

PM 23

7969-45

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Mr. Edward G. Jordan, Ph.D.  
BASF Corporation  
P.O. Box 13528  
Research Triangle Park, NC 27709-3528

MAR 12 1998

Dear Dr. Jordan:

SUBJECT: Revised Labeling for Alternate Brand Name Products to Comply with the  
Bentazon RED: Fortune Herbicide and Basagran T/O Herbicide  
(Homeowner Label)  
Basagran® Herbicide  
EPA Registration Number: 7969-45  
Your Submission Dated February 27, 1998

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable provided you make the following changes:

1. On the Basagran® T/O Herbicide label for homeowners, move the Storage and Disposal section to a position within the Directions for Use. The preferred location is near the beginning or end of the Directions for Use.
2. On the Basagran® T/O Herbicide label for homeowners, revise the "Mixing" directions in column 1 of page 3 and in column 1 of page 4 to read as follows:

"Fill the tank of a thoroughly clean sprayer half to two-thirds full with clean water. Add Basagran® T/O herbicide and shake or stir the spray solution so that Basagran T/O and water mix thoroughly. Add the remaining volume of water and shake or stir the spray solution to mix thoroughly. Mix only enough spray solution for one usage; a fresh spray mixture should be used for each application."

Stamped copies of the alternate brand name labels are enclosed for your records. Submit one copy of each final printed label before you release the product for shipment.

Sincerely yours,

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosures

RD:STANTON:PM Team 23:Rm. 237:CM-2:305-5218:Disk #7:S538768.LET

CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Mar 12, 1998							

# BASF

ST date 2-9-98

2087

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

MAR 12 1998

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

7969-45

## Basagran® T/O herbicide

### Postemergence Herbicide

For homeowner use in established turf and ornamentals for the control of broadleaf weeds and sedges.

A soluble liquid formulation containing:

**Active ingredient:**

Sodium salt of bentazon* .....	44.0%
Inert ingredients .....	56.0%
Total .....	100.0%

\*Equivalent to 4 pounds per gallon bentazon, (3-(1-methylethyl)-1H-2,1,3-benzothiadiazin-4-(3H)-one 2,2-dioxide)

EPA Reg. No. 7969-45

**KEEP OUT OF REACH OF CHILDREN.**

### CAUTION

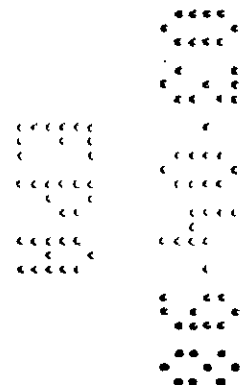
#### Statement of Practical Treatment

**If swallowed:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or if available, by administering syrup of ipecac. If person is unconscious, do not give anything by mouth and do not induce vomiting.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

Net contents: 8 fluid ounces



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### Precautionary Statements Hazards to Humans (and Domestic Animals)

#### CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

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

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### User Safety Recommendations Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### Environmental Hazards

Do not apply directly to water. Do not contaminate water with disposal of equipment wash waters or rinseate.

Bentazon, which is present in this product is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

### Storage and Disposal

**Storage:** Keep pesticide in original container. Do not put concentrate or dilute spray into food, feed, or drink containers. Avoid contamination of feed and foodstuffs. Store in a cool, dry place, preferably in a locked storage area. Do not store diluted spray.

**Disposal:** Securely wrap the original container in several layers of newspaper and discard in trash.

**Container:** Do not re-use empty container.

**Notice:** It is a violation of federal law to use any pesticide in a manner that results in the death of an endangered species or in adverse modification of their habitat.

### In Case of Emergency

In case of medical emergency regarding this product, call:

1. Your local doctor for immediate treatment.
2. Your local poison control center (hospital).
3. BASF Corporation 800-832-HELP

**Notice:** Buyer assumes all liability, including personal injury and property damage, which may result from the use of this product in a manner inconsistent with labeling directions. If these terms are not acceptable, return at once unopened.

### Directions For Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

The following **Directions For Use** are applicable when **Basagran™ T/O herbicide** is intended for homeowner use in established turf and ornamentals.

Read the entire label for **Directions For Use and Precautionary Statement**.

### Nonagricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, nurseries, or greenhouses.

For homeowner use:

- **Do not allow persons or pets to enter the treated area until sprays have dried.**

### Established Turf General Information

**Basagran T/O** is a selective post-emergence herbicide for the control of broadleaf weeds, annual sedges, and yellow nutsedge in established turf. **Basagran T/O** does not control grasses.

