

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed. Do not get in eyes or on skin. Wash thoroughly after handling or using. If on skin, wash with plenty of water. If in eyes, flush with plenty of water. Get medical attention if irritation persists.

#### ENVIRONMENTAL HAZARDS

Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

#### DIRECTION FOR USE

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

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Pesticide, spray mixture or rinse that cannot be used or chemically recovered should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide container, or bury in a safe place. Consult Federal, State or Local Disposal Authorities for approved alternate procedures such as limited open burning.

#### GENERAL INFORMATION

A selective preemergence herbicide for control of annual grass and certain broadleaved weeds in vegetable crops and ornamental turf. Read entire label carefully and use only as directed.

DACTHAL WP is a 75 percent wettable powder formulation for use in preemergence application for control of crabgrass and other annual grasses and certain broadleaved weeds on mineral soils in vegetables, strawberries, agronomic crops, ornamentals and turf.

**Prevention and Application of the Spray:** DACTHAL WP should be thoroughly mixed in the spray tank with water to provide for broadcast application of at least 20 gallons of water per acre, depending on equipment and local practices. In order to insure uniform suspension in the spray tank, DACTHAL WP should be pre-mixed in a clean container at the rate of about 12 pounds to 3 gallons of water. This mixture should be stirred until a slurry is formed and then added to the spray tank during or after filling. Adequate agitation should be maintained during filling and spraying to keep material in uniform suspension. Use nozzles suitable for applying wettable powders so that the spray can be uniformly distributed over the properly prepared soil surface. Any screen or strainer in spray equipment should be no finer than 60 mesh to prevent clogging. It is essential that the spray be properly calibrated before making applications. Standards low pressure (30-50 psi) boom-type sprayers are recommended.

**Aircraft Application:** It is recommended that DACTHAL WP be applied in a minimum of 10 gallons of spray per acre. Aircraft should be equipped with pumps with sufficient capacity to deliver at least 10 gallons per acre. Placement of nozzles should provide a uniform spray pattern. DACTHAL WP should be premixed in a nurse tank or mixing tank equipped with mechanical or by-pass agitation. Mixture can then be pumped in to the aircraft. Screens on mixing tank should be no finer than 50 mesh. Adequate agitation should be maintained in the mixing tank as well as the aircraft throughout the spraying operation. Regulations governing aerial application of herbicides are in effect in many states. Consult local regulatory agencies concerning requirements before making applications. Avoid spray drift to adjacent fields; particular care should be exercised when adjacent fields contain edible crops or those that will be fed or grazed by livestock. Spray only on still days.

A minimum of one-third to one-half inch of water, either as rain or irrigation is necessary to activate DACTHAL WP and thereby obtain preemergence control of weeds specified. Normally, water must be applied within 3 to 5 days of application if sufficient rainfall does not occur. However, when surface soil is dry but subsurface soil contains enough moisture to germinate weeds, water should be applied immediately. If furrow irrigation is used, the top of the bed must be thoroughly wet. If rainfall during this period does occur and irrigation cannot be made, shallow incorporation, when recommended, will aid in weed control.

**Soil Preparation:** Prior to making application, the soil should be cultivated to provide a weed-free and uniform surface since DACTHAL WP herbicide is effective only when applied before weed seed germination occurs. Unless incorporated, DACTHAL WP should be applied within two to three days following cultivation, to prevent subsurface germinating weeds from becoming established. When cultivating between rows, use shields on cultivator to prevent untreated soil from covering treated bands. Cultural practices, such as forming crop beds, should be completed prior to DACTHAL WP application in order to avoid exposing untreated soil in the bottom of the furrow and concentrating the sprayed soil within the bed.

**Soil Incorporation:** (Do not incorporate deeper than 2 inches.) Shallow soil incorporation, when recommended, (see specific crop recommendation) often gives more consistent results. Depending on crop and time of application, several incorporation methods may be used.

