

**ACCEPTED**  
 11 18 1990  
 Use for the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for this pesticide registered under EPA Reg. No. 524-427

**For control of annual and perennial weeds in reduced tillage systems.**

AVOID CONTACT WITH FOLIAGE, GREEN STEMS OR FRUIT OF CROPS OF DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.  
 Read the entire label before using this product.  
 Use only according to label instructions.  
 Read LIMIT OF WARRANTY AND LIABILITY before buying or using. It is not acceptable to use if once unopened.  
 REPACKAGING OR REPACKAGING IS PROHIBITED.

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

Keep out of reach of children

**CAUTION!**

HANDLES OF UNPAVED OR UNPAVED MAY CAUSE IRRITATION.  
 Avoid contact with skin, eyes or clothing.  
 Avoid breathing dust.  
 Wash thoroughly with soap and water after handling.  
 FIRST AID IF IN EYES: Immediately flush with plenty of water. Get medical attention.

DO NOT IMMEDIATELY flush with plenty of water. Remove material from skin and clothing.  
 IF INHALED: Remove individual to fresh air. Seek medical attention if breathing difficulty develops.  
 IF SWALLOWED: Induce vomiting immediately as directed by medical personnel. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.  
 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, bogs, marshes, or pastures) or to surface water when disposing of equipment or materials.

**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 containers. DO NOT MIX, STORE OR APPLY SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNPAVED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. 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, heated cigarette or other ignition source.

**DIRECTIONS FOR USE**

It is 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:** Residues 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 residues. Observe all all labeled safeguards until container is destroyed. Do not reuse container.  
 Carefully empty liner by shaking and tipping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner and drum in a sanitary landfill as by incineration, if followed by state and local authorities.  
 (See label booklet for Complete Directions for Use)

**ACTIVE INGREDIENT**  
 Glyphosate N (phosphonometric) glycolic acid in the form of the monoammonium salt 93.96%  
**INERT INGREDIENTS** 6.04%  
 100.00%

Product protected by U.S. Pat. Nos. 3,799,758 and 4,405,531. Other patents are pending. No license granted under any non-U.S. patent.

**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 contemplated or used at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application range 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 on 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 ON 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 OPTION 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.

EPA Reg. No. 524  
 ©MONSANTO COMPANY 1988



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

LOT NO

PACKER

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

MAP-3030/53

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

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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.

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#### PRECAUTIONARY STATEMENTS

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##### Hazards to Humans and Domestic Animals

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Keep out of reach of children.

#### CAUTION!

**HARMFUL IF SWALLOWED OR INHALED  
MAY CAUSE EYE IRRITATION.**

Avoid contact with skin, eyes or clothing.  
Avoid breathing dust.  
Wash thoroughly with soap and water after handling.

**FIRST AID. IF IN EYES,** immediately flush with plenty of water. Get medical attention.

**IF ON SKIN,** immediately flush with plenty of water. Remove material from skin and clothing.

**IF INHALED,** remove individual to fresh air. Seek medical attention if breathing difficulty develops.

**IF SWALLOWED,** induce vomiting immediately as directed by medical personnel. **NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.**

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Call Collect, day or night, (314) 694-4000.

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##### Environmental Hazards

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##### Physical & Chemical Hazards

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

**ACTIVE INGREDIENT**

Glyphosate, N-(phosphonomethyl) glycine, in the form of the monoammonium salt

93-9072

**INERT INGREDIENTS**

61-4472

21-11072

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

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

- MONSANTO COMPANY 1988

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

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**DIRECTIONS FOR USE**

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

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**Storage and Disposal**

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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 destroyed. Do not reuse container.

Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner and container in a sanitary landfill or by incineration if

allowed by State and local authorities.

#### GENERAL INFORMATION

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

This product is a water-soluble granule which readily dissolves and is applied as a foliar spray for the control or destruction of most broadleaf herbaceous plants. It may be applied through most standard backpack and field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact 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 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.

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

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

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

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

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

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

Buyer and all users are responsible for all loss or damage in connection

with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

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

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

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

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

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

#### MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

**APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY 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 the "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, 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 defoaming agent.