**Basagran T/O** is effective mainly through contact action; therefore, all plants must be thoroughly covered with spray. Weeds controlled by **Basagran T/O** in turf are annual sedges, yellow nutsedge, spurge, lambsquarters, Venice mallow, shepherdspurge, smartweed, chickweed, common groundsel, ladythumb, jimsonweed, galinsoga, common purslane, cocklebur, beggarticks, wild mustard, wild poinsettia, wild buckwheat, velvetleaf, Canada thistle, and musk thistle.

Weeds suppressed by **Basagran T/O** include: common ragweed, giant ragweed, wild sunflower, and morningglory. Some weeds not controlled include: purple nutsedge, pigweed, plantain, dandelion, onion/garlic, wood sorrel, and spurge.

In California, **Basagran T/O** is registered for use only in established turf to control yellow nutsedge.

### Application Information

**Basagran T/O** may be used on established bluegrass, fescue, bentgrass, bermudagrass, bahiagrass, centipedegrass, zoysiagrass, ryegrass, and St. Augustinegrass. Refer to **Table 1, Application Rate Table for Established Turf** on page 3 for recommended rates of **Basagran T/O** and volumes of water.

Apply **Basagran T/O** postemergently to weeds that are actively growing and under good soil moisture conditions. If desired control of yellow nutsedge or Canada thistle is not obtained with the first application, make a second application in 10-14 days or when new growth appears.

In the northern United States, yellow nutsedge can emerge from May through July; whereas, in the southern United States, nutsedge and broadleaf weeds can emerge throughout the year. Therefore, initial applications should be planned when most plants have emerged. If new plants emerge later in the season, make a second application of **Basagran T/O** in accordance with the label directions. In unmowed turf, make first application after emergence but before yellow nutsedge, annual sedge and Canada thistle are 8 inches tall. Annual broadleaf weeds should be no taller than 4 inches.

Thorough spray coverage of yellow nutsedge is essential for maximum control. For optimum control do not mow within 3 days before or after application. For sedges, do not mow within 5 days of application. Use a minimum water volume of 1 gallon/1000 square feet with a minimum pressure measured at the nozzle of 40 psi.

**Mixing**

Fill the tank of a thoroughly clean sprayer half to two-thirds full with clean water. Add **Basagran™ T/O herbicide** and shake or stir the spray solution so that **Basagran T/O** and water mix thoroughly. Mix only enough spray solution for one usage; a fresh spray mixture should be used each application.

**Addition of Oil Concentrate**

A nonphytotoxic oil concentrate (commonly referred to as oil concentrate) may be added to the spray tank for certain weed problems. The oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test (see below), and
- be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers which provide good mixing quality. Highly refined vegetable oils have been observed to be more satisfactory than unrefined vegetable oils. With the addition of oil concentrate to **Basagran T/O**, a slight leaf burn may occur when relative humidity and temperature are high. Refer to your supplier of **Basagran T/O** for information concerning successful local experience prior to purchasing any oil concentrate.

**Rate of Oil Concentrate**

Use 0.75 fluid oz per 1,000 square feet or a proportionate amount for other sized areas.

**Mixing**

Fill the tank of a thoroughly clean sprayer half to two-thirds full with clean water. Add **Basagran T/O** and shake or stir the spray solution so that **Basagran T/O** and water mix thoroughly. Add the oil concentrate and the remaining volume of water. Again, shake or stir the spray solution so that the **Basagran T/O**, oil concentrate, and water mix thoroughly. Mix only enough spray solution for one usage; a fresh spray mixture should be used each application.

**Restrictions and Limitations**

In California, **Basagran T/O** is registered for use only in established turf to control yellow nutsedge. Do not apply **Basagran T/O** to turf that has been under stress such as drought, cold temperature or injury from other herbicides.

Do not apply **Basagran T/O** to any newly seeded or newly sprigged turf until seedlings or sprigs are well established, as injury may result.

Do not apply **Basagran T/O** to golf course greens or collars.

In perennial ryegrass, apply no more than 0.75 fluid ounces per 1000 square feet at one time and make subsequent applications no less than 21 days later.

Do not apply more than 1.5 fluid ounces of **Basagran T/O** per 1000 square feet per calendar year.

Do not exceed a total of 0.367 ounce of active ingredient (bentazon) per 1,000 square feet per application or 0.73 ounce of active ingredient (bentazon) per 1,000 square feet per calendar year. One fluid ounce of **Basagran T/O** contains 0.5 ounce of bentazon.

Rainfall or sprinkler irrigation soon after application (within 8 hours) may nullify the effectiveness of **Basagran T/O**.

Clean the sprayer thoroughly before applying **Basagran T/O**, particularly if a herbicide with the potential to injure the turf to be sprayed with **Basagran T/O** was used.

