

62719-122

04-27-2011

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND
POLLUTION PREVENTION

APR 27 2011

Dr. John Jachetta
Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1054

Dear Dr. Jachetta:

RE: ADMINISTRATIVE LETTER DATED DECEMBER 8, 2010; EPA REG. NO. 62719-122;
SPIKE 40P (AI: TEBUTHIURON); REPLACEMENT OF MAIN LABELING; REVISED
DRAFT LABEL SUMMITTED APRIL 12, 2011

Your revised amended draft labeling, dated April 12, 2011, is approved. A stamped Accepted copy of the label is enclosed for your files.

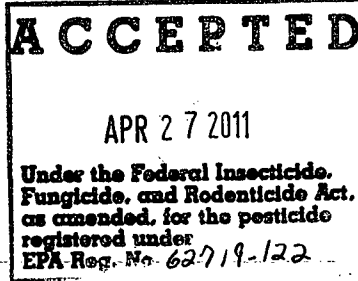
Please submit one copy of final printed labeling before shipping product with this Accepted label.

Please contact Phil Errico at 703-305-6663/ errico.philip@epa.gov for assistance in this matter.

Best Regards,

A handwritten signature in black ink, appearing to read "Kable Bo Davis".

Kable Bo Davis PM 25
Herbicide Branch/Registration Division 7505P



(Base label):

Spike[®] 40P

Specialty Herbicide

A surface applied herbicide for woody plant control in such areas as:

- Along highways
- Non-agricultural fence rows
- Firebreaks
- Industrial sites
- Utility rights-of-way
- Other noncropland areas for control of woody plant species
- Pastureland
- Pipelines
- Railroad rights-of-way
- Rangeland
- Clearings for wildlife habitat



Carefully read the entire label, including all use precautions and restrictions, before applying to avoid inappropriate use of this product.

Active Ingredient:

tebuthiuron: <i>N</i> -[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]- <i>N,N'</i> -dimethylurea	40.0%
Inert Ingredients	60.0%
Total	100.0%

Contains 0.4 pound active ingredient per pound of product.

CAUTION

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

Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

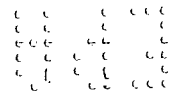
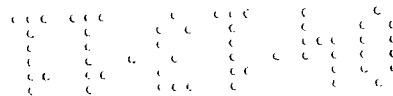
Harmful If Swallowed, Inhaled, Or Absorbed Through Skin • Causes Moderate Eye Irritation

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves
- Protective eyewear



First Aid

If swallowed: 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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: 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.

If on skin or clothing: 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 in eyes: 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 eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Do not apply Spike[®] 40P herbicide near desirable trees or other woody species. Exposure of even a small part of a plant root system to Spike 40P may cause severe plant injury or death. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Spills: To prevent unintended damage to nontarget vegetation carefully collect and dispose of spilled pellets, whether in storage areas, vehicles or on the soil surface. (See Use Information section for remedial action after accidental application or spill.) In outdoor areas, **do not** cover with soil or incorporate spilled material into the soil surface.

Ground Water Advisory: This product is known to leach through soil into ground water under certain conditions as a result of registered (rangeland and non-crop) uses. Use of this product in areas where soils have rapid to very rapid permeability, particularly where the water table is shallow, may result in ground water contamination.

Use Restrictions for Groundwater Protection

Vulnerable Sites: To minimize any movement of tebuthiuron to subsurface water, do not exceed the application rates specified below on treatment sites where soils have a sand or loamy sand texture throughout the soil profile and **all** of the following characteristics:

1. Rapid to very rapid permeability.
2. Absence of well-defined organic layers or a textural B-horizon (restricting layer of fine-textured soil).
3. The water table of an underlying aquifer[†] is shallow.

The maximum use rates for Spike 40P in areas described above are:

- **Less than 20 inches annual precipitation:** Do not apply more than 2.5 lb/acre Spike 40P.
- **Greater than 20 inches annual precipitation:** Do not apply more than 5 lb/acre Spike 40P.

Refer to the "Woody Plants Controlled" section of this label for plant species controlled at these application rates.

[†]An aquifer is defined as "an underground, saturated, permeable, geologic formation capable of producing significant quantities of water to a well or spring. It is the ability of the saturated zone, or portion of that zone, to yield water which makes it an aquifer (American Chemical Society, 1983). Local agricultural agencies can provide further information on the type of soil in your area and the location of shallow ground water aquifers.

