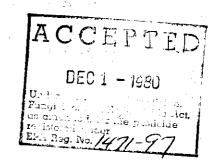
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## A preemergence and postemergence herbicide for total control of vegetation in such areas as:

Airport runways Utility substations and rights-of-way Tank farms Railway roadbeds & ballast

Around industrial buildings Lumberyards Railroad yards

Ditchbanks **Firebreaks** Fence rows

ta 🖁 vill 📶 (rous and shr*it*)s

Road shoulders where no vegetation is desired Under asphalt and concrete pavements where no future landscaping is planned At the base of highway guardrails, signposts, and markers

At the base of transmission towers and poles

The degree and duration of control may vary with the amount of chemical applied, soil texture, and other conditions.

Active Ingredient:

Railroad rights-of-way

tebuthiuron: N-[5-(1,1-dimethylethyl)-1,3,4-

thiadiazol-2-yi]-N,N'dimethylurea..... inert ingredients .....

Contains 3.2 pounds active ingredient per 4 pound bag.

Spike\*—the registered trademark for Elanco Products tebuthiuron

Caution: Keep out of reach of children. See back panel for additional caution statements.

**Net Weight 4 Pounds** 

EPA Reg. No. 1471-97





# Directions for Use

Read all directions carefully before applying

See Booklet on Bottom of Bag for Complete Directions for Use and Precautions.

# **CAUTIONS**

### Human

Harmful if swallowed. Avoid contact with skin, eyes or clothing. Avoid inhaling dust from product. In case of contact, flush with water.

### Environmental

Do not contaminate any body of water, ponds or streams as death or injury may occur to vegetation irrigated by such. Do not contaminate water by cleaning of equipment or disposal of wastes.

## Storage and Disposal

The herbicidal properties of SPiKE 80W require caution in handling, storage and transportation of this product. Do not contaminate food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Dispose in an incinerator or land fill approved for pesticide containers or bury in a noncropland area away from desirable plants, trees and water supply.

The manufacturer milkes no warranties, express or implied, concerning this product or its use which extend beyond the description on the label. All statements made concerning this product apply only when used as directed. SPIKE 30V/ in at 55 applied according to Elanco's written instructions, including, but not limited to, recommended rates. Failure to do so they insure in poor weed control or plant injury. Elanco expressive disclaims any warranty, either express or implied for the labelot SPIKE 50W, alone or in combination with other products, when that use is not in strict compliance with Clanco's written recommendations.

Elected Products Company • A Division of Eli Lilly and Company Inclanapolis, in 46265, U.S.A.

See Booklet on Bottom of Bag for Complete Directions for Use.



Complete Directions For Use
Use Cautions and Precautions
General Weed Control
Woody Plant Control
Tank-Mix Recommendations

ELANCO PRODUCTS COMPANY A Division of Eli Lilly and Company Indianapolis, IN 46285, U.S.A.

SPIKE<sup>5</sup>-the registered trademark for Elanco Products tebuthiuron

#### INDEX Page Banded Application 11 **Broadcast Application** 11 Cautions 3 Directions for Use 5 General Directions 8 Individual (Spot) Woody Application 13 Maintenance Rates East of Rocky Mountains 7 Maintenance Rates West of Rocky Mountains 7 Precautions 3 Tank-Mix Combinations for Noncropland Weed Control 9 Woody Plant Control 10 Woody Plant Control-Application Rates 15

The manufacturer makes no warranties, express or implied, concerning this product or its use which extend beyond the description on the label or in literature published by Elanco Products Company. All statements made concerning this product apply only when used as directed. SPIKE 80W must be applied according to Elanco's written instructions, including, but not limited to, recommended rates. Failure to do so may result in poor weed control or plant injury. Elanco expressly disclaims any warranty, either express or implied, for the use of SPIKE 80W, alone or in combination with other products, when that use is not in strict compliance with Elanco's written recommendations.

#### CAUTION

Human: Harmful if swallowed. Avoid contact with skin, eyes or clothing. Avoid inhaling dust from product. Wear protective gloves when applying granules to individual woody plants by hand. In case of contact, flush with water.

