

PM 25 524-454

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 14 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dr. Russell P. Schneider
MONSANTO CO.
Agent for: MONSANTO AGRICULTURAL CO.
700 14TH St., N.W. Suite 1100
Washington, D.C. 20005

Subject: Label Amendment Submission of 07/23/93 in Response to PR Notice 93-7
EPA Reg. No. 524-454
ROUNDUP RT HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola ink on paper that
contains at least 50% recycled fiber

2933

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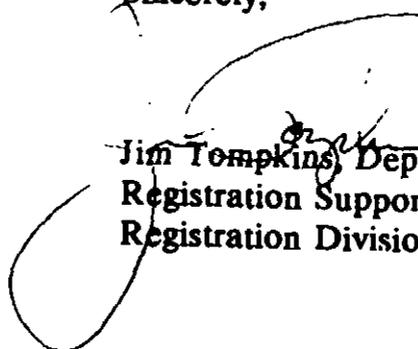
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

Dr Russell P Schneider
MONSANTO CO
AGENT FOR: MONSANTO AGRICULTURAL CO
700 14TH ST, N.W. SUITE 1100
WASHINGTON DC 20005

Subject: Label Amendment Submission of 07/23/93
to Comply with WPS Labeling Requirements
EPA Reg Nr. 524-454
ROUNDUP RT HERBICIDE

The following specific comments pertain to your
WPS labeling submission concerning the product
cited above:

User Safety Recommendations must either be placed in a box
or printed on the label in a contrasting color from
surrounding text.

The Agricultural Use Requirements section must be located in
a clearly separate box on the product labeling -- with lines
or other graphic indicators (such as contrasting color) to
separate the section from the surrounding text.

Remove the statement "Do not apply this product in a way
that will contact workers or other persons, either directly
or through drift. Only protected handlers may be in the
area during application." from its current position within
the Agricultural Use Box and place it above the Agricultural
Use Box.

The Non-Agricultural Use Requirements section must either be
placed in a box or printed on the label in a contrasting
color from the surrounding text.

Roundup® RT
REDUCED TILLAGE HERBICIDE
by Monsanto
Shuttle™
100

For control of annual and perennial weeds in Colorado, Idaho, Kansas*, Minnesota*, Montana, Nebraska*, North Dakota, Oregon*, South Dakota, Utah, Washington* and Wyoming.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

EPA Reg. No. 524-454

Complete Directions for Use

® is a registered trademark of Monsanto Company.

1992-1

XXX.XX-XXX.XX/XX

For control of annual and perennial weeds in Colorado, Idaho, Kansas*, Minnesota*, Montana, Nebraska*, North Dakota, Oregon*, South Dakota, Utah, Washington*, and Wyoming.

*COUNTY RESTRICTIONS

This product can only be used in certain counties in Kansas, Minnesota, Nebraska, Oregon, and Washington. See the following sections for county use restrictions for these states.

In **KANSAS** and **NEBRASKA**, this product can be used in all counties **EXCLUDING** those listed below:

KANSAS

- Allen
- Anderson
- Atchinson
- Bourbon
- Brown
- Cherokee
- Coffey
- Crawford
- Doniphan
- Douglas
- Franklin
- Jackson
- Jefferson
- Johnson

Labette

ACCEPTED
with COMMENTS
in EPA Letter Dated

JAN 14 1994

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

524-454

Leavenworth
Linn
Miami
Montgomery
Neosho
Osage
Riley
Shawnee
Wilson
Woodson
Wyandotte

NEBRASKA

Antelope
Boone
Burt
Butler
Cass
Cedar
Colfax
Cuming
Dakota
Dixon
Dodge
Douglas
Gage
Hamilton
Jefferson
Johnson
Knox
Lancaster
Madison

Merrick
Nance
Nemaha
Otoe
Pawnee
Pierce
Platte
Polk
Richardson
Saline
Sarpy
Saunders
Seward
Stanton
Thurston
Washington
Wayne
York

In MINNESOTA, OREGON and WASHINGTON, this product can be used ONLY in those counties listed below:

MINNESOTA

Becker
Beltrami
Clay
Clearwater
Douglas
Grant
Hubbard
Kittson
Lake of the Woods
Mahnomen
Marshall
Norman
Ottertail
Pennington
Polk
Red Lake
Roseau
Wadena
Wilkin

OREGON

Baker
Crook
Deschutes
Gilliam
Grant
Harney
Hood River
Jefferson
Malheur
Morrow
Sherman
Umatilla
Union
Wallowa
Wasco
Wheeler

WASHINGTON

Adams
Asotin
Benton
Chelan
Columbia
Douglas
Ferry
Franklin
Garfield
Grant
Kittitus
Klickitat
Lincoln
Okanagan
Pend Oreille
Spokane
Stevens

Walla Walla
Whitman
Yakima

Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED.

SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

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, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

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.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! [REDACTED]

[REDACTED]

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.
HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

~~Wear goggles or a face shield.~~

Avoid breathing vapor or spray mist.

~~Wash thoroughly with soap and water after handling.~~

~~Remove contaminated clothing and wash before reuse.~~

[REDACTED]

[REDACTED]

FIRST AID: IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal irritation. Immediately dilute by swallowing water or milk. Get medical attention.

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

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

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or in intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl) glycine,
in the form of its isopropylamine salt 41.3%

INERT INGREDIENTS: 58.7%
100.0%

* Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

DIRECTIONS FOR USE

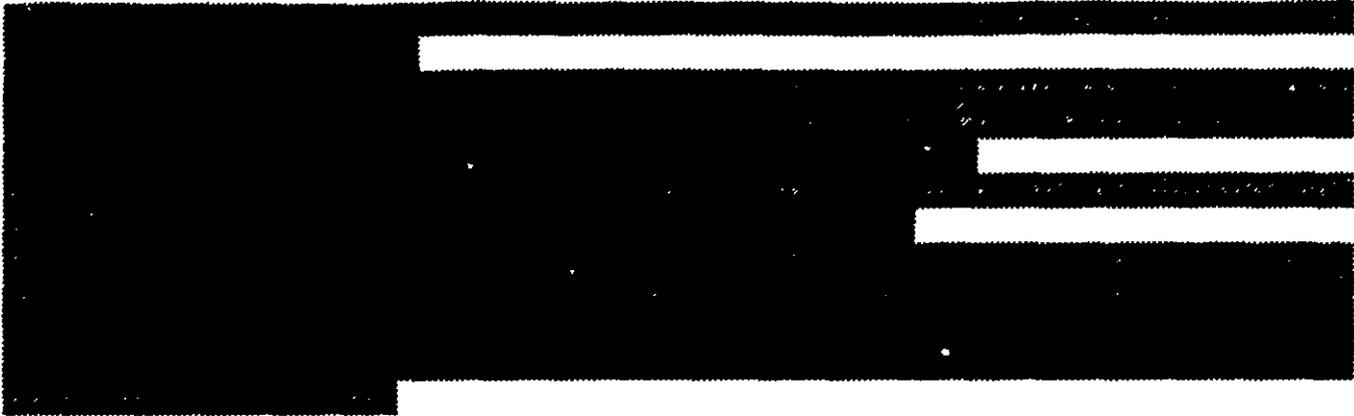
It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

[REDACTED]

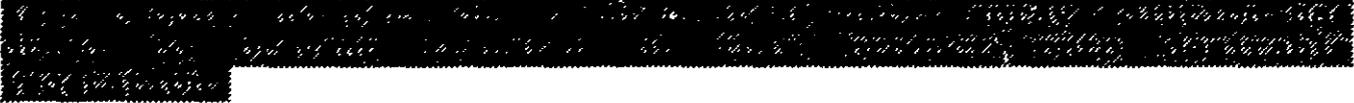
[REDACTED]

[REDACTED]

BEST AVAILABLE COPY



[Redacted text line]



Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

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

This product, a water soluble liquid, mixes readily with water to be applied as a foliar 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 2 to 4 days but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow 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 of aboveground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control

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of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced control may also occur when treating weeds heavily covered with dust.

This product is recommended for control of emerged weeds prior to establishment of labeled crops. Large amounts of green or decaying vegetation left standing or incorporated into the seedbed may enhance the development of disease in newly planted crops. This may result in poor emergence and/or stands, especially under cool and/or wet conditions.

Spraying early to control young weeds before dense stands develop or light cultivation to assist weed decay will favor preparation of suitable seedbeds.