**Preplant Incorporation:** This type of incorporation often provides better weed control on irrigated land, and also on non-irrigated land when dry weather is anticipated following planting. When recommended, DACTHAL WP can be sprayed on the soil surface and then incorporated into the soil using a disc harrow or related tillage equipment. To insure complete incorporation, double disc in two directions. For incorporating banded treatments, hooded power driven rotary tillers or ground tillers are essential.

**Delayed Preemergent Incorporation:** For crops where preplant incorporation can be used (see recommendation), incorporation at this time should be used when adequate rainfall or irrigation is not available within 3 to 5 days after planting. Lightly incorporate ( $\frac{1}{2}$  to 1 inch deep) with drag harrow, rotary hoe or other suitable tillage equipment.

**Layby Incorporation:** (Just prior to stage when plant growth would prevent further cultivation). Cultivate soil to remove established weeds. Apply DACTHAL WP over top of foliage and lightly incorporate with suitable equipment.

**Rates of Application and Weeds Controlled:** DACTHAL WP is recommended at rates of 6-14 lbs./A. depending on soil type and weeds to be controlled. The following table outlines general recommendation for the use of DACTHAL WP on various soil types. The maximum rate for each soil type should be used when moderately susceptible weeds are present. Specific recommendations for each crop should be consulted. DACTHAL WP should not be applied to certain crops under conditions of cool, wet weather when plants are not actively growing. Refer to specific label recommendations for seeded melons, tomatoes, peppers, onions and eggplants for further details.

Soil Type	Organic Matter %	Broadcast Rate of DACTHAL WP/A
Light-sand or sandy loam	0-3	6-8 pounds
Medium-silt loam	0-3	8-10 pounds
Heavy-clay loam	0-3	10-14 pounds
Heavy-silt loam	3-6	12-16 pounds

The following weeds are grouped according to their susceptibility to DACTHAL WP.

**Susceptible (controlled at recommended rates):** Common lambsquarters, smooth crabgrass, large crabgrass, lovegrass, carpetweed, witchgrass, purslane, Florida pusley, yellow foxtail, common chickweed.

**Moderately Susceptible (maximum rates required for effective control):** Redroot pigweed, sandbur, dodder, barnyardgrass, goosegrass, browntop panicum, groundcherry, annual bluegrass, johnsongrass (from seed), nodding spurge, spotted spurge and prostrate spurge.

**Tolerant:** Velvetleaf, common ragweed, johnsongrass established from rhizomes, mustard, jimsonweed, galinsoga, smartweed, nutsedge.

**Replanting:** Replanting crops other than those included on this label in DACTHAL WP treated soil within 8 months of application may result in crop injury. If replanting is required because of an early crop failure, the planting of onions, seeded cucurbits, potatoes, tomatoes, eggplants or pepper at this time may result in crop injury. However, all crops on this label may be planted following harvest of a DACTHAL WP treated crop.

**Ornamental Turf:** Application at the rate of 16 lbs. of DACTHAL WP in 40 to 100 gallons of water per acre (1 lb./3 to 7 gals./3000 sq. ft.) gives excellent control of crabgrass and other weeds as listed on this label. One application applied in early spring before weed seed germination usually provides seasonal control. Crabgrass seed germination usually coincides with the time when Forsythia blossoms start to fall. In areas which commonly experience stands of late-germinating crabgrass and other annual weedy grasses, a second application at half the regular rate can be safely made two months after the first application. In order to control annual bluegrass (*Poa annua*) and other erratic or late-germinating grasses and weeds in northern states, a late summer or early fall application before weed seed germination of 20 pounds of DACTHAL WP in 40 to 100 gallons of water per acre (1/2 lb./1 to 2 gals./1000 sq. ft.) should supplement the early spring application. Earlier applications are required in southern United States. Consult agricultural experiment station or extension service weed specialist for date *Poa annua* seed germinates in your area and make application at least two weeks prior to this date.

