

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 3 weeks after application.

CROPPING SYSTEMS

See "General Information" and "Mixing and Application Instructions" sections of this label for essential product performance information.

See the following CROPPING SYSTEM SECTIONS for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from under ground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a Cropping System on this label, the combined total of treatments must not exceed 2 quarts per acre in the crop's life span.

Do not plant subsequent crops, other than those on the label, for the year in which application is made.

Do not graze treated areas or allow livestock to enter treated areas for 3 weeks after application.

For other cropping systems, do not feed or graze treated crops within 3 weeks after application.

Roundup herbicide does not provide residual weed control. For subsequent residual weed control, follow a label approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

ALFALFA	OATS
BARLEY	PEAS
BEANS	English or Green
Edible (All)	SORGHUM (Milo)
COTTON	SOYBEANS
CORN (All)	WHEAT

When applied as directed for "Cropping Systems", under the conditions described, this product controls annual and perennial weeds listed on this label prior to the emergence of these crops.

For dilution and rates of application using Boom or Hand Held Equipment, see "Mixing and Application" and "Weeds Controlled" sections of this label.

Spot Treatment (Except Alfalfa and edible Beans and Peas) — Applications in growing crops must be made prior to heading of small grains and mid-initial pod set in soybeans, silking of corn and boll opening on cotton.

For dilution and rates of application using Boom or Hand Held Equipment, see "Mixing and Application" and "Weeds Controlled" sections of this label.

NOTE: DO NOT TREAT MORE THAN 10% OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment — This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans.

See the "Selective Equipment" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Do not harvest cotton or soybeans within 7 days after application.

ASPARAGUS

When applied as directed for "Cropping Systems" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

Prior to Crop Emergence — Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Post Harvest — Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use proper spray equipment for post emergence, post harvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

SUGARCANE

When applied as directed for "Cropping Systems" under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields to be planted to sugarcane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment — Apply this product in 20 to 50 gallons of water per acre on emerged weeds growing in fields to be planted to sugarcane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

For removal of last stubble or ratoon cane, apply 4 to 5 quarts of this product in 20 to 60 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields — For dilution and rates of application using Hand Held Equipment, see "Mixing and Application" and "Weeds Controlled" sections of this label.

For control of volunteer or diseased sugarcane, make a 1% solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

TANK MIXTURES Minimum Tillage Systems CORN

When applied as recommended under the conditions described, these tank mixtures control many emerged weeds and give preemergence control of many annual weeds when corn will be planted directly into a cover crop, established sod, or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. Lasso® EC herbicide may be substituted for Lasso® herbicide in these tank mixtures. For mixing instructions, see the "Mixing and Application Instructions" section of this label.

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Do not use in sandy soils.

- ROUNDUP® plus LASSO® plus ATRAZINE
- or
- ROUNDUP® plus LASSO plus BLADEX™
- or
- ROUNDUP® plus LASSO® plus PRINCEP™
- or
- ROUNDUP® plus ATRAZINE plus PRINCEP™

Apply these tank mixtures in 20 to 60 gallons of water per acre immediately before, during or after planting, but BEFORE CROP EMERGENCE. As density of stubble, crop residue or weeds increases, spray gallonage and rate should be increased within the recommended ranges to insure complete coverage.

CONTROL OF EMERGED WEEDS

Annual Weeds — Apply to actively growing grasses and broadleaf weeds. Use 1 quart of Roundup Herbicide per acre in these tank mixtures if weeds are less than 6 inches tall; if weeds are over 6 inches tall, apply 1.5 quarts of this product per acre. For emerged annual weeds controlled, see the "Weeds Controlled" section of this label.

Perennial Weeds — At normal application rates in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "General Information" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of Roundup herbicide per acre in the tank mixtures under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "Weeds Controlled" section of this label. To obtain control, follow recommendations on this label for stage of growth and rate of application for specific perennial weeds. To obtain the desired stage of growth, it may be necessary to apply Roundup herbicide alone in the late summer or fall and then follow with a label approved seedling weed control program at planting.

NOTE When using these tank mixtures, do not exceed 4 quarts of Roundup herbicide per acre.

USE OF THESE TANK MIXTURES FOR BERMUDA GRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label approved seedling weed control program in a minimum tillage or conventional tillage system. For johnsongrass control, follow the instructions under the "Control of Perennial Weeds" section of the label, and then use a label approved seedling weed control program with conventional tillage.

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Use the higher rate of Lasso® herbicide in the recommended ranges in areas of heavy grass infestation or when fall panicum or crabgrass will be present.

Use the higher rate of atrazine in the recommended ranges on soils with greater than 3% organic matter.

LASSO® plus BLADEX™

For weeds controlled preemergence, see the "Weed Control" with Lasso and Lasso plus Bladex (Tank Mixture) sections of the label for Lasso herbicide. See the following table for recommended rates of Lasso plus Bladex in this tank mixture with Roundup herbicide on various soil types.

Lasso® plus Bladex™

SOIL TEXTURE GROUP*	BROADCAST RATE PER ACRE	
	Lasso® (quarts)	Bladex™ 4L (quarts)
COARSE	2 to 2.5	1 to 1.5
MEDIUM	2.5 to 3	1.2 to 1.6
FINE	2.5 to 3	1.5 to 2.2

*Refer to the Soil Texture section of the label to determine the corresponding soil texture group for the soil to be treated.

**When using Bladex 80W use equivalent rates. One quart Bladex 4L equals 1.25 lbs. of Bladex 80W.

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Use the higher rate of Lasso® herbicide in the recommended ranges in areas of heavy grass infestation or when fall panicum or crabgrass will be present.

Use the higher rate of Bladex in the recommended ranges on soils with greater than 3% organic matter.

NOTE Do not use this mixture on sand or loamy sand soils with less than 2% organic matter.

*Bladex is a trademark of the Shell Chemical Company.

LASSO® plus PRINCEP™

For weeds controlled preemergence, see the "Weed Control" sections of the labels for Lasso and Princep. See the following table for recommended rates of Lasso plus Princep in this tank mixture with Roundup herbicide on various soil types.