In reduced tillage and no-till systems, ensure good seed to soil contact and proper seeding depth.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product 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.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

~~Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.~~

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ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this herbicide can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. **AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.**

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals, crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

**MIXING, ADDITIVES AND
APPLICATION INSTRUCTIONS**

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR DRIFT. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this herbicide with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.

2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the sprayer tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which have at least 70 percent active ingredient and are labeled for use with herbicides may be used. Do not reduce rates of this herbicide when adding surfactant. When adding additional surfactant or when label instructions require the use of additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution). Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight (or liquid equivalent), may increase the performance of this product in tank mixtures on annual weeds. Add 8.5 to 17 pounds of dry ammonium sulfate per 100 gallons of spray solution. The improvement in performance may be apparent where environmental stress is a concern. Use the higher rate of ammonium sulfate with this product when treating large or dense populations of annual weeds. Low-quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle-tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the dry additive in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet lines. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion. Observe all precautionary statements on the ammonium sulfate product labels.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

**APPLICATION EQUIPMENT
AND TECHNIQUES**

Do not apply this product through any type of irrigation system.

This product may be applied using either aerial, conventional ground or hooded spray equipment. Use extreme care to avoid misting or drifting of herbicide solution onto foliage, green stems or fruit of desirable crops, trees, or plants during both growing and dormant periods, since even very small quantities of spray can cause severe plant injury.

GROUND APPLICATION: Apply recommended rates of this product in 3 to 10 gallons of water per acre as a broadcast spray. For optimum spray distribution and coverage, use flat fan or low-volume nozzles. When using flood nozzles, space them no more than 40 inches apart and ensure double overlap of spray pattern. Refer to the manufacturer's recommendations for correct pressure and nozzle height above the target canopy. Avoid pressure and nozzles which produce fine droplets or mist.

Use appropriate marking devices to ensure uniform spray coverage and best results from the herbicide.

AERIAL APPLICATION: Apply the recommended rates of this product in 3 to 5 gallons of water per acre as a broadcast spray. **DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT WAS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

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Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

SPRAYER CLEANUP

CLEAN THE ENTIRE SPRAYER AFTER APPLICATION OF THIS PRODUCT. Failure to clean the sprayer thoroughly may result in injury to desirable crops which are subsequently sprayed. First, add clean water to the tank and thoroughly rinse the entire sprayer system. Secondly, fill the tank with water and ammonia. Add 1 quart of household ammonia per 25 gallons of water. Pump enough solution through the hoses, boom and nozzles to fill these parts completely. Then fill the tank, close and leave for 24 hours before draining and rinsing thoroughly with water.

Application or use of other agricultural chemicals with the equipment used for this product may result in injury to desirable vegetation.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

WEEDS CONTROLLED

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

ANNUAL WEEDS

Add a nonionic surfactant at a rate of 0.5 percent by total spray volume.

Apply to actively growing grass and broadleaf weeds.

Allow at least 3 days after treatment before tillage.

For maximum agronomic benefit, apply when weeds are 6 inches or less in height.

To prevent seed production, applications should be made prior to seedhead formation.

This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

Do not use these rates for weeds that have been mowed, grazed or cut, unless weed regrowth has occurred and weeds are vigorously growing.

Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

RECOMMENDED RATES AND WEEDS CONTROLLED

| ANNUAL WEED SPECIES | MAXIMUM HEIGHT/ GROWTH STAGE | RATE PER ACRE** (FLUID OUNCES) |
|---|---------------------------------|-----------------------------------|
| Foxtail <i>Setaria spp.</i> | 12" | 8 oz. |
| Barnyardgrass <i>Echinochloa crus-galli</i> | 6" | 12 oz. |
| Bluegrass, annual <i>Poa annua</i> | | |
| Brome, downy* <i>Bromus tectorum</i> | | |
| Chickweed, jagged <i>Holosteum umbellatum</i> | | |
| Mustard, blue <i>Chorispora tenella</i> | | |
| Mustard, tansy <i>Descurainia pinnata</i> | | |
| Mustard, tumble <i>Sisymbrium altissimum</i> | | |
| Mustard, wild <i>Sinapis arvensis</i> | | |
| Barley <i>Hordeum vulgare</i> | 12" | 12 oz. |
| Rye <i>Secale cereale</i> | | |
| Sandbur, field <i>Cenchrus spp.</i> | | |
| Shattercane <i>Sorghum bicolor</i> | | |
| Stinkgrass <i>Eragrostis cilianensis</i> | | |