Environmental: Do not contaminate any body of water, ponds or streams as death or injury may occur to vegetation irrigated by such. Do not contaminate water by cleaning of equipment or disposal of wastes.

Storage and Disposal: The herbicidal properties of SPIKE 80W require caution in handling, storage and transportation of this product. Do not contaminate food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Dispose in an incinerator or land fill approved for pesticide containers or bury in a noncropland area away from desirable plants, trees and water supply.

#### **PRECAUTIONS**



SPIKE 80W IS INTENDED FOR TOTAL VEGETATION CONTROL. IT IS AN EXTREMELY ACTIVE HERBICIDE WHICH WILL KILL TREES, SHRUBS AND OTHER FORMS OF DESIRABLE VEGETATION

HAVING ROOTS EXTENDING INTO THE TREATED AREAL FEEDER ROOTS OF MANY SPECIES OF DESIRABLE VEGETATION EXTEND MANY FEET BEYOND THE DRIPLINE OF THE BRANCHES, AND A VERY SMALL AMOUNT OF SPIKE 80W IN CONTACT WITH ONE FEEDER ROOT OF A TREE, SHRUB OR OTHER DESIRABLE VEGETATION MAY CAUSE SERIOUS INJURY OR DEATH TO THE ENTIRE PLANT

AN ARBORICULTURIST (TREE EXPERT) SHOULD BE CONSULTED TO HELP YOU TO DETERMINE IF THE AREA OF PROPOSED APPLICATION IS FREE OF ALL ROOTS OF

DESIRABLE VEGETATION THE EFFECT OF SPIKE 80W ON DESIRABLE VEGETATION MAY BE IRREVERSIBLE AND ITS PRESENCE IN THE SOIL MAY PREVENT GROWTH OF OTHER DESIRABLE VEGETATION FOR SOME YEARS AFTER APPLICATION. READ THE ENTIRE LABEL BEFORE USING SPIKE 80W TO DETERMINE IF THIS PRODUCT IS SUITABLE FOR THE DESIRED PURPOSE.

Do not use SPIKE 80W on areas such as walks, driveways, streets, lawns, patios, tennis courts, swimming pools, cemeteries, or other landscaped areas, or under asphalt or concrete pavement where future landscaping is planned. Do not apply on or near field crops. Do not apply on any area into which the roots of desirable vegetation may extend. Do not apply in locations where the chemical may be washed by runoff or sheet erosion in contact with roots of desirable vegetation, as severe injury or death may occur. ROOTS OF TREES, SHRUBS, AND OTHER DESIRABLE VEGETATION MAY EXTEND FAR BEYOND THE DRIP LINE OF THE PLANT'S BRANCHES.

Ditchbank Usage—Do not apply SPIKE 80W to any portion of the ditchbank that will come into direct contact with water as movement of SPIKE 80W in this water to non-target plant species may result in the injury or death of those plants. Do not apply on ditches used to transport irrigation or potable water. Keep from contact with other pesticides and seeds.

Thoroughly clean all traces of SPIKE 80W from application equipment after use DO NOT EMPTY RESIDUES CLEANED FROM APPLICATION EQUIPMENT ON AREAS WHERE THEY MAY COME IN CONTACT WITH THE ROOTS OF DESIRABLE VEGETATION OR THE WATER SOURCE FOR SUCH VEGETATION

HERBACEOUS PERENNIALS (NONWOODY PLANTS) Do not allow domestic livestock to graze in treated areas. Do not cut forage from treated areas for feeding livestock. SPIKE 80W

may injure or suppress certain herbaceous vegetation in the treated area. Therefore, do not apply where such injury cannot be tolerated. Injury to most herbaceous perennials is reduced if SPIKE 80W is applied when this vegetation is dormant.

