

ACCEPTED
SEP 7 1989
EPA Reg. No. 524-204-AA
EPA Reg. No. 897.10-004.85/53



Complete Directions
EPA Reg. No. 524-204-AA
AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR
FRUIT OF CROPS, DESIRABLE PLANTS AND TREES,
SINCE SEVERE INJURY OR DESTRUCTION MAY
RESULT.
This product has been approved for use in California
except as stated otherwise on page 118.

1989-1 897.10-004.85/53
Read each of these sections of this label for essential
product performance information.

USE THESE CONVENIENT SECTION MARKERS.



Change to:

1989-2
897.10-004.93/53

938

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.

LIMIT OF WARRANTY AND LIABILITY

(Not applicable to consumer applications applied by the homeowner for noncommercial purposes as permitted by the supplemental labeling for one-quart containers.)

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

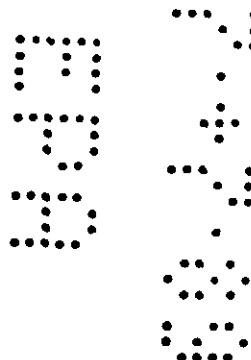
product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than 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.

Insert:

Reformulation is prohibited.
See individual container label for repackaging limitations.



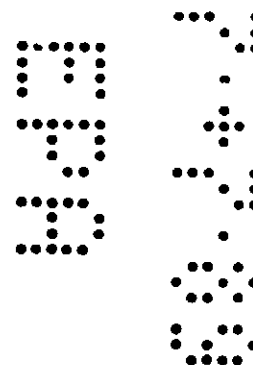
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Alfalfa,
 Artichoke (Jerusalem),
 Asparagus, Beet, Beet,
 Beans, Bell Peppers (all),
 Bush Beans, Bush (red, sugar),
 Butternut and Small Fruit,
 Brussels, Cabbage,
 Carrot, Cauliflower, Celery,
 Cherry, Corn, Cotton, Cucumber, Eggplant,
 Fava Beans,
 Fava Legume, Garlic, Garlic, Mr. woodchuck,
 Kale, Lettuce, Lettuce, Melons,
 Mustard Greens, Onions,
 Onions, Onions, Potatoes, Potatoes,
 Peas (all), Peppers, Pineapple,
 Potatoes (all, sweet), Potatoes,
 Radish, Rice, Rutabagas, Squash (all),
 Soybeans, Spinach, Squash (Common Water),
 Squash, Tomatoes, Tomato, Watermelon,
 Watermelon, Wheat

Insert in alphabetical order:

Atemoya
 Carambola
 Sugar apples
 Yams
 Parsnips

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PRECAUTIONARY STATEMENTS

**Hazards to
Humans and Domestic Animals**

Keep out of reach of children.

WARNING!

CAUSES EYE IRRITATION.
HARMFUL IF SWALLOWED.
MAY CAUSE SKIN IRRITATION.

Do not get in eyes, on skin or on clothing.
Wash thoroughly after handling.

FIRST AID: IF IN EYES, immediately flush with
plenty of water for at least 15 minutes. Call a physician.
IF ON SKIN, immediately flush with plenty of water.
Remove contaminated clothing. Wash clothing before reuse.

IF SWALLOWED, this product will cause gastrointes-
tinal tract irritation. Immediately dilute by swallowing
water or milk. Call a physician.

In case of an emergency involving this product, Call
Collect, day or night, (314) 694-0000.

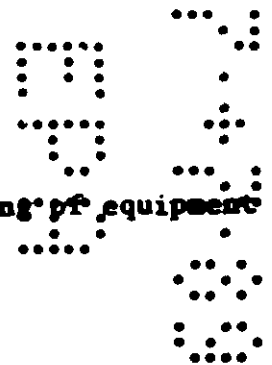
Environmental Hazards

Do not apply directly to water or wetland (swamps, bays,
marshes or ponds.) Do not contaminate water by clean-
ing of equipment or disposal of wastes.

Get medical attention.

Insert:

when disposing of equipment
washwaters.



Physical or Chemical Hazards

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

DO NOT MIX STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR ALUMINUM (EXCEPT STAINLESS STEEL) CONTAINERS. ***WKS. This product or spray

solutions of this product with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. If this 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:

*Isopropylamine salt of glyphosate

41.0%

INERT INGREDIENTS:

59.0%

100.0%

*Contains 480 grams per litre or 4 pounds of the active ingredient isopropylamine salt of N-(phosphonomethyl) glycine per U.S. gallon. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

Change to:

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

Change to:

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

Product protected by
U.S. Pat. No. 3,799,758 and
U.S. Pat. No. 4,405,531.
Other patents pending.

No license granted under any non-U.S. patent.

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In case of an emergency involving this product, Call Collect, day or night, (314)694-6700.

Move to last page

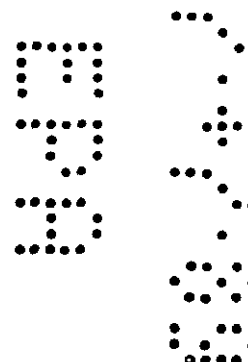
Change to:

1989

MONSANTO COMPANY—
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.



Delete



6

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 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 rinsing 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 down activity of this product and delay usual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above ground 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 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 spray 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 results may also occur when treating weeds heavily covered with dust.

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.

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.

Buyers and all users are responsible for all loss or damage in connection with the use or handling of mixtures of Roundup 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.

Insert:

Directions for use and storage and disposal from page 60.

No changes in this label from page 12 through 38.

Pinhead Pines	Santolina, annual
<i>Pinus benthamiana</i>	<i>Sonchus oleraceus</i>
Pine	Santolina
<i>Ergonem</i> spp.	<i>Holcus annuus</i>
Robin	Pinus, Russian
<i>Robinia scoparia</i>	<i>Salvia arb.</i>
Lotus, prickly	Valerian
<i>Lactuca scariola</i>	<i>Abies (thymus)</i>

*Apply with hand-held equipment only

PERENNIAL WEEDS

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

NOTE: If weeds have been mowed or killed, do not treat until plants have resumed active growth and are at the recommended stage.

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 2 percent dry ammonium sulfate by weight or 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, Addition and Application Instructions" section of this label.

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1

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

[illegible]

A 4x4 grid of dots forming the number 3333. The first row has dots at (1,1), (1,2), (1,3), and (1,4). The second row has dots at (2,1), (2,2), (2,3), and (2,4). The third row has dots at (3,1), (3,2), (3,3), and (3,4). The fourth row has dots at (4,1), (4,2), (4,3), and (4,4).

Canarygrass, seed	Pompeii
<i>Phalaris arundinacea</i>	<i>Cardaria rubra</i>
Calli	Poa
<i>Typa</i> spp.	<i>Bracharia rubra</i>
Claw, red	Phragmites*
<i>Tridax pratense</i>	<i>Phragmites</i> spp.
Claw, white	Quackgrass
<i>Tridax repens</i>	<i>Agropyron repens</i>
Cogongrass	Ryegrass, perennial
<i>Imperata cylindrica</i>	<i>Lolium perenne</i>
Bullgrass	Smartweed, swamp
<i>Paspalum dilatatum</i>	<i>Polygonum coccineum</i>
Burdock	Sweet potato, wild*
<i>Taraxacum officinale</i>	<i>Ipomoea pandurata</i>
Buck, curly	Thistle, Canada
<i>Rumex crispus</i>	<i>Cirsium arvense</i>
Bushy, hemp	Timothy
<i>Apocynum cannabinum</i>	<i>Phleum pratense</i>
Fescue	Taraxagrace*
<i>Festuca</i> spp.	<i>Panicum repens</i>
Fescue, tall	Urochloa
<i>Festuca arundinacea</i>	<i>Paspalum urvillei</i>
Gambagrass	Wheatgrass, western
<i>Panicum maximum</i>	<i>Agropyron smithii</i>
Horseweed	
<i>Solanum carolinense</i>	
*Partial Control	

Add:

Reed, giant
Arundo donax

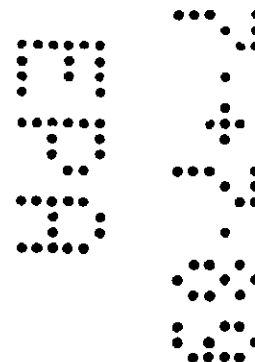
See "Directions for Use" and "Mixing, Additives and Application Instructions" sections of this label for labeled uses and specific application instructions.