Do not apply Spike 40P in areas where the water table is predominately shallow (5 feet or less), such as marshy or sub-irrigated areas, or areas immediately adjacent to streams or lakes which are periodically

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flooded, unless such use is allowed under a state-approved pesticide management program. **Note:** Also on such areas, woody plants rooted directly in a shallow water table are minimally affected by applications of tebuthiuron and poor woody plant control will result.

Do not apply Spike 40P where bedrock is continuously exposed or in areas of bedrock overlain by soils that are shallow or discontinuous.

Do not apply Spike 40P in areas adjacent to sinkholes or depressions lacking external drainage which occur within areas of karst topography.

Do not apply Spike 40P to high shrink/swell soils (vertisols) which develop deep cracks upon drying.

Do not apply Spike 40P within areas identified by state or local authorities as protected groundwater recharge zones.

Nonrefillable rigid containers 50 lb or less:

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: The herbicidal properties of Spike 40P require caution in handling, storage, and transportation of this product. Store in original container only. In case of leak or spill, contain material and dispose as waste.

Pesticide Disposal: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility or other procedures allowed by state or local authorities.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Nonrefillable nonrigid containers:

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: The herbicidal properties of Spike 40P require caution in handling, storage, and transportation of this product. Store in original container only. In case of leak or spill, contain material and dispose as waste.

Pesticide Disposal: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility or other procedures allowed by state or local authorities.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refillable rigid containers larger than 50 lb:

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: The herbicidal properties of Spike 40P require caution in handling, storage, and transportation of this product. Store in original container only. In case of leak or spill, contain material and dispose as waste.

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Pesticide Disposal: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility or other procedures allowed by state or local authorities.

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Nonrefillable rigid containers larger than 50 lb:

Storage and Disposal

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Refer to label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994 .

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

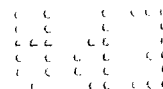
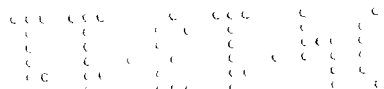
Not For Residential Use

EPA Reg. No. 62719-122

EPA Est. _____

®Trademark of Dow AgroSciences LLC

**Produced for
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268**



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(cover):

Spike[®] 40P

Specialty Herbicide

A surface applied herbicide for woody plant control in such areas as:

- Along highways
- Non-agricultural fence rows
- Firebreaks
- Industrial sites
- Utility rights-of-way
- Other noncropland areas for control of woody plant species
- Pastureland
- Pipelines
- Railroad rights-of-way
- Rangeland
- Clearings for wildlife habitat



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Active Ingredient:

tebuthiuron: <i>N</i> -[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]- <i>N,N'</i> -dimethylurea	40.0%
Inert Ingredients	60.0%
Total	100.0%

Contains 0.4 pound active ingredient per pound of product.

Keep Out of Reach of Children

CAUTION

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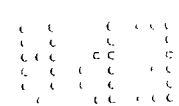
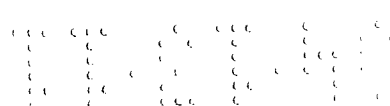
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Precautionary Statements

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Harmful If Swallowed, Inhaled, Or Absorbed Through Skin • Causes Moderate Eye Irritation

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves
- Protective eyewear

First Aid

If swallowed: 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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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19**Use Restrictions for Groundwater Protection**

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1. Rapid to very rapid permeability.
2. Absence of well-defined organic layers or a textural B-horizon (restricting layer of fine-textured soil).
3. The water table of an underlying aquifer† is shallow.

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Do not apply Spike 40P in areas where the water table is predominately shallow (5 feet or less), such as marshy or sub-irrigated areas, or areas immediately adjacent to streams or lakes which are periodically flooded, unless such use is allowed under a state-approved pesticide management program. **Note:** Also on such areas, woody plants rooted directly in a shallow water table are minimally affected by applications of tebuthiuron and poor woody plant control will result.

Do not apply Spike 40P where bedrock is continuously exposed or in areas of bedrock overlain by soils that are shallow or discontinuous.

Do not apply Spike 40P in areas adjacent to sinkholes or depressions lacking external drainage which occur within areas of karst topography.

Do not apply Spike 40P to high shrink/swell soils (vertisols) which develop deep cracks upon drying.

Do not apply Spike 40P within areas identified by state or local authorities as protected groundwater recharge zones.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: The herbicidal properties of Spike 40P require caution in handling, storage, and transportation of this product. Store in original container only. In case of leak or spill, contain material and dispose as waste.

Pesticide Disposal: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility or other procedures allowed by state or local authorities.