Lasso® plus Princep™ 80W

SOIL TEXTURE GROUP*	BROADCAST RATE PER ACRE	
	Lasso® (quarts)	Princep 80W** (Pounds)
COARSE	2 to 2.5	1.25 to 1.5
MEDIUM	2.5 to 3	1.5 to 2
FINE	2.5 to 3	2 to 2.5

*Refer to the Soil Texture section of the label to determine the corresponding soil texture group for the soil to be treated.

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PRE-EMERGENCE WEED CONTROL

LASSO® plus ATRAZINE

For weeds controlled preemergence, see the "Weed Control" with Lasso and Lasso plus atrazine (Tank Mixture) sections of the label for Lasso herbicide. See the following table for recommended rates of Lasso plus atrazine 30W in this tank mixture with Roundup herbicide on various soil types.

Lasso® plus atrazine

SOIL TEXTURE GROUP*	BROADCAST RATE PER ACRE	
	Lasso® (quarts)	atrazine 30W** (Pounds)
COARSE	2 to 2.5	1.25 to 1.5
MEDIUM	2.5 to 3	1.5 to 2
FINE	2.5 to 3	2 to 2.5

*Refer to the Soil Texture section of the label to determine the corresponding soil texture group for the soil to be treated.

**When using atrazine 4L or AAtrex™ 4LC use equivalent rates. One quart equals 1.25 pounds of atrazine 30W.

**When using Princep 4L use equivalent rates. One quart equals 1.25 pounds of Princep 80W.

Use the higher rate of Lasso® herbicide in the recommended ranges in areas of heavy grass infestation or when fall panicum or crabgrass will be present.

Use the higher rate of Princep herbicide in the recommended ranges on soils with greater than 3% organic matter.

*Lasso is a registered trademark of Monsanto Company.
**Princep is a registered trademark of Ciba-Geigy Corporation.
***AAtrex is a registered trademark of Ciba-Geigy Corporation.

ATRAZINE plus PRINCEP™

For weeds controlled preemergence, see the "Weed Control" sections of the labels for atrazine and Princep.

See the following table for recommended rates of atrazine 80W and Princep 80W in this tank mixture with Roundup herbicide on various soil types.

Atrazine 80W plus Princep™ 80W

SOIL TEXTURE GROUP*	BROADCAST RATE PER ACRE	
	atrazine 80W** (Pounds)	Princep 80W** (Pounds)
COARSE	1.25	1.25
MEDIUM	1.25 to 1.75	1.25 to 1.75
FINE	1.5 to 2	1.5 to 2

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Refer to the Soil Texture Section of the label to determine the corresponding soil texture group for the soil to be treated.

When using atrazine 50 WP, AATribu[®] or Lasso EC herbicide, use equivalent rates. One quart equals 1.125 pounds of atrazine 50 WP or AATribu EC.

Use the higher rate of these products in the recommended ranges on soils with greater than 3% organic matter.

[®]Roundup is a registered trademark of Ciba-Geigy Corporation.
[®]AATribu is a registered trademark of Ciba-Geigy Corporation.

TANK MIXTURES Minimum Tillage Systems SOYBEANS

When applied as directed under the conditions described, these tank mixtures control many emerged annual weeds, suppress many emerged perennial weeds and give preemergence control of many annual weeds when soybeans will be planted directly into a cover crop, stale seed bed, or in previous crop residues such as wheat stubble. These tank mixtures will not control regrowth from perennial weeds. Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. Lasso[®] EC herbicide may be substituted for Lasso[®] herbicide in these tank mixtures. For mixing instructions see

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Minimum Tillage Systems, Soybeans cont'd. 56

the Mixing and Application section of this label.

- ROUNDUP[®] plus LASSO[®] plus LOROX[™] ■
- or
- ROUNDUP[®] plus LASSO[®] plus LEXONE[™] ■
- or
- ROUNDUP[®] plus LASSO[®] plus SENCOR[™] ■

Apply these tank mixtures in 10 to 50 gallons of water per acre immediately before, during or after planting but BEFORE CROP EMERGENCE. As density of stubble, crop residue or weeds increases, spray gallonage and rate should be increased within the recommended ranges to insure complete coverage.

CONTROL OF EMERGED WEEDS

Annual Weeds — Apply to actively growing grasses and broadleaf weeds. Use 1 quart of Roundup Herbicide per acre in these tank mixtures if weeds are less than 6 inches tall. If weeds are over 6 inches tall, apply 1.5 quarts of this product per acre. For emerged annual weeds controlled see the "Weeds Controlled" section of this label.

Perennial Weeds — At normal application rates in minimum tillage systems perennial weeds may not be at the proper stage of growth for control. See the "General Information" section of this label for the proper stage of growth for perennial weeds. Use of 2 to 4 quarts of Roundup herbicide per acre in these tank mixtures under these conditions provides top kill and reduces competition from many

emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled see the "Weeds Controlled" section of this label. To obtain control follow recommendations on this label for stage of growth and rate of application for specific perennial weeds. To obtain the desired stage of growth, it may be necessary to apply Roundup herbicide alone in the late summer or fall and then follow with a label approved seedling weed control program at planting.

NOTE When using these tank mixtures do not exceed 4 quarts of Roundup herbicide per acre.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label approved seedling weed control program in a minimum tillage or conventional tillage system. For johnsongrass control, follow the instructions under the "Control of Perennial Weeds" section of the label and then use a label approved seedling weed control program with conventional tillage.

PREEMERGENCE WEED CONTROL

- LASSO[®] plus LOROX[™] ■
- For weeds controlled preemergence, see the "Weed Control with Lasso" and "Lasso plus Loro[®] 50WP" sections of the label for Lasso herbicide.
- See the following table for recommended rates of

Minimum Tillage Systems, Soybeans cont'd. 57

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Lasso plus Loro[®] 50WP in this tank mixture with Roundup herbicide on various soil types.