When treating turf with **Basagran T/O**, avoid over-the-top spraying of adjacent ornamental trees, shrubs, and flowers.

Spraying near the base of established ornamental trees, shrubs, and flowers should not result in injury except for sycamore and rhododendron.

**Spray Equipment**

Hand-held pump-up, knapsack, or hose-end type sprayers are suitable for applying **Basagran T/O**.

Do not spray during windy conditions because drifting spray may cause damage to desired ornamental plants. Rinse equipment with soap and water after use.

**Sprayer Calibration Suggestions Hand Sprayers:**

1. Stake off a 400 sq. ft. area of turf for practice. This is an area 20 ft. (7 steps) x 20 ft.
2. Add a measured quantity (1.5 gallons for example) of water to the sprayer and uniformly spray the 400 sq. ft. area. Measure water remaining and thereby determine the amount applied per 400 sq ft area. (**Note:** A minimum of 3 pints/400 sq. ft. is recommended).
3. Prepare spray solution according to **Application Rate Table for Established Turf**.

**Example:** Assume that in Step 2 the 400 sq ft area was uniformly covered with 0.5 gallon of water. Referring to the table, add **Basagran T/O** at the rate of 2-4 teaspoons per 0.5 gallon of water for each 400 sq. ft. of turf to be sprayed. (**Note:** Use of this mixture for spot spraying of individual weeds may result in an excessive dosage and possible turf injury.)

**Hose-end Applicator**

A procedure similar to the above may be followed for calibrating hose-end sprayers. Half-fill container with water to an even mark on the "gallons" scale and note the gallonage level. Spray the 400 sq. ft. area, noting the new gallonage reading, and thereby determine the amount of water used to spray the area. Then proceed as in Step 3 above.



**Table 1. Application Rates\* for Established Turf**

Area to be Sprayed	200 square feet	400 square feet	1000 square feet
<b>Basagran T/O</b>	1 teaspoon	2 teaspoons	0.75 fl. oz. (5 teaspoons)
Water**	0.2-0.4 gallons (1.6-3.2 pints)	0.4-0.8 gallons (3.2-6.4 pints)	2 gallons

\* For yellow nutsedge, apply no more than 0.75 fluid ounces per 1,000 square feet at one time. Make a second application 10-14 day later. Apply no more than 1.5 fluid ounces per 1,000 square feet per calendar year. For perennial ryegrass, apply no more than 0.75 fluid ounces per 1,000 square feet at one time. Make a second application no less than 21 days later.

\*\* Quantity of water required to uniformly spray this area with your sprayer. If unknown, refer to preceding section **Sprayer Calibration Suggestions**.

**Ornamental Sites**  
(Not registered for use in California)

**General Information**  
**Basagran® T/O herbicide** is intended for selective postemergence control of certain broadleaf weeds and sedges.

Refer to **Table 3, Application Rate Table for Ornamental Sites** on page 5 for recommended rates of **Basagran T/O** and water volumes.

**Basagran T/O** does not control grasses. **Basagran T/O** is effective mainly through contact action; therefore, weeds must be thoroughly covered with spray. Large weed leaf canopies shelter smaller weeds and prevent adequate spray coverage. Some leaf-speckling and leaf-bronzing may occur under certain conditions. (See **Restrictions and Limitations** section.)

**Basagran T/O** may be applied as a directed spray around all ornamental plants except as restricted in this label.

**Timing of Application**

Make postemergence applications of **Basagran T/O** early, when weeds are small and actively growing and before weeds reach the maximum size listed in the **Application Rate Table**. Early application to weeds produces the most beneficial effect on weed control (exception: yellow nutsedge and Canada thistle), allows use of the lower rate (depending on weed species), and makes it easier to obtain thorough spray coverage. Delay in application which permits weeds to exceed the maximum size stated will result in inadequate control.

Do not cultivate or mow within five days before or after application of **Basagran T/O**.

**Water Volume**

Apply recommended rates of **Basagran T/O** with a minimum of 0.5 gallon of water per 1000 square feet.

**Mixing**

Fill the tank of a thoroughly clean sprayer half to two-thirds full with clean water. Add **Basagran T/O** and shake or stir the spray solution so that **Basagran T/O** and water mix thoroughly.

Mix only enough spray solution for one usage; a fresh spray mixture should be used each application.

**Addition of Oil Concentrate**

A nonphytotoxic oil concentrate (commonly referred to as oil concentrate) may be added to the spray tank for certain weed problems. The oil concentrate must contain either a petroleum or vegetable oil base and must meet the following criteria: 1) be nonphytotoxic, 2) contain only EPA-exempt ingredients, 3) provide good mixing quality, and 4) be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers which provide good mixing quality. For vegetable oil concentrates, it has been observed that highly refined vegetable oils are more satisfactory than unrefined vegetable oils.

