

ARSENAL® NS 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)*.....28.7%

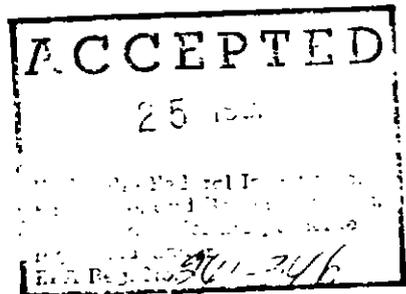
INERT INGREDIENTS.....71.3%

TOTAL.....100.0%

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

EPA Reg. No. 241-XXX

EPA Est. No.



KEEP OUT OF REACH OF CHILDREN
CAUTION!

PRECAUCION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

In case of emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

See next page for Additional Precautionary Statements

AMERICAN CYANAMID COMPANY
AGRICULTURAL DIVISION
VEGETATION AND PEST CONTROL
WAYNE, NJ 07470 ©1992

Net Contents:

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS

CAUTION!

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

FIRST AID

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

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

PHYSICAL AND CHEMICAL HAZARDS

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

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

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.

IMPORTANT

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

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

BEST AVAILABLE COPY

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GENERAL INFORMATION

ARSENAL herbicide is an aqueous solution to be mixed with a non-ionic surfactant and water and applied as a spray for control of most annual and perennial grasses and broadleaf weeds on noncropland areas.

ARSENAL may be applied either preemergence or postemergence to the weeds; however, postemergence application is the method of choice in most situations, particularly for control of perennials. For maximum activity, weeds should be growing vigorously at the time of postemergence applications. The preemergence activity of ARSENAL will provide residual control of new germination of most weed species following a postemergence application.

ARSENAL 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 appears first in the newest leaves, and necrosis spreads from this point. In perennials, the herbicide is translocated into and kills underground storage organs, thus preventing regrowth. Chlorosis and tissue necrosis may not be apparent in some plant species until two weeks after application. Complete kill of plants may not occur for several weeks.

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.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including other express or implied warranty of FITNESS or of MERCHANTABILITY.



DIRECTIONS FOR USE

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

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

A postemergence use of ARSENAL is recommended for control of most annual and perennial grasses and broadleaf weeds on noncropland areas 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. ARSENAL is recommended for the establishment and maintenance of wildlife openings. ARSENAL may also be used for the release of unimproved bermudagrass (see specific labeling).

STORAGE AND DISPOSAL

PROHIBITIONS: DO NOT store below 10 degrees 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
FOR 2.5 GALLON AND
30 GALLON:**

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

**CONTAINER DISPOSAL
FOR FIELD KEG,
MINIBULK AND BULK:**

Return empty container for reuse.

FOR CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED BERMUDAGRASS AND BAHIAGRASS

ARSENAL NS may be used on unimproved bermudagrass and bahiagrass turf such as roadsides, utility rights-of-way and other non-cropland industrial sites. The application of ARSENAL 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 ARSENAL results in a compacted growth habit and seedhead inhibition.

Uniformly apply with properly calibrated ground equipment using at least 10 gallons of water per acre with a spray pressure 20 to 50 psi.

DOSAGE RATES AND TIMING

EARLY SPRING - DORMANT: Apply ARSENAL at 6 to 12 fluid oz. per acre for bermudagrass, and 4 to 8 fluid oz. per acre for bahiagrass when the grass is still dormant and has not initiated new growth.

SPRING - UP TO 25% GREEN-UP: Apply ARSENAL at 6 to 8 fluid oz. per acre for bermudagrass and 4 to 8 fluid oz. per acre for bahiagrass after the grass has initiated green-up but has not exceeded 25% green-up.

WEEDS CONTROLLED

Bedstraw (Galium spp.)
Bishopweed (Ptilimnium capillaceum)
Buttercup (Ranunculos 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)

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1. DO NOT APPLY to grass during its first growing season.
 2. DO NOT APPLY to grass that is under stress from drought, disease, insects, or other causes.
 3. Temporary yellowing of grass may occur when treatment is made after growth commences.
 4. DO NOT add a surfactant.

APPLICATION EQUIPMENT AND TECHNIQUES

ARSENAL herbicide may be applied with the following application equipment:

Aerial: fixed wing and helicopter.