#### TANK MIXTURES

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

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

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, pre-mix 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, pre-mix 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 granule followed by surfactant.

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

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

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

#### ADDITIVES

#### SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this herbicide when adding surfactant. Use 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) when using surfactants which contain at least 50 percent active ingredient or a 2 percent surfactant concentration (8 quarts per 100 gallons of spray solution) for those surfactants 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 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product and this product plus 2,4-D amine or Banvel® tank mixtures 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, predissolve 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.

Banvel is a trademark of Sandoz, Inc.

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

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

**AERIAL APPLICATION:** Apply the recommended rates of this product in 3 to 5 gallons of water per acre as a broadcast spray. **DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR UNDER ANY OTHER CONDITION WHICH 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 dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

### SPRAYER CLEANUP

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

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

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

#### WEEDS CONTROLLED

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

#### ANNUAL WEEDS

- \* Apply to actively growing grass and broadleaf weeds
- \* Allow at least 3 days after treatment before tillage
- \* For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- \* To prevent seed production, applications should be made prior to seed-head formation.
- \* This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.
- \* Do not use these rates for weeds that have been mowed, grazed or cut.
- \* Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

#### RECOMMENDED RATES AND WEEDS CONTROLLED

| ANNUAL WEED SPECIES                              | MAXIMUM HEIGHT | RATE PER ACRE** |
|--------------------------------------------------|----------------|-----------------|
| Foxtail<br><i>Setaria spp.</i>                   | 12"            | 3.5 oz.         |
| Barnyardgrass<br><i>Echinochloa crus-galli</i>   | 6"             | 5 oz.           |
| Bluegrass, annual<br><i>Poa annua</i>            |                |                 |
| Brome, downy*<br><i>Bromus tectorum</i>          |                |                 |
| Chickweed, jagged<br><i>Holosteum umbellatum</i> |                |                 |
| Mustard, blue<br><i>Chorispora tenella</i>       |                |                 |

Mustard, tansy  
*Descurainia pinnata*

Mustard, tumble  
*Sisymbrium altissimum*

Mustard, wild  
*Sinapis arvensis*

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Barley  
*Hordeum vulgare* 12" 5 oz

Rye  
*Secale cereale*

Sandbur, field  
*Cenchrus* spp.

Shattercane  
*Sorghum bicolor*

Stinkgrass  
*Eragrostis*  
*cilianensis*

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Wheat  
*Triticum aestivum* 18" 5 oz

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Morningglory  
*Ipomea* spp. 3" 7 oz

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Bluegrass, bulbous  
*Poa bulbosa* 6" 7 oz

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Cheat  
*Bromus secalinus*

Chickweed, mouseear  
*Cerastium vulgatum*

Corn, volunteer  
*Zea mays*

Groundsel, common  
*Senecio vulgaris*

Horseweed/Marestail  
*Conyza canadensis*

Pennycress, field;  
Fatweed  
*Thlaspi arvense*

Rocket, London  
*Sisymbrium lrio*

Ryegrass, Italian  
*Lolium multiflorum*

Shepherdspurse  
*Capella bursa-*  
*pastoris*

|                                                     |     |        |
|-----------------------------------------------------|-----|--------|
| Buttercup<br>Ranunculus spp                         | 12" | 7 oz   |
| Cocklebur<br>Xanthium<br>strumarium                 |     |        |
| Crabgrass<br>Digitaria spp                          |     |        |
| Field dandelion<br>Rigida cespitosa                 |     |        |
| Falseflax, smallseed<br>Camelina<br>microcarpa      |     |        |
| Foxtail, Carolina<br>Alopecurus<br>carolinianus     |     |        |
| Johnsongrass, seedling<br>Sorghum halepense         |     |        |
| Lambsquarters, common<br>Chenopodium album          |     |        |
| Oats, wild<br>Avena fatua                           |     |        |
| Panicum, fall<br>Panicum<br>dichotomiflorum         |     |        |
| Panicum, Texas<br>Panicum texanum                   |     |        |
| Pigweed, redroot<br>Amaranthus<br>retroflexus       |     |        |
| Pigweed, smooth<br>Amaranthus hybridus              |     |        |
| Witchgrass<br>Panicum capillare                     |     |        |
| Signalgrass, broadleaf<br>Brachiaria<br>platyphylla | 6"  | 10 oz. |
| Teaweed<br>Sida spinosa                             | 3"  | 13 oz. |
| Eveningprimrose,<br>cutleaf<br>Oenothera laciniata  | 12" | 13 oz. |
| Geranium, Carolina<br>Geranium<br>carolinianum      |     |        |
| Goosegrass<br>Eleusine indica                       |     |        |

