

PM 21

7969-105

7-22-99

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**BASF**

ST Date: 3-31-98  
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# Polyram<sup>®</sup> 80 DF

fungicide

**Active Ingredient:**

A mixture of 5.2 parts by weight (83.9%) of ammoniates of [ethylenebis (dithiocarbamate)]-zinc with 1 part by weight (16.1%) ethylenebis (dithiocarbamic acid) bimolecular and trimolecular cyclic anhydrosulfides and disulfides ..... 80.0%

**Inert Ingredients** ..... 20.0%

Zinc expressed as metallic - 14.0%

**Total** ..... 100.0%

EPA Reg. No. 7969-105

EPA Establishment No. 7969-WG-01

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

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

**Made in Germany**

**Net contents: 30 pounds**

**ACCEPTED**  
JUL 22 1999  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 7969-105

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

## Precautionary Statements

### Hazards to Humans and Domestic Animals

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

### Statement of Practical Treatment

**If swallowed:** Dilute by giving two glasses of water to drink and call a physician. Never give anything by mouth to an unconscious person.

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

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

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

### Personal Protective Equipment (PPE)

**Applicators and other handlers (other than mixers and loaders) must wear:**

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

**Mixers and loaders must wear:**

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Wash thoroughly with soap and water after handling.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. During aerial application, human flaggers must be in enclosed cabs.

### 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

This product is toxic to fish. Do not apply directly to water, 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 washwaters. Apply this product only as specified on the label. Do not allow this material to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

## Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

## 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. All applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

## 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 **24 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 over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

### Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal. Keep out of reach of children and animals.

**Pesticide Storage:** Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not put concentrate or dilute material into food or drink containers.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### 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:

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

## I. General Information

**Polyram® 80 DF** fungicide is effective for controlling apple scab, apple rusts, early blight and late blight in potatoes, cercospora leaf spot, rust, and black spot of roses. It is recommended that **Polyram 80 DF** be used in an Integrated Pest Management program.

### Crop Tolerance

All listed crops are tolerant to **Polyram 80 DF** at all stages of growth.

### Coverage

**Polyram 80 DF** is a contact fungicide, therefore, thorough coverage of plant parts to be protected is essential for effective disease control.

### Cleaning Spray Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product.

## II. Application Instructions

**Polyram 80 DF** should be used at the rates listed in section VII. **Crop-Specific Information.**

### Ground Application (Broadcast)

**Water Volume:** Use a minimum of 20 gallons per acre for apples. Use a minimum of 15 gallons per acre for potatoes.

### Aerial Application

**Water Volume:** Use a minimum of 10 gallons per acre for apples. Use a minimum of 5 gallons per acre for potatoes.

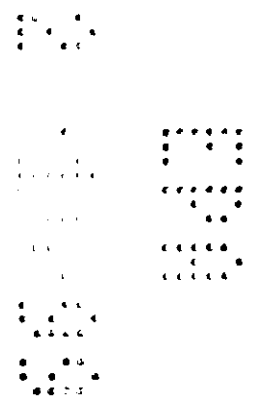
### Foliar Applications:

• **Where EBDC products used allow the same maximum poundage of active ingredient per acre per season:** If more than one product containing an EBDC active ingredient (maneb, mancozeb, or metiram) is used on a crop during the same growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any of the specified individual product maximum seasonal poundage of EBDC active ingredient allowed per acre.

• **Where EBDC products used allow different maximum poundage of active ingredient per acre per season:** If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

### Seed Treatment

In addition to the maximum number of foliar applications permitted by the formula stated above, a single seed treatment application may be made on potatoes.



### III. Additives

To achieve consistent control, spray oils may be needed. For additional information, see **Compatibility Test for Mix Components**.

#### Compatibility Test for Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

- 1) **Water.** For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
- 2) **Products in PVA bags.**
- 3) **Water-dispersible products** (such as **Polyram 80 DF**, wettable powders, suspension concentrates, or suspo-emulsions). Cap the jar and invert 10 cycles.
- 4) **Water-soluble products** Cap the jar and invert 10 cycles.
- 5) **Emulsifiable concentrates** Cap the jar and invert 10 cycles.
- 6) **Water-soluble additives** Cap the jar and invert 10 cycles.
- 7) Let the solution stand for 15 minutes.
- 8) **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. Do not use any spray solution that could clog spray nozzles.