With the addition of oil concentrate to **Basagran T/O**, a slight leaf burn may occur when relative humidity and temperature are high. Refer to your supplier of **Basagran T/O** for information concerning successful local experience prior to purchasing any oil concentrate.

**Rate of Oil Concentrate**

For 0.5-1.0 gallons per 1,000 square feet, use 0.75 fluid oz. (5 teaspoons).

For 1.0-2.0 gallons per 1,000 square feet, use 1.5 fluid oz. (10 teaspoons).

**Mixing**

Fill tank of a thoroughly clean sprayer half to two-thirds full with clean water. Add **Basagran T/O** and shake or stir the spray solution so that **Basagran T/O** and water mix thoroughly. Add the oil concentrate and the remaining volume of water. Again, shake or stir the spray solution so that the **Basagran T/O**, oil concentrate, and water mix thoroughly. Mix only enough spray solution for one usage; a fresh spray mixture should be used each application.

**Restrictions and Limitations**

Do not apply **Basagran T/O** to desirable plants that have been subject to stress conditions such as hail damage, flooding, drought, extreme heat or widely fluctuating temperatures, as crop injury may result.

Do not apply **Basagran T/O** if desirable plants show injury (leaf phytotoxicity and/or plant stunting) produced by any other prior herbicide applications, because this injury may be enhanced and/or prolonged.

Do not apply **Basagran T/O** during prolonged periods of drought or during unseasonably cold weather, as unsatisfactory weed control may result. Rainfall or overhead irrigation soon after application (within 8 hours) may nullify the effectiveness of **Basagran T/O**.

Do not apply more than 1.5 fluid ounces of **Basagran T/O** per 1000 square feet per calendar year.

Do not exceed a total of 0.367 ounce of active ingredient (bentazon) per 1,000 square feet per application or 0.73 ounce of active ingredient (bentazon) per 1,000 square feet per calendar year. One fluid ounce of **Basagran T/O** contains 0.5 ounce of bentazon.

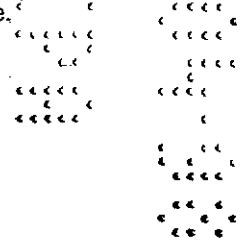
Clean sprayer thoroughly prior to application of **Basagran T/O**, particularly if a herbicide was used which has the potential to injure the ornamental plants to be sprayed with **Basagran T/O**.

**Post-directed Applications**

**Basagran T/O** should be applied when weeds are actively growing and before they reach the maximum size listed in the **Application Rate Table for Ornamental Sites**, page 5.

**Basagran T/O** should be applied around landscape and ornamental trees, shrubs, flowers, and other plants as a directed spray and away from the foliage of desired plants, unless otherwise directed.

Injury may occur with post-directed application of **Basagran T/O** when used under the tree line or over the roots of sycamore and over the roots of rhododendron. Do not use if the risk of injury to these plants is not acceptable.



**Ornamental Sites**

(Not registered for use in California)  
**Basagran® T/O herbicide** may be applied over-the-top of certain ornamental species listed in **Table 2**.

**Notice to User**

Due to variability within species and in application techniques neither the manufacturer nor the Seller has determined whether or not **Basagran T/O** can be safely used on all nonbearing food crops, ornamentals, nursery, and other non-food crops under all conditions. It is, therefore, recommended that the user should determine if **Basagran T/O** can be used safely prior to broad use.

**Table 2: Ornamental Species for Over-the-Top Applications**

Common Name	Scientific Name
Ajuga	<i>Ajuga sp.</i>
Arborvitae*	<i>Thuja occidentalis</i>
Boxwood "Winter Gem"	<i>Buxus japonica</i>
Dusty Miller	<i>Centaurea cineraria</i>
Holly, Burford "Burfordii"	<i>Ilex cornuta</i>
Holly, "Compacta"	<i>Ilex crenata</i>
Holly, "Dwarf Burford"	<i>Ilex cornuta</i>
Impatiens "Accent Carmine"	<i>Impatiens sp.</i>
Impatiens "Balsam"	<i>Impatiens balsamina</i>
Ivy, English	<i>Hedera helix</i>
Liriope, Green	<i>Liriope muscari</i>
Liriope	<i>Liriope spicata</i>
Marigold, "Aurora Gold"	<i>Tagete erecta</i>
Mugo pine*	<i>Pinus mugo mugo</i>
Oak, red*	<i>Quercus rubra</i>
Ornamental cabbage pansy	<i>Brassica sp.</i>
Ornamental cabbage "colorup"	<i>Brassica oleracea</i>
Pachysandra	<i>Pachysandra terminalis</i>
Petunia "Madness Plum"	<i>Petunia hybrida</i>
Petunia "Ultra White"	<i>Petunia hybrida</i>
Snapdragon "L. Scarlet"	<i>Antirrhinum majus</i>
Yew, Japanese "Densiformis"	<i>Taxus cuspidata</i>
Yew "Hatfieldii"	<i>Taxus media</i>
Yew "Hicks"	<i>Taxus media</i>

\* Make no more than one application per calendar year.