Alfalfa—Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alfalfa—Apply 4 quarts of this product per acre or apply a 1½ percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Barnyardgrass—For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a full application. Barnyardgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Barnyardgrass—For control, apply 5 quarts of this product per acre and for partial control, apply 3 quarts per acre. Treat when barnyardgrass is actively growing and seedheads are present. Retreatment may be neces-



sary to maintain control. Allow 7 or more days after application before tillage.

Blindweed, field/Blindweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Blindweed, field (suppression irrigated lands where annual tillage is performed)—Apply 1 quart of this product, .05 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing blindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weed is under drought stress as good soil moisture is necessary active growth. Allow 3 or more days after applic..... before tillage.

Bluegrass, Kentucky / Bluegrass, smooth / Orchardgrass—Apply 2 quarts of this product in .0 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation apply 1 to 1½ quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12

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inches in height. Allow 7 or more days after application before tillage.

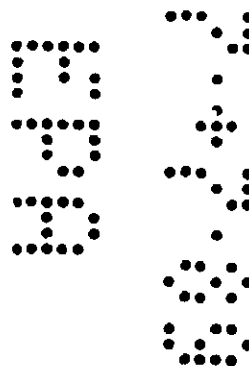
Orchardgrass (sod going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least three days following application before planting. A sequential application of 3.75 to 4.5 quarts of Larix® herbicide, or equivalent, will be necessary for optimum results. Larix should be applied within 3 to 10 days following spring applications to prevent annual weed growth.

® Larix is a registered trademark of Monsanto Company

Buckhorn—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 to fully expanded fronds which are at least 18 inches long.

Burrago, woollyhead—For control apply 2 quarts of this product plus 1 pint of Bonvel per acre. For partial control apply 1 quart of this product plus 1 pint of Bonvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed/Flintch / Wheatgrass, western—Apply 2 to 3 quarts of this product 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.



Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dogbane, hemp/Impatiens/Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

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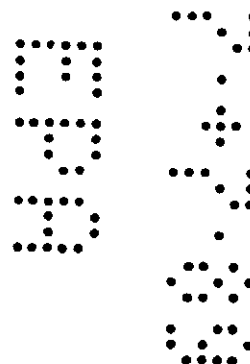
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Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass/Bysgrass, 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 to 1 percent nonionic surfactant by total spray volume in 3 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 or in the fall prior to frost. 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 Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 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.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.



Lolopyrum—Apply 2 to 3 quarts of this product per acre. Spray when most lolopyrum is at least 8 inches in height (3 or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1½ percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

Milium, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milium has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milium to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, western—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the western muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of western muhly from seeds which germinate after a Roundup herbicide application. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

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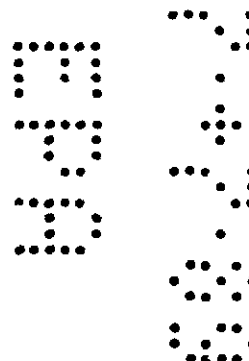
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Nightshade, annual—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Outrage, purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing outrage plants and immature outlets attached to treated plants. Treat when plants are in flower or when new outlets can be found at rhizome tips. Outlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate outlet germination.

Apply 1 pint to 1 quart of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre to provide suppression or partial control of existing outrage plants. Treat when plants have 3 to 5 leaves (less than 6 inches). Repeat treatments will be required to control subsequent emerging plants. Wait 7 days after treatment before tillage or mowing.

Partheno—Apply this product as a 1½ to 2 percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bud stage of growth. Thorough coverage is necessary for best control.



Phragmites—For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptom will be slow to develop.

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 to 1 percent nonionic surfactant by total spray volume in 3 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 8 to 12 inches in height and actively growing. Do not till between harvest and fall applications or in 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 Noncrop 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 gr. Do not till between harvest and fall

Add:

Reed, giant - For control of giant reed, apply a 2 % solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

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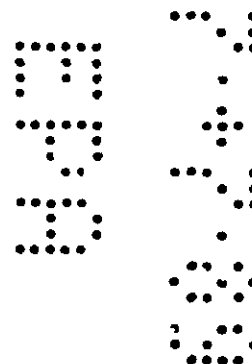
application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Sweet Potato, wild—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days 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 to 1 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 rosettes are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss—Apply 4 to 5 quarts of this product per acre to provide partial 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 treat-



ments must be applied before ~~first~~ ^{first} fallow 7 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 must have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

TANK MIXTURES

When applied as directed, under the conditions described, Roundup plus Banvel or 2,4-D amine will suppress or control the following perennial broadleaf weed:

Bindweed, Field

Convolvulus arvensis

For suppression, apply 16 ounces of this product plus 0.5 lb a.e. of 2,4-D amine or 0.25 lb a.i. of Banvel, plus 0.5 to 1 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 (except in California) in fallow and reduced tillage systems only.

For control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application equipment only.

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Irrigated Agricultural Lands

Apply 1 to 2 quarts of this product plus 1 quart per acre of 2,4-D amine in 10 to 20 gallons of water per acre with ground equipment only for partial control (suppression) of field bindweed. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

Dogbane, hemp

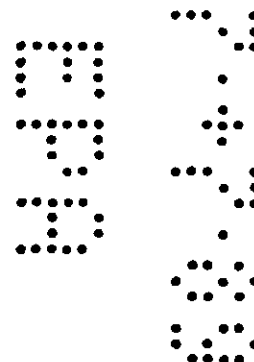
Apocynum cannabinum

For suppression, apply 16 ounces of this product plus 16 ounces of 2,4-D amine plus 0.5 to 1 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. Delay applications until maximum emergence of dogbane has occurred. For control, apply 4 quarts of this product in 3 to 20 gallons of water using ground application equipment only.

Smartweed, Sumac

Polygonum coccineum

For control, apply 16 ounces of this product plus 0.5 pounds active ingredient of 2,4-D amine plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in late summer or fall. Apply when plants are actively growing and must have reached the early bud stage of growth. Allow 7 or more days after application before tillage.



Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products in tank mixture.

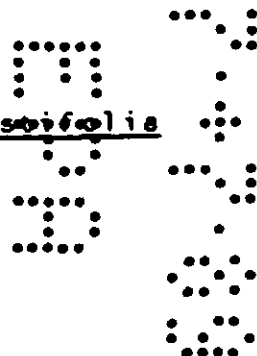
WOODY BRUSH AND TREES

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

Alder	Monkey Flower*
<i>Alnus</i> spp.	<i>Mimulus guttatus</i>
Ash*	Oak:
<i>Fraxinus</i> spp.	Black*
Apen, quaking	<i>Quercus velutina</i>
<i>Populus tremuloides</i>	Northern Pin
Bamboo (Bamboo)	<i>Quercus palestis</i>
<i>Chamaedorea foliolosa</i>	Post
Black	<i>Quercus stellata</i>
<i>Betula</i> spp.	Red
Blackberry	<i>Quercus rubra</i>
<i>Rubus</i> spp.	Southern Red
Bur oak	<i>Quercus falcata</i>
French	White*
<i>Cytisus monspeliensis</i>	<i>Quercus alba</i>
Scotch	Perseemon*
<i>Cytisus scoparius</i>	<i>Diospyros</i> spp.
Buckbrush, California*	Poison Ivy
<i>Eriogonum fasciculatum</i>	<i>Rhus radicans</i>
53	
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Cactus*	Poison Oak
<i>Rhamnus purshiana</i>	<i>Rhus toxicodendron</i>
Catalpa*	Poplar*, yellow
<i>Acacia greggii</i>	<i>Liriodendron tulipifera</i>
Ceanothus*	Raspberry
<i>Ceanothus</i> spp.	<i>Rubus</i> spp.
Chenille	Rose, multiflora
<i>Adiantum fasciculatum</i>	<i>Rosa multiflora</i>
Cherry:	Sage, black
Bitter	<i>Salvia mellifera</i>
<i>Prunus emarginata</i>	Sagebrush, California
Black	<i>Artemisia californica</i>
<i>Prunus serotina</i>	Salmonberry
Pla	<i>Rubus spectabilis</i>
<i>Prunus pennsylvanica</i>	Sambucus
Coyote brush	<i>Sarcocolla arbutum</i>
<i>Baccharis conangueana</i>	Sourwood
Crocker, Virginia*	<i>Ostrya arbutum</i>
<i>Parthenocissus quinquefolia</i>	Sumac:
Banberry	Poison*
<i>Rubus trivialis</i>	<i>Rhus venosa</i>
Elderberry	Smooth*
<i>Sambucus</i> spp.	<i>Rhus glabra</i>
Elm*	Winged*
<i>Ulmus</i> spp.	<i>Rhus copallina</i>
Emmygus, Blagum	Sweetgum
<i>Eucalyptus globulus</i>	<i>Liquidambar styraciflua</i>

