAT Release herbicide at rates of 4 to 10 fluid oz. per acre and include a minimum of 1/4 percent by volume nonionic surfactant. For directed applications mix 0.4 to 0.6 fluid oz. HABITAT Release herbicide and 0.2 fluid oz. nonionic surfactant per gallon of water. For best results, applications should be made to newly emerged weeds. For difficult to control weeds, use the higher labeled rates.

TOLERANT PLANT SPECIES

The following plant species are tolerant to HABITAT Release herbicide. Many of these species are preferred food, browse and cover plants for wildlife. These species may be released from herbaceous weed and brush competition with an application of HABITAT Release herbicide. HABITAT Release herbicide should be used only in accordance with the recommendations on this label.

Beggarweeds

- Beggarweed (Desmodium nudiflorum)
- Beggarweed (Desmodium rotundifolium)
- Florida beggarweed (Desmodium tortuosum)

Black locust (Robinia pseudo-acacia)

Blackberry (Rubus argutus)

Butterfly pea (Centrosema virginianum)

Butterfly pea (Clitoria mariana)

Dewberry (Rubus trivialis)

Dollar weed (Rhynchosia reniformis)

Erect milk pea (Galactia volubilis)
 Goats rue (Tephrosia virginiana)
 Ground nut (Apios americana)
 Hairy rhynchosia (Rhynchosia tomentosa)
 Hog peanut (Amphicarpa bracteata)
 Indigo bush (Amorpha fruticosa)
 Lespedeza
 Bicolor lespedeza (Lespedeza bicolor)
 Common lespedeza (Lespedeza striata)
 Hairy lespedeza (Lespedeza hirta)
 Japonica lespedeza (Lespedeza japonica)
 Prostrate lespedeza (Lespedeza procumbens)
 Roundhead lespedeza (Lespedeza capitata)
 Thunburg lespedeza (Lespedeza thunburgii)
 Wand lespedeza (Lespedeza intermedia)
 Milk pea (Strophostyles helvola)
 Narrowleaf vetch (Vicia dasycarpa)
 Partridge pea (Cassia fasciculata)
 Pencil flower (Stylosanthes biflora)
 Redbud (Cercis canadensis)
 Samson snakeroot (Psoralea psoralioides)
 Sensitive briar (Schrankia microphylla)
 Sesbania (Sesbania macrocarpa)
 Small partridge pea (Cassia nictitans)
 Spike tephrosia (Tephrosia spicata)
 Trailing wild bean (Strophostyles umbellata)
 Wild indigo (Indigofera caroliniana)
 Wild pea (Vigna suteola)

The following plant species commonly colonize a site after treatment with HABITAT Release herbicide. Seed of these species may be present in the soil or may be dispersed within the area by wind and animals.

Beautyberry (Callicarpa americana)
 Beggar ticks (Bidens spp.)
 Blue curls (Trichostema dichotomum)
 Broomsedges (Andropogon spp.)
 Carpet-weed (Mollugo verticillata)
 Common ragweed (Ambrosia artemisiifolia)
 Dove weed (Croton glandulosus)
 Evening primrose (Oenothera biennis)
 Fireweed (Epilobium angustifolium)
 Florida purslane (Richardia scabra)
 Flowering spurge (Euphorbia corollata)
 Giant ragweed (Ambrosia trifida)
 Greenbrier (Smilax bona-nox)
 Ground cherry (Physalis virginiana)

Lambsquarters (Chenopodium album)
 Lovevine (Cuscuta gronovii)
 Maypop (Passiflora incarnata)
 Morningglory (Ipomoea purpurea)
 Muscadine grape (Vitis rotundifolia)
 New Jersey tea (Ceanothus americanus)
 Panic grasses (Panicum spp.)
 Pennsylvania smartweed (Polygonum pennsylvanicum)
 Pigweed (Amaranthus hybridus)
 Poison ivy (Rhus radicans)
 Pokeweed (Phytolacca americana)
 Poor-joe (Diodia teres)
 Sheep-sorrel (Rumex hastatulus)
 Smooth sumac (Rhus glabra)
 Trumpet vine (Campsis radicans)
 Violets (Violet spp.)
 Virginia creeper (Parthenocissus quinquefolia)
 Wild geranium (Geranium carolinianum)
 Winged sumac (Rhus copallina)
 Wolly croton (Croton capitatus)
 Yellow wood sorrel (Oxalis stricta)

WEEDS CONTROLLED

HABITAT Release herbicide will provide postemergence control and some residual control of the following target vegetation species. Degree of control is both species and rate dependent. HABITAT Release herbicide should be used only in accordance with the recommendations on this label.