**Special Directions for Other Weed Problems (Not registered in California)**

<p><b>Canada Thistle</b>            Apply 0.75 fluid ounces per 1000 square feet of <b>Basagran T/O</b> when plants are from 8 inches tall to the bud stage. Make a second application at the same rate 7-10 days later.</p>
<p><b>Yellow Nutsedge</b>            Two applications are preferred for best results. Apply 0.55-0.75 fluid ounces per 1000 square feet of <b>Basagran T/O</b> when plants are 6-8 inches tall. If needed, make a second application at the same rate 7-10 days later. Add oil concentrate to the spray solution of <b>Basagran T/O</b>/water for each application, according to the <b>Directions for Use</b>.</p>
<p><b>Musk Thistle</b>            Apply 0.75 fluid ounces per 1000 square feet of <b>Basagran T/O</b> when plants are in the rosette stage no larger than 10 inches in diameter. Make a second application at the same rate if needed. Add oil concentrate to the spray solution of <b>Basagran T/O</b>/water for each application, according to the <b>Directions for Use</b>.</p>

**Table 3: Application Rate Table for Ornamental Sites (Not registered in California)**

Weeds Controlled	Application Rates for Weed Growth Stage			
	0.55 fluid ounces (3.5 teaspoons) per 1000 square feet		0.75 fluid ounces (5 teaspoons) per 1000 square feet	
	Leaf Stage	Maximum Height	Leaf Stage	Maximum Height
Balloonvine	2-4	2"	4-6	3"
Beggarticks	Up to 6	6"	6-8	8"
Bristly Starbur	Not Recommended	—	4-6	3"
Cocklebur	2-6"	6"	6-10	10"
Coffee Senna	Not Recommended	—	Up to 1 pinnate	2"
Common Groundsel	Not Recommended	—	2-10	6"
Common Purslane	Up to 4	1"	4-6	2"
Common Ragweed	Not Recommended	—	4-6	3"
Dayflower	Up to 6	4"	6-10	8"
Devilsclaw	Not Recommended	—	Up to 6	3"
Galinsoga	Not Recommended	—	Cotyledon to 6	2"
Giant Ragweed	Not Recommended	—	Up to 4	6"
Jimsonweed	Up to 6	6"	6-10	10"
Ladysthumb	Up to 6	6"	6-10	10"
Pennsylvania Smartweed	Up to 6	6"	6-10	10"
Prickly Sida or Teaweed	Up to 6	3"	6-8	4"
Redweed	4-6	6"	6-10	8"
Sesbania	Not Recommended	—	3-5'	3"
Shepherdspurse*	Up to 6	4"	6-10	8"
Spurred Anoda	Up to 6	3"	6-8	4"
Spurweed/Lawn burweed	Not Recommended	—	2-6	3"
Tropic Croton	Up to 2	2"	2-4	4"
Velvetleaf	Up to 4	2"	4-6	5"
Venice Mallow	Up to 6	2"	6-10	4"
Wild Buckwheat	Up to 4	3"	4-6	5"
Wild Mustard	Up to 6	4"	6-10	8"
Wild Poinsettia	2-4	4"	4-8	6"
Wild Sunflower	Up to 4	5"	4-6	8"

For additional weeds see **Special Directions** section.  
 \* Do not treat earlier than leaf stage shown and do not count cotyledon leaves.  
 † Do not treat rosette before seed stalk appears.