Early spring application of DACTHAL WP may be made to new turfgrass seedlings after the grasses have exhibited a uniform greening of the newly sprouted grass, preferably when 1 to 2 inches in height. Such DACTHAL WP applications give control of crabgrass without injury to newly-emerged grass. Fall sowing of permanent grasses can follow early spring application of DACTHAL WP.

Where some spring seeding is necessary, there should be a delay of approximately 60 days after the application of most preemergence herbicides, including DACTHAL WP. This delay increases the survival of desirable grasses.

DACTHAL WP is not recommended for use on putting-greens.

DACTHAL WP is not recommended for use on bentgrasses mowed at putting-green height. For control of creeping speedwell (*Veronica filiformis*), apply 16 pounds of DACTHAL WP in 40 to 100 gallons of water per acre as a postemergence spray when creeping speedwell is growing vigorously. Spring or early fall applications are usually suitable, provided temperatures are between 65° and 90°F. and there is ample soil moisture. Thorough coverage is essential. Delayed control of creeping speedwell is to be expected and will be manifested first by a gradual loss of color and vigor.

**Nursery Stock:** DACTHAL WP can be applied to a wide range of nursery stock at an application rate of 14 to 20 pounds in 50 to 100 gallons of water per acre of area treated (1 pound in 1000 square feet).

Applications should be made to soil previously cultivated to a uniform depth. There should be a delay of approximately following lining-out of stock. With established plantings, application should be made to soil surface after cultivation to remove existing weeds. Where possible, stock should be transplanted to a new site. The application may prove beneficial for control of fall-germinating weeds, particularly following cultivation, delayed control up to three months or more after transplanting, depending upon proper application.

For Use on Turf:	To Control	When to Apply	Rate of DACTHAL WP	Remarks
Established turf	Crabgrass	Early Spring, before crabgrass and other annual weed seeds germinate.	14 lbs./Acre or 1 lb./3 to 7 gals./3000 sq. ft.	Apply before Forsythia blossoms start to fall. A second application at half the recommended rate may be made 2 months after the first application if necessary.
	Annual bluegrass ( <i>Poa annua</i> )	Late summer or early fall in Northern states before weed seed germination. Consult agricultural experiment station or extension service weed specialist for date <i>Poa annua</i> germinates in your area and make application at least two weeks prior to this date.	20 lbs./Acre or 1/2 lb./1 to 2 gals./1000 sq. ft.	Should be used following an early spring application for crabgrass control.
	Creeping Speedwell ( <i>Veronica filiformis</i> )	As a postemergence spray in spring or early fall when creeping speedwell is growing vigorously, there is ample soil moisture and temperature is between 65° and 90°F.	16 lbs./Acre or 1/2 lb./1 to 2 gals./1000 sq. ft.	Apply spray to obtain thorough coverage of foliage. Delayed control of creeping speedwell, approximately 30 days, is to be expected and will be noticed first by a gradual loss of color and vigor.
Newly seeded turf	Crabgrass	After new turfgrass seedlings have exhibited a greening of the newly-sprouted grass (about 1 to 2 inches high).	4 lbs./Acre	Allows crabgrass control without injury to the new turf.

(75% WETTABLE POWDER)

ACTIVE INGREDIENT

DIMETHOXYPROPYL

INERT

TRADE NAME

KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed. Get medical attention if symptoms develop.

See Side Panel

GROWTH REGULATOR

# Dacthal

75%

# **WETTABLE POWDER HERBICIDE**

**(75% WETTABLE POWDER)**

**ACTIVE INGREDIENTS:**

Dimethyl tetrahydrophthalimide	.....	75.0%
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**INERT INGREDIENTS:**

.....	.....	25.0%
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**KEEP OUT OF REACH OF CHILDREN**

**CAUTION:**

**Harful if swallowed. Avoid contact with eyes or skin. Wash after handling or using. In case of contact, immediately flush eyes or skin with plenty of water.**

**Get medical attention if irritation persists.**

**See Side Panel For Additional Precautionary Statements.**

The image shows the Griffin logo on the left, consisting of the word "Griffin" in a bold, black, sans-serif font. To the right of the logo is a large, solid black rectangular area containing the company's name and address. The text is in a white, bold, sans-serif font. It reads "GRIFFIN CORPORATION" on the first line, "VALDOSTA, GEORGIA 31601" on the second line, and "NET CONTENTS" on the third line.