| | | |
|---|-----|--------|
| Wheat <i>Triticum aestivum</i> | 18" | 12 oz. |
| Morningglory <i>Ipomoea spp.</i> | 3" | 16 oz. |
| Bluegrass, bulbous <i>Poa bulbosa</i> | 6" | 16 oz. |
| Cheat <i>Bromus secalinus</i> | | |
| Chickweed, mouseear <i>Cerastium vulgatum</i> | | |
| Corn, volunteer <i>Zea mays</i> | | |
| Groundsel, common <i>Senecio vulgaris</i> | | |
| Goatgrass, jointed <i>Aegilops cylindrica</i> | | |
| Horseweed/Marestail <i>Conyza canadensis</i> | | |
| Pennycress, field; Fanweed <i>Thlaspi arvense</i> | | |
| Rocket, London <i>Sisymbrium irio</i> | | |
| Ryegrass, Italian <i>Lolium multiflorum</i> | | |
| Shepherdspurse <i>Capsella bursa-pastoris</i> | | |
| Spurge, annual <i>Euphorbia spp.</i> | | |
| Buttercup <i>Ranunculus spp.</i> | 12" | 16 oz. |
| Cocklebur <i>Xanthium strumarium</i> | | |
| Crabgrass <i>Digitaria spp.</i> | | |
| Dwarf dandelion <i>Krigia cespitosa</i> | | |
| Falseflax, smallseed <i>Camelina microcarpa</i> | | |

- Johnsongrass, seedling
Sorghum halepense
- Lambsquarters, common
Chenopodium album
- Oats, wild
Avena fatua
- Panicum, fall
Panicum dichotomiflorum
- Panicum, Texas
Panicum texanum
- Pigweed, redroot
Amaranthus retroflexus
- Pigweed, smooth
Amaranthus hybridus
- Witchgrass
Panicum capillare

| | | |
|--|-----|--------|
| Pusley, Florida <i>Richardia scabra</i> | 12" | 32 oz. |
|--|-----|--------|

| | | |
|--------------------------------|-----|--------|
| Filaree <i>Erodium spp.</i> | 12" | 48 oz. |
|--------------------------------|-----|--------|

- * For control in no-till systems, use 16 fluid ounces per acre.
- ** For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.

**FALLOW AND
REDUCED TILLAGE SYSTEMS**

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions.

TANK MIXTURES

- ROUNDUP® RT plus BANVEL ■
 plus NONIONIC SURFACTANT
- ROUNDUP® RT plus 2,4-D ■
 plus NONIONIC SURFACTANT

**ROUNDUP® RT plus ATRASINE or BLADEX
plus NONIONIC SURFACTANT**

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur in Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds previously listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel, or 0.5 pound a.i. of 2,4-D plus 0.5 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than 6 inches in height:

Kochia*
Kochia scoparia

Lambsquarters
Chenopodium album

Lettuce, prickly
Lactuca serriola

Pigweed, Redroot
Amaranthus retroflexus

Thistle, Russian
Salsola kali

*Controlled with Banvel tank mixture only.

This product plus atrazine or Bladex plus nonionic surfactant tank mixture provides postemergence control of listed annual weeds in fallow and reduced tillage systems. In addition, this tank mixture will provide soil residual control of weeds listed on the atrazine and Bladex label.

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington.

ANNUAL WEEDS CONTROLLED

Barnyardgrass
Echinochloa crus-galli

Brome, downy
Bromus tectorum

Foxtail, green
Setaria viridis

Kochia*
Kochia scoparia

Lambsquarters
Chenopodium album

Lettuce, prickly
Lactuca serriola

Mustard, tansy
Descurainia pinnata

Pigweed
Amaranthus spp.

Sandbur, field
Cenchrus spp.

Stinkgrass
Eragrostis cilianensis

Thistle, Russian
Salsola kali

Wheat
Triticium aestivum

Witchgrass
Panicum capillare

*For improved control of kochia, add 4 fluid ounces per acre (.125 pound a.i. per acre) of Banvel to the above tank mixture.