Lasso[®] plus Loro[®]

SOIL TEXTURE GROUP ^a	BROADCAST RATE PER ACRE	
	Lasso [®] (Quarts)	Loro [®] 50 WP (Pounds)
COARSE		
Sandy Loam only	2 to 2.5	1 to 1.5
MEDIUM	2.5 to 3	1.5 to 2
FINE	2.5 to 3	2 to 3

^aRefer to the Soil Texture Section of the label to determine the corresponding soil texture group for the soil to be treated.

Use the higher rate of Lasso in the recommended ranges in areas of heavy grass infestation or when fall panicum or crabgrass will be present.

Use the higher rate of Loro[®] 50WP in the recommended ranges on soils with greater than 3% organic matter.

Do not use this mixture on sand or loamy sand or on soil with less than 1% organic matter as crop injury from Loro[®] may occur.

[®]Loro is a registered trademark of E. I. duPont de Nemours and Company.

[®]Lasso is a registered trademark of Monsanto Company.

- LASSO[®] plus LEXONE[™] ■
- or
- LASSO[®] plus SENCOR[™] ■

For weeds controlled preemergence, see the "Weed Control with Lasso" and "Lasso plus Lexone or Sencor" sections of the label for Lasso herbicide.

See the following table for recommended rates of Lasso plus Lexone 50WP or Lasso plus Sencor 50WP in this tank mixture on various soil types.

Lasso[®] plus Lexone[™] 50 WP or
Lasso[®] plus Sencor[™] 50WP

SOIL TEXTURE GROUP ^a	BROADCAST RATE PER ACRE	
	Lasso [®] (Quarts)	Lexone 50WP [™] or Sencor 50WP [™] (Pounds)
COARSE		
Sandy Loam only	2 to 2.5	0.5 to 0.75
MEDIUM	2.5 to 3	0.75 to 1
FINE	2.5 to 3	1 to 1.5 ^{b,c}

^aRefer to the Soil Texture Section of this label to determine the corresponding soil texture group for the soil to be treated.

^bWhen using Lexone 4L or Sencor 4 Flowable use equivalent rates. One quart equals 2 pounds of Lexone 50 WP or Sencor 50 WP.

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Minimum Tillage Systems, Soybeans cont'd. 60

^{c,c,c}On the silty clay or heavy clay soils of the Mississippi Delta, use 1.5 to 2 pounds of Lexone or Sencor per acre.

Use the higher rate of Lasso herbicide in the recommended ranges in areas of heavy grass infestations or when fall panicum or crabgrass will be present.

Use the higher rate of Lexone or Sencor herbicides in the recommended ranges on soils with greater than 2% organic matter.

Do not use this mixture on sand or loamy sand soils as crop injury from Lexone or Sencor may occur.

Do not use on much soils.

Do not apply on alkaline soils with a pH (CaCl₂) of less than 7.4.

Crop injury may occur if any atrazine was used on the soil the year before use of this Lexone or Sencor tank mixture.

DO NOT REPLANT CROPS OTHER THAN SOYBEANS FOR 120 DAYS AFTER APPLICATION.

[®]Lasso is a registered trademark of Monsanto Company.

[™]Loro is a registered trademark of E. I. duPont de Nemours and Company.

[™]Lexone is a registered trademark of E. I. duPont de Nemours and Company.

[™]Sencor is a registered trademark of the parent company of Farbwerke Bayer GmbH, Leverkusen.

TREE CROPS

This herbicide is recommended for weed control in established groves or orchards or for site preparation prior to transplanting.

See "General Information" and "Mixing and Application Instructions" sections of this label for essential product performance information.

Boom Application — Apply this product in 20 to 60 gallons of water per acre on emerged weeds. When applying to dense vegetation using a low trailing shielded boom, use the higher rate of this herbicide in 50 to 100 gallons of water.

For specific rates of applications and instructions for control of various annual and perennial weeds see the "Weeds Controlled" section of this label.

Hand-Held Application — Apply a water solution of this product as recommended in the "Mixing and Application Instructions" section of this label. Manual applications with low gallonage single nozzle tips may not provide adequate coverage in tall dense vegetation.

NOTE

Repeat treatments may be necessary to control weeds regenerating from under ground parts or seed. The combined total of all treatments must not exceed 10.6 quarts per acre per year. Do not feed or forage treated areas for 8 weeks after application.

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EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY, DRIFT OR MIST WITH GREEN FOLIAGE, GREEN BARK OR BARK OF TREES ESTABLISHED LESS THAN TWO YEARS. SUCKERS OR FRUIT OF DESIRABLE TREES, CROPS, PLANTS OR OTHER DESIRABLE VEGETATION. SPRAY CONTACT WITH OTHER THAN MATURED BARK ON THE MAIN TRUNK CAN RESULT IN SERIOUS LOCALIZED OR TRANSLOCATED DAMAGE.

If weeds have been mowed, allow regrowth to reach the recommended stage of growth prior to application of this product. Do not apply to weeds under drought stress.

Roundup herbicide does not provide residual weed control. For subsequent weed control, follow a label approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

See the following TREE CROP SECTIONS for specific recommended uses.

AVOCADO
GRAPEFRUIT
KUMQUAT
LEMON

LIME
ORANGE
TANGELO
TANGERINE

When applied as directed for "Tree Crops" under the conditions described, this product controls annual and perennial weeds listed on this label in these

established groves or orchards or when used for site preparation prior to transplanting.

NOTE: Allow a minimum of 14 days between last application and harvest.

APPLE, CHERRY and PEAR

When applied as directed for "Tree Crops" under the conditions described, this product controls annual and perennial weeds listed on this label in these established groves or orchards or when used for site preparation prior to transplanting.

NOTE: Allow a minimum of 14 days between last application and harvest.

ALMOND
FILBERT
MACADAMIA

PECAN
PISTACHIO
WALNUT

When applied as directed for "Tree Crops" under the conditions described, this product controls annual and perennial weeds listed on this label in these established groves or orchards or when used for site preparation prior to transplanting.

NOTE: Allow a minimum of 21 days between last application and harvest.