Nonrefillable rigid containers 50 lb or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with

water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Nonrefillable nonrigid containers:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refillable rigid containers larger than 50 lb:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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Use Information

Spike 40P herbicide is a surface applied soil-active product for control of woody plants (trees, shrubs and vines). Treatments become effective after sufficient rainfall has occurred to move the active ingredient in Spike 40P into the root zone. Herbicidal symptoms appear most rapidly when applied just before seasonal rainfall. Treated trees and shrubs (brush) exhibit leaf chlorosis and browning followed by defoliation. Woody plants may go through several defoliation cycles before death occurs. Time required to achieve control of woody vegetation may vary from 1 to several years. Increased application rates and additional time is required to achieve consistent woody plant control under the following conditions: (1) the treated area contains deep, medium-to-fine textured, or high organic matter soils; (2) the target species are deep-rooted; or (3) the vegetation consists of species tolerant to Spike 40P.

For best brush control results, do not disturb intact treated plants by such practices as wood cutting, chaining, or burning for 2 years after application of Spike 40P. Resprouting is more likely to occur if plants are disturbed before complete woody plant control occurs.

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Use Precautions and Restrictions

Spike 40P is intended for control of unwanted woody vegetation such as trees, shrubs, and vines. Spike 40P will also control herbaceous broadleaf plants such as clover or lespedeza. Grasses in the area immediately adjacent to pellets may be temporarily damaged. Dormant season application is recommended to minimize herbicidal effects on grasses and other herbaceous plants. The herbicidal activity of Spike 40P in soil may prevent the growth of trees, shrubs, and other broadleaf vegetation for several years after treatment.

Do not apply Spike 40P to interior ditch banks (areas which slope toward the drainage). Do not apply to ditches used to transport irrigation water or potable water.

Use Restrictions in the State of Florida

In Broward, Collier, Dade, Hendry, Lee, Monroe, and Palm Beach Counties of Florida, Spike 40P may be applied only in accordance with supplemental labeling.

Maximum Application Rate for Grazing or Haying: If treated area is to be used for haying, do not apply more than 10 pounds per acre of Spike 40P. If treated area is to be used for haying, do not apply more than 5 pounds per acre of Spike 40P in areas receiving 20 inches or less average annual rainfall, or more than 10 pounds per acre of Spike 40P in areas receiving more than 20 inches average annual rainfall. There are no grazing restrictions following application of Spike 40P at labeled rates.

Haying restriction: Do not cut hay for livestock feed for 1 year after a Spike 40P treatment.

Effects on Herbaceous Vegetation: Spike 40P 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 perennial plants is reduced if Spike 40P is applied when vegetation is dormant.

Do not apply Spike 40P more than once per year.

Safe use of Spike 40P requires the following instructions to be carefully followed:

Treatment Setback: Do not apply Spike 40P in the vicinity of desirable plants. Exposure of even a small part of a plant root system to Spike 40P may cause severe plant injury or death.

Note: Plant roots usually occupy an area much larger than the aerial portion of the plant. Treatment setback distance should be 1 to 2 times the height or width of adjacent nontarget vegetation, whichever is greater. For example, if adjacent nontarget vegetation is 25 feet tall, the treatment setback should be 25 to 50 feet.

If there is a question about appropriate setback distance, contact an Arboriculturist (tree expert) to determine if the proposed treatment area is free of roots of desirable vegetation.

Potential Product Movement: Spike 40P or soil containing Spike 40P may be moved from treated areas by flowing water, wind, or mechanical means. Do not apply Spike 40P in areas where overland flow of water might move Spike 40P or soil containing Spike 40P from the treated area. Do not apply where wind erosion may cause movement of soil containing Spike 40P from the treated area unless the surface has been stabilized with a gravel mulch or some other means. Do not apply in areas where soil may be redistributed by mechanical means to nontreated areas.

Cleaning of Equipment: Thoroughly clean all traces of Spike 40P from application equipment after use. Do not empty residues cleaned from application equipment on areas where contact with roots of desirable vegetation may occur.

Remedial Action After Accidental Application or Spill: Take action to minimize the effects of an accidental application or spill immediately. **Once rainfall has moved Spike 40P into the plant root zone, the effect on woody plants is irreversible.** Damage from accidental application or spill may be prevented only if soil containing Spike 40P is carefully removed before rainfall has moved Spike 40P into the root zone. Apply a waterproof covering to the affected area until cleanup is accomplished. Carefully

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extend directly to a shallow water table, woody plants are minimally affected by applications of tebuthiuron and poor control will result.