Boom: conventional boom mounted, manifold mounted, and off-center nozzles.

Low-volume hand-held spray equipment: backpack, knapsack and other pump-up type pressure sprayers and backpack mist blowers used to direct application to weed foliage.

High-volume spray equipment: high pressure handguns and vehicle mounted high-volume directed spray equipment.

AERIAL EQUIPMENT

The spray solution should be uniformly applied at 5 to 30 gallons per acre using properly calibrated aerial equipment. To prepare the spray solution, mix the recommended amount of ARSENAL in water and add a non-ionic surfactant at 0.25% v/v of the final spray solution*. All precautions should be taken to minimize or eliminate spray drift. Aerial equipment designed to minimize spray drift, such as a helicopter equipped with a MICROFOIL boom, THRU-VALVE boom or raindrop nozzles, must be used. Applications should not be made under gusty conditions or when wind velocity exceeds 5 mph. Except when applying with a MICROFOIL boom, a drift control agent may be added at the recommended label rate. A foam reducing agent may be added at the recommended label rate, if needed.

IMPORTANT: DO NOT make applications by fixed wing aircraft unless appropriate buffer zones can be maintained to insure that drift does not occur off the target area. Thoroughly clean application 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.

BOOM EQUIPMENT

The spray solution should be uniformly applied at 10 to 60 gallons per acre using properly calibrated equipment. To prepare the spray solution, mix the recommended amount of ARSENAL in water and add a non-ionic surfactant at 0.25% v/v of the final spray solution*. A foam reducing agent may be added at the recommended label rate, if needed. If desired, a spray pattern indicator may be added at the recommended label rate. Check for even distribution in spray pattern.

IMPORTANT: To minimize drift, select proper nozzles to avoid spraying a fine mist, DO NOT exceed spray pressure of 50 psi, and DO NOT spray under windy or gusty conditions.

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

*Do not exceed recommendations made by the surfactant manufacturer.

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LOW-VOLUME HAND-HELD SPRAY EQUIPMENT

Thoroughly mix a 1/2 to 1 percent solution of ARSENAL in water and add a non-ionic surfactant at 0.25% v/v of spray solution*. To determine the proper percent solution of ARSENAL to use, see the "WEEDS CONTROLLED" section of this label and the "PERCENT SOLUTION RATE GUIDE" below. The table calculations below are based on an approximate delivery volume of 50 to 75 gallons per acre.

PERCENT SOLUTION RATE GUIDE

ARSENAL RATE PER ACRE	PERCENT SOLUTION TO MIX
2 - 3 pints	1/2 %
3 - 4 pints	3/4 %
4 - 6 pints	1 %

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

DO NOT overapply and cause runoff from the treated foliage.

To mix the spray solution, add the volume of ARSENAL indicated in the table below to the desired amount of water.

SPRAY SOLUTION MIXING GUIDE

SOLUTION VOLUME	AMOUNT OF ARSENAL TO USE (fluid volume)		
	1/2 %	3/4 %	1 %
1 gallon	2/3 oz.	1 oz.	1-1/3 oz.
5 gallons	3-1/3 oz.	5 oz.	6-1/2 oz.
10 gallons	6-2/3 oz.	10 oz.	13 oz.
25 gallons	1 pint	1-1/2 pints	2 pints

2 tablespoons = 1 fluid ounce

*Do not exceed recommendations made by the surfactant manufacturer.

IMPORTANT: DO NOT exceed recommended dosage rate per acre. DO NOT side-trim desirable vegetation with this product. Clean application equipment after using this product by thoroughly flushing with water.

HIGH-VOLUME SPRAY EQUIPMENT

ARSENAL may be applied using high-volume spray equipment. For best results, apply ARSENAL using the least amount of water practical to obtain uniform coverage of the vegetation foliage. Using excessive spray volumes which cause runoff from the plant foliage may result in reduced performance.

Mix the recommended rate of ARSENAL in water and add a non-ionic surfactant at 0.25% v/v of spray solution*. A foam reducing agent may be added at the recommended label rate, if needed. If desired, a spray pattern indicator may be added at the recommended label rate.

To mix the spray solution, determine the proper ARSENAL pints per acre rate from the "WEEDS CONTROLLED" section of this label and mix according to the table below.