Apply 12 fluid ounces of this product with 1 pound or less of the active ingredient atrazine per acre or 16 fluid ounces of this product with 2 pounds or less of the active ingredient atrazine per acre, or 20 fluid ounces of this product with 1 to 3 pounds of the active ingredient atrazine per acre, plus 0.5 percent nonionic surfactant by total spray volume. Apply 16 fluid ounces of this product with 2.4 to 4 pounds of the active ingredient cyanazine in Bladex per acre plus 0.5 percent nonionic surfactant. Barnyardgrass will be suppressed at 20 fluid ounces per acre and will require up to 26 fluid ounces per acre for control. In Oregon and Washington, do not exceed 1 pound of the active ingredient atrazine per acre. The addition of 2 percent dry ammonium sulfate by weight (or liquid equivalent) or 17 pounds per 100 gallons of water is recommended to

increase the performance of this product plus atrazine or Bladex plus nonionic surfactant tank mixtures.

Consult the atrazine or Bladex labels (90 DF, 4L, 80W) for use rates, soil type, planting, cropping and other restrictions, as well as other precautionary statements and use according to the most restrictive label.

These tank mixtures may be applied with ground or aerial equipment. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section for instructions.

For ground application, apply in 3 to 10 gallons of water per acre.

For aerial application, apply 3 to 5 gallons of water per acre.

Bladex is a trademark of E. I. duPont de Nemours and Company.

Banvel is a trademark of Sandoz, Inc.

POSTHARVEST APPLICATIONS

This product will provide control of existing weeds following grain harvest. Weeds should be allowed to regrow after damage incurred during harvest operations, and to recover from environmental stress, before application of this product. Weeds should be treated prior to the heading stage of annual grasses, if possible, and before broadleaf weeds exceed 24 inches in height. Nonionic surfactant should be added at 0.5 percent by total spray volume. Use of ammonium sulfate is recommended and may improve performance on annual weeds.

Apply 12 fluid ounces of this product per acre plus nonionic surfactant to control downy brome, green foxtail, stinkgrass and volunteer wheat.

To control kochia, lambsquarters, mustard, pigweed and Russian thistle, apply 16 fluid ounces of this product plus 0.25 pounds a.i. of Banvel or 0.5 pounds a.i. of 2,4-D plus nonionic surfactant per acre.

Apply 20 fluid ounces of this product per acre plus nonionic surfactant to control barnyardgrass, sandbur, sunflower, and witchgrass. The addition of 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2,4-D plus nonionic surfactant to 20 fluid ounces of this product will control prickly lettuce.

ECOFARMING SYSTEMS

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

ROUNDUP RT at 16 to 20 fluid ounces per acre
plus
2,4-D at 0.375 to 0.5 pound a.i. per acre

plus
ATRAZINE at 0.75 to 1 pound a.i. per acre
plus
LASSO® at 2.5 to 3 quarts per acre

Add a nonionic surfactant at 0.5 percent by total spray volume.

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the proper carrier volume.

WEEDS CONTROLLED The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy
Bromus tectorum

Cheat
Bromus secalinus

Foxtail, green
Setaria viridis

Foxtail, yellow
Setaria lutescens

Kochia*
Kochia scoparia

Lettuce, prickly
Lactuca serriola

Pigweed, redroot
Amaranthus retroflexus

Thistle, Russian
Salsola kali

Wheat, volunteer
Triticum aestivum

*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

•Lasso is a registered trademark of Monsanto Company.

AID TO TILLAGE

This product used in conjunction with preplant and conventional fallow tillage practices will provide control of downy brome, volunteer wheat, tansy mustard and foxtail.

Apply 8 fluid ounces per acre of this product plus 0.5 percent nonionic surfactant by total spray volume as a broadcast spray in 3 to 10 gallons of water per acre.

For ground application, apply in 3 to 10 gallons of water per acre. For aerial applications, apply in 3 to 5 gallons of water per acre. Do not mix with residual herbicides.

Application of this product should be made when weeds are actively growing and before weeds are greater than 6 inches tall. Application must be followed by conventional tillage practices before regrowth of the treated plants occurs. Allow at least one day after application before tillage. Tillage must occur no later than 15 days following application.

This product does not provide residual weed control. Repeat treatments may be necessary to control subsequent germinating weeds.

Do not treat weeds under poor growing conditions such as drought stress, or disease or insect damage as reduced weed control may result. Reduced results also may occur when treating weeds heavily covered with dust, or when straw canopy covers the weeds.