Rangeland and Pasture Management Information

There are no label restrictions which require livestock grazing to be delayed following an application of Spike 40P. Spike 40P is a pelleted formulation and does not adhere to plants. Therefore, significant plant residues do not occur as a result of application. However, at the time of application, forage species may be sparsely distributed and in a low state of vigor due to competition from woody plants. Under such circumstances, the density and vigor of forage species may be enhanced by deferment of grazing following application of Spike 40P.

Grazing Management

For optimum perennial forage grass response, desirable species should be present in the area to be treated at a minimum of 10% of normal plant density (density = plants per unit area) compared to similar rangeland or pasture sites not dominated by woody plants. To encourage forage grass response, grazing should be deferred during the entire active growing season following application. Poor vegetative vigor or inadequate rainfall, may necessitate additional grazing deferment during periods of active forage growth. Light grazing of mature forage after seed maturity will not harm grass recovery and can aid in seed dispersal. Forage grass production usually increases as woody plant competition for water and nutrients is reduced. However, increased forage production is also dependent on adequate rainfall and a sound grazing management program.

Precaution: The density of cool season grass stands such as fescue and crested wheatgrass may be reduced after application of Spike 40P. Factors which may contribute to the possibility of stand reduction include excessive application rates, areas of shallow or rocky soil, and low brush density.

Rangeland and Pasture Overseeding: Apply Spike 40P at recommended rates. Overseeding involving burning or chaining of treated brush should not be attempted for at least 2 growing seasons after application. Apply seed and fertilizer at recommended rates into ash as soon as possible after burning or just prior to chaining. Cool season grasses are normally seeded in early fall and warm season grasses in the spring after the expected frost-free date. Aerial seeding without burning or chaining may be attempted in the fall or spring following an application of Spike 40P, but natural seedbed conditions must be relied upon for seedling establishment. Consult local range management specialists for recommendations on locally adapted species, seeding time, and grazing management.

Application of Spike 40P

Individual Plant Treatments

Individual plants, multistem clumps, or small stands of woody vegetation may be hand treated. For individual plant treatments apply Spike 40P evenly over the area occupied by the target plant(s).

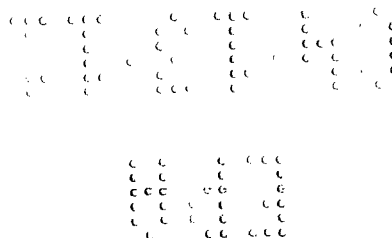
Pasture and Rangeland

- In areas receiving 20 inches or less average annual rainfall: Apply Spike 40P at a rate of 3/8 oz by wt per 200 sq ft (equivalent broadcast rate = 5 lb/acre).
- In areas receiving more than 20 inches average annual rainfall: Apply Spike 40P at a rate of 3/4 oz by wt per 200 sq ft (equivalent broadcast rate = 10 lb/acre).

Noncropland

- Apply Spike 40P at a rate of 3/8 oz by wt to 1 1/8 oz by wt per 200 sq ft (equivalent broadcast rate = 5 to 15 lb/acre).

Broadcast Treatments



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Spike 40P must be applied with ground or aerial application equipment capable of accurate calibration and able to provide a uniform distribution of pellets on the soil surface. Use of equipment not capable of confining the spread of pellets to the target area may result in injury or death of vegetation outside the intended treatment area. Contact a Dow AgroSciences sales representative for recommendations on application equipment for different use situations.

Spike 40P may be applied by ground or air broadcast by/or under the supervision of U.S. Government Agencies.

Broadcast Application Rates

Pasture and Rangeland: Do not apply more than 5 pounds per acre Spike 40P in areas receiving 20 inches or less average annual rainfall. Do not apply more than 10 pounds per acre in areas receiving 20 inches or more average annual rainfall.

Noncropland: Do not apply more than 10 pounds per acre of Spike 40P on noncropland.

Note: Refer to Use Information section for limitations on maximum use rates, frequency of application, and total application rates allowed during a given period of time. Refer to Environmental Hazards section under "Use Restrictions for Ground Water Protection" for other rate limitations on "vulnerable" sites.

Woody Plants Controlled by Spike 40P

Rangeland, Pastureland, and Noncropland:

Note: On rangeland or pastureland sites with shallow, rocky, and coarse textured soils with low organic matter content, or where partial control is desired, a lower rate in the indicated rate range may be appropriate (See "Factors in Herbicidal Response" in the "Use Information" section of this label.)