Russian-olive

Elaeagnus angustifolia



Hamamelis*	Swordfern*
<i>Haplophragma squarrosus</i>	<i>Polystichum munitum</i>
Hawthorn	Tallbush, Chinese
<i>Crataegus</i> spp.	<i>Sapindus saponaria</i>
Hazel	Tan Oak
<i>Corylus</i> spp.	<i>Lithocarpus densiflorus</i>
Hemlock	Thimbleberry
<i>Lonicera</i> spp.	<i>Rubus parviflorus</i>
Kudzu	Tobacco, tree*
<i>Pueraria lobata</i>	<i>Nicotiana glauca</i>
Lacina, black*	Trumpetcrusher
<i>Robinia pseudacacia</i>	<i>Campsis radicans</i>
Madrone	Willow
<i>Arbutus menziesii</i>	<i>Salix</i> spp.
Manzanita	
<i>Arctostaphylos</i> spp.	
Maple:	
Red**	
<i>Acer rubrum</i>	
Sugar	
<i>Acer saccharum</i>	
Vine*	
<i>Acer circinnatum</i>	

*Partial control

**See below for control or partial control instructions.

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

Apply this product when plants are actively growing, and unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

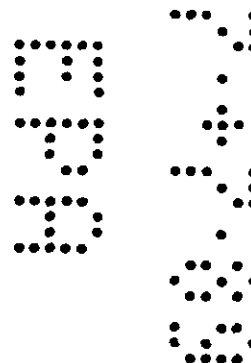
In and around, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or coincide with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "Directions for Use", and "Mixing, Addition, and Application Instructions" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.



Alder/Banberry/Hempstead/Pink Oak/Raspberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

Aspen, quaking/Cherry: bitter, black, pin/Northern Oak, southern red/Sweetgum/Trompetecreeper—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

Birch/Elderberry/Maul/Solomonberry/Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1½ percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until falling frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Brown French, Scotch—For control, apply a 1½ to 2 percent solution with hand-held equipment.

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Buckbrush, California/Mourdia/Money Flower/Tobacco tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Calceol—For partial control, apply as a 1 to 1½ percent solution with hand-held equipment.

Capula Bush—For control, apply a 1½ to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Eucalyptus/Bleeding—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

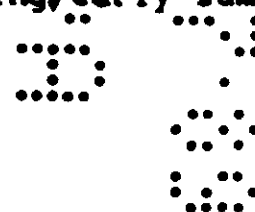
Madia—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Maple, red—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, sugar/Oak, northern pin/Oak red—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Insert:

Madrone resprouts - For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.



Poison Ivy/Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black/Sagebrush, California/Chamise/Yellowtree, Chinese—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

Insert:

Tan oak resprouts - For suppression or partial control, apply a 2 % solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

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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.

Storage and Disposal

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

See container label for STORAGE AND DISPOSAL instructions.

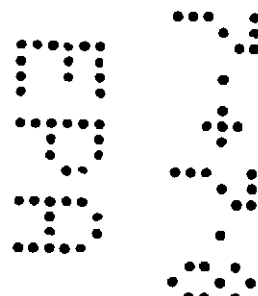
Move to page 10

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information and the following "Warnings" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURF, GRASSES, 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.



No changes in this label from page 61 through 83.

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Bahia grass	Johnsongrass**
<i>Paspalum notatum</i>	<i>Sorghum halepense</i>
Bluestem, silver	Trumpetcrane*
<i>Andropogon saccharoides</i>	<i>Campis radicans</i>
Fescue, tall	Wanggrass
<i>Festuca arundinacea</i>	<i>Paspalum urvillei</i>

*Suppression at higher rates only.

**Control at the higher rates.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of Round-up herbicide with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "Weeds Controlled" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahia grass	Johnsongrass*
<i>Paspalum notatum</i>	<i>Sorghum halepense</i>
Bluestem, silver	Pepper**
<i>Andropogon saccharoides</i>	<i>Dioscorea</i>
Bermudagrass	Trumpetcrane,
<i>Andropogon virginicus</i>	<i>Campis radicans</i>

Bush, early	Wanggrass
<i>Rhus copallina</i>	<i>Paspalum urvillei</i>
Begonia	Verain, blue
<i>Epipactis capillaris</i>	<i>Verbena hastata</i>
Fescue, tall	
<i>Festuca arundinacea</i>	

*Suppression at higher rates only.

**Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under most conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

BAHAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated no-mow areas (production, airports, golf course roughs, and plant sites) this product will provide significant inhibition of seed-head emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply Roundup herbicide 1 to 2 weeks after full growth of bahiagrass or after the bahiagrass has been mowed.

Insert:

Section on Cool Season Turf Growth Regulation from following pages.

**COOL SEASON TURF
 GROWTH REGULATION**

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turfs on roadside rights-of-way or other industrial areas. Do not use on high quality turfs or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

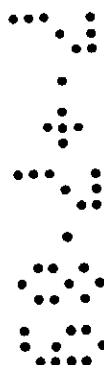
Tall Fescue
 Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought, or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.



TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 quart per acre of 2,4-D amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

TALL FESCUE

Roundup plus Telar (TM)

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/2 ounce of Telar per acre.

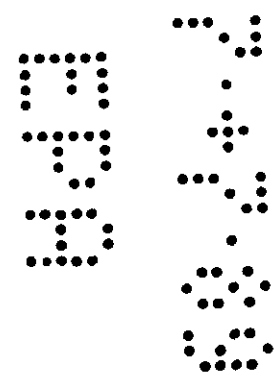
This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression and Make only one of the above applications per growing season.

Roundup plus Oust (TM)

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Oust per acre.

Roundup plus Escort (TM)

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.



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SMOOTH BROME

Roundup plus Oust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Oust per acre.

(™) Escort and Telar are trademarks of E. I. du Pont de Nemours and Company.

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to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent non-ionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent non-ionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus non-ionic surfactant. A second sequential application of 2 to 4 fluid ounces per acre plus non-ionic surfactant may be made approximately 45 days after the last application.

A tank mixture of Roundup plus Oust may be applied only on cereals for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent non-ionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using Roundup plus Oust for suppression of brome grass, make only one application per year.

CROPPING SYSTEMS

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

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See the following "Cropping Systems" 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 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 the label for 30 days following application.

For other cropping systems, except following spot treatment in forage grasses and legumes, do not harvest or feed treated crops for 8 weeks after application. Allow 14 days following spot treatment or selective equipment use before grazing domestic livestock or harvesting forage grasses and legumes.

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 direct seeded crops or prior to transplanting of crops listed on this label.