#### Directions for Use

SPIKE® 80W is a preemergence and posternergence herbicide for total control of vegetation in such areas as: airport runways, utility substations and rights-of-way, tank farms, railway roadbeds and ballast, railroad rights-of-way, road shoulders where no vegetation is desired, under asphalt and concrete pavements where no future landscaping is planned, at the base of highway guardrails, sign posts and markers, at the base of transmission towers and poles, around industrial buildings, lumberyards, railroad yards, ditchbanks, firebreaks, and fence rows. For total vegetation control in areas not treated the previous season with SPIKE 80W or other residual herbicides, apply SPIKE 80W prior to or just after emergence of plants as follows:

At 5 pounds per acre, SPtKE 80W will control the following:

Alfalfa Carrot, wild Aster, heath Catsear, spotted Aster, white heath Cheat Barley, little Chickweed Bedstraw Clover, red Bluegrass, annual Cocklebur Bluegrass, Kentucky Creeper, Virginia Crowfootgrass Bouncingbet Bromegrass, downy Dock, curley Bromegrass, ripgut Dogfennet Bromegrass, smooth Fescue Broomsedge Fescue rattail Buffelgrass Fiddleneck, coast

Burclover Filaree

Buttercup, smattflower Filaree redstem Camphorweed Fleahane, annual

Foxtail Gallardia roserino Geranium, Carolina

Goldenrod Grape Gumweed Hemlock, poison Henbit

Honeysuckle, Japanese

Horseweed Knapweed Kochia Lambsquarters Lupine

Medic, black Morningglory Mullein, common

Nightshade, silverteaf

Oat, wild Panicum, Texas Pepperweed, Virginia

Pigweed Witchgrass

At 7.5 pounds per acre. SPIKE 80W will control the following: Aspen, trembling

Awngrass, triple Barley, foxtail Bromegrass, Japanese Canarygrass, reed Carpetweed

Chicory Cinquefoil, common

At 10 pounds per acre, SPIKE 80W will control the following.

Barnyardgrass Craborass

Itchgrass

Plantain, buckhorn Puncturevine Ragweed, giant Raspberry, red Ryegrass, Italian Sedge, annual Shepherdspurse Sida, prickly Sowthistle, annual

Spikeweed Spurge Spurge, spotted Starthistle, yellow

Strawberry Sunflower, common Telegrapholant Thistle, Russian

Timothy Trumpetcreeper Velvetgrass Vetch

Clover, white sweet Ivy, poison Reed. common Sandbur, field Smartweed, swamp Sowthistle, perennial Spurge, prostrate Sumac, staghorn

Johnsongrass, seedling

Lovegrass Orchardgrass Oxtongue, bristly

Ragweed, common

Poorioe Saltbush Purslane, common Sedge, bull

At 20 pounds per acre. SPIKE 80W will control the following:

Bermudagrass Lookingglass, Venus

Cudweed Vasevorass Dallisgrass

MAINTENANCE RATES EAST OF

**ROCKY MOUNTAINS** 

For the maintenance of total vegetation control in noncropland areas east of the Rocky Mountains which were treated the previous season with SPIKE 80W or other residual herbicides, apply SPIKE 80W prior to or just after emergence of plants as follows: (Some of the species listed may show erratic control depending on the time between application and weed germination.)

At 2 pounds per acre, SPIKE 80W will control the following

Bluegrass annual Parsnip, wild Bluegrass, Kentucky Pepperweed Piaweed Carrot, wild

Chickweed, common Ragweed, common Smartweed Pennsylvania Croton

Fleabane, annual Sweetclover Horseweed Thistle, Canada Mullein Woodsorrel, yellow

Panicum, fall

At 3 pounds per acre, SPIKE 80W will control the following:

Goldenrod Spurge

In areas of rainfall greater than 25 inches per year, the 3 pound per acre maintenance rate should be used for all weed species listed above.

MAINTENANCE RATES WEST OF **ROCKY MOUNTAINS** 

For the maintenance of total vegetation control in noncropland

areas west of the Rocky Mountains which were treated the previous season with SPIKE 80W or other residual herbicides, apply SPIKE 80W prior to or just after emergence of plants as follows. (Some of the species listed may show erratic control depending on the time between application and weed germination.)