Apply Spike 40P at 5 to 10 lb per acre on the following woody plant species:

Common Name	Scientific Name
acacia, blackbrush	<i>Acacia rigidula</i>
acacia, catclaw	<i>Acacia greggii</i>
acacia, twisted	<i>Acacia tortuosa</i>
apple-of-sodom	<i>Solanum sodomeum</i>
birch, gray	<i>Betula populifolia</i>
blueberry	<i>Vaccinium</i> spp.
bluewood (Brazil)	<i>Condalia obovata</i>
buckbrush	<i>Symphoricarpos orbiculatus</i>
cherry, bitter	<i>Prunus emarginata</i>
dogwood, roughleaf	<i>Cornus drummondii</i>
elm, American	<i>Ulmus americana</i>
elm, winged	<i>Ulmus alata</i>
guajillo	<i>Acacia berlanderi</i>
guava	<i>Psidium guajava</i>
hackberry, spiny (granjeno)	<i>Celtis pallida</i>
hackberry, western	<i>Celtis occidentalis</i>
hawthorn	<i>Crataegus</i> spp.
huckleberry	<i>Gaylussacia</i> spp.
koa haole	<i>Leucaena</i>
<i>leucocephala</i>	
locust, black	<i>Robinia pseudoacacia</i>
manzanita	<i>Arctostaphylos</i> spp.
mulberry, red	<i>Morus rubra</i>
oak, bigelow	<i>Quercus durandi</i>
oak, black	<i>Quercus velutina</i>

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oak, blackjack	<i>Quercus marilandica</i>
oak, blue	<i>Quercus douglasii</i>
oak, bur	<i>Quercus macrocarpa</i>
oak, mohr	<i>Quercus mohriana</i>
oak, post	<i>Quercus stellata</i>
oak, running live	<i>Quercus virginiana</i>
oak, shrub live	<i>Quercus turbinella</i>
oak, sand shinnery	<i>Quercus havardii</i>
oak, southern red	<i>Quercus falcata</i>
oak, white	<i>Quercus alba</i>
rose, multiflora	<i>Rosa multiflora</i>
sage, black	<i>Salvia melifera</i>
sumac, dwarf	<i>Rhus copallina</i>
sumac, littleleaf	<i>Rhus microphylla</i>
sumac, skunkbush	<i>Rhus trilobata</i>
sumac, smooth	<i>Rhus glabra</i>
sumac, staghorn	<i>Rhus typhina</i>
thornapple, desert	<i>Datura discolor</i>
whitebrush	<i>Aloysia lycoides</i>
wolfberry, Berlandier	<i>Lycium berlandieri</i>
yaupon	<i>Ilex vomitoria</i>
yaupon, desert	<i>Schaefferia cuneifolia</i>

†Note: Use a higher dosage in the indicated rate range on all sites.

Apply Spike 40P at 10 lb per acre on the following woody plant species:

Common Name	Scientific Name
alder, red	<i>Alnus rubra</i>
alder, speckled†	<i>Alnus rugosa</i>
aspen, bigtooth	<i>Populus grandidentata</i>
beech, American	<i>Fagus grandifolia</i>
blackberry	<i>Rubus</i> spp.
boxelder	<i>Acer negundo</i>
chamise	<i>Adenostoma fasciculatum</i>
cherry, black	<i>Prunus serotina</i>
chokecherry, common	<i>Prunus virginiana</i>
colubrina, Texas	<i>Colubrina texensis</i>
cottonwood, eastern†	<i>Populus deltoides</i>
creeper, Virginia	<i>Parthenocissus</i>
dogwood, flowering	<i>Cornus florida</i>
douglasfir	<i>Pseudotsuga menziesii</i>
fir, balsam†	<i>Abies balsamea</i>
guayacan	<i>Porlieria angustifolia</i>
hardhack†	<i>Spiraea tomentosa</i>
hickory, bitternut	<i>Caraya cordiformis</i>
hickory, black	<i>Caraya texana</i>
hickory, pignut	<i>Caraya glabra</i>
hickory, shagbark	<i>Caraya ovata</i>
huisache†	<i>Acacia farnesiana</i>
kidneywood, Texas	<i>Eysenhardtia texana</i>
kudzu	<i>Pueraria lobata</i>
leatherstem	<i>Jatropha dioica</i>
lotebust (condalia)	<i>Ziziphus obtusifolia</i>
maple, bigleaf	<i>Acer macrophyllum</i>