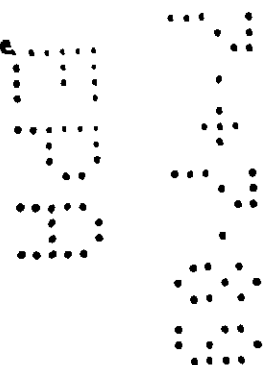
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ALFALFA*	KALE
ARTICHOKE,	LENTILS
JERUSALEM	LETTUCE
ASPARAGUS*	LOGANBERRY
BARLEY*	MELONS***
BEANS (IN)	MUSTARD GREENS
BEET GREENS	ONIONS*
BEETS (Red, Sugar)	ONION
BLACKBERRY	ORCHARD
BLUEBERRY	PANFUTS
BOYSENBERRY	PARS (IN)
BROCCOLI	PEPPER***
CABBAGE	PINEAPPLE****
CARROT	POTATO (Red, Sweet)
CARLIPOWDER	PUMPKIN***
CELERY	RADISH
CINCOY	RASPBERRY (Black, Red)
CORN (IN)*	RICE**
COTTON*	ROSEMARY
CRAWDENY	SORGHUM (IN)
CUCUMBER***	SPINACH*
CURRY	SPINACH*** (Summer,
DEWBERY	Winter)
EGGPLANT***	TOMATO***
ELDERBERRY	TOMATOES***†
FORAGE GRASSES*	TURKISH
FORAGE LEGUMES*	WATERMELON***
GARLIC***	
GOOSEBERRY	

Insert in alphabetical order:

Ater 7a
Carambola
Sugar apple
Yams
Parsnips



24863
(24)

GRASSES***
HORSERADISH
HUCKLEBERRY

WINTERCRESS***
WHEAT*

*Spot treatments may be applied in these crops.

**Do not treat rice fields or lawns when the fields contain flood water.

***Apply only prior to planting. Allow at least 3 days between application and planting.

****Do not feed or graze treated pineapple forage following application.

† Use is restricted to direct seeded crops only.

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

For forage grasses and forage legumes see "Spot Treatment" in the "Pastures" section of "Cropping Systems" in this label.

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.

Selective Equipment—This 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 past: re silos and sorghum milo.

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.

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

Cotton, Soybeans	7 days
Apple, Avocado, Cherry, Citrus,	
Grapes, Pear,	
Rutabagas	14 days
Stone Fruit	17 days
Nut Crops	21 days
Sorghum (milo)*	40 days

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

Insert in alphabetical order:

Atemoya
Carambola
Sugar Apple

ASPARAGUS

When applied as directed for "Crapping 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.

Spot Treatment—Apply 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.

Postharvest—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 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 aimed 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

No changes in this label Feb. 1964.
page 91 through 119.

← Insert from page 9:

Product protected by
U.S. Pat. No. 3,799,758 and
U.S. Pat. No. 4,405,531.
Other patents pending.

No license granted under
any non-U.S. patent.

EPA Reg. No. 524-308-AA

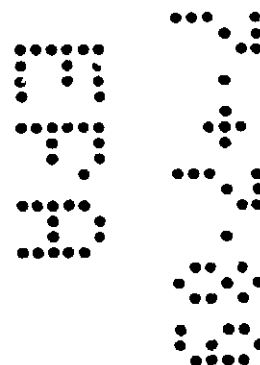
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This product has been approved for use in California
except as stated otherwise on page 128.

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

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MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST LOUIS, MISSOURI 63167 U.S.A.



270863

SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL BOOKLET FOR ROUNDUP BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labelling refers to the label booklet for Roundup herbicide and this supplement.

ROUNDUP® Herbicide by Monsanto

EPA Reg. No. 524-308-AA

For Johnsongrass Control Postharvest to Corn, Sorghum or Wheat in Texas and Oklahoma.

DIRECTIONS FOR USE

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

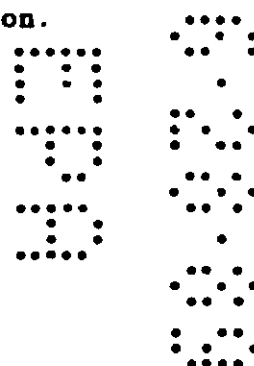
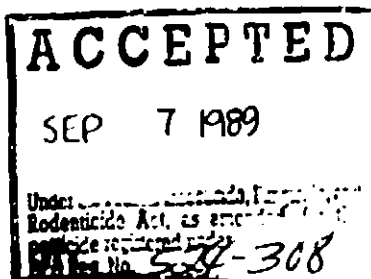
This label must be in the possession of the user at the time of herbicide application.

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

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF THE 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 seed. Except as otherwise specified on the label, repeat treatments must be made before crop emergence in accordance with the instructions in the label.

Do not plan subsequent crops other than those listed in the label booklet for this product for 30 days following application.



CROPPING SYSTEMS

When applied as directed, under the conditions described, this product controls the weed listed in the following cropping systems following the harvest of the crops:

CORN (ALL)
SORGHUM (MILO)
WHEAT

WEEDS CONTROLLED

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

Johnsongrass
Sorghum halepense

Apply 1.5 pints of this product plus 0.5 to 1 percent nonionic surfactant, plus 2 percent ammonium sulfate (17 pounds per 100 gallons of spray solution) in a total spray volume of 3 to 10 gallons of water per acre. Use 0.5 percent surfactant concentration when using surfactants which contain at least 50 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 50 percent active ingredient.

Applications may be made using ground or aerial application equipment. When applying by air, apply 3 to 5 gallons of water per acre. Flat fan nozzle tips (8002-8004) on 20 to 30-inch spacings are recommended for ground equipment. Ground applications should be made in 5 to 10 gallons of water per acre.

Ammonium sulfate should be predissolved and then poured through a 50-mesh strainer when adding to the spray tank. If ammonium sulfate is added directly to the tank, add slowly and with good agitation. Ensure that ammonium sulfate is completely dissolved in the tank prior to the addition of this product and surfactant. Spray grade ammonium sulfate is much easier to dissolve than fertilizer grade material.

Following harvest, the field must be disked to cut up rhizomes and force new shoots. This product should be applied when johnsongrass is in the boot-to-head stage. Plants must be actively growing and not under .. drought stress. If heavy dew exists prior to spraying, delay application

until the dew dries. Application should be made at least 7 days prior to frost. Allow 7 or more days after application before tillage.

Read "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Roundup before using this product. Those terms apply to this supplemental labeling and, if those terms are not acceptable, return the product unopened at once.

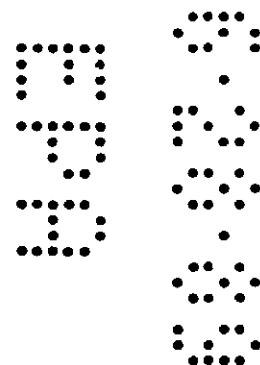
MAP-3079

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

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MONSANTO COMPANY
AGRICULTURAL PRODUCT
ST. LOUIS, MISSOURI 63167 U.S.A.



SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup and this supplement.

ROUNDUP
HERBICIDE BY MONSANTO

(EPA Reg. No. 524-308)

ROUNDUP HERBICIDE FOR CONIFER RELEASE

KEEP OUT OF THE REACH OF CHILDREN

WARNING!

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

Roundup® is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

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

This label should be in the possession of the user at the time of the herbicide application.

CONIFER RELEASE

Use 1 to 3 quarts of this product per acre as a broadcast spray for control and reduced competition from undesirable vegetation when releasing the following conifer species:

ACCEPTED

SEP 7 1989

Under the Fungicide, Insecticide, and
Herbicide Act, as amended, for the
pesticide registered under
EPA Reg. No. 524-308

REVISED 4/7/89

Douglas fir
Pseudotsuga menziesii

*Pine
Pinus spp.

Fir
Abies spp.

Spruce
Picea spp.

Use the higher recommended rate for dense, tough-to-control woody brush and trees.

Injury may occur to conifers treated for release, especially where spray patterns overlap or higher rates are applied. Damage can be accentuated if applications are made when conifers are actively growing, or are under stress from drought, flood water, insects or diseases.

When applied as recommended, this product will control or reduce competition from woody brush, trees or herbaceous weeds listed in the label booklet for this product.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial budswelling in the spring.

This product may be applied by ground or aerial application (helicopter only). When applied by ground, use the recommended rates in 10 to 60 gallons of spray solution per acre.