E.P.A. Reg. No. 1812-256  
E.P.A. Est. No. 1812-GA-3

**Caution:** After DACTHAL WP treatment, wait approximately 60 days before any new seeding is undertaken. Do not use on Dichondra. See recommendations on bentgrass before using on this species.

**DACTHAL WP** is specifically recommended for weed control with the following

#### **What are the best HAL WPs to Use in Treating Small Areas?**

Area to be treated*	Recommended rate of DACTHAL WP lb/A	Amount of DACTHAL WP to Apply	Struck-off (level) Tablespoons
1000 sq. ft. (From 1 to 2 gallons of water should be used to spray 1000 sq. ft.)	14 (heavy soil) 12 10 (medium soil) 8 6 (sandy soil)	5 oz. 4½ oz. 3½ oz. 3 oz. 2 oz.	22 19 16 13 10
250 sq. ft. (From ¼ to ½ gallon of water should be used to spray 250 sq. ft.)	14 (heavy soil) 12 10 (medium soil) 8 6 (sandy soil)	1½ oz. 1 oz. ¾-1 oz. ¾ oz. ½ oz.	5½ 4½ 4 3 2½

Note: In treating small areas it is important to use care in measuring out required quantity for area to be treated, properly mixing it in water, and keeping it adequately agitated during application.

\*Other size areas to be treated can be calculated from the above table. For example: To treat 5000 sq. ft. at the 10 lbs./acre rate, use 80 tbsp. ( $5 \times 16$ ) in 5 to 10 gallons of water ( $5 \times 1 \times 2$ ).

To treat 800 sq. ft. at the 12 lbs./acre rate, use 11.4 tbsps. (0.6 x 19) in 0.6 to 1.2 gallons of water (0.6 x 1 to 2).

Rates of application can be reduce by bending

**See Conversion Chart**

**Conversion Chart for DACTHAL WP**  
For a 12-inch band of spray, use this amount of DACTHAL WP per acre:

If overall rate is:				
Row Width	8 lbs. per acre	8 lbs. per acre	16 lbs. per acre	12 lbs. per acre
24 inches	3 pounds	4 pounds	5 pounds	6 pounds
32 inches	2½ pounds	3 pounds	3½ pounds	4½ pounds
38 inches	2 pounds	3¾ pounds	2½ pounds	4 pounds
40 inches	1¾ pounds	2½ pounds	3 pounds	3½ pounds

**Special Precautions:** Do not feed treated foliage to livestock or graze treated areas. Applied according to directions and under conditions favorable to good plant growth, DACTHAL WP will not harm crops for which its use is recommended. However, conditions such as high salt concentration, seedling disease, cool weather, deep moisture or drought may injure or weaken crops normally tolerant to DACTHAL WP, thereby increasing the possibility of herbicidal damage. Under any of these conditions, one or more of the following may result: delayed crop development, reduced yield, or reduced quality.

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**WARRANTY AND LIMITATION OF DAMAGES**

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions sent or furnished conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of Fitness or of Merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for damages exceed the purchase price of the material as to which a claim is made.

**Caution:** After DACTHAL WP treatment, wait approximately 60 days before any new seeding is taken. Do not use on Dichondra. See recommendations on bentgrass before using on this species.