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Tree Crops cont'd. & Grapes 64

This herbicide is recommended as a directed spray for weed control in established vineyards or for site preparation prior to transplanting new vines.

For recommended rates and application see the "General Information" and "Mixing and Application Instructions" sections of this label for essential product performance information.

Applications should not be made when green shoots or canes or foliage are in the spray zone. (In the Northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.)

DO NOT ALLOW SPRAY, DRIFT OR MIST TO CONTACT GREEN FOLIAGE, GREEN BARK, SUCKERS OR VINES AND REWEALS LESS THAN 3 YEARS OF AGE.

SPRAY CONTACT OTHER THAN WITH MATURE BARK OF THE MAIN TRUNK CAN RESULT IN SERIOUS LOCALIZED OR TRANSLOCATED DAMAGE.

Boom Application — Apply this product in 20 to 60 gallons of water per acre on emerged weeds.

For specific rates of applications and instructions for control of various annual and perennial weeds see the "Weeds Controlled" section of this label.

Hand-Held Application — Apply a water solution of this product as recommended in the "Mixing and Application Instructions" section of this label.

NOTE

If repeat treatments are necessary for weed control in vineyards, do not exceed a total of 10.6 quarts of this product per acre per year. Do not treat between 14 days before harvest to fall dormancy when no green vegetation, canes or shoots exist.

Roundup herbicide does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

EPA Reg. No. 524-308 AA D-897.10-001.28/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.



Grapes cont'd. 65

ROUNDUP® Herbicide

Complete Directions for Use

Water soluble herbicide for non-selective control of many annual and perennial weeds;

in NON-CROP AREAS such as:
Industrial, Recreational and Public areas.

Farmstead Weed Control.
Ornamentals
Silvicultural Sites and Rights-of-Way
Turfgrasses and Grasses for Seed Production.

in CROPPING SYSTEMS.

Alfalfa	Oats
Asparagus	Peas
Barley	"English or Green"
Beans	Sorghum (milo)
Edible (all)	Soybeans
Corn	Sugarcane
Cotton	Wheat
in TREE CROPS:	
Almond	Macadamia
Apple	Orange
Avocado	Pear
Cherry	Pecan
Filbert	Pistachio
Grapefruit	Tangelo
Kumquat	Tangerine
Lemon	Walnut
Lime	

in GRAPES: Wine, Table and Raisin

in MINIMUM TILLAGE SYSTEMS for:
Corn Soybeans

Roundup

Herbicide by Monsanto

Complete Directions for Use

EPA Reg. No. 524-308 AA

DO NOT CONTACT WITH FOLIAGE OF GREEN PLANTS OR FRUIT OF CROPS. DESIRABLE PLANTS AND TREES SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1980-2 D 597 10-001 23/53

Read each of these sections of this label for essential product performance information.

USE THESE CONVENIENT SECTION MARKERS.

GRAPES	TREE CROPS	NON-WEED TREES	OPENING TREES	NON-CROPS	MISC. CONTROLS	MISC. APPLICATION	GENERAL INFORMATION
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PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals
Keep out of reach of children

WARNING!

CAUSES EYE IRRITATION

HARMFUL IF SWALLOWED

Do not get in eyes, on skin or on clothing

FIRST AID: In case of contact, immediately flush

eyes with plenty of water for at least 15 minutes

Call a physician. Flush skin with water. Wash clothing before reuse.

Physical and Chemical Hazards

Keep away from children. This product should be mixed in a well-ventilated area. Do not use near a window or door. Do not use near a fire.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTION OF THIS PRODUCT IN A WAXED STEEL OR UNLINED STEEL, EXCEPT STAINLESS STEEL, ALUMINUM OR SPRAY TANKS. THE

product may react with the tank lining with the formation of a gas which may be explosive.

Do not use near a fire. Do not use near a window or door. Do not use near a fire.

Precautionary Statements

Roundup is a registered trademark of Monsanto Company. The name Roundup is used under license from the U.S. Patent Office. The name Roundup is used under license from the U.S. Patent Office.

LIMIT OF WARRANTY AND LIABILITY

Roundup is a registered trademark of Monsanto Company. The name Roundup is used under license from the U.S. Patent Office. The name Roundup is used under license from the U.S. Patent Office.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this company including but not limited to incompatibility with products other than those set forth in the Directions for application to contact with desirable vegetation. Unusual weather conditions which are outside the range considered normal at the application site and for that time period when the product is applied with the normal range of application.

Limit of Warranty and Liability

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Storage, Disposal and Ingredients

Environmental Hazards

Avoid direct applications to any body of water. Do not contaminate water by disposal of waste or cleaning of equipment.

Storage and Disposal

Avoid contamination of feed, feed and foodstuffs. Do not reuse container, destroy when empty.

ACTIVE INGREDIENT

Roundup is a registered trademark of Monsanto Company. The name Roundup is used under license from the U.S. Patent Office. The name Roundup is used under license from the U.S. Patent Office.

*Contains 480 grams per liter (1.6 pounds) of the active ingredient isopropylamine salt of N-(phosphonomethyl)glycine per U.S. gallon (1,120 grams per liter) of the acid (glyphosate).

Physical and Chemical Hazards

Keep away from children. This product should be mixed in a well-ventilated area. Do not use near a window or door. Do not use near a fire.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Roundup herbicide, a water soluble liquid, mixes readily with water to be applied as a foliage spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 7 to 14 days but on most perennials weeds may not occur until 14 days or more. Extremely hot or cold weather during treatment may reduce the activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning. Above ground growth and deterioration of underground plant parts.

When otherwise specified on this label, spray application of Roundup should be made to the foliage of the plant. Do not spray Roundup on the soil or on the ground.

General Information

General Information cont'd

pathogen, and the use of the product may be limited. Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Obtain the higher rate of this product when used with the recommended range when 1 weed growth is very dense. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Do not treat water, water pipes, or water containers. Do not treat water, water pipes, or water containers. Do not treat water, water pipes, or water containers. Do not treat water, water pipes, or water containers.