At 1.5 pounds per acre. SPIKE 80W will control the following:

Bassia, fivehook

Pigweed Plantain

Cheat Cudweed

Plantain

Foxtail

Ryegrass, annual Salibush

Lettuce, prickly
Oat\_wild

Shepherdspurse Witchgrass

Oxtongue, bristly

At 2 pounds per acre. SPIKE 80W will control the following:

Buttercup

Mustard

Canarygrass, reed Knapweed, Russian Knotweed Ragweed, western Starthistle, yellow Telegraphplant

Mallow

At 3 pounds per acre. SPIKE 80W will control the following:

Barley Sida, alkali

Gumweed Smartweed, swarnp

Puncturevine

In areas of rainfall greater than 25 inches per year, the 3 pounds per acre maintenance rate should be used for all weed species listed above

In areas of low annual rainfall (less than 15 inches per year) SPIKE 80W should be applied prior to the time of year when the precominant portion of that rainfall occurs. A minimum of 1 to 1.1/2 inches of rainfall is required to activate SPIKE 80W and place it in the primary weed seed germination zone.

#### GENERAL DIRECTIONS

Apply SPIKE 80W in 15 to 150 gallons of water per acre before

or during the period of active growth of plants to be controlled. Initial control is enhanced by rainfall.

Apply with any sprayer that will apply the spray uniformly Check the sprayer before and during use to insure proper calibration and uniform application. Add the recommended amount of SPIKE 80W to clean water in the spray tank during the filling operation.

Material must be kept in suspension at all times by continuous agitation. Agitate by mechanical or bypass (hydraulic) means in the spray tank. If bypass or return agitation is used, it should terminate at the bottom of the tank to minimize foaming.

For treating small areas, a tank type hand sprayer or sprinkling can may be used. Before application determine the amount of water and chemical necessary to cover uniformly the area to be treated. Shake or stir frequently.

# SPIKE 80W TANK-MIX COMBINATION FOR NONCROPLAND WEED CONTROL

SPIKE® 80W is recommended for use in a tank-mix to be used in combination with any of the following products: amitrole, Atratol® 80W, Banvel® 720, Banvel® W.S., Karmex® 80W, MSMA, paraquat, Princep® 80W, Roundup®, Surtlan® 75W, or 2.4-D for broad spectrum control of undesirable vegetation in noncropland areas such as airport runways, utility substations, tank farms, railway roadbeds and ballast, railroad rights-of-way, road shoulders where no vegetation is desired, under asphalt and concrete pavements where no future landscaping is planned, around industrial buildings, lumberyards, railroad yards, at the base of highway guardrails, signposts and markers, all the base of transmission towers and poles, on firebreaks, and fence rows.

Surrian\* orytalin, Flance Products Company Atratel<sup>®</sup> atrazine and prometer Ciba Geigy Banver\*—decamba Velsicol Chemical Corporation

Karmex\* - diuron E. I. DuPont De Nemours & Company

Princep® -similazine, Ciba-Griggi

Reundup\* - glyphosate Monsanto Company

#### Directions for Use

Apply SPIKE 80W in 15 to 150 gallons of water per acre before or during the period of active growth of plants to be controlled. Initial control is enhanced by rainfall.

#### Spray Preparation

Fill spray tank half full of water. Start agitation and continue during entire mixing process. Add required amount of SPIKE 80W and allow to mix. If additional product is a wettable powder, add to tank and allow to mix thoroughly. If additional product is a liquid, add slowly while filling remainder of tank with water. Continuous agitation in the spray tank is required to keep the materials in suspension throughout application.

#### **Application Rates**

Refer to the SPIKE 80W label and the product label to be tank-mixed for proper application rates. Where applications are made to existing vegetation, the contact or burning properties of paraquat or MSMA provide the rapid top kill while SPIKE 80W gives the residual long-term control desired. Applications to areas which are infested with certain difficult to control perennial weeds (such as johnsongrass, bermudagrass, quackgrass, horsetail, bindweed, dandelion or nutsedge) will benefit from tank-mixing SPIKE 80W with Roundup, amitrole or 2,4-D.

#### Caution:

Read the SPIKE 80W label and labels of products to be tankmixed carefully before using. Note all warnings, cautions, precautions, and limitations of warranty on all labels

#### WOODY PLANT CONTROL

For woody plant control in noncropland areas, apply SPIKE 80W anytime except when the ground is frozen. Effects are slow to appear and may not become apparent until sufficient moisture has carried SPIKE 80W into the root zone. The time required to achieve control is dependent on soil type, amount of rainfall and depth of species rooting. Some species may go

through several defoliations and refoliations over a period of approximately two to three years prior to dying.