### IV. Mixing Order

- 1) **Water:** Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2) **Agitation:** Maintain constant agitation throughout mixing and application.
- 3) **Products in PVA bags:** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4) **Water-dispersible products** (such as **Polyram 80 DF**, wettable powders, suspension concentrates, or suspo-emulsions)
- 5) **Water-soluble products**
- 6) **Emulsifiable concentrates:** If an inductor is used, rinse it thoroughly after the component has been added.
- 7) **Water-soluble additives:** If an inductor is used, rinse it thoroughly after the component has been added.
- 8) *Remaining quantity water*

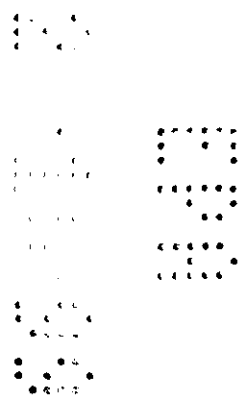
Maintain constant agitation during application. For more information, refer to section **V. General Tank Mixing Information**.

### V. General Tank Mixing Information

See section **VII. Crop-Specific Information** for more details. Read and follow the applicable **Restrictions and Limitations** and **Directions For Use** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

#### Tank Mix Partners/Components

Refer to section **VII. Crop-Specific Information** for more details regarding tank mixes with **Polyram 80 DF**. BASF does not recommend using tank mixes other than those listed on BASF labeling. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Polyram 80 DF** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.



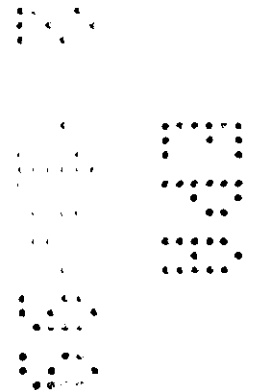
**VI. General Restrictions and Limitations - All Crops**

- **Maximum seasonal use rate:** See Table 1. **Crop-Specific Restrictions and Limitations** and section **VII. Crop-Specific Information**
- **Preharvest Interval (PHI):** See Table 1.
- **Restricted Entry Interval (REI):** 24 hours.

**Table 1. Crop-Specific Restrictions and Limitations**

Crop	Minimum Time from Application to Harvest (PHI)	Maximum Rate per Acre per Application	Maximum Rate per Acre per Season	Livestock Grazing or Feeding	Aircraft Application
Apples	77 days <sup>1</sup>	3-6 pounds <sup>2</sup>	21-24 pounds <sup>2</sup>	No	Yes
Potatoes	14 days <sup>2</sup>	2 pounds	14 pounds	No	Yes
Roses	n/a	1.5 pounds	n/a	No	Yes

<sup>1</sup> For extended applications and tank mixes.  
<sup>2</sup> See section **VII. Crop Specific Information.**



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## VII. Crop-Specific Information

### Apples

For control of apple scab and apple rusts, **Polyram® 80 DF fungicide** should be used as a resistance management tool. Applications are based on tree-row volume. It is recommended that **Polyram 80 DF** be used in an Integrated Pest Management program. Use only on a protective schedule.

#### Pre-bloom Application Schedule:

- **Timing:** Begin application at 0.25-0.5" green tip and continue at 7-10 day intervals.
- **Rate:** Apply up to 6 pounds per acre, per application.

#### Pre-bloom Restrictions and Limitations

Do not apply more than 4 applications of **Polyram 80 DF** per season.  
Do not apply **Polyram 80 DF** after bloom.  
Do not apply more than 24 pounds of **Polyram 80 DF** per acre per season.

#### Extended Application Schedule:

- **Timing:** Begin application at 0.25-0.5" green tip and apply at 7-10 day intervals.
- **Rate:** Apply up to 3 pounds per acre, per application.