**Appendix  
Broadleaf Weeds Discussed in this Label**

Common Name	Scientific Name
Balloonvine	<i>Cardiospermum halicacabum</i>
Beggarticks	<i>Bidens frondosa</i>
Bristly Starbur	<i>Acanthospermum hispidum</i>
Chickweed, Common	<i>Stellaria media</i>
Chickweed, Mouse-ear	<i>Cerastium vulgatum</i>
Cocklebur	<i>Xanthium strumarium</i>
Coffee Senna	<i>Cassia occidentalis</i>
Dandelion	<i>Taraxacum officinale</i>
Dayflower	<i>Commelina spp.</i>
Devilsclaw	<i>Proboscidea louisianica</i>
Florida Pusley	<i>Richardia scabra</i>
Galinsoga	<i>Galinsoga spp.</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Jimsonweed	<i>Datura stramonium</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Morningglory	<i>Ipomoea spp.</i>
Onion/Garlic	<i>Allium spp.</i>
Pennsylvania Smartweed	<i>Polygonum pennsylvanicum</i>
Pigweed	<i>Amaranthus spp.</i>
Plantain	<i>Plantago spp.</i>
Prickly Sida/Teaweed	<i>Sida spinosa</i>
Purslane, Common	<i>Portulaca oleracea</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melochia corchorifolia</i>
Sesbania	<i>Sesbania exaltata</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Spurge	<i>Euphorbia maculata</i>
Spurred Anoda	<i>Anoda carlostata</i>
Spurweed/Lawn Burweed	<i>Saliva pterosperma</i>
Thistle, Canada	<i>Cirsium arvense</i>
Thistle, Musk	<i>Carduus nutans</i>
Tropic Croton	<i>Croton glandulosus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Wild Buckwheat	<i>Polygonum convolvulus</i>
Wild Mustard	<i>Sinapsis arvensis</i>
Wild Poinsettia	<i>Euphorbia heterophylla</i>
Wild Sunflower	<i>Helianthus annuus</i>
Wood Sorrel, Yellow	<i>Oxalis stricta</i>

**Sedges Discussed in this Label**

Common Name	Scientific Name
Annual Sedges	<i>Cyperus spp.</i>
Purple Nutsedge	<i>Cyperus rotundas</i>
Yellow Nutsedge	<i>Cyperus esculentus</i>

**Conditions of Sale and Warranty**  
The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Turf injury, ineffectiveness or other unintended consequences may result, because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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NVA 96-4-4-0007  
EPA approved

BASF Corporation  
P.O. Box 13528  
Research Triangle Park, NC 27709



Pm 23

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**BASF**

**ACCEPTED**

MAR 12 1998

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 7969-45

**Fortune**<sup>®</sup>  
herbicide

## Postemergence Herbicide

For use in established turf

A soluble liquid formulation containing:

**Active ingredient**

Sodium salt of bentazon* (3-(1-methylethyl)-1H-2,1,3-benzothiadiazin-4(3H)-one 2,2-dioxide) .....	44.0%
<b>Inert ingredients</b> .....	56.0%
<b>Total</b> .....	100.0%

\*Equivalent to 4 pounds of bentazon per gallon.

EPA Reg. No. 7969-45

### KEEP OUT OF REACH OF CHILDREN. CAUTION

**Statement of Practical Treatment**

**If swallowed:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or if available, by administering syrup of ipecac. If person is unconscious, do not give anything by mouth and do not induce vomiting.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

See inside booklet for complete **Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty.**

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the **Directions For Use** section for information about this standard.

**Net contents: 1 pint, 1 gallon**



**Precautionary Statements Hazards to Humans (and Domestic Animals)**

**Caution:** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

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

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards**

For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

Bentazon, which is present in this product, is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Notice:** It is a violation of federal law to use any pesticide in a manner that results in the death of an endangered species or in adverse modification of their habitat.

**Directions For Use - All Sites**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or Tribe, consult the agency responsible for pesticide regulation.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

**Nonagricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, nurseries, or greenhouses.

For non-WPS occupational use:

- **Do not enter or allow others to enter the treated area until sprays have dried.**

For homeowner use:

- **Do not allow persons or pets to enter the treated area until sprays have dried.**

**Storage and Disposal**

Do not allow this product to freeze. Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Triple rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state or local authorities, by burning. If burned, stay out of smoke.

Do not re-use empty container.

**In Case of Emergency**

In case of large-scale spillage regarding this product, call: CHEMTREC 800-424-9300 BASF Corporation 800-832-HELP

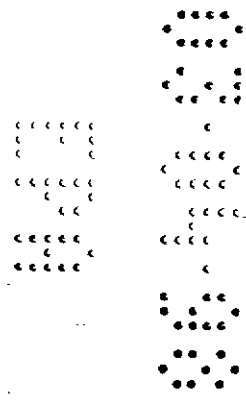
- In case of medical emergency regarding this product, call:
1. Your local doctor for immediate treatment.
  2. Your local poison control center (hospital).
  3. BASF Corporation 800-832-HELP

**Established Turf**

**General Information**

**Fortune™ herbicide** may be used on established bluegrass, fescue, bentgrass, Bermudagrass, bahiagrass, centipedegrass, zoysiagrass, ryegrass, and St. Augustinegrass.