#### BROADCAST APPLICATION

Apply SPIKE 80W in 15 to 150 gallons of water per acre with any properly calibrated herbicide sprayer. Check the sprayer before and during use to insure proper calibration and uniform application. Add the recommended amount of SPIKE 80W to clean water in the spray tank during the filling operation. Material must be kept in suspension at all times by constant agitation. Agitate by mechanical or bypass (hydraulic) means in the spray tank. If bypass or return agitation is used, it should terminate at the bottom of the tank to minimize foaming.

For treating small areas, a tank type hand sprayer or sprinkling can may be used. Before application, determine the amount of water and chemical necessary to cover uniformly the area to be treated. Shake or stir frequently.

#### BANDED APPLICATION

SPIKE 80W is recommended for the control of woody plant species in noncropland areas (such as utility, railroad and pipeline rights-of-way, ditchbanks and fence rows) by application of a series of parallel bands to the soil surface. Individual bands should be spaced at intervals from 4 to 10 feet and at the currently labeled rate range of 2.5 to 7.5 pounds per acre depending on the woody plant species to be controlled. (See woody species controlled list on page 15). Actual herbicide bands should be kept as narrow as possible during application to achieve minimal injury or control of herbaceous vegetation Apply SPIKE 80W to the soil surface in 5 to 75 gallons of water per acre in a series of parallel bands with spacing between bands ranging from 4 to 10 feet. In areas such as brush infested fencerows on utility rights-of-way, a single band may be applied.

Band spacing should be selected based on the size of the woody plants in the area to be treated and the amount of injury or control of herbaceous vegetation that can be tolerated.



Where control of young or seedling woody plants is desired, bands should be spaced closer together. This will achieve maximum exposure to their limited root systems. Where larger more mature woody species are to be controlled, bands should be spaced at the wider end of the recommended spacing range.

In addition to allowing adequate exposure of the more extensive root systems of these larger woody species for control, use of the wider spacings will further reduce injury or control of herbaceous vegetation in the area of treatment.

Within the treated band nearly all vegetation, woody and herbaceous, will be killed. Some herbaceous vegetation close to the treated band with roots extending into it may be severely injured or killed. However, since herbaceous species tend to have restricted root systems, most species outside the treated band will not be affected. Banded applications in areas of steep terrain should be applied across existing slopes in order to prevent soil erosion.

Application in this manner can be made using any properly calibrated herbicide sprayer. To maintain the integrity of the individual herbicide bands, straight stream nozzles fitted with internal stabilizing vanes or their equivalent are recommended. Operating pressures should also be kept as low as will provide uniform delivery of the spray solution. Pressures in the range of 10 to 40 psi should be adequate. Pressures in excess of 40 psi will tend to cause the individual bands to break up.

When applications are made in an area where nozzles are elevated above the soil surface more than 5 feet, breakup of the individual spray streams may occur. Additions of a drift control agent (such as Naicotrol) at concentrations ranging from 16 to 64 ounces per 100 gallons of spray solution are recommended to reduce this possibility. The actual quantity of material required will depend on operating pressure and speed, nozzle size and wind speed and direction. If conditions do not permit delivery of intact spray streams to the soil surface, spraying should be terminated until suitable conditions prevail.

#### Spray Preparation

Fill the spray tank half-full of water. Start agitation and continue during entire mixing and spraying operation. Add the required amount of SPIKE 80W and allow it to mix thoroughly while completing the spray tank filling. If hand held or back pack type sprayers are used, shake vigorously after filling and periodically during application to maintain product suspension. Where a drift control agent such as Natcotrol is used, it should be added to the spray tank after filling and thorough mixing of SPIKE 80W. Add this material slowly in a stream no thicker than a pencil. Shearing this material into the suspension by infroducing it into the suction side of the pump is recommended on commercial spray equipment. A master shut-off switch for the entire spraying system and nozzle check valves are also recommended on commercial spray equipment.

Material must be kept in suspension at all times by continuous agitation. Agitate by mechanical or bypass (hydraulic) means in the spray tank. If bypass or return agitation is used, it should terminate at the bottom of the tank to minimize foaming. Check the sprayer frequently before and during use to insure proper calibration and uniform application.