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended stages of growth. Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this herbicide on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.

When applied as recommended under the conditions described, this product will CONTROL the following perennial weeds:

Alfalfa
Medicago sativa

Johnsongrass
Sorghum halepense

Nightshade, silverleaf
Solanum elaeagnifolium

Quackgrass
Agropyron repens

Ryegrass, perennial
Lolium perenne

Spurge, leafy*
Euphorbia esula

Thistle, Canada
Cirsium arvense

***Partial Control**

Johnsongrass/Ryegrass, perennial Apply 1 to 3 quarts of this product per acre. In annual cropping systems, apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop or areas where annual tillage (no-till), is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of contacted vegetation, apply 1 pint per acre plus 0.5 percent nonionic surfactant in 5 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Quackgrass In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the one quart rate, apply 0.5 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank-mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches tall and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results, use a moldboard plow.

Quackgrass Pasture or Sod or Other Monocrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Spurge, leafy For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D per acre plus 0.5 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply

when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

Thistle, Canada Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product plus 0.5 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Other perennials listed on this label Apply 3 to 5 quarts of this product per acre. Apply when actively growing and when most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES, AND APPLICATION INSTRUCTIONS" sections of this pamphlet for labeled uses and specific application instructions.

TANK MIXTURES

When applied as directed under the conditions described, this product plus Banvel or 2,4-D will SUPPRESS or CONTROL the following perennial broadleaf weed:

Bindweed, field
Convolvulus arvensis

For suppression, apply 16 fluid ounces of this product plus 0.5 lb a.i. of 2,4-D or 0.25 lb a.i. of Banvel, plus 0.5 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. These tank mixtures may be applied using aerial application equipment in fallow and reduced tillage systems only.

For control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 3 to 20 gallons of water per acre. At these rates, apply using ground application equipment only.

CROPPING SYSTEMS

This product controls annual and perennial weeds listed on this label, prior to the emergence of the crops listed below.

See "GENERAL INFORMATION" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for essential product performance information.

Repeat treatments may be necessary to control weeds regenerating from underground 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 crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

Do not plant subsequent crops other than those on this label for 30 days following application.

Do not harvest or feed treated vegetation for 8 weeks after following application. Following spot treatment or selective equipment use allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

- ALFALFA*
- BARLEY*
- BEANS (All)
- BEETS (Red, Sugar)
- CARROT
- CORN (All)*
- COTTON*
- FORAGE GRASSES*
- FORAGE LEGUMES*
- LENTILS
- OATS*
- ONION
- PEAS (All)
- POTATO (Irish, sweet)
- RADISH
- SORGHUM (Milo)*
- SOYBEANS*
- WHEAT*

*Spot treatments may be applied in these crops.

Spot Treatment (Only those crops with "*" can be spot treated) Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, boll opening on cotton.

For dilution and rates of application using boom or hand-held equipment, see "Mixing, Additives and Application Instructions" and "Weeds Controlled" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT 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 EquipmentThis product may be applied through recirculating sprayers, shielded applicators, or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in rutabagas, forage grasses and forage legumes, including pasture sites and sorghum milo.

Allow at least the following time intervals between application and harvest:

- Cotton, Soybeans7 days
- Apples, Avocado, Cherry,
Grapes, Pear14 days
- Stone Fruit17 days
- Sorghum (milo)*40 days

* Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

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 EmergenceApply 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.

Spot TreatmentApply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

PostharvestApply 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 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 recommended types of spray equipment for postemergence postharvest 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.

TREE AND VINE CROPS

For use only in Idaho, Utah and Washington.

This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.

When applying this product, refer to the "Weeds Controlled" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "Weeds Controlled" section of this label, and to specific recommendations which follow.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

■ **TANK MIXTURES WITH RESIDUAL HERBICIDES** ■

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual

herbicides will provide preemergence control of those weeds listed in the individual product labels.