Pusley, Florida  
Richardia scabra

Sicklepod  
Cassia obtusifolia

Spanishneedles  
Bidens bipinnata

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Filaree  
Erodium spp.                      12"                      11 oz

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\*For control in no-till systems, use 7 ounces per acre

\*\*For those rates less than 13 ounces per acre, this product at rates up to 13 ounces per acre may be used where heavy weed densities exist

#### FALLOW AND REDUCED TILLAGE SYSTEMS

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

#### TANK MIXTURES

THIS PRODUCT plus BANVEL

THIS PRODUCT plus 2,4-D AMINE

THIS PRODUCT plus ATRAZINE or BLADEX\*

#### DO NOT APPLY BANVEL, OR 2,4-D AMINE TANK MIXTURES BY AIR IN CALIFORNIA

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

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

This product plus Banvel or 2,4-D amine will control the annual grasses and broadleaf weeds previously listed for this product alone at the indicated rates (except 5 ounces-per-acre applications), plus the following broadleaf weeds at those weeds previously listed at 8 ounces of this product alone per acre, use the 5-ounce rate in these tank mixtures.

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

residual control of selected weed species

Apply 5 to 7 ounces of this product plus 0.25 pound a.i. of Banvel, or 0.5 pound a.i. of 2,4-D amine plus 1 to 2 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than 6 inches in height

**Kochia\***

*Kochia scoparia*

**Lambsquarters**

*Chenopodium album*

**Lettuce, prickly**

*Lactuca scariola*

**Pigweed, Redroot**

*Amaranthus retroflexus*

**Thistle, Russian**

*Salsola kali*

\*Controlled with Banvel tank mixture only.

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

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

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

#### ANNUAL WEEDS CONTROLLED

**Barnyardgrass**

*Echinochloa crus-galli*

**Brome, downy**

*Bromus tectorum*

**Foxtail, green**

*Setaria viridis*

**Kochia**

*Kochia scoparia*

**Lambsquarters**

*Chenopodium album*

**Lettuce, prickly**

*Lactuca scariola*

**Mustard, tansy**

*Descurainia pinnata*

**Pigweed**

*Amaranthus spp.*

**Sandbar, field**

*Cenchrus spp.*

**Stinkgrass**

*Eragrostis cilianensis*

Thistle Russian  
Salsola kal.

Wheat  
Triticum aestivum

Witchgrass  
Echinochloa capillare

Apply 5 ounces of this product with 1 pound or less of the active ingredient atrazine per acre or 7 ounces of this product with 2 pounds of the active ingredient atrazine per acre, or 8 ounces of this product with 1 to 3 pounds of the active ingredient atrazine per acre, plus 1 to 2 percent nonionic surfactant by total spray volume. Apply 7 ounces of this product with 2.4 to 4 pounds of the active ingredient cyanazine in Bladex per acre plus 1 to 2 percent nonionic surfactant. Barnyardgrass will be suppressed at the 8-ounce-per-acre rate and will require up to 11 ounces per acre for control. In Oregon and Washington, do not exceed 1 pound of the active ingredient atrazine per acre. The addition of 2 percent dry ammonium sulfate by weight (or liquid equivalent) or 17 pounds per 100 gallons of water is recommended to increase the performance of this product plus atrazine or Bladex plus nonionic surfactant tank mixtures.