GRASSES

The species of annual and perennial grasses controlled by HABITAT Release herbicide include the following:

Annual bluegrass (Poa annua)
 Bahiagrass (Paspalum notatum)
 Barnyardgrass (Echinochloa crus-galli)
 Beardgrass (Andropogon spp.)
 Bermudagrass (Cynodon dactylon)¹
 Big bluestem (Andropogon gerardii)
 Broadleaf signalgrass (Brachiaria platyphylla)
 Canada bluegrass (Poa compressa)
 Cattail (Typha spp.)
 Cheat (Bromus secalinus)
 Cogongrass (Imperata cylindrica)²
 Crabgrass (Digitaria spp.)
 Crowfootgrass (Dactyloctenium aegyptium)
 Dallisgrass (Paspalum dilatatum)
 Downy brome (Bromus tectorum)
 Fall panicum (Panicum dichotomiflorum)
 Feathertop (Pennisetum villosum)
 Fescue (Festuca spp.)
 Foxtail (Setaria spp.)
 Giant reed (Arundo donax)
 Goosegrass (Eleusine indica)
 Guineagrass (Panicum maximum)
 Italian ryegrass (Lolium multiflorum)
 Itchgrass (Rottboellia exaltata)
 Johnsongrass (Sorghum halepense)¹
 Junglerice (Echinochloa colonum)
 Kentucky bluegrass (Poa pratensis)
 Lovegrass (Eragrostis spp.)¹
 Orchardgrass (Dactylis glomerata)
Panicum spp
 Paragrass (Brachiaria mutica)
 Phragmites (Phragmites australis)
 Prairie cordgrass (Spartina pectinata)
 Prairie threeawn (Aristida oligantha)
 Quackgrass (Agropyron repens)

Reed canary grass (Phalaris arundinacea)
 Saltgrass (Distichlis stricta)
 Sand dropseed (Sporobolus cryptandrus)
 Sandbur (Cenchrus spp.)
 Signalgrass (Brachiaria platyphylla)
 Smooth brome (Bromus inermis)
 Sprangletop (Leptochloa spp.)
 Timothy (Phleum pratense)
 Torpedograss (Panicum repens)
 Vaseygrass (Paspalum urvillei)
 Wild barley (Hordeum spp.)
 Wild oats (Avena fatua)
 Wirestem muhly (Muhlenbergia frondosa)
 Witchgrass (Panicum capillare)
 Woolly cupgrass (Eriochloa villosa)

¹Use higher labeled rates.

²Use minimum of 12 oz per acre.

BROADLEAF WEEDS

The species of annual and perennial broadleaf weeds controlled by HABITAT Release herbicide include the following:

Arrowwood (Pluchea sericea)
 Broom snakeweed (Gutierrezia sarothrae)
 Bull thistle (Cirsium vulgare)
 Burclover (Medicago spp.)
 Burdock (Arctium spp.)
 Camphorweed (Heterotheca subaxillaris)
 Canada thistle (Cirsium arvense)
 Carolina geranium (Geranium carolinianum)
 Carpetweed (Mullugo verticillata)
 Chickweed, mouseear (Cerastium vulgatum)
 Clover (Trifolium spp.)
 Cocklebur (Xanthium strumarium)
 Common chickweed (Stellaria media)
 Common ragweed (Ambrosia artemisiifolia)
 Cudweed (Gnaphalium spp.)
 Dandelion (Taraxacum officinale)
 Desert camelthorn (Alhagi pseudalhagi)
 Diffuse knapweed (Centaurea diffusa)
 Dock (Rumex spp.)
 Dogfennel (Eupatorium capillifolium)
 Fiddleneck (Amsinckia intermedia)
 Filaree (Erodium spp.)
 Fleabane (Erigeron spp.)

Giant ragweed (Ambrosia trifida)
 Goldenrod (Solidago spp.)
 Gray rabbitbrush (Chrysothamnus nauseosus)
 Henbit (Lamium alexicaule)
 Hoary vervain (Verbena stricta)
 Horseweed (Conyza canadensis)
 Indian mustard (Brassica juncea)
 Japanese bamboo/knotweed (Polygonum cuspidatum)
 Knotweed, prostrate (Polygonum aviculare)
 Kochia (Kochia scoparia)
 Lambsquarters (Chenopodium album)
 Little mallow (Malva parviflora)
 Milkweed (Asclepias spp.)
 Miners lettuce (Montia perfoliata)
 Mullein (Verbascum spp.)
 Nettleleaf goosefoot (Chenopodium murale)
 Oxeye daisy (Chrysanthemum leucanthemum)
 Pepperweed (Lepidium spp.)
 Pigweed (Amaranthus spp.)
 Plantain (Plantago spp.)
 Pokeweed (Phytolacca americana)
 Primrose (Oenothera kunthiana)
 Puncturevine (Tribulus terrestris)
 Purple loosestrife (Lythrum salicaria)
 Purslane (Portulaca spp.)
 Pusley, Florida (Richardia scabra)
 Rocket, London (Sisymbrium irio)
 Rush skeletonweed (Chondrilla juncea)
 Russian knapweed (Centaurea repens)
 Russian thistle (Salsola kali)
 Saltbush (Atriplex spp.)
 Shepherd's purse (Capsella bursa-pastoris)
 Silverleaf nightshade (Solanum elaeagnifolium)
 Smartweed (Polygonum spp.)
 Sorrell (Rumex spp.)
 Sowthistle (Sonchus spp.)
 Spurge, annual (Euphorbia spp.)
 Stinging nettle (Urtica dioica)
 Sunflower (Helianthus spp.)
 Sweet clover (Melilotus spp.)
 Tansymustard (Descurainia pinnata)
 Texas thistle (Cirsium texanum)
 Velvetleaf (Abutilon theophrasti)
 Western ragweed (Ambrosia psilostachya)
 Wild carrot (Daucus carota)
 Wild lettuce (Lactuca spp.)
 Wild parsnip (Pastinaca sativa)