Rainfall or irrigation within 4 hours after application may reduce the effectiveness of Roundup. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Roundup herbicide does not kill weeds that are dormant. Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

DO NOT ADD ADDITIONAL SURFACTANT since this formulation contains sufficient wetting agents for the purposes described.

Mixing and Application Instructions

For best results, use Roundup at a rate of 1 to 2 quarts per acre. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

ATTENTION

Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

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NOTE: Do not use Roundup in any manner not consistent with this label. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Attention — Avoid Drift

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Mixing and Application Instructions

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Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

MIXING AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND PREPARED EQUIPMENT. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

MIXING

This product mixes readily with water. Mix spray solutions of this product in a ratio of 1 part Roundup to 100 parts water. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

source. During mixing and application, avoid the spray solution may occur. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

TANK MIXTURES

Always prefer the compatibility of labeled tank mixes of this herbicide with water. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Use a 20 to 25 mesh screen or wetting basket. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

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Mixing and Application Instructions cont'd

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Mixing and Application Instructions cont'd and Soil Texture

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Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

SOIL TEXTURE

Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

SOIL TEXTURE GROUP

SOIL TEXTURE GROUP	SOIL TEXTURE
10-15%	Very hard sandy loam
15-20%	Hard sandy loam
20-25%	Very hard sandy loam
25-30%	Hard sandy loam

Do not use Roundup on any plant which is known to be susceptible to a particular disease. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

APPLICATION EQUIPMENT AND TECHNIQUES

AERIAL EQUIPMENT

Use the recommended rates of Roundup herbicide. Do not use Roundup on any plant which is known to be susceptible to a particular disease.

Avoid direct application to any body of water.

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Ensure uniform application — To avoid streaked, uneven or overlapped application, use appropriate marking devices.

For control of Annual or Perennial Weeds listed on this label using conventional boom equipment—

Use coarse sprays only
For control of weeds listed on this label using knapsack sprayers or high volume spraying equipment utilizing handguns or other suitable nozzle arrangements — In less otherwise specified make a 2% solution of this product in water and spray to damage of vegetation to be controlled. For best results use a 2% solution in larger volume equipment as such as herbicide sprayers, etc. Field bind weed, hemp dogbane, milkweed and Canada thistle.

1

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the total volume of spray solution. The amount of this product in water should be 0.5-1.0 g/l.

Spray solution

ITEM	AMOUNT OF FUNDING		
	1979	1980	1981
Salaries	1,000	1,000	1,000
Expenses	1,000	1,000	1,000
Travel	1,000	1,000	1,000
Supplies	1,000	1,000	1,000

For the 34 knapsack prayers it is suggested that the number amount to this or such be mixed with 4378 and 4379. Another 34 prayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator or a wider applicator after dilution and thorough mixing with water to listed weeds growing in any non-crop site specified on this label and only when specifically recommended in cropping systems.

A regulating spray system directs the spray into a fan into weeds growing above desirable vegetation. An air spray gun not intercepted by weeds is directed and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution into weeds and—shielding desirable vegetation from the herbicide.

• After applicator solves the herbicide problem, assess by rubbing the weed with a 30-second material, containing the herbicide solution

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applications used above desired vegetation should be adjusted to limit the weed spray stream. After contact of at least 10 inches in the desirable vegetation. Operators must remain on platform the herbicide solution striking the desirable vegetation may result in damage or destruction of vegetation.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weeds are exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances repeat treatment may be necessary.

SEE THE APPENDIX FOR THE LIST OF THE
SOURCES OF THE DATA

18

3'

4975

- Monitor equipment and working conditions closely to avoid damage to the machine and vegetation
- Do not operate when working on uneven soil with weeds
- Keep nozzle 10-15" above the weeds
- Keep spray patterns spaced 10-15" apart, center of the overlapping spray
- Keep fields in shallow water, no more than 1" deep, for desirable vegetation
- Monitor soil temperature and soil moisture in the operators wheel area
- Keep water meter and pressure gauge in close proximity with hard detection
- Do not use a wheel that when wheels are wet
- Do not operate equipment at ground speeds greater than 1 mph. Water meter may be affected by speed of application. As speed increases, pressure equipment ground contact may give a false indication
- Do not use the nozzle directly against the weeds. The nozzle may increase the spraying effect by the water spray, but the weeds will be killed by the water spray
- Do not use equipment to spray the weeds directly. With a 4-6" nozzle, the water may be 4-6" in diameter. If the water is 4-6" in diameter, the weeds will be killed by the water spray

RECIRCULATING SPRAYERS

Regulating sprayer operation is made on the basis of ground speed and delivery volume. Two methods can be used to calculate 1. determine the discharge being delivered per minute then operate at the desired ground speed or 2. select the desired ground speed and then adjust the sprayer to deliver the proper volume per minute. This may require nozzle changes. Use the following table below.

100-443687-100

Table 1. Analysis of Variance for the 12-Week Study

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Wick	Wick Width (inches)	Flow Rate (gallons per minute)
1	1/2	1.0
2	1	2.0
3	1 1/2	3.0
4	2	4.0
5	2 1/2	5.0

NOTE: Use higher flow rates for heavier weeds or for broadcast applications.

Table 2. Use this table when calibrating Broadcast type reciprocating sprayers. Broadcast reciprocating sprayer calibration is based on the discharge of 100 ml of water from the nozzle in a 10 second period.

VOLUME PER MINUTE PER NOZZLE	Flow Rate (gallons per minute)
1	1.0
2	2.0
3	3.0
4	4.0
5	5.0

When applied as recommended under the conditions described for reciprocating sprayers, this product will control the following weeds growing a minimum of 6 inches above desirable vegetation:

Perennial Broadleaf Weeds. — To control the following weeds mix a ratio of 1 quart of this product in 10 gallons of water and apply as directed.

Milkweed. *Asclepias syriaca*

Milkweed control will require repeat application.

Cocksfoot	Pigweed, Redroot
Crabgrass	Sunflower
Johnsongrass	Yellow foxtail
Perennial ryegrass	

Annual Grasses. — To control the following weeds mix a ratio of 1 quart of this product in 10 gallons of water and apply as directed.