SPRAY SOLUTION MIXING GUIDE

SPRAY VOLUME (GAL/ACRE)	PINTS ARSENAL TO MIX PER 100 GALLONS WATER			
	3 PTS/ACRE	4 PTS/ACRE	5 PTS/ACRE	6 PTS/ACRE
50	6	8	10	12
100	3	4	5	6
150	2	2-3/4	3-1/4	4

IMPORTANT: DO NOT exceed recommended dosage rate per acre. DO NOT side-trim desirable vegetation with this product. Clean application equipment after using this product by thoroughly flushing with water.

*Do not exceed recommendations made by the surfactant manufacturer.

FOR CONTROL OF UNDESIRABLE WEEDS UNDER PAVED SURFACES

ARSENAL herbicide 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.

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

APPLICATION DIRECTIONS

Applications should be made to the soil surface only when final grade is established. Do not move soil following ARSENAL application.

Uniformly apply ARSENAL to the area to be surfaced, including the shoulder areas at a rate of 6 pts. per acre.

Apply ARSENAL in sufficient water (at least 100 gal. per acre) to insure thorough wetting of the soil surface. Add the recommended amount of ARSENAL to clean water in the spray tank during the filling operation. Agitate before spraying.

For Herbicide Activation:

On Moist Subsoils: Apply ARSENAL after final grading and immediately before laying asphalt or liner surface. Apply uniformly, using at least 100 gallons of water per acre.

If Moisture Is Not Present: Incorporation of ARSENAL is needed for herbicide activation. ARSENAL can be incorporated into the soil to a depth of 4 to 6 inches using a rototiller or disc. Rainfall or irrigation of 1 inch will also provide uniform incorporation. Do not allow treated soil to wash or move into untreated areas.

IMPORTANT

Paving should follow ARSENAL applications as soon as possible. DO NOT apply where the chemical may contact the roots of desirable trees or other plants.

The product is not recommended for use under pavement on residential properties such as driveways or parking lots, nor is it recommended 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.

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

WEEDS CONTROLLED

ARSENAL herbicide will provide postemergence control with residual control of the following target vegetation species at the rates listed. Residual control refers to control of newly germinating seedlings in both annuals and perennials. In general, annual weeds may be controlled by postemergence or preemergence applications of ARSENAL; whereas, for established biennials and perennials postemergence applications of ARSENAL are recommended. ARSENAL herbicide should be used only in accordance with the recommendations on this label and the leaflet label.

GRASSES

Apply 2-3 pints per acre¹

COMMON NAME	SPECIES	GROWTH HABIT ²
Annual bluegrass	(<u>Poa annua</u>)	A
Broadleaf signalgrass	(<u>Brachiaria platphylla</u>)	A
Canada bluegrass	(<u>Poa compressa</u>)	P
Downy brome	(<u>Bromus tectorum</u>)	A
Fescue	(<u>Festuca</u> spp.)	A/P
Foxtail	(<u>Setaria</u> spp.)	A
Italian ryegrass	(<u>Lolium multiflorum</u>)	A
Johnsongrass	(<u>Sorghum halepense</u>)	P
Kentucky bluegrass	(<u>Poa pratensis</u>)	P
Lovegrass	(<u>Eragrostis</u> spp.)	A/P
Orchardgrass	(<u>Dactylis glomerata</u>)	P
Paragrass	(<u>Brachiaria mutica</u>)	P
Quackgrass	(<u>Agropyron repens</u>)	P
Sandbur	(<u>Cenchrus</u> spp.)	A
Sand dropseed	(<u>Sporobolus cryptandrus</u>)	A
Smooth brome	(<u>Bromus inermis</u>)	P
Vaseygrass	(<u>Paspalum urvillei</u>)	P
Wild oats	(<u>Avena fatua</u>)	A
Witchgrass	(<u>Panicum capillare</u>)	A

Apply 3-4 pints per acre¹

Beardgrass	(<u>Andropogon</u> spp.)	P
Cheat	(<u>Bromus secalinus</u>)	A
Crabgrass	(<u>Digitaria</u> spp.)	A
Fall panicum	(<u>Panicum dichotomiflorum</u>)	A
Goosegrass	(<u>Eleusine indica</u>)	A
Prairie threeawn	(<u>Aristida oligantha</u>)	P
Reed canarygrass	(<u>Phalaris arundinacea</u>)	P