Wild turnip (Brassica campestris)
 Woollyleaf bursage (Ambrosia grayi)
 Yellow starthistle (Centaurea solstitialis)
 Yellow woodsorrel (Oxalis stricta)

VINES AND BRAMBLES

The species of vines and brambles controlled by HABITAT Release herbicide include the following:

Field bindweed (Convolvulus arvensis)
 Greenbriar (Smilax spp.)
 Hedge bindweed (Calystegia sepium)
 Honeysuckle (Lonicera spp.)
 Kudzu (Pueraria lobata)^{1,2}
 Morningglory (Ipomoea spp.)
 Poison ivy (Rhus radicans)
 Redvine (Brunnichia cirrhosa)
 Trumpet creeper (Campsis radicans)
 Virginia creeper (Parthenocissus quinquefolia)
 Wild buckwheat (Polygonum convolvulus)
 Wild grape (Vitis spp.)
 Wild rose (Rosa spp.)¹
 Including: Multiflora rose (Rosa multiflora)
 Macartney rose (Rosa bracteata)

¹Use higher labeled rates.

²Use a minimum of 75 GPA - Control of established stands may require multiple applications.

WOODY BRUSH AND TREES

The species of woody brush and trees controlled by HABITAT Release herbicide include the following:

Alder (Alnus spp.)
 American beech (Fagus grandifolia)
 Ash (Fraxinus spp.)¹
 Aspen (Populus spp.)
 Autumn olive (Elaeagnus umbellata)
 Bald cypress (Taxodium distichum)
 Bigleaf maple (Acer macrophyllum)
 Birch (Betula spp.)¹
 Black oak (Quercus kelloggii)
 Blackgum (Nyssa sylvatica)²
 Boxelder (Acer negundo)
 Brazilian peppertree (Schinus terebinthifolius)
 Ceanothis (Ceanothis spp.)

Cherry (Prunus spp.)^{1,2}
 Chinaberry (Melia azedarach)
 Chinese tallow-tree (Sapium sebiferum)
 Chinquapin (Castanopsis chrysophylla)
 Cottonwood (Populus trichocarpa and Populus deltoides)
 Cypress (Taxodium spp.)
 Dogwood (Cornus spp.)¹
 Eucalyptus (Eucalyptus spp.)
 Hawthorn (Crataegus spp.)
 Hickory (Carya spp.)¹
 Huckleberry (Gaylussacia spp.)
 Lyonia spp
 Including: Fetterbush (Lyonia lucida)
 Staggerbush (Lyonia mariana)
 Madrone (Arbutus menziesii)
 Maple (Acer spp.)
 Melaleuca (Melaleuca quinquenervia)
 Mulberry (Morus spp.)^{1,3}
 Oak (Quercus spp.)⁴
 Persimmon (Diospyros virginiana)²
 Poison oak (Rhus diversiloba)
 Popcorn-tree (Sapium sebiferum)
 Poplar (Populus spp.)
 Privet (Ligustrum vulgare)
 Red alder (Alnus rubra)
 Red maple (Acer rubrum)
 Saltcedar (Tamarix pentandra)
 Sassafras (Sassafras albidum)
 Sourwood (Oxydendrum arboreum)²
 Sumac (Rhus spp.)
 Sweetgum (Liquidambar styraciflua)
 Sycamore (Platanus occidentalis)
 Tanoak (Lithocarpus densiflorus)¹
 TiTi (Cyrilla racemiflora)¹
 Tree of heaven (Ailanthus altissima)
 Vaccinium spp.
 Including: Blueberry (Vaccinium spp.)
 Sparkleberry (Vaccinium arboreum)
 Willow (Salix spp.)
 Yellow-poplar (Liriodendron tulipifera)

¹ Use higher labeled rates.

² Best control with applications prior to formation of fall leaf color.

³ The degree of control may be species dependent.

⁴ For Water oak (Quercus nigra), Laurel oak (Q. lauriflora), Willow oak (Q. phellos) and Live oak (Q. virginiana) use higher labeled rates.

DISCLAIMER

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

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