Corn (volunteer)	Shattercane
Sea mays	Perennial ryegrass

SHIELDED APPLICATORS

When applied as recommended under the conditions described for shielded applicators, this product will control the following weeds listed in the Weeds Controlled section of this label.

Shielded applicators which apply the herbicide solution as a spray band should be calibrated on a broadcast equivalent rate and volume basis to determine these:

Band Width (inches)	Herbicide Broadcast RATE (per acre)	Herbicide Band RATE (per acre)
1	1.0	1.0
2	2.0	2.0
3	3.0	3.0
4	4.0	4.0
5	5.0	5.0

Mix 1 gallon of this product in enough water to prepare 10 gallons of herbicide solution (10% solution). Apply this solution to annual grasses listed in this Wiper Applicators section.

Recommended speed should be maintained at 40 to 50 RPM.

For Wick or other Wiper Applicators. — Mix 1 gallon of this product in 10 gallons of water to prepare a 10% solution. Apply this solution to weeds listed in this Wiper Applicators section.

In severe infestations, reduce equipment ground speed to insure that adequate amounts of the product are wiped on the weeds. A 10% concentration in the wiper applicator may be necessary.

Do not harm the desirable plants or desirable vegetation.

When applied as recommended under the conditions described for Wiper Applicators, this product CONTROLS the following weeds:

ANNUAL GRASSES

Corn (volunteer)	Shattercane
Sea mays	Perennial ryegrass

When applied as recommended under the conditions described for Wiper Applicators, this product SUPPRESSES the following weeds:

PERENNIAL GRASSES

Johnsongrass
Perennial ryegrass

ANNUAL BROADLEAVES

Pigweed, Redroot	Amaranthus retroflexus
Ragweed (giant)	Ambrosia trifida
Sunflower	Helianthus annuus

PERENNIAL BROADLEAVES

Dogbane (hemp)	Adonis autumnalis
Milkweed	Asclepias syriaca
Nightshade (silverleaf)	Solanum elaeagnifolium

WEEDS CONTROLLED

Roundup herbicide controls many annual and perennial grasses and broadleaf weeds.

CONTROL OF ANNUAL WEEDS

Apply to actively growing grasses and broadleaf weeds. Use 1 quart of this product per acre if weeds are less than 10 inches tall. If weeds are taller, increase to 1.5 quarts of this product per acre. Apply 1.5 quarts of this product per acre 14 to 21 days after treatment. If weeds are taller than 10 inches, apply 1.5 quarts per acre.

When applied as recommended under the conditions described for the Wiper Applicators, this product CONTROLS the following ANNUAL WEEDS:

Bluegrass (annual)	Pigweed (smooth)
Bromegrass	Amaranthus retroflexus
Brome (dormant)	Ragweed (common)
Perennial ryegrass	Sea mays

Wick	Wick Width (inches)	Flow Rate (gallons per minute)
1	1/2	1.0
2	1	2.0
3	1 1/2	3.0
4	2	4.0
5	2 1/2	5.0

NOTE: Use higher flow rates for heavier weeds or for broadcast applications.

Table 2. Use this table when calibrating Broadcast type reciprocating sprayers. Broadcast reciprocating sprayer calibration is based on the discharge of 100 ml of water from the nozzle in a 10 second period.

WIPER APPLICATORS

Wiper applicators include either roller or wick devices which physically wipe appropriate concentrations of this product directly onto the weeds. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to insure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

For Roller Applicators. — Mix 1 gallon of this product in enough water to prepare 10 gallons of herbicide solution (10% solution). Apply this solution to perennial weeds or annual broadleaf weeds listed in this Wiper Applicators section.

Corn (volunteer)	Ragweed (giant)
Sea mays	Adonis autumnalis
Crabgrass	Sandbar (field)
Digitaria spp.	Dentaria caudicifera
Fleabane	Shattercane
Eragrostis spp.	Perennial ryegrass
Portulaca	Smartweed (Pennsylvania)
Setaria spp.	Polygonum
Kochia	Pensylvanica
Kochia scoparia	Spanishneedles*
Lambsquarters (common)	Bidens bipinnata
Chenopodium album	Sunflower
Lettuce (prickly)	Helianthus annuus
Lactuca serriola	Trifolium (Russian)
Panicum	Cirsium
Panicum spp.	Velvetleaf
Pigweed (redroot)	Achyrocline satureioides
Amaranthus retroflexus	Sheep (volunteer)
	Trifolium aestivum

*Apply 1.5 quarts of this product per acre.

Annual weeds generally will continue to germinate from seed throughout the growing season. Repeat treatments may be necessary to control after germinating weeds. Repeat treatments must be made prior to crop emergence.

Weeds Controlled — Perennial

CONTROL OF PERENNIAL WEEDS

When applied as recommended under the conditions described, this product CONTROLS the following PERENNIAL WEEDS:

NOTE: Perennial weeds may regenerate from underground fragments with hardy regrowth. Repeat treatments must be made prior to the emergence.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Bahiagrass <i>Paspalum notatum</i>	Muhly (wirestem) <i>Muhlenbergia frondosa</i>
Bermudagrass <i>Cynodon dactylon</i>	Mullein (common) <i>Verbascum thapsus</i>
Bindweed (field) <i>Convolvulus arvensis</i>	Nasipagrass <i>Pennisetum purpureum</i>
Bluegrass (Kentucky) <i>Poa spp</i>	Nightshade (silverleaf) <i>Solanum elaeagnifolium</i>
Brackenfern <i>Pteridium aquilinum</i>	Orchardgrass <i>Dactylis glomerata</i>
Cattail <i>Typha spp</i>	Paragrass <i>Bracharia mutica</i>
Dallisgrass <i>Paspalum dilatatum</i>	Quackgrass <i>Agropyron repens</i>
Doak (early) <i>Rumex crispus</i>	Reed canarygrass <i>Phalaris arundinacea</i>
Dogbane (hoary) <i>Asclepias tuberosa</i>	Smartweed (swamp) <i>Polygonum coquimbense</i>

Weeds Controlled —

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Perennial

Weeds Controlled — Perennial

Johnsongrass <i>Sporobolus indicus</i>	Texas bluegrass <i>Poa tenuifolia</i>
Kikuyugrass <i>Cenchrus ciliaris</i>	Torpedograss <i>Panicum repens</i>
Lantana <i>Lantana camara</i>	Vasegrass <i>Tripsacum dasyphyllum</i>
Milkweed <i>Asclepias spp</i>	

Bermudagrass — Apply 3 to 4 quarts of this product per acre. Apply when actively growing and most have reached the late bud to flower stage of growth. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

Brackenfern — Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1 1/2 percent solution with hand held equipment. Apply to Brackenfern after fronds are at least 18 inches long.