Torpedograss	(<u>Panicum repens</u>)	P
Wild barley	(<u>Hordeum</u> spp.)	A

Apply 4-6 pints per acre¹

Bahiagrass	(<u>Paspalum notatum</u>)	P
Bermudagrass	(<u>Cynodon dactylon</u>)	P
Big bluestem	(<u>Andropogon gerardi</u>)	P
Cattail	(<u>Typha</u> spp.)	P
Cogongrass	(<u>Imperata cylindrica</u>)	P
Dallisgrass	(<u>Paspalum dilatatum</u>)	P
Feathertop	(<u>Pennisetum villosum</u>)	P
Guineagrass	(<u>Panicum maximum</u>)	P
Phragmites	(<u>Phragmites australis</u>)	P
Prairie cordgrass	(<u>Spartina pectinata</u>)	P
Saltgrass	(<u>Distichlis stricta</u>)	P
Sand dropseed	(<u>Sporobolus cryptandrus</u>)	P
Timothy	(<u>Phleum pratense</u>)	P
Wirestem muhly	(<u>Muhlenbergia frondosa</u>)	P

BROADLEAF WEEDS

Apply 2-3 pints per acre¹

Burdock	(<u>Arctium</u> spp.)	B
Camphorweed	(<u>Heterotheca subaxillaris</u>)	P
Carpetweed	(<u>Mollugo verticillata</u>)	A
Carolina geranium	(<u>Geranium carolinianum</u>)	A
Clover	(<u>Trifolium</u> spp.)	A/P
Common chickweed	(<u>Stellaria media</u>)	A
Common ragweed	(<u>Ambrosia artemisiifolia</u>)	A
Landelion	(<u>Taraxacum officinale</u>)	P
Dogfennel	(<u>Eupatorium capillifolium</u>)	A
Filaree	(<u>Erodium</u> spp.)	A
Fleabane	(<u>Erigeron</u> spp.)	A
Hoary vervain	(<u>Verbena stricta</u>)	P
Horseweed	(<u>Conyza canadensis</u>)	A
Indian mustard	(<u>Brassica juncea</u>)	A
Lambsquarters	(<u>Chenopodium album</u>)	A
Lespedeza	(<u>Lespedeza</u> spp.)	P
Miners lettuce	(<u>Montia perfoliata</u>)	A
Mullein	(<u>Verbascum</u> spp.)	B
Nettleleaf goosefoot	(<u>Chenopodium murale</u>)	A
Oxeye daisy	(<u>Chrysanthemum leucanthemum</u>)	P
Pepperweed	(<u>Lepidium</u> spp.)	A
Pigweed	(<u>Amaranthus</u> spp.)	A
Plantain	(<u>Plantago</u> spp.)	P

Puncturevine	(<u>Aribulus terrestris</u>)	A
Russian thistle	(<u>Salsola kali</u>)	A
Smartweed	(<u>Polygonum</u> spp.)	A/P
Sorrell	(<u>Rumex</u> spp.)	P
Sunflower	(<u>Helianthus</u> spp.)	A
Sweet clover	(<u>Melilotus</u> spp.)	A/B
Tansymustard	(<u>Descurainia pinnata</u>)	A
Western ragweed	(<u>Ambrosia psilostachya</u>)	P
Wild carrot	(<u>Daucus carota</u>)	B
Wild lettuce	(<u>Lactuca</u> spp.)	A/B
Wild parsnip	(<u>Pastinaca sativa</u>)	B
Wild turnip	(<u>Brassica campestris</u>)	B
Woollyleaf bursage	(<u>Franseria tomentosa</u>)	P
Yellow woodsorrel	(<u>Oxalis stricta</u>)	P