When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

Read and carefully observe the label claims, cautionary statements. And all information on the label for Roundup herbicide.

Read "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Roundup before using this product. Those terms apply to this supplemental labeling and, if those terms are not acceptable, return the product unopened at once.

*Includes all species except eastern white pine, loblolly pine, longleaf pine, shortleaf pine or slash pine.

MONSANTO COMPANY 1989

MAP-3062

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167

D-PAK 41

HERBICIDE BY MONSANTO

For control of annual and perennial weeds in reduced tillage systems in Arkansas, Louisiana and Mississippi.

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

Carefully follow detailed instructions in attached label booklet

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 OR REPACKAGING IS PROHIBITED

PRECAUTIONARY STATEMENTS

Hazards to
Humans and Domestic Animals

Keep out of reach of children

WARNING!

CAUSES EYE IRRITATION
HARMFUL IF SWALLOWED
MAY CAUSE SKIN IRRITATION

Do not get in eyes, on skin or on clothing

Wash thoroughly with soap and water after handling

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

IF ON SKIN: Immediately flush with plenty of water. Remove contaminated clothing. Wash clothing before reuse

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

In case of an emergency involving this product,
Call Collect, day or night, (314) 684-4000

Environmental Hazards

Do not apply directly to water or wetland (swamps, bays, marshes or potholes). Do not contaminate water with disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and 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

DIRECTIONS FOR USE

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

Storage and Disposal

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

DISPOSAL

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed

Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke

(See label booklet for Complete Directions for Use)

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

In case of an emergency involving this product,
Call Collect, day or night, (314) 684-4000

ACTIVE IN
"Glyphosate
isopropyl
INERT ING

"Contains
the active
ingredient
pounds per

Product per
Other per
U.S. patent

MONSANTO

Registered

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

EPA Reg. No. 524-308

Complete Directions for Use

ACCEPTED

SEP 7 1989

Under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 U.S.C. 136-136j) and Executive Order 12875, EPA Reg. No. 524-308

1989-2

037-10-0000-00

Change to: 1989-1

A-897.15-100.01/53

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.

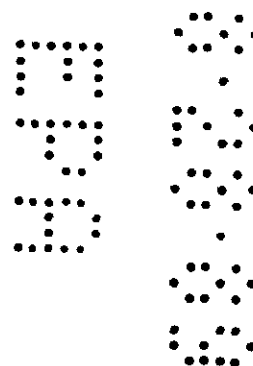
REFORMULATION OR REPACKAGING IS PROHIBITED.

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 on 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 anticipated 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

Hazardous to Humans and Domestic Animals

Keep out of reach of children.

WARNING!

CAUSES EYE IRRITATION.

HARMFUL IF SWALLOWED.

MAY CAUSE SKIN IRRITATION.

Do not get in eyes, on skin or on clothing.

Wash thoroughly with soap and water after handling.

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

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing. Wash clothing before reuse.

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

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

Environmental Hazards

~~Do not apply directly to water or wetland (swamps, bays, marshes or ponds). Do not contaminate water by cleaning of equipment or disposal of wastes.~~

Do not apply directly to water or wetland (swamps, bays, marshes or ponds). Do not contaminate water by disposing of equipment, wastewater.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and 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 tend 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 cigarettes or other ignition source.

ACTIVE INGREDIENT:

41.0%
50.0%

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

~~*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate salt of N-(phosphono-methyl)glycine (hereinafter referred to as glyphosate).~~

Product is protected by
U.S. Pat. No. 3,799,758 and
U.S. Pat. No. 4,405,531.
Other patents pending.

No license granted under any non-U.S. patent.

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1989

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AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.



DIRECTIONS FOR USE

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

Storage and Disposal

Do not contaminate water, feedstuffs, seed or food by storage or disposal.

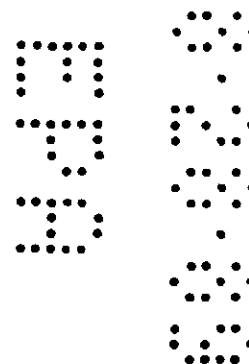
DISPOSAL:

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Empty container retains vapor and product residue. Observe all labeled warnings until container is cleaned, reconditioned or destroyed.

Do not reuse container. Return empty container per the Manufacturer's return program. If not returned, triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

- 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.



GENERAL INFORMATION

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

→ This product.

~~Formulation~~ **Formulation:** 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 through 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 down 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 of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from detached underground rhizomes or root stocks of perennials will not be affected by the spray 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 results 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 soil 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 germination of suitable seedbeds.

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

Reduced control may result when applications are made to annual or perennial weeds that have been mowed.

grazed, or cut, and has 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 customary statements and all other information appearing on the label 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 refuge to the point of runoff.

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

~~Regulator/Resistant/Herbicide/Control~~

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 lateral wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or two party jets 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 undesirable consequences. If an operator comes in contact with this product, wash thoroughly.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

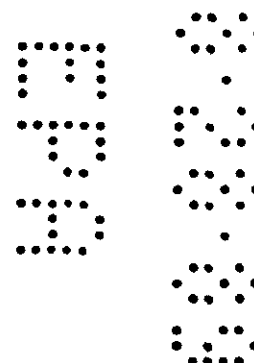
APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY UNDER WIND OR OTHER CONDITIONS WHICH ALLOW DRIFT TO OCCUR. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR 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 proper amount of this product (see "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this

Insert:

Application to wet, saturated soils, or to fields under standing water will result in reduced control.



Remove hose from tank immediately after filling to avoid splashing 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. Place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoam ing 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.
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 prevent foaming. Screen use in nozzle or line strainer 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 are labeled for use with herbicides may be used. Do not reduce rates of the 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 ounces per 100 gallons of spray solution) when using surfactants which contain at least 50 percent active ingredient or a 1 percent surfactant concen-

then surfactant containing less than 50 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on ~~the following weeds~~ on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. 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, pre-dissolve the ammonium sulfate 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 or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

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.

~~Ammonium sulfate should not be used in conjunction with~~

APPLICATION EQUIPMENT AND TECHNIQUES

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

This product may be applied using either ground or aerial 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 ~~5~~ gallons of water per acre as a broadcast spray. For ~~optimum~~ even 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 overlapping pattern 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 WILL ALLOW 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.

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

■ BROADCAST EQUIPMENT ■

40

■ AERIAL EQUIPMENT ■

■ SELECTIVE EQUIPMENT ■

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

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent 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. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least two inches above the desirable vegetation. Drifts, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in decoloration, stunting, or destruction.

Applications made above the crop 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 weed is 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 "Weeds Controlled" section of the label for recommended stage of growth for specific weeds.

NOTE

- Maintain equipment in good operating condition. Avoid leakage or dripping onto desirable vegetation.
- Adjust height of applicator to insure adequate contact with weeds.
- Keep nozzle tips and wiper surfaces clean.
- Keep spray patterns aligned into recovery chamber of the recirculating sprayer.
- Keep shields on shielded applicators adjusted to protect desirable vegetation.
- Maintain recommended roller RPM on roller applicators while in use.
- Keep wiper material at proper degree of saturation with herbicide solution.
- DO NOT use wiper equipment when weeds are wet.
- DO NOT operate equipment at ground speeds greater than 5 mph. Weed control may be affected by speed of application equipment. As weed density increases, reduce equipment ground speed to insure good coverage of weeds.

- Be aware that on sloping ground the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of a wiper applicator.
- Variation in equipment design may affect weed control. With wiper applicators, the wiper material and its orientation must allow delivery of sufficient quantities of the recommended herbicide solution directly to the weed.
- Care must be taken with all types of wipers to ensure that the absorbent material does not become oversaturated, causing the herbicide to drip on desirable vegetation.
- Mix only the amount of solution to be used during a one-day period, as reduced activity may result from use of leftover solutions. With all equipment, drain and clean sprayer and wiper parts immediately after using this product by thoroughly flushing with water.