Canada Thistle — Apply 3 to 4 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

Weeds Controlled — Perennial cont'd. 26

Weeds Controlled —

Field Bindweed **Silverleaf Nightshade** **Texas Blue weed** — Apply 3 to 4 quarts of this product per acre. Apply when actively growing and most have reached the late bud to flower stage of growth. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

Guineagrass (Panicum maximum) — Apply 3 quarts of this product per acre or use a 1 percent solution with hand held equipment. Apply to actively growing guineagrass when most has reached at least the 7 leaf stage of growth. Ensure thorough coverage when using hand held equipment. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

Hoary Dogbane — Apply 4 quarts of this product per acre. Apply when actively growing and most of the dogbane has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow dogbane to regrow to a mature stage prior to treatment. For best results, apply in late

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Use and Application sections of this label for labeled uses and specific application instructions.

Quackgrass **Wirestem Muhly** **Kikuyugrass** — Apply 3 to 4 quarts of this product per acre. Spray when most have reached the late bud to flower stage of growth. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

Torpedograss (Panicum repens) — Apply 3 to 4 quarts of this product per acre to provide winter control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

Other perennials listed on this label — Apply 3 to 4 quarts of this product per acre. Apply when actively growing and most have reached the late bud to flower stage of growth. Allow 7 or more days after application before tillage. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions.

CONTROL OF WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS the following woody brush plants and trees:

Alder <i>Alnus spp</i>	Maple** <i>Acer spp</i>
Barnes* <i>Rubus spp</i>	Oak*** <i>Quercus spp</i>
Elderberry <i>Sambucus spp</i>	Multiflora rose <i>Rosa multiflora</i>
Honeysuckle <i>Lonicera spp</i>	Trumpet creeper <i>Clematis radicans</i>
Kudzu <i>Pteraria lobata</i>	Wine <i>Vitis spp</i>

*Includes blackberry, dewberry and raspberry.
**Includes sugar maple and red maple.
***Includes red oak, white oak and Northern pin oak.

NOTE: If brush has been mowed or felled, trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

Allow 7 or more days after application before tillage, mowing or removal. See Directions for Use and Mixing and Application sections of this label for labeled uses and specific application instructions. Repeat treatments may be necessary to control regrowth of underground parts of plants.

Woody Brush & Trees

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the autumn. Roundup herbicide should be applied as soon as possible after the first frost has arrived.

For more information on Roundup herbicide, consult the following literature:

Alder (Alnus spp.) Elderberry (Sambucus spp.) — Apply 2 to 4 quarts of this product as a broadcast spray or as a 1 to 2 percent solution with hand held equipment.

Apply when actively growing and at or after the full bloom stage of growth. Use the higher rate for larger plants and dense areas of growth. Best results are achieved when applied in late summer or fall prior to killing frost. Ensure thorough coverage when using hand held equipment. Visual symptoms of control may not appear prior to frost or senescence with fall treatments.

Berries (Rubus spp.) — Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand held equipment. Apply when canes are actively growing and most are at or beyond the full bloom stage of growth. Use the higher rate for plants that have reached the woody stage of growth. Best results are achieved when application is made in late summer or fall after berries are formed. Fall treatments must be applied before a killing frost. This product's activity symptoms may not occur before frost with fall treatments. Ensure thorough coverage when using hand held equipment.

Honeysuckle (Lonicera spp.) — Apply 2 to 4 quarts

per acre as a broadcast spray or as a 1 to 2 percent solution with hand held equipment. Apply when actively growing and at or after the full bloom stage of growth. Use the higher rate for larger plants and dense areas of growth. Best results are achieved when applied in late summer or fall prior to killing frost. Ensure thorough coverage when using hand held equipment.

Kudzu (Pueraria lobata) — Apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand held equipment. Apply in late summer or fall when vines are actively growing and most are at or beyond the hairy to full bloom stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost or senescence through coverage when using hand held equipment.

Maples (Acer spp.) Oaks (Quercus spp.) — Apply 2 to 4 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand held equipment. Apply or dust over top of actively growing plants. Apply when at least 50 percent of the new leaves are fully developed. Use the higher rate for large mature trees. Ensure thorough coverage when using hand held equipment.

Multiflora Rose (Rosa multiflora) — Apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand held equipment. Apply product when canes are actively growing and most are at or beyond the hairy to full bloom stage of growth. Treatments should be made prior to leaf

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DIRECTIONS FOR USE

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

NON CROP USES

See "General Information" and "Mixing and Application Instructions" sections of this label for general product performance information.

See the following NON CROP SECTIONS for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURFGRASSES, TREES, SHRUBS, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

NOTE: If spraying areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plywood while spraying to help prevent spray from contacting foliage of desirable plants.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Roundup herbicide does not provide residual weed control. For subsequent weed control, follow a label approved herbicide program. Read and carefully observe the cautionary statements and additional information appearing on the labels of all herbicides used.

Non-Crop Uses cont'd.

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Non-Crop Uses cont'd.

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INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed, Roundup herbicide under conditions described on this product label, controls and destroys weeds listed in this label growing in areas such as: parking lots, parking garages, drive lanes, shoulders of major highways, industrial waste water, lumber yards, parking areas, parks, petroleum tank farms, and pump-out stations, pipelines, water and sewer lines, right of way, railroad yards, schools, airports, and other public areas and similar industrial and non-crop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "Weeds Controlled" section of this label.