Apply 3-4 pints per acre¹

Broom snakeweed ³	(<u>Gutierrezia sarothrae</u>)	P
Bull thistle	(<u>Cirsium volgare</u>)	B
Cocklebur	(<u>Xanthium strumarium</u>)	A
Desert Camelthorn	(<u>Alhagi pseudalhagi</u>)	P
Diffuse knapweed	(<u>Centaurea diffusa</u>)	A
Dock	(<u>Rumex</u> spp.)	P
Goldenrod	(<u>Solidago</u> spp.)	P
Pokeweed	(<u>Phytolacca americana</u>)	P
Purple loosestrife ³	(<u>Lythrum salicaria</u>)	P
Purslane	(<u>Portulaca</u> spp.)	A
Rush skeletonweed ³	(<u>Chondrilla juncea</u>)	B
Saltbush	(<u>Atriplex</u> spp.)	A
Stinging nettle ³	(<u>Urtica dioica</u>)	P
Yellow starthistle	(<u>Centaurea solstitialis</u>)	A

Apply 4-6 pints per acre¹

Arrowwood	(<u>Pluchea sericea</u>)	A
Canada thistle	(<u>Cirsium arvense</u>)	P
Giant ragweed	(<u>Ambrosia trifida</u>)	A
Grey rabbitbrush	(<u>Chrysothamnus nauseosus</u>)	P
Japanese bamboo	(<u>Polygonum cuspidatum</u>)	P
Little mallow	(<u>Malva parviflora</u>)	B
Milkweed	(<u>Asclepias</u> spp.)	P
Primrose	(<u>Oenothera kunthiana</u>)	P
Russian knapweed	(<u>Centaurea repens</u>)	P
Silverleaf nightshade	(<u>Solanum elaeagnifolium</u>)	P
Sowthistle	(<u>Sonchus</u> spp.)	A
Texas thistle	(<u>Cirsium texanum</u>)	P

VINES AND BRAMBLES

Apply 1 pint per acre

Field bindweed	(<u>Convolvulus arvensis</u>)	P
Hedge bindweed	(<u>Calystegia sepium</u>)	A

Apply 2-3 pints per acre¹

Wild buckwheat (Polygonum convolvulus) P

Apply 3-4 pints per acre¹

Greenbriar (Smilax spp.) P
Honeysuckle (Lonicera spp.) P
Morningglory (Ipomoea spp.) A/P
Poison ivy (Rhus radicans) P
Redvine (Brunnichia cirrhosa) P
Wild rose (Rosa spp.) P
Including: Multiflora rose (Rosa multiflora)
Macartney rose (Rosa bracteata)

Apply 4-6 pints per acre¹

Blackberry⁴ (Rubus spp.) P
Dewberry⁴ (Rubus spp.) P
Kudzu⁵ (Pueraria lobata) P
Trumpet creeper (Campsis radicans) P
Virginia creeper (Parthenocissus quinquefolia) P
Wild grape (Vitis spp.) P

BRUSH SPECIES

Apply 4-6 pints per acre¹

American beech (Fagus grandifolia) P
Ash (Fraxinus spp.) P
Bald cypress (Taxodium distichum) P
Bigleaf Maple (Acer macrophyllum) P
Blackgum (Nyssa sylvatica) P
Boxelder (Acer negundo) P
Cherry (Prunus spp.) P
Chinaberry (Melia azadarach) P
Chinese tallow-tree (Sapium sebiferum) P
Dogwood (Cornus spp.) P
Hawthorn (Crataegus spp.) P
Hickory (Carya spp.) P
Maple (Acer spp.) P
Mulberry (Morus spp.) P
Oak (Quercus spp.) P
Persimmon (Diospyros virginiana) P
Poplar (Populus spp.) P
Privet (Ligustrum vulgare) P

Russian Olive	(<u>Eleagnus angustifolia</u>)	P
Red Alder	(<u>Alnus rubra</u>)	P
Red Maple	(<u>Acer rubrum</u>)	P
Saltcedar	(<u>Tamarix ramosissima</u>)	P
Sassafras	(<u>Sassafras albidum</u>)	P
Sourwood	(<u>Oxydendrum arboreum</u>)	P
Sumac	(<u>Rhus spp.</u>)	P
Sweetgum	(<u>Liquidambar styraciflua</u>)	P
Willow	(<u>Salix spp.</u>)	P
Yellow poplar	(<u>Liriodendron tulipifera</u>)	P

1 The higher rates should be used where heavy or well established infestations occur.

2 Growth Habit - A - Annual, B - Biennial, P - Perennial

3 For best results early postemergence applications are required.

4 The degree of control is species dependent. Some Rubus species may not be completely controlled.

5 Use a minimum of 75 GPA - Control of established stands may require repeat applications.