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

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

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

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

#### POSTHARVEST APPLICATIONS

This product will provide control of existing weeds following grain harvest. Weeds should be allowed to regrow after damage incurred during harvest operations, and to recover from environmental stress, before application of this product. Weeds should be treated prior to the heading stage of annual grasses and before broadleaf weeds exceed 24 inches in height. Nonionic surfactant should be added at 1 to 2 percent by total spray volume. Use of ammonium sulfate is recommended and may improve performance on annual weeds.

Apply 5 ounces of this product per acre plus nonionic surfactant to control downy brome, green foxtail, stinkgrass and volunteer wheat.

To control kochia, lambsquarters, mustard, pigweed and Russian thistle, apply 7 ounces of this product plus 0.25 pounds a.i. of Barvel or 0.5 pounds a.e. of 2,4-D amine plus nonionic surfactant per acre.

Apply 8 ounces of this product per acre plus nonionic surfactant to control barnyardgrass, sandbur, and witchgrass. The addition of 0.25 pound a.i. of Barvel or 0.5 pound a.e. of 2,4-D amine plus nonionic surfactant to 8 ounces of this product will control prickly lettuce.

#### AID TO TILLAGE

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

Apply 3.5 ounces per acre of this product plus 1 to 2 percent nonionic surfactant by total spray volume as a broadcast spray in 3 to 10 gallons of water per acre.

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

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

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

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

#### PERENNIAL WEEDS

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

**NOTE:** If weeds have been mowed or tilled, do not treat until plants have resumed active growth and 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 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this herbicide on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.

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

##### Alfalfa

*Medicago sativa*

##### Johnsongrass

*Sorghum halepense*

##### Nightshade, silverleaf

*Solanum elaeagnifolium*

##### Quackgrass

*Agropyron repens*

##### Ryegrass, perennial

*Lolium perenne*

##### Thistle, Canada

*Cirsium arvense*

**Johnsongrass**—Apply 13 to 39 ounces of this product per acre. In annual cropping systems, apply 13 to 26 ounces of this product per acre. Apply 13 ounces of this product plus 1 to 2 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Use 26 ounces of this product when applying 10 to 40 gallons of water per acre. In crop or areas where annual tillage (no-till) is not performed, apply 26 to 39 ounces of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 13 ounces per acre rate. See the "DIRECTIONS FOR USE" and the "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

For the control of contacted vegetation, apply 13 ounces per acre plus 1 to 2 percent non-ionic surfactant in 5 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

**Quackgrass—In Annual Cropping Systems or in Pastures and Sod Followed by Deep Tillage.** Apply 13 to 26 ounces of this product per acre. For the 13 ounces rate, apply 1 to 2 percent non-ionic surfactant by total spray volume in 5 to 10 gallons of water per acre. For the 26 ounces rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 13 ounces rate. Spray when quackgrass is 8 to 12 inches high and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results, use a moldboard plow.

**Quackgrass—Pasture or Sod or Other Non-crop Areas Where Deep Tillage is Not Planned Following Application.** Apply 26 to 39 ounces in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage.

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

**Thistle, Canada—**Apply 26 to 39 ounces 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. See the "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this pamphlet for labeled uses and specific application instructions.

**Other perennials listed on this label—**Apply 39 to 65 ounces of this product per acre. Apply when actively growing and when most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

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

#### TANK MIXTURES

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

Bindweed, field  
*Convolvulus arvensis*

For suppression, apply 7 ounces of this product plus 0.5 pound a.e. of 2,4-D amine or 0.25 pound a.i. of Banvel, plus 1 to 2 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. These tank mixtures may be applied using aerial application equipment in fallow and reduced tillage systems only.

For control apply 26 ounces 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.

#### CROPPING SYSTEMS

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

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

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 104 ounces per acre of this product per year.

Do not plant subsequent crops other than those on this label for one year following application.

|                       |                 |
|-----------------------|-----------------|
| ALFALFA*              | LENTILS         |
| BARLEY*               | OATS*           |
| BEETS (Red, Sugar)    | PEAS (All)      |
| POTATO (Irish, Sweet) | CORN (All)      |
| COTTON*               | FORAGE GRASSES* |
| FORAGE LEGUMES*       | SORGHUM (Milo)  |
| SOYBEANS*             | WHEAT           |

\*Spot treatments may be applied in these crops.

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

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