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maple, sugar†	<i>Acer saccharum</i>
melaleuca†	<i>Melaleuca quinquenervia</i>
mountainmahogany, birchleaf	<i>Cercocarpus betuloides</i>
oak, California scrub	<i>Quercus dumosa</i>
oak, live	<i>Quercus virginiana</i>
oak, pin	<i>Quercus palustris</i>
oak, red	<i>Quercus rubra</i>
oak, white	<i>Quercus alba</i>
pine, Australian	<i>Casuarina</i> spp.
pine†	<i>Pinus</i> spp.
poplar, balsam†	<i>Populus balsamifera</i>
raspberry, black	<i>Rubus occidentalis</i>
rose, McCartney†	<i>Rosa bracteata</i>
spruce, white†	<i>Picea glauca</i>
sweetgum	<i>Liquidambar styraciflua</i>
tamarack†	<i>Larix laricina</i>
trumpet creeper	<i>Campsis radicans</i>
willow	<i>Salix</i> spp.

†Note: Use a higher dosage in the indicated rate range on all sites.

(Individual Plant Treatment Only):

Common Name	Scientific Name
ash, green	<i>Fraxinus pennsylvanica</i>
ash, white	<i>Fraxinus americana</i>
blackberry, cutleaf	<i>Rubus laciniatus</i>
ceanothus, wedgeleaf	<i>Ceanothus cuneatus</i>
chaparral, whitethorn	<i>Ceanothus leucodermis</i>
coyotebush	<i>Baccharis pilularis</i>
elm, Chinese	<i>Ulmus parvifolia</i>
elm, slippery	<i>Ulmus rubra</i>
greenbriar, roundleaf	<i>Smilax rotundifolia</i>
hawthorn, cockspur	<i>Crataegus crus-calli</i>
lantana	<i>Lantana camara</i>
manzanita, greenleaf	<i>Arctostaphylos patula</i>
maple, Norway	<i>Acer platanoides</i>
maple, silver	<i>Acer saccharinum</i>
maple, vine	<i>Acer circinatum</i>
peppertree, Brazilian	<i>Schinus terebinthifolius</i>
privet	<i>Ligustrum</i> spp.
redcedar, eastern	<i>Juniperus virginiana</i>
Russianolive	<i>Eleagnus angustifolia</i>
salal	<i>Gaultheria shallon</i>
sumac, laurel	<i>Rhus laurina</i>
sycamore, American	<i>Platanus occidentalis</i>
tallowtree, Chinese	<i>Sapium sebiferum</i>
tuliptree	<i>Liriodendron tulipifera</i>

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2. Replacement of amount of product used.

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Spike[®] 40P

EPA-Reg. No. 62719-122

Registration Notes:

Source label text based on EPA accepted copy dated 02/20/96, fax communications dated 06/17/97, 06/20/97, 06/23/97, and Notice of Pesticide Reregistration dated 06/30/97.

Changes per EPA letter dated March 29, 2011:

1. Marketing claims: change "fence rows" to "Non-agricultural fence rows."
2. Add Personal Protective Equipment (PPE) for applicators and other handlers.
3. Revise heading from "General Use Information" to "Use Information," and "General use Precautions" to "Use Precautions and Restrictions."
4. Revise "Safe use of Spike 40P...guidelines..." to "Safe use of Spike 40P...instructions..."
5. Add the lbs/acre of Spike 40P after lbs a.i.acre in Maximum Use Rate section.
6. Revise all of the "oz units" to "oz by wt."
7. Revise General information" to Use Information; move the Note: paragraph to a location under Rangeland, Pastureland, and Noncropland."
8. Woody plants: revise the Note to "Use the higher dosage in the indicated rate range..."

Changes by amendment:

1. Based on e-mail message dated February 21, 2006 from William Hazel (EPA – HED) to John Jachetta (Dow AgroSciences), the following change has been made: Under the Maximum Application Rate for Grazing or Haying section on page 8, removed "or grazing" from first sentence, removed "grazing or" from second sentence, and added the following sentence at the end: There are no grazing restrictions following application of Spike 40P at labeled rates.
2. Revised First Aid statements in accordance with PR Notice 2001-1
3. Updated trademark symbol
4. Below product name on base label and cover: a) moved generic descriptor under product name; b) removed the term Vegetation Management
5. Revised emergency phone number.
6. Revised Storage and Disposal per PR Notice 2007-4.
7. Added Produced for and street address to DAS address
8. Revised term "Net Contents" to "Net Weight" for dry product
9. Revised warranty section

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