#### INDIVIDUAL (SPOT) WOODY PLANT APPLICATION

Apply SPIKE 80W by mixing 3 pounds in 25 gallons of water and applying 4 ounces of the diluted material around the base of the unwanted individual woody plant. Repeat this process for each unwanted woody plant in the area.

## INDIVIDUAL WOODY PLANT TREATMENT WITH SPOT GUN APPLICATION

Where the Spot Gun application method of treating individual woody stems is desired, the need to carry large volumes of water to the treatment site can be greatly reduced.

A convenient Spot Gun application device can be used to deliver the recommended quantity of SPIKE 80W and water to

the target plant. One such device is known as the Chem-Shot Applicator and is available through Chem-Trol. Inc., Box 2343, Kansas City, Kansas 66110

The Chem-Shot Applicator is a hand triggered gun which delivers 4.0 to 8.0 milliliters of mix for each depression of the trigger. The chemical suspended in water is carried in a convenient back pack container.

To achieve the appropriate rate of SPIKE 80W per woody stem, mix 3 6 pounds SPIKE 80W (58 ounces SPIKE 80W) in adequate water to make exactly one gallon of Spike suspension. (Quantity of water will be less than one gallon.) Mix thoroughly to insure complete product suspension. Set the spray head to deliver 4.0 mt. of the SPIKE 80W suspension for each depression of the trigger. Periodically shake the container to insure even suspension of the material. (Movement by the operator should be adequate to keep SPIKE 80W in suspension in most cases.)

The Spike Spot Gun treatment should be directed to the soil at the base of each woody stem to be controlled. When treating large stems over 2 inches in diameter, deliver a second spot to the soil on the opposite side of the stem.

At the prescribed rate, 3.6 pounds of SPIKE 80W will treat 946 stems. Because of its non-volatile nature and low potential for drift, this Spike® application technique can be used for treating unwanted woody plants growing on non-cropland areas adjacent to sensitive crops. (See precautions.) A white spot should be visible at the base of cach treated stem which should aid the inspection of the completed work.

CAUTION DO NOT USE SPIKE 80W IN THIS MANNER IN ANY AREA WHERE DESIRABLE SPECIES ARE IN THE VICINITY OF THE PLANTS TO BE ELIMINATED. A SMALL AMOUNT OF SPIKE 80W IN CONTACT WITH THE ROOTS OF DESIRABLE TREES OR OTHER WOODY SPECIES MAY CAUSE SEVERE INJURY OR DEATH. THE ROOTS OF SUCH PLANTS MAY EXTEND FAR BEYOND THEIR DRIPLINES.

SPIKE 80W will injure or control other herbaceous vegetation in the treated area. Therefore, do not apply where such injury cannot be tolerated. See the list of herbaceous vegetation controlled by SPIKE 80W under the Total Vegetation Control section of this booklet.

#### WOODY PLANT CONTROL-APPLICATION RATES

SPIKE 80W applied at the rate of 1.25 pounds per acre will

control the following species.

Haplopappus tenuisectus (Burroweed)
Larrea tridentata (Creosotebush)
Mimosa biuncifera (Wait-a-minute-bush)

SPIKE 80W applied at the rate of 2.5 pounds per acre will

control the following species.

Ailanthus altissima (Tree-of-heaven) Alovsia lycioides (Whitebrush) Artemisia tridentata (Big sagebrush) Carya glabra (Pignut hickory) Celtis occidentalis (Western hackberry) (Desert thornapple) Datura discolor Lycium berlandieri (Berlandier wolfberry) Morus rubra (Red mulberry) Pinus monticola (Western white pine) Pinus spp. (Pine)

3

Prunus emarginata (Bitter cherry) Rhus glabra (Smooth surrac) Robinia pseudoacacia (Black todust) Rosa multiflora (Multiflora rose) Salvia leucophylla (Whiteleaf sage) Salvia mellifera (Black sage) Symphoricarpos orbiculatus (Buckbrush) Ulmus americana (American elm) Vaccinium spp. or (Huckleberry)

Gaylussacia spp

15

SPIKE 80W applied at the rate of 3.75 pounds per acre will control the following species.