**Fortune** is intended for postemergence control of yellow nutsedge. **Fortune** does not control grasses. **Fortune** is effective mainly through contact, therefore, all plants must be thoroughly covered with spray.



**Application Information**

Apply **Fortune**<sup>®</sup> herbicide post-emergently to actively growing yellow nutsedge under good soil moisture conditions. If desired control of yellow nutsedge is not obtained with the first application, make a second application in 10-14 days or when new growth appears.

In the northern United States, yellow nutsedge can emerge from May through July, while in the southern United States, nutsedge can emerge throughout the year.

Therefore, initial applications should be planned when most plants have emerged. If new plants emerge later in the season, make a second application of **Fortune** according to the label directions. In unmowed turf, make the first application after emergence but before yellow nutsedge is 8 inches tall. Thorough spray coverage of yellow nutsedge is essential for maximum control.

For optimum control, do not mow within 5 days of application.

Use a minimum water volume of 1 gallon per 1,000 square feet (40 gallons per acre) with a minimum pressure measured at the nozzle of 40 psi.

**Application Rate:** See Table 1 for application rate of **Fortune**.

**Addition of Oil Concentrate**

A nonphytotoxic oil concentrate (commonly referred to as oil concentrate) may be added to the spray tank for certain weed problems. The oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test (see below), and
- be successful in local experience.

The exact composition of suitable products will vary, however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have been observed to be more satisfactory than unrefined vegetable oils. For additional information, see **Jar Test for Estimating Suitability of Oil Concentrates**.

**Table 1. Application Rate Table for Turf Application Rates<sup>a</sup>**

Area to be Sprayed	200 sq. ft.	400 sq. ft.	1,000 sq. ft.	1 acre
<b>Fortune</b>	1 teaspoon	2 teaspoons	5 teaspoons (0.75 fl. oz.)	2 pints
Water <sup>b</sup>	0.2 gallon (1.6 pints)	0.4 gallon (3.2 pints)	1 gallons	40 gallons

<sup>a</sup> For yellow nutsedge, apply no more than 0.75 fluid ounces per 1,000 square feet (2 pints per acre) at one time. Make a second application 10-14 days later. Apply no more than 1.5 fluid ounces per 1,000 square feet (4 pints per acre) in one season. For perennial ryegrass, apply no more than 0.75 fluid ounces per 1,000 square feet (2 pints per acre) at one time. Make a second application no less than 21 days later.

<sup>b</sup> Quantity of water required to uniformly spray this area with your sprayer. If unknown, refer to section **Sprayer Calibration Suggestions**.

Adding oil concentrate to **Fortune** may cause a slight leaf burn when relative humidity and temperature are high. Refer to your supplier of **Fortune** for information concerning successful local experience before purchasing any oil concentrate.

**Rate of Oil Concentrate**

Use 0.75 fluid ounce per 1,000 square feet or 2 pints per acre.

**Jar Test for Estimating Suitability of Oil Concentrates:**

- 1. Water Supply:** Use only water from the intended source at the source temperature.
- 2. Amount of Water in Jar:**  
**Ground Application:** For 1 gallon per 1,000 square feet spray volume, use 6 1/2 cups (1600 ml) of water. For other spray volumes, adjust proportionately to above.
- 3. Amount of herbicide and oil concentrate to add:** Add 2 teaspoons each of herbicide and oil concentrate for each 0.75 fluid ounce per 1,000 square feet of recommended label rate.
- 4. Add components** in the following sequence, gently mixing between additions:
  - 1. Fortune**
  - Tank mix product, if used
  - Oil concentrate
- 5. Cap jar, invert 10 cycles, let stand for 15 minutes, evaluate.**
- 6. Evaluation:** An ideal tank mix combination will be uniform. The suitability of the oil concentrate is questionable if any of the following are observed:
  - Free oil at the surface - film or globules.
  - Flocculation - fine particles which may be suspended in the liquid or found as a precipitated layer at the bottom of the jar.
  - Clabbering - thickening texture (coagulated) resembling yogurt or a curd-like texture as with cottage cheese.

**Spray Equipment**

Hand-held pump-up, knapsack, or hose-end type sprayers are suitable for applying **Fortune**.

Do not spray during windy conditions because spray drift may cause damage to adjacent ornamental plants. Rinse equipment with soap and water after use.

**Mixing**

Fill the tank of a thoroughly clean sprayer one-half to two-thirds full of clean water. Start agitation, add **Fortune**, and allow the components to mix thoroughly. Add oil concentrate and the remaining volume of water. Maintain constant agitation during application.

Mix only enough spray solution for one usage. A fresh spray mixture should be used each time.