RECIRCULATING SPRAYERS

Recirculating sprayer calibration is made on the basis of ground speed and delivery volume. Two procedures can be used to calibrate: (1) determine the discharge being delivered per minute, then operate at the designated ground speed, or (2) select the desired ground speed and then adjust the sprayer to deliver the recommended volume per minute (this may require nozzle changes). Use the appropriate table below.

Do not operate at nozzle pressure above 20 PSI.

Table 1. Use this table when calibrating bar or row-type recirculating sprayers. Bar or row-type sprayer calibration is based on the total discharge collected per row.

Use only straight stream or 15° fan-type nozzles.

*VOLUME PER MINUTE PER ROW	
MPH	Ounces
2	26 to 35
3	38 to 51
4	51 to 68
5	65 to 86

*NOTE: Be certain the amount collected is for all spray streams treating one row.

Table 2. Use this table when calibrating broadcast type recirculating sprayers. Broadcast recirculating sprayer calibration is based on the discharge collected per minute from one nozzle on a 20-inch spacing.

VOLUME PER MINUTE PER NOZZLE	
MPH	Ounces
2	7 to 9
3	10 to 13
4	13 to 18
5	16 to 22

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

Perennial Broadcast Weeds—To SUPPRESS the following weeds, mix in a ratio of 4 quarts of this product in 20 gallons of water and apply as directed.

Bugloss, hemp **Willow**
Aquilegia canadensis *Aquilegia scopulorum*

Perennial Grasses and Annual Broadleaf Weeds—To control the following weeds, mix in a rate of 3 quarts of this product in 20 gallons of water and apply as directed:

Cocklebur **Pigweed, redroot**
Zinnia *Amaranthus*
stramonium *retrofractus*

Johnsongrass **Sedum**
Sorghum intrans *Halenia ascyron*

Annual Grasses—To control the following weeds, mix in a rate of 2 quarts of this product in 20 gallons of water and apply as directed:

Corn **Shallfence**
Zea mays *Sorghum bicolor*

SHIELDED APPLICATIONS

When applied as directed under conditions described for shielded applications, this product will control those weeds listed in the "Weeds Controlled" section of this label.

Shielded applications which apply the herbicide solution in a spray band should be calibrated on a broadcast equivalent rate and volume basis. To determine these:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \frac{\text{Herbicide Broadcast RATE per acre}}{\text{Herbicide Band RATE per acre}} =$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast VOLUME of solution per acre}}{\text{Band VOLUME of solution per acre}} =$$

Use nozzles that provide uniform coverage within the treated area. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

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

WIPER APPLICATIONS

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

Do not add surfactant to the herbicide solution.

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

Mix 1 gallon of this product in enough water to provide 20 gallons of herbicide solution (5 percent solution). Apply this solution to annual grasses listed in the "Wiper Applicators" section.

Roller speed should be maintained at 40 to 60 RPM.

For Wink or Wiper Application—Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in the "Wiper Applicators" section.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation.

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

ANNUAL GRASSES

Corn	Rye, common
Zea mays	Secale cereale
Proso, Texas	Shatterseed
Panicum texanum	Sorghum bicolor

ANNUAL BROADLEAVES

Sicklepod	Starbur, biennial
Cassia obtusifolia	Leontodon
Spartanocaulis	Asclepias
Bidens bipinnata	

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

ANNUAL BROADLEAVES

Beggarweed, Florida	Ragweed, giant
Datura	Andropogon
torresii	Sonchus
Dogfennel	Hesperis matronalis
Euphorbia	Thistle, milk
capitata	Carduus arvensis
Pigweed, redroot	Velvetleaf
Amaranthus	Achillea
retrofractus	theophrasti

Ragweed, common
Andropogon arvensis

PERENNIAL GRASSES

Bermudagrass	Smartweed
Cynodon dactylon	Sporobolus poiretii
Coix	Vernonia
Panicum maximum	Paspalum urvillei
Johnsongrass	
Sorghum halepense	

PERENNIAL BROADLEAVES

Begonia, hemp	Rightbush, alluvial
Asclepias tuberosa	Solanum elaeagnifolium
Milkwort	Thistle, Canada
Asclepias syriaca	Cirsium arvense

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. Finally, fill the tank with water and emulsion. Add 1 quart of heavy-duty emulsion per 25 gallons of water. Pump enough solution through the hoses, boom and nozzles to fill these parts completely. Then fill the tank, clean 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.

Replace in the:

Add clean water to the tank and thoroughly rinse the entire spray system.

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

ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before mowing.
- For maximum spraying 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 applications until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

1. Water cover volumes are 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications. (See the "Aerial Application" section of this label for additional steps.)
2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at

least 50 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 50 percent active ingredient.

NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this herbicide on annual 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.
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed, or cut, allow regrowth to occur prior to treatment.
- Refer to the "Tank Mixtures" portion of this section for control of additional broadleaf weeds.

[illegible]

Deformation
Kriegs capitulation

[illegible]

DELETE

CHANCE IQ: 5 TO 8"

DELETE

CHANGE TO: this product

1999-2000 BUDGET APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Use 1 quart of this product per acre if weeds are less than 6 inches tall. If weeds are over 6 inches tall, use 1.5 quarts of this product per acre. If weeds have been mowed, grazed, or cut allow adequate time for new growth to recommence before applying for treatment. Please read all the complete details of usage listed on the "Law-Ventura Sweetwater Attraction" section.

WEB SPACES

Colony type*	Parasite
<i>Monocentric character</i>	<i>Pancus</i> spp.
Hosts, host(s)	Reared, common
<i>Scutis tenebrosus</i>	<i>Andrena arvensis</i>
Hosts	Reared, glaci
<i>Scutis</i> spp.	<i>Andrena trilinea</i>
Fieldwork	Switzerland, Pennsylvani
<i>Andrena</i> spp.	<i>Polyommatus maculipennis</i>

Florida Flamingo	Snowbirds, sand
Common Cuckoo	Songbird, cuckoo
Flamingo	Songbird
Engorged sp.	Heron-like, sand
Hummingbird	Thrush, hummer
Hummingbird	Songbird, bee
Lark, pretty	Valley
Lark, pretty	Abundant throughout

• Apply with long-held equipment only.

49g b3

PERENNIAL WEEDS

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

NOTE: If weeds have been mowed or killed, do not treat until plants have returned active growth and are at the recommended stages.

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 2 percent dry ammonium sulfate by weight or 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 the label.

See "Directions for Use" and "Mixing, Addition and Application Instructions" sections of this label for label use and specific application instructions.

Athlete—Apply 1 quart of this product (or only about 5 to 1 quart if insect activity is not heavy) to 10 to 20 gallons of water per acre. This product is of the contact type and is not a systemic. It is a spray to a height of 4 to 8 inches or more prior to treatment. Applications should be followed within 24 hours at least 7 days after treatment, but before mid June, 1963.

Alfalfa—Apply 4 quarts of this product per acre or apply a 1% product solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Bermudagrass—For suppression in grass and sorghum areas for ground application only, apply 20 quarts of this product plus 5 to 1 quart of insecticide to 10 to 20 gallons of water per acre. Do not treat when the grass is in the seedling stage or a full development. Berms should be about 10 to 12 inches high at the time of application. This product is a contact type and is not a systemic. It is a spray to a height of 4 to 8 inches or more prior to treatment. Applications should be followed within 24 hours at least 7 days after treatment, but before mid June, 1963.

Bermudagrass—For control, 5 quarts of this product per acre and for ground control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and conditions are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

Blindweed, Field Bindweed, etc.—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good seed and moisture is necessary for active growth. Row level development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Blindweed, Field Bindweed, etc.—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good seed and moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Blindweed, Field Bindweed, etc.—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good seed and moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.



DELETE AS SHOWN.



5 to 20

inches or height. Allow 7 or more days after application before tillage.