Abies balsamea (Balsam fir) (Huisache) Acacia farnesiana Acer saccharum (Sugar maple) Alnus rugosa (Speckled alder) Betula populifolia (Gray birch) Carva texana (Black hickory) (Granjeno) Cellis pallida Condalia obtusifolia

(Lotebush condalia) llex vomitoria (Yaupon) (Tamarack) Larix laricina Picea glauca (White spruce) (Balsam poplar) Populus balsamilera (Eastern cottonwood) Populus delloides (Canyon live oak) Quercus chrysolepis (Blue oak) Quercus douglasii Quercus marilandica (Blackjack oak) (Post oak) Ouercus stellata (Willow) Salix spp. Schaefferia cuneifolia (Desert vaupon) (Hardhack) Spiraea tomentosa

SPIKE 80W applied at the rate of 5 pounds per acre will control

the following species.

Ulmus alata

Acacia berlandieri (Guajillo) Acacia greogii Acacia rigidula Acacia tortuosa Acer negundo Adenostoma fasciculatum Ainus rubra Campsis radicans Carva ovata

Cercocarpus betuloides

(Catclaw acacia) (Blackbrush acacia) (Twisted acacia) (Boxeider) (Chamise) (Red alder) (Trumpetcreeper)

(Winged elm)

(Shagbark hickory)

(Birchleaf

mountainmahogany)

Colubrina texensis Condalia obovata Cornus drummondii Crataeous son. Eysenhardtia texana Fagus grandilolia Jatropha dioica

Leucophyllum frutescens Liquidambar styraciflua

Myrica cerilera

Parthenocissus quinquefolia Populus grandidentata Porlieria angustifolia Prosopis iuliflora

Prunus virginiana Pseudotsuga menziesii

Quercus dumosa

Quercus palustris Quercus rubra Quercus virginiana Rhus typhina Rubus allegheniensis Salvia ballotaeflora

(Texas colubrina) (Bluewood condalia) (Roughleaf dogwood)

(Hawthorn) (Kidneywood) (American beech) (Leatherstern)

(Cenizo Texas silverleaf)

(Sweetgum) (Southern waxmyrtle) (Virginia creeper) (Bigtooth aspen) (Guayacan) (Mesquite)

(Common chokecherry)

(Douglas fir)

(California scrub oak)

(Pin oak) (Red oak)

(Live cak) (Staghorn sumac) (Allegheny blackberry) (Shrubby blue salvia)

SPIKE 80W applied at the rate of 6.25 pounds per acre will

control the following species:

Acer macrophyllum Acer platanoides Acer saccharinum Baccharis spp. Cornus florida

Fraxinus pennsylvanica Gaultheria shallon Juniperus virginiana Lantana camara Liriodendron tulipifera

(Bigleaf maple) (Norway maple) (Silver maple) (Groundsel tree) (Flowering dogwood)

iGreen ash) (Salal) (Eastern reddedar)

(Lantana) (Tuliptree)

17

(Melaleuca) Melaleuca quinquenervia Pinus banksiana (Jack pine) Pinus echinata (Shortleaf pine) Pinus resinosa (Red pine) Pinus virginiana (Virginia pine) Platanus occidentalis (American sycamore) Prunus serotina (Black cherry) Quercus alba (White oak) Rubus laciniatus (Evergreen blackberry) Rubus occidentalis (Black raspberry) (Brazilian peppertree) Schinus terebinthilolius SPIKE 80W applied at the rate of 7.5 pounds per acre will control the following species. Acer circinatum (Vine maple) Arctostaphylos patula (Greenleaf manzanita) Ceanothus cunealus (Wedgeleaf ceanothus) Ceanothus leucodermis (Whitethorn chaparral) Crataegus crus-galli (Cockspur hawthorn) (Persimmon) Diospyros virginiana (Russian olive) Elaeagnus angustifolia Fraxinus americana (White ash) Rhus laurina (Laurel sumac) Smilax rotundifolia (Common greenbriar) Ulmus parvitolia (Chinese elm)

(Slippery elm)

Literature revised October 14, 1980 PF 2153 AMP

Ulmus rubra

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