**Sprayer Calibration Suggestions Hand Sprayers:**

1. Stake off a 400 square foot area of turf for practice. This is an area 20' (7 steps) x 20'.
2. Add a measured quantity (1.5 gallons for example) of water to the sprayer and uniformly spray the 400 square foot area. Measure water remaining to determine the amount applied per 400 square foot area. (**Note:** A minimum of 3 pints per 400 square feet is recommended).
3. Prepare the spray solution according to **Table 1, Application Rates for Turf**.

**Example:** Assume that in **Step 2** the 400 square foot area was uniformly covered with 0.5 gallon of water. Referring to the table, add 2 teaspoons of **Fortune** per 0.5 gallon of water for each 400 square foot of turf to be sprayed. (**Note:** Using this mix to spot spray individual weeds may result in an excessive dosage and possible turf injury.)

**Hose-end Applicator**

A procedure similar to the above may be followed for calibrating hose-end sprayers. Half-fill container with water to an even mark on the "gallons" scale and note the volume level. Spray the 400 square foot area, noting the new reading, and thereby determine the amount of water used to spray the area. Then proceed as in Step 3 above.

**Restrictions and Limitations**

Do not apply **Fortune**® herbicide to turf that has been under stress such as drought, cold temperature or injury from other herbicides or pesticides.

Do not apply **Fortune** to any newly seeded or newly sprigged turf until seedlings or sprigs are well established, as injury may result.

Not recommended for use on golf course greens or collars.

In perennial ryegrass, apply no more than 0.75 fluid ounces per 1,000 square feet (2 pints per acre) at one time and make subsequent applications no less than 21 days later.

Do not apply more than 1.5 fluid ounces of **Fortune** per 1000 square feet (4 pints per acre) in one season.

Do not exceed a total of 1 pound of active ingredient (bentazon) per acre per application or 2 pounds of active ingredient (bentazon) per acre per season. One pint of **Fortune** contains 0.5 pound of bentazon.

Do not exceed a total of 0.367 ounce of active ingredient (bentazon) per 1,000 square feet per application or 0.73 ounce of active ingredient (bentazon) per 1,000 square feet per season. One fluid ounce of **Fortune** contains 0.5 ounce of bentazon.

Rainfall or sprinkler irrigation within 8 hours after application may reduce the effectiveness of **Fortune**.

Physical incompatibility, reduced weed control or turf injury may result from mixing **Fortune** with pesticides (fungicides, herbicides, insecticides or miticides), additives or fertilizers.

BASF does not recommend using **Fortune** tank mixes other than those listed on BASF labels, supplemental labeling, or technical bulletins.

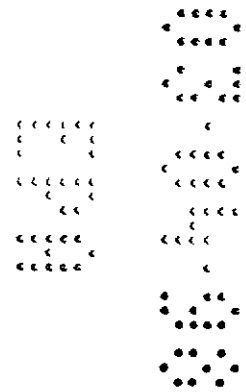
Local professional authorities may be a source of information when using other than BASF recommended combinations. Otherwise, test a small area of the site with the desired tank mix combination and allow 7-10 days to evaluate the potential for injury. Do not apply **Fortune** plus an oil concentrate with other pesticides whose labels caution against their use with oil adjuvants.

Clean the sprayer thoroughly before applying **Fortune**, particularly if a herbicide with the potential to injure the turf to be sprayed with **Fortune** was previously used.

When treating turf with **Fortune**, avoid over-the-top spraying of adjacent ornamental trees, shrubs, and flowers. Spraying near the base of established ornamental trees, shrubs, and flowers should not result in injury except for sycamore and rhododendron.

**Special Information for Irrigated Areas**

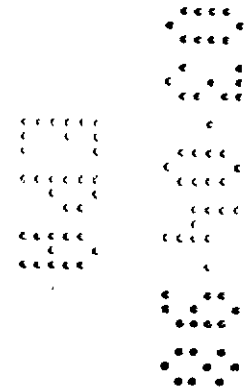
If moisture is not adequate for active weed growth, irrigate before applying **Fortune**® herbicide. Weeds growing under drought conditions usually are not satisfactorily controlled.



597

Appendix  
Sedges Discussed in this Label

Common Name	Scientific Name
Yellow Nutsedge	<i>Cyperus esculentus</i>



607

**Conditions of Sale and Warranty**

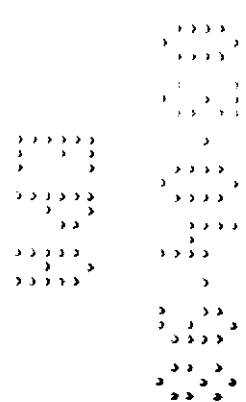
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787

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