Grasslands only—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when grass is actively growing and the height of 12 inches or more. Apply at least three days before mowing or cutting. A sequential application of 0.75 to 1.5 quarts of this product, or equivalent, will be necessary for optimum results. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Forage crops—Apply 1 to 4 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when forage crops are actively growing and the height of 12 inches or more. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Forage crops—Apply 1 to 4 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when forage crops are actively growing and the height of 12 inches or more. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Forage crops—Apply 1 to 4 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when forage crops are actively growing and the height of 12 inches or more. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Grasslands only—Apply 1 to 5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when grass is actively growing and the height of 12 inches or more. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage or mowing. One sequential application of 0.75 to 1.5 quarts of this product, or equivalent, will be necessary for optimum results. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Grasslands only—Apply 1 to 5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when grass is actively growing and the height of 12 inches or more. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage or mowing. One sequential application of 0.75 to 1.5 quarts of this product, or equivalent, will be necessary for optimum results. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Forage crops—Apply 1 to 4 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply when forage crops are actively growing and the height of 12 inches or more. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

Fall application only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to forage crops in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 3 to 4 weeks after application before grazing. Apply at least 7 or more days after application before tillage. A sequential application of 0.75 to 1.5 quarts of this product, or equivalent, will be necessary for optimum results. Apply at least 3 to 10 days before grazing. Apply at least 7 or more days after application before tillage.

INSERT:

For best results, apply in late summer or fall.

REPLACE WITH:

Allow 7 or more days after application before tillage or renovation. A sequential application approximately 14 days later of 1 pint per acre of this product plus nonionic surfactant will improve long-term control.

Guernsey—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guernsey 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.

Johnsongrass/Sparganium—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 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In no-till or areas where annual tillage (one-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 leaf-to-leaf stage of growth or in the fall prior to frost. 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 treatment of Johnsongrass, apply 1 quart per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 36 inches. For this use, allow at least 3 days after treatment before tillage.

CHANGE TO: 13

DELETE.

Spot Treatment (winter-crop or summer-crop)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when weeds are 4 to 6 inches in height. Coverage should be uniform and complete.

CHANGE TO: 1.5

DELETE.

Eleusine—Apply 1 to 3 quarts of this product per acre. Apply when most eleusine is at least 4 inches in height (2 or 3-leaf stage of growth) and actively growing. Allow 7 or more days after application before tillage.

Lambert—Apply this product as a 1 to 1 1/4 percent solution with hand-held equipment or 1 to 2 quarts of this product per acre. Apply to actively growing plants when most have reached a stage of growth. Use the highest application rate for plants that have reached the leaf-to-leaf stage of growth. Allow 7 or more days after application before tillage.

Milium, common—Apply 1 quart of this product per acre. Apply when actively growing and most of the milium has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milium to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

CHANGE TO: 4

Muhly, various—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, hay, or no-till areas. Spray when the muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of muhly from mow which germinates after a residual herbicide application. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

Stachys recta—Apply 2 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing plants and encourage seedlings attached to ground stems. Treat when plants are in flower or when new seedlings are in flower at rosette top. Plants of this type are not perennial and are not controlled and may be removed following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate seed germination.

Stachys recta, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing plants and encourage seedlings attached to ground stems. Treat when plants are in flower or when new seedlings are in flower at rosette top. Plants of this type are not perennial and are not controlled and may be removed following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate seed germination.

INSERT:

to control purple nutsedge or a 2 percent solution to control yellow nutsedge

Apply 1 quart of 1 quart of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing plants and encourage seedlings attached to ground stems. Treat when plants are in flower or when new seedlings are in flower at rosette top. Plants of this type are not perennial and are not controlled and may be removed following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate seed germination.

DELETE:

Perennial—Apply this product as a 1% to 2% solution from hand-held equipment. Apply to plants that are actively growing or about to begin growth. Thorough coverage is necessary for best control.

Perennial—For control of existing plants and the prevention of other plants becoming established, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for control. For best results, treat during the summer or fall months or when plants are actively growing and of full size. To control plants or other weeds that are in rosette stage, treat in the early stages of the rosette, which are more difficult to control. Plants of this type are not perennial and are not controlled and may be removed following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate seed germination.

Control—In Areas of Existing Plants or in Perennial and Other Plants—Apply 2 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing plants and encourage seedlings attached to ground stems. Treat when plants are in flower or when new seedlings are in flower at rosette top. Plants of this type are not perennial and are not controlled and may be removed following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate seed germination.

Control—Perennial and Other Plants—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing plants and encourage seedlings attached to ground stems. Treat when plants are in flower or when new seedlings are in flower at rosette top. Plants of this type are not perennial and are not controlled and may be removed following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate seed germination.

application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Stems, Petioles, and—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing stems that are at or beyond the latest stage of growth. Repeat applications as required. Allow the plant to reach the recommended stage of growth before reapplication. Allow 7 or more days before tillage.

Thatch, ~~Stems~~—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thatch when stems are at or beyond the last stage of growth. For harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for maturing of stems growth and complete 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 management of Canada thistle, apply 1 quart per acre of this product plus 0.5 to 1 percent aqueous surfactant by total spray volume of 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow complete 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.

Top Growth—Apply 4 to 5 quarts of this product per acre to actively growing stems of top growth. Apply to actively growing stems that are at or beyond the latest stage of growth. Repeat applications as required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

renew must be applied before frost. Allow 7 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 must have reached early, mid or early bud stage of growth. Allow 7 or more days after application before tillage.

CROPPING SYSTEMS

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 one year following application.

For other cropping systems, except following spot treatment in forage grasses and legumes, do not harvest or feed treated crops for 8 weeks after application. Allow 14 days following spot treatment or selective equipment use before grazing domestic livestock or harvesting forage grasses and legumes.

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

~~ALFALFA~~
~~BARLEY~~
~~BETS (Bull Sugar)~~
~~POTATO (Irish, Sweet)~~
~~COTTON~~
~~FORAGE LEGUMES*~~
~~SOYBEANS*~~

~~LENTILS~~
~~OATS~~
~~PEAS (All)~~
~~CORN (All)~~
~~FORAGE GRASSES~~
~~SORGHUM (Milo)~~
~~WHEAT~~

DELETE.

REPLACE WITH:

CORN (ALL)
COTTON*
RICE**

SORGHUM (Milo)
SOYBEANS*
SUGARCANE
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 male, initial seed set in soybeans, silking of corn, and boll opening on cotton.

For dilution and rates of application using boom or hand-held equipment, see the "APPLICATION EQUIPMENT AND TECHNIQUES" and "WEEDS CONTROLLED" sections of this label.

INSERT: ** Do not treat rice fields or levees when fields contain flood water.

MINIMUM TILLAGE SYSTEMS

Tank Mixtures CORN AND SOYBEANS

When applied as recommended under the conditions described, these tank mixtures control many emerged weeds, and give preemergence control of many others which either emerge or are killed directly after a cover crop, established soil, or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and machinery requirements of all products used in these tank mixtures. For mixing instructions, see the "Mixing, Additives and Application Instructions" section of this label.

CORN

- Roundup® plus Lasso®
- Roundup® plus Lasso® plus Atrazine
- Roundup® plus Lasso® plus Glufosinate
- Roundup® plus Lasso® plus 2,4-D
- Roundup® plus Atrazine plus Sencor

Change "Roundup" to "D-Pak 41"

SOYBEANS

- Roundup® plus Lasso®
- Roundup® plus Lasso® plus Linturon
- Roundup® plus Lasso® plus Letham
- Roundup® plus Lasso® plus Sencor

Insert: D-Pak 41 plus Canopy™
D-Pak 41 plus Sceptor™

Apply these tank mixtures at 10 to 40 gallons of water per acre after planting or during planting in tank mixtures that the planter does not contain the treated soil. Do not apply these mixtures after crop emergence.

REDUCED CONTAMINATION MAY RESULT IF THIS PRODUCT IS USED IN TANK MIXTURES CONTAINING FLUID FERTILIZERS.

CONTROL OF EMERGED WEEDS

Annual Weeds—Apply to actively growing annual grasses and broadleaf weeds up to 2 inches tall. Use 1 pint of this product per acre in these tank mixtures if weeds are less than 6 inches tall in the early spring. Use 1 quart per acre in these mixtures for barnyardgrass and broadleaf signalgrass less than 2 inches tall, and all other grasses 2 to 6 inches tall. If weeds are over 6 inches tall, apply 1.5 quarts of this product per acre. For general control of weeds, 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 "Control Instructions" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of Roundup-turficide per acre in these tank mixtures, under other conditions, controls tall and mature weeds, such as many emerged perennial grasses and broadleaf weeds. For example, perennial weeds controlled see the "Weeds Controlled" section of this label.