**DACTHAL WP** is specifically recommended for weed control with the following:

#### **What Will You Use in Treating Small Areas?**

Area to be treated*	Recommended rate of DACTHAL WP 5/A	Amount of DACTHAL WP to Apply	Struck-off (level) Tablespoons
1000 sq. ft. (From 1 to 2 gallons of water should be used to spray 1000 sq. ft.)	14 (heavy soil) 12 10 (medium soil) 8 6 (sandy soil)	6 oz. 4½ oz. 3½ oz. 3 oz. 2 oz.	22 19 16 13 10
200 sq. ft. (From ½ to ¾ gallon of water should be used to spray 200 sq. ft.)	14 (heavy soil) 12 10 (medium soil) 8 6 (sandy soil)	1½ oz. 1 oz. ¾-1 oz. ¾ oz. ½ oz.	5½ 4½ 4 3 2½

**Note:** In treating small areas it is important to use care in measuring out required quantity for area to be treated, properly mixing it in water, and keeping it adequately agitated during application.

\*Other size areas to be treated can be calculated from the above table. For example: To treat 5000 sq. ft. at the 10 lbs./acre rates, use 80 topo. (5 x 16) in 8 to 10 gallons of water (5 x 1 x 2).

To treat 500 sq. ft. at the 12 lbs./acre rate, use 11.4 tbsp. ( $0.5 \times 19$ ) in 0.6 to 1.2 gallons of water ( $0.6 \times 1$  to 2).

Reasons of application can be reduced by banding.

#### **See Committee's Chancery**

### **Conversion Chart for DACTHAL WP**

**For a 12-inch band of spray, use this amount of DACTHAL WP per acre:**

If overall rate is:				
Row Width	5 lbs. per acre	8 lbs. per acre	10 lbs. per acre	12 lbs. per acre
24 inches	3 pounds	4 pounds	5 pounds	6 pounds
32 inches	2½ pounds	3 pounds	3½ pounds	4½ pounds
36 inches	2 pounds	3½ pounds	3½ pounds	4 pounds
40 inches	1½ pounds	2½ pounds	3 pounds	3½ pounds

**Special Precautions:** Do not feed treated foliage to livestock or graze treated areas. Applied according to directions and under conditions favorable to good plant growth, DACTHAL WP will not harm crops for which its use is recommended. However, conditions such as high salt concentration, seedling disease, cold weather, deep planting, excessive moisture or drought may injure or weaken crops normally tolerant to DACTHAL WP, thereby increasing the possibility of herbicide damage. Under any of these conditions, one or more of the following symptoms may develop: stunted or uneven development, reduced viability, or reduced quality.

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#### **WARRANTY AND LIMITATION OF DAMAGES**

**WARRANTY AND LIMITATION OF DAMAGES**  
Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of Fitness or of Merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller be liable for any direct, indirect, special, incidental or consequential losses arising from the use of the material as to which a claim is made.