- ROUNDUP® RT plus GOAL 1.6E ■
- ROUNDUP RT plus KARMEX DF ■
- ROUNDUP RT plus SIMAZINE,
PRINCEP CALIBER 90 ■
- ROUNDUP RT plus SIMAZINE 4L ■
- ROUNDUP RT plus SIMAZINE 80W ■
- ROUNDUP RT plus SOLICAM 80DF ■
- ROUNDUP RT plus SURFLAN AS ■
- ROUNDUP RT plus SURFLAN 75W ■
- ROUNDUP RT plus SIMAZINE
(80W, or 4L, or PRINCEP CALIBER 90)
plus SURFLAN (AS or 75W) ■
- ROUNDUP RT plus GOAL (1.6E)
plus SURFLAN (AS or 75W) ■
- ROUNDUP RT plus GOAL (1.6E)
plus SIMAZINE
(80W, or 4L, or PRINCEP CALIBER 90) ■
- ROUNDUP RT plus GOAL (1.6E)
plus SURFLAN (AS or 75W)
plus SIMAZINE (80W, 4L,
or PRINCEP CALIBER 90) ■

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

Goal is a trademark of Rohm and Haas Company.

Princep and Caliber are trademarks of Ciba-Geigy Corporation.

Karmex is a trademark of E.I. du Pont de Nemours and Company.

Solicam is a trademark of Sandoz, Inc.

Surflan is a trademark of Elanco Products Company.

RECOMMENDED RATES

Annual Weeds - Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds - Apply 1 to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and application rates for specific perennial weeds.

■ **ROUNDUP® RT plus GOAL plus SIMAZINE/SURFLAN** ■

This product plus low rates of Goal in three-way or four-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 20 gallons of water. Add 0.5 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

- Barley, wild
Hordeum leporinum
- Bluegrass, annual
Poa annua
- Cheeseweed, common
Malva spp.
- Chickweed, common
Stellaria media
- Filaree*
Erodium spp.
- Fleabane, flaxleaf
Conyza bonariensis
- Groundsel, common
Senecio vulgaris
- Horseweed/Marestail
Conyza canadensis
- Nettle, stinging
Urtica dioica
- Pineappleweed
Matricaria matricariodes
- Rocket, London
Sisymbrium irio
- Shepherdspurse
Capsella bursa-pastoris

Sowthistle, annual
Sonchus oleraceus

*Use a minimum of 1.5 quarts of this product in these mixtures.

■ **PERENNIAL GRASS SUPPRESSION** ■
ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Apply 6 to 8 fluid ounces of this product per acre to suppress (chemically mow) perennial grass covers between tree rows in orchards.

For tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers use 8 fluid ounces per acre. For best suppression of these species add ammonium sulfate at 1.7 pounds per 10 gallons of spray solution.

For Kentucky bluegrass covers, use 6 fluid ounces per acre without ammonium sulfate.

Apply treatments in 20 gallons of water per acre to actively growing grass covers. Additional nonionic may be added at a rate of 0.5 percent of the total spray volume.

For best results, mow orchards in the spring and apply the appropriate rate of this product 3 to 4 days later. Do not treat grass covers under poor growing conditions such as drought stress, disease or insect damage as poor suppression may result.

Low rates will not adequately suppress broadleaf weeds such as dandelion or plantain. If broadleaf weeds make up more than 10 percent of the ground cover, mix this product with 1 quart of 2,4-D per acre which is labeled for orchard use.

TREE CROPS

Pome Fruit*: apple, pear.

Stone Fruit:** apricots, cherries, nectarines, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

Any application equipment listed in this section may be used in apricots, nectarines, peaches, and plums/prunes.

For peaches, remove suckers and low hanging limbs at least 10 days prior to application. Avoid applications near trees with recent

pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. **EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.**

NOTE:

- * Allow a minimum of 14 days between last application and harvest.
- ** Allow a minimum of 17 days between last application and harvest.

VINE CROPS

Grapes:* Any variety of table, wine, or raisin grape may be treated with any equipment listed in this section.

- * Applications should not be made when green shoots, canes, or foliage are in the spray zone.
- * Allow a minimum of 14 days between last application and harvest.

FARMSTEAD USES

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information and the following "Noncrop" 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 plyboard 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.

This product 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.

FARMSTEAD WEED CONTROL

When applied as directed for "Noncrop Uses", under conditions described, this product controls undesirable vegetation listed on

this label around farmstead building foundations, along and in fences, shelterbelts, ditch banks, dry ditches and for general nonselective 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.

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution.

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

This product is protected by
U.S. Patent No. 4,405,531
Other patents pending.

No license granted under any non-U.S. patent(s).

EPA Reg No. 524-454

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

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