To obtain the desired stage of growth, it may be necessary to apply Roundup-turficide alone or in the tank mixture or later and then follow with a label-approved, secondary weed control program at planting.

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

USE OF THESE TANK MIXTURES FOR BARNYARDGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For barnyardgrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label-

REPLACE WITH:

Annual Weeds—Apply to actively growing annual grasses and broadleaf weeds up to 2 inches tall. Use 1 pint of this product per acre in these tank mixtures if weeds are less than 6 inches tall in the early spring. Use 1 quart per acre in these mixtures for barnyardgrass and broadleaf signalgrass less than 2 inches tall, and all other grasses 2 to 6 inches tall. If weeds are over 6 inches tall, apply 1.5 quarts of this product per acre. For example annual weeds controlled see the "Weeds Controlled" section of this label.

Change to: this product

approved, smoking weed-control program in a fumigant
tillage or conventional tillage system. For John Deere
users, follow the instructions under "Control of Per-
ennial Weeds" section of the label, and then use a label-
approved smoking weed-control program with conven-
tional tillage.

The following are suggested ranges for the recommended
product/acreage:

PRODUCT	RAPIES/ACRE	
	RAPIES/ACRE	RAPIES/ACRE
Land	2 to 4	.
Perennial	1 to 2	.
Annual 6000	.	1.25 to 2.0
Annual 1000	.	1.1 to 2
Product of	1 to 2.2	.
Annual 6000	.	1.25 to 2.30
Product of	1 to 2.2	.
Annual 6000	.	1.25 to 2.75
Product of	0.5 to 1.5	.
Annual 6000	.	1 to 2
Product of	0.25 to 0.75	.
Annual 6000	.	0.5 to 1.50
Product of	.	0.33 to 1

DELETE.

Insert:
of all products to be used in tank mixtures
with this product.

Read and carefully observe the label claims, customary
statements, signs and all other instructions on the label
of all products to be used in tank mixtures with this product.
Directions for each product in the mixture.

INSERT: , Carboy

*Land is a registered trademark of American Company.

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

*Product of is a trademark of the parent company of Fertilizer and
Soil Care, Louisiana.

INSERT: T¹⁴ Scepter is a trademark of American Land and Company.

SUGARCANE

When applied as directed for "Crabgrass Control", under the conditions described, this product controls these emerged annual and perennial weeds listed on the 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 10.5 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, drains or ponds containing water to be used for irrigation.

Broadleaf Treatment—Apply this product in 10 to 40 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 10 to 40 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 details and rates of application using hand-held equipment, see "Mixing, Addition and Application Instructions" and "Weeds Controlled" sections of this label.

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

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

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

Do not feed or graze treated sugarcane forage following application.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on the label prior to the harvest of COTTON.

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.

Broadleaf Application—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 15 gallons of water per acre.

To control johnsongrass, amaranthus, waterhemp, and velvetleaf, apply 1 quart of this product plus 0.5 to 1 percent aqueous surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure complete coverage.

INERT: COTON

10 TO 20

10.5 L.

For control of field bindweed, apply one quart of 0.5 percent (0.5 to 1 percent maximum) solution by spray volume or 3 to 4 gallons of water per acre. Apply when bindweed is actively growing and 12 inches or greater in height. Bindweed applications may result in defoliation of other crop plants.

Field Bindweed
Controlled with Def® or
Folax plus Folax®

When applied as recommended under the conditions described, these herbicides control bindweed and other root and stem weeds at the top prior to the harvest of cotton. For application guidelines, precautions and defoliation rates, refer to the manufacturer label for each herbicide.

Timing of Application—Apply this product or these herbicides for preharvest weed control after 60 percent of the cotton bolls have opened.

NOTE: DO NOT APPLY TO CROPS GROWN FOR SEED.
Allow a minimum of 7 days between application and harvest.

Do not feed or graze feeding cottonseed forage or hay following preharvest applications.

[®]Def is a trademark of Union Carbide Corporation.
[®]Folax is a trademark of Monsanto Company, Inc.

REPLACE WITH:

When applied as recommended under the conditions described, this product may be tank-mixed with Def® or Folax when used for weed control. For application guidelines, precautions and defoliation rates, refer to the Def and Folax labels.

POSTHARVEST APPLICATIONS

This product will provide control of existing weeds following (post)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 and before broadcast weeds exceed 24 inches in height. Nonionic surfactant should be added at 0.5 to 1 percent by total spray volume. Use of ammonium sulfate ammonification may improve performance ~~under conditions of environmental stress.~~

DELETE.

under conditions of environmental stress.

EPA Reg No. 524-308

1988-2

897-15-000-04-66

Change to: 1989-1

A-897.15-100.01/53

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

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Change to: 1989

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.



READ THE ENTIRE LABEL BOOKLET FOR ROUNDUP BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup herbicide and this supplement.

Roundup[®] Herbicide by Monsanto

EPA Reg. No. 524-308-AA

FOR DISTRIBUTION IN ALL STATES EXCEPT CALIFORNIA.

Tank mixtures for control of emerged weeds prior to planting or emergence of soybeans.

Keep out of reach of children.

WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 684-4000.

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

DIRECTIONS FOR USE

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

(This label must be in the possession of the user at the time of herbicide application.

GENERAL INFORMATION

This product will control emerged weeds when applied as a broadcast spray before, during or after planting, but before emergence of soybeans. For improved burndown or residual control, this product may be tank-mixed with the following herbicides:

2,4-DB
CanopyTM
DualTM
GeminiTM

GoalTM
LoroxTM
Lasso[®]
LexoneTM

LinexTM
ProwlTM
LoroxTM Plus
TurboTM

PrevierTM
SurflanTM
ScepterTM
SencorTM

When applications are made at least 30 days prior to planting soybeans, tank-mixtures with 2, 4-D ester may be used.

When tank mixtures with 2, 4-DB are used to control emerged vegetation prior to planting soybeans, a rate of 1/16 to 1/8 pounds of 2,4-DB per acre on an acid equivalent basis (4 to 8 fluid ounces per acre) will generally be sufficient to provide broad spectrum burndown.

The rate of this product to be used in these tank mixtures is dependent on weed height or growth stage. See the "Weeds Controlled" section of the full label for this product for specific rates and application instructions. Refer to the label of any tank mix partners for all rates, directions, planting restrictions, use restrictions and cautions regarding the use of these products.

APPLICATION RECOMMENDATIONS

Apply this product and tank mixtures of this product in 3 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use a 0.5 percent surfactant concentration for those surfactants which contain at least 50 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 50 percent active ingredient. Add ammonium sulfate at the rate of 2% by weight (12 pounds in 100 gallons of spray solution) for the best results with these mixtures.

These tank mixtures may be applied using ground or aerial spray equipment.

For Ground Applications: Apply in 5 to 10 gallons of water per acre.

For Aerial Applications: Apply in 3 to 10 gallons of water per acre. Do not exceed a 32 ounce rate of this product when applying alone or in tank mixtures with other herbicides.

Mixing Instructions: Fill spray tank with the required amount of water. Add the proper amounts of this product, tank mix partners and surfactant, and mix well before using.

Read "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Roundup before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

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MAP 3071

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

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"Lasso is a registered trademark of Monsanto Company.

"Canopy, "Gemini, "Lexone, "Lorox, and "Preview are trademarks of E. I. duPont de Nemours and Company.

"Dual is a trademark of Ciba-Geigy Corporation.

"Goal is a trademark of Rohm and Haas Company.

"Linex is a trademark of Griffin Ag Products Company.

"Turbo and "Sencor are trademarks of the parent company of Farbenfabriken Bayer GmbH, Leverkusen.

"Prowl and "Scepter are trademarks of American Cyanamid Company.

"Surflan is a trademark of Elanco Products Company.

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