#### Extended Application Restrictions and Limitations

Do not apply more than 7 applications of **Polyram 80 DF** per season.  
Do not apply within 77 days of harvest.  
Do not apply more than 21 pounds of **Polyram 80 DF** per acre per season.

#### Crop-Specific Restrictions and Limitations

Do not combine or integrate the 'pre-bloom' and 'extended application' schedules.  
Do not graze livestock in treated areas.

### Apple Tank Mixes

**Polyram 80 DF** is compatible with most of the apple pesticides with which it might be normally used, including spray oils, **Kelthane**, and diazinon. Observe all cautions and limitations on labeling of all products used in mixes.

### Potatoes

Apply **Polyram 80 DF** to potatoes for control of early blight and late blight. Rates are based on 100 gallons per acre. It is recommended that **Polyram 80 DF** be used in an Integrated Pest Management program. Vinekill should occur 14 days before harvest.

**Rate:** Apply 1.5 -2.0 pounds per acre.

**Timing:** Begin application when plants are 4-6" high or earlier if disease conditions warrant, at 5-10 day intervals when disease pressure is low, and at 5-7 day intervals when disease pressure is high.

#### Chemigation

Apply by chemigation only to potatoes using only sprinkler irrigation systems. Do not apply chemigation to any other crop or to this crop using any other type of irrigation equipment. Apply this product only through one of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems.

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

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally

closed, solenoid-operated valve on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain a functional interlocking control to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump motor must include a functional pressure switch to stop the water pump motor when the water pressure decreases to the point where a pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitation must be maintained in the supply tank.

**\*Crop Specific Restrictions and Limitations:**

Do not apply this tank mix within 14 days of harvest in all states except Connecticut, Delaware, Florida, Massachusetts, Maine, Michigan, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin. In these states, do not apply within 3 days of harvest.

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**Potato Tank Mixes**

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**Polyram 80 DF** is compatible with most of the potato pesticides with which it might normally be used. Observe all cautions and limitations on labeling of all products used in mixes.

**Roses**

Apply **Polyram 80 DF** to roses for control of cercospora, leaf spot, rust, and black spot. It is recommended that **Polyram 80 DF** be used in an Integrated Pest Management program. Rates are based on 100 gallons per acre of dilute spray.

**Rate:** Apply 1-1.5 pounds per acre. Use the lower application rate when disease pressure is low. If disease pressure increases, increase application rate to the high rate.

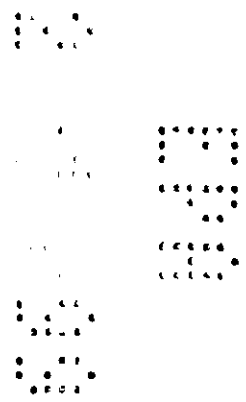
**Spot or Small Area Application**

When using knapsack sprayers or other small area spray equipment, mix 6 teaspoons per gallon of water. Apply to the foliage on a spray-to-wet basis. Do not spray to the point of runoff.

**Timing:** Spray when first leaves unfold and repeat weekly as needed. During periods of continuous rainy weather shorten application period to twice a week.

**Crop Specific Restrictions and Limitations:**

Do not apply more 2 applications of **Polyram 80 DF** per week.



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**Crops:**

This product can be used on the following crops:

**Apples  
Potatoes  
Roses**

Look inside for complete **Restrictions and Limitations** and **Application Instructions**.

**Pests listed in this label:**

Common Name	Scientific Name
Apple Scab	<i>Venturia inaequalis</i>
Apple Rust	<i>Gymno sporangium spp.</i>
Black Spot	<i>Diplocarpon rosae</i>
Cercospora Leaf Spot	<i>Mycosphaerella rosicola</i>
Early Blight	<i>Alternaria solani</i>
Late Blight	<i>Phytophthora infestans</i>
Rust	<i>Phyragmidium mucronatum</i>

**Additional Information**

For additional information, call BASF's **COMMSERV**® at 1-800-878-8060.

**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. Crop 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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