## **RECOMMENDATIONS**

**Any Application of DACTHAL WP Should Be Made  
Prior to Weed Seed Germination**

Crop	When to Apply	Rate	Remarks
Broccoli, Brussels sprouts, cauliflower, cabbage	At seeding or transplanting	*See Rates of Application and Weeds Controlled	Apply uniformly to the soil as a spray. DACTHAL WP can be sprayed directly over transplants without injury. If weeds have emerged, soil should be clean cultivated or weeded prior to application. Can be preplant incorporated.
Field beans, snap beans, mungbeans, Southern peas (black-eyed), and soybeans	At seeding	*See Rates of Application and Weed Controlled	Apply uniformly to the soil as a spray at time of planting. Do not graze on treated areas or feed plant refuse, vines, or threshings to livestock. Can be preplant incorporated.
Seeded melons (cantaloupe, honeydew, watermelon), cucumbers, squash (summer and winter)	When plants have 4-5 true leaves (See Remarks)	*See Rates of Application and Weeds Controlled	Apply only when plants have 4-5 true leaves, are well established, and growing conditions are favorable for good plant growth. If applied earlier than recommended and/or growing conditions are unfavorable, crop injury may result. If weeds have emerged, crop should be cultivated and weeded prior to the DACTHAL WP application. Incorporation not recommended.
Collards, kale, mustard greens, turnips (greens and roots)	At seeding	*See Rates of Application and Weeds Controlled	Apply uniformly to the soil as a spray at time of seeding. Can be preplant incorporated.
Garlic	At seeding or transplanting	*See Rates of Application and Weeds Controlled	Apply uniformly to the soil as a spray. DACTHAL WP can be sprayed directly over transplants without injury. Preplant incorporation not recommended.
Onions	At seeding or transplanting and/or at layby	*See preemergence rate and weeds controlled. In sandy loam soils, however, a maximum preemergence rate of 10 pounds DACTHAL WP per acre is recommended.	Apply uniformly to the soil as a spray. DACTHAL WP can be sprayed directly over transplants without injury. A layby application can be made on onions either alone or in addition to a DACTHAL WP preemergence treatment up to 14 weeks after planting at rates up to 14 lbs./A on any soil type. If weeds emerge prior to layingby, the onions should be cultivated or weeded prior to application. Preplant incorporation not recommended.
Potatoes (whole or cut pieces)	At planting, drag-off or layby	*See Rates of Application and Weeds Controlled	Apply uniformly to the soil as a spray at planting or following planting. If the tops of the beds are to be dragged off, DACTHAL WP should be applied after drag-off. Layby applications can be made up to 8 weeks after planting. If weeds have emerged before application, the crop should be weeded or cultivated prior to application. The initial sprinkler irrigation following DACTHAL WP application should not exceed 1 inch. In the Pacific Northwest under dry condition, DACTHAL WP should not be applied until just prior to the initial sprinkler irrigation. Under furrow irrigation in the Pacific Northwest, shallow incorporation (no greater than ½ inch deep) while the sprouts are still well below the soil surface, may be desirable. Preplant incorporation not recommended. DACTHAL WP not recommended for use on potatoes in California.
Sweet potatoes and yams	At transplanting and layby	*See Rates of Application and Weeds Controlled	Apply uniformly to the soil as a spray at transplanting. DACTHAL WP can be sprayed directly over transplants without injury. Layby application can be made up to 6 weeks after transplanting. If weeds are present, the crop should be weeded or cultivated prior to DACTHAL WP application. Incorporation of layby applications not recommended.
Tomatoes, eggplant and peppers	4-6 weeks after transplanting or on direct seeded plants at 4-6 inches height (See Remarks)	*See Rates of Application and Weeds Controlled	Application uniformly to the soil should be confined to a period of 4-6 weeks after transplanting. Plants should be well established and growing conditions favorable for good plant growth. DACTHAL WP can be sprayed directly over the transplant without injury. If weeds have emerged, the crop should be cultivated or weeded prior to making the DACTHAL WP application. Do not apply to ½ seeded plants until plants are 4-6 inches in height, well established, and growing conditions are favorable for good plant growth.
Strawberries: New Plantings	At transplanting	12 pounds DACTHAL WP per acre.	Apply uniformly to the soil as a spray. For new beds apply 12 pounds at transplanting. Can be preplant incorporated.
Strawberries: Established Plantings	Fall and early Spring	2-12 pounds DACTHAL WP per acre	Application of 2-12 pounds per acre may be applied to control late summer or early fall germinating weeds. Application to established plantings should be made in fall and early spring. Do not apply after first bloom. These applications may be made directly over the plants without injury.
Cotton	At seeding and layby	*See Rates of Application and Weeds Controlled	Apply uniformly to the soil at time of planting. Higher rates of 10-14 pounds are recommended for areas under irrigation. Layby application at 6-10 pounds can be made, but not after peak bloom or within 45 days of harvest. If weeds are present, the cotton should be weeded or cultivated prior to making layby application. Can be preplant incorporated.

Note: Rates can be reduced by bending. See chart on bending.

Layby used in this table refers to the time just prior to the stage when crop plant size would prevent further cultivation.

<sup>a</sup>Under Directions for Use.