This product may be applied with recirculating sprayers, backpack sprayers, or wide application in any non-crop site specified in this label. See the "Effective Equipment" and "APPLICATION EQUIPMENT AND TECHNIQUE" sections of this label for information on proper use and application of this equipment.

FARMSTEAD WEED CONTROL

When applied as directed, Roundup herbicide controls and destroys weeds listed in this label.

undesirable vegetation listed in this label around farmstead buildings, foundations, along and in fences, waterbelts, and for general non-selective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

ORNAMENTALS

NOTE: NOT RECOMMENDED FOR DOMESTIC APPLICATION. EXCEPT BY PROFESSIONAL APPLICATORS.

When applied as directed, Roundup herbicide under conditions described on this product label, controls and destroys weeds listed in this label growing in areas such as: parking lots, parking garages, drive lanes, shoulders of major highways, industrial waste water, lumber yards, parking areas, parks, petroleum tank farms, and pump-out stations, pipelines, water and sewer lines, right of way, railroad yards, schools, airports, and other public areas and similar industrial and non-crop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "Weeds Controlled" section of this label.

This product may be applied with recirculating sprayers, backpack sprayers, or wide application in any non-crop site specified in this label. See the "Effective Equipment" and "APPLICATION EQUIPMENT AND TECHNIQUE" sections of this label for information on proper use and application of this equipment.

Site Preparation — To obtain rapid, effective control of undesirable vegetation, it may be necessary to prepare the site prior to application. This may include mowing, cutting, or other site preparation techniques.

Non-Crop Uses cont'd.

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Post Directed Spray

When making applications on land that may contain 15 feet or more above ground, avoid application within 100 feet of any agricultural, horticultural, park, golf course, homestead, populated areas, lakes, ponds, and streams used for significant domestic purposes or angling.

Arboreal	Magnolia
Thuja spp.	Mazus spp.
Azalea	Maple
Abies spp.	Acer spp.
Burweed	Oak
Buxus spp.	Quercus spp.
Crabapple	Privet
Malus spp.	Ligustrum spp.
Eucalyptus	Pine
Eucalyptus spp.	Pinus spp.
Fir	Spruce
Abies spp.	Picea spp.
Holmes	Yew
Yew spp.	Taxus spp.
Lilac	
Syringa spp.	

*Include all established Christmas Tree Plantations

SILVICULTURAL SITES and RIGHTS-OF-WAY

When applied as directed for Non-Crop Uses under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and methods of control of various brush, annual and perennial weeds, see the Weeds Controlled section of this label. For specific rates of application for release of listed coniferous species, see the Conifer Release part of this section of the label.

Where repeat applications are necessary, do not exceed 10 to 20 quarts of this product per acre per year.

Aerial Application — This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the Application Equipment and Techniques part of the Mixing and Application section of this label for information on how to properly spray this product by air.

In order to reduce the drift hazard to non-targeted plants and aquatic species when making aerial applications, maintain the following buffer zones:

1. Do not apply this product within 100 feet of any agricultural, horticultural, park, golf course, homestead or any populated areas.
2. For applications using more than 2 quarts per acre of this product, do not apply within 125 feet of lakes, ponds and streams used for significant domestic purposes or angling.
3. For applications using 2 quarts or less per acre of this product, do not apply within 75 feet of lakes, ponds and streams used for significant domestic purposes or angling.

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Conifer Release

When making applications on land that may contain 15 feet or more above ground, avoid application within 100 feet of any agricultural, horticultural, park, golf course, homestead, populated areas, lakes, ponds, and streams used for significant domestic purposes or angling.

Site Preparation — Following preplant applications of this product, any silvicultural species may be planted.

Post Directed Spray — In established silvicultural sites, use as a spray at the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

Conifer Release — Apply 1 to 2 quarts of this product per acre for release of the following coniferous species:

Douglas fir	Pinus
Pseudotsuga menziesii	Pinus spp.
Fir	Spruce
Abies spp.	Picea spp.
Hemlock	
Tsuga spp.	

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on

Undesirable deciduous species are acceptable provided no major leaf fall has occurred. Annual and perennial weeds or woody brush or trees listed on this label may be controlled or suppressed.

For release, apply only where conifers have been established for more than a year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth.

NOTE: This product is not recommended for use as a winter or fall broadcast spray. It is not recommended for use for conifer release in the following states: ALABAMA, ARKANSAS, FLORIDA, GEORGIA, LOUISIANA, MISSISSIPPI, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, TEXAS AND VIRGINIA.

FOR USE IN CONIFER RELEASE WEST OF THE PEAKS OF THE CASCADE MOUNTAINS

Spring Applications — Apply one quart of this product per acre before bud swelling begins to control annual weeds listed on this label.

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For Seed Production

Field Applications — Apply 1 to 2 quarts of this product per acre before leaf abscission of deciduous species. Apply only if no major leaf fall has occurred. Some autumn colors are acceptable.

Apply 1 quart of this product per acre for release in western hemlock.

NOTE TO USER

This product must not be used in areas where adverse impact on Federally designated endangered, threatened plant or aquatic species is likely.

Prior to making applications the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

NOTE: NOT RECOMMENDED FOR DOMESTIC APPLICATION EXCEPT BY PROFESSIONAL APPLICATORS

When applied as directed for Non-Crop Uses under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and methods of control of various brush, annual and perennial weeds, and woody brush and trees, see the Weeds Controlled section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowing from established underground plant parts occurs. Where no heat treatments are necessary, sufficient regrowth must be attained prior to application. For warm season grasses, such as bermudagrass, summer or fall application provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or dicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a mowed or unmowed situation, apply this product to actively growing weeds at the stages of growth given in the Weeds Controlled section of this label.

Where existing vegetation is growing under mowed turfgrass management, apply this product after mowing at least one regular mowing to allow sufficient plant growth for good penetration of the spray. Undesirable turfgrasses may be planted following the above procedures.

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