

**BASF**

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ACCEPTED  
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Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended for the pesticide  
EPA Reg. No. 7969-81

Page 1 of 7  
February 8, 1984

# Pyramin® DF

## herbicide

For weed control in sugar beets and red table beets.  
A dry flowable formulation containing:

Active Ingredients* . . . . .	67.7%
Pyrazon (5-amino-4-chloro- 2-phenyl-3(2H)-pyridazinone . . . . .	65.0%
Related aminochloro and dichlorophenyl pyridazinones . . . . .	2.7%
Inert Ingredients . . . . .	32.3%
TOTAL . . . . .	100.0%

\*Pyrazon ANSI equals chloridazon BSI *et al.*

EPA Reg. No. 7969-81

### KEEP OUT OF REACH OF CHILDREN CAUTION

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes and clothing.

#### Statement of Practical Treatment

If swallowed: induce vomiting by touching the back of the throat. Never induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

If on skin: Wash with plenty of soap and water.

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

See the attached booklet for complete Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

Net contents 10 pounds.

Made in Germany

BASF Corporation  
PO Box 13528, Research Triangle Park, North Carolina 27709-3528

Specimen Label

**BEST AVAILABLE COPY**

## Precautionary Statements

### HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

#### Environmental Hazards

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 washwaters.

Do not contaminate water used for irrigation or domestic purposes.

#### Directions for Use

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

#### Storage and Disposal

**Storage:** Do not store near fertilizers, seeds, insecticides or fungicides.

Do not contaminate water, food, or feed by storage or disposal.

**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 and local authorities, by burning. If burned stay out of smoke.

#### General Information

Among the weeds controlled by Pyramin® DF herbicide are lambsquarters, pigweed, ragweed, shepherdspurse, fanweed, purslane, nightshade, mustard, henbit, smartweed, nettleleaf, goosefoot and

velvetleaf (Michigan and Ohio only).

Pyramin DF will not provide acceptable control of annual grasses. Where grasses are a serious problem, follow directions on this label for control of grasses with specific combinations featuring Pyramin DF or use a separate treatment in sugar beets or red table beets.

The correct method of application for Pyramin DF varies depending on area and cultural practices. Always follow label recommendations which fit your area and cultural system. Check with local experts to ensure that you are applying Pyramin DF according to label directions. See sections entitled **Mixing Directions and Restrictions and Limitations.**

For band treatments see section entitled **Band Treatment** in each crop section.

#### Mixing Directions

##### Pyramin DF

Use 20 to 40 gallons of water per acre, broadcast basis, or proportionately less for banded applications.

Fill sprayer tank three-quarters with water. Start agitation with a mechanical or good bypass agitator. Assure adequate hydraulic agitation. Remove any filter screen, which would interfere with adding Pyramin DF to the tank. While agitating, *slowly* add required amount of Pyramin DF. Do not empty contents into tank as one large mass. Replace filter screen after adding Pyramin DF. Continue agitation while adding water to fill tank to required volume.

Continue agitation during

spraying. Mix only amount of spray that will be used immediately.

##### Pyramin DF + Other Products

When tank mixes are to be used each product should be added separately to the spray tank, taking due note of any instructions given as to the order of mixing. For estimating suitability of mixes refer to the following section entitled **Jar Test for Estimating Suitability of Mixes.**

#### Jar Test for Estimating Suitability of Mixes

##### 1. Water Supply:

Use only water from intended source and at the source temperature.

##### 2. Amount of Water in Jar:

For 20 gal/A Spray volume use 4 cups (946 ml) of water.

For 30 gal/A spray volume use 6 cups (1420 ml) of water.

For other spray volumes, adjust proportionately to above. Add  $\frac{1}{4}$  of the water to jar.

##### 3. Amount of herbicide(s) to add:

Add Pyramin DF at a rate of 2 leveled teaspoons (3g) for each pound of recommended label rate. Add liquid herbicide(s) at a rate of 1 teaspoon for each pint of recommended label rate.

##### 4. Add components in the following sequence, gently mixing between component addition:

- Dry products (Pyramin DF)
- Water-miscible products, liquid flowables
- Emulsifiable concentrates when applicable
- Add remaining  $\frac{1}{4}$  volume

of water to jar.

5. Cap jar, invert 10 cycles, let stand for 15 minutes, evaluate.
6. Evaluation: An ideal tank mix combination will be uniform; thus, the suitability of mixture is questionable if any of the following are observed:

Surface layer film or globules incorporated in the mixture.  
 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.

**Band Treatment**

When spraying a band over the row, the amount of Pyramin DF applied per banded acre is reduced in proportion to the area actually treated. Example: to spray a 7-inch band over beets in rows 28 inches apart, the amount recommended for broadcast application follows: 4.6 pounds/acre x 1/4 of area banded acre = 1.2 pounds per banded acre. Refer to Table 1 entitled Band Application Rates.

Using planter-mounted band sprayers ensures that all planted beets are treated, band is centered over the row, and that band width and rate of chemical are uniform.

**Restrictions and Limitations**

Do not use this product on soils classified as sands or loamy sands because this may result in

crop injury.

Do not use preemergence on muck and peat.

Do not use on soils with organic matter higher than 5%, except in the Red River Valley (see special section) or less than 2 1/2% in Michigan/Ohio for velvetleaf control (see special section) since this may result in unsatisfactory weed control or crop injury.

Do not use Pyramin DF as a broadcast treatment in dry irrigated regions.

Do not premix Pyramin DF and Antor 4ES together before adding to spray tank. Follow mixing directions in Directions for Tank Mixes of Pyramin DF plus Antor 4ES.

Do not mix or apply Pyramin DF with any other pesticide or with fertilizer except as specifically recommended on this labeling or approved supplemental labeling.

Do not plant other crops in the band treated with any other pesticide or with fertilizer except as specifically recommended on this labeling or approved supplemental labeling.

Do not plant other crops in the band treated with Pyramin DF during the same season if the beet crop is lost due to climatic or soil conditions. If fields are replanted to sugar beets, re-seed into the treated band. Do not use Pyramin DF again as preemergence treatment on replanted beets because crop injury may result.

Do not use the same spray equipment on replanted beets because crop injury may result.

Do not use the same spray equipment for other purposes unless thoroughly cleaned.

Do not contaminate water when disposing of equipment wastewaters.

Always follow the restrictions and limitations for all products used in a tank mix. The most restrictive labeling applies in tank mixes.

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

**Sugar Beets**

Two applications of Pyramin DF can be used in Central and Eastern states only. Do not apply more than 11.25 pounds per acre per season.

**Table 1.  
Band Application Rates**

BAND AND ROW WIDTH	POUNDS PYRAMIN DF PER BANDED ACRE FOR BROADCAST RATE OF:	
	4.6 POUNDS/ACRE	5.4 POUNDS/ACRE
6-inch band on 24-inch rows	1.2	1.4
7-inch band on 22-inch rows	1.55	1.7
7-inch band on 28-inch rows	1.2	1.4
10-inch band on 22-inch rows	2.1	2.5
10-inch band on 28-inch rows	1.6	1.9
12-inch band on 24-inch rows	2.3	2.7

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## Preemergence Applications

### Central and Eastern States (MI, MN, ND, OH)

#### General Information

**Preemergence Without Irrigation:** Apply Pyramin DF at 4.6 to 5.4 pounds per acre in enough water (20-40 gpa) for good coverage. Use the lower rate on sandy loam soils. Spray immediately after beet seeds are planted and before beets and weeds emerge.

Where dry weather follows application and weeds emerge, use a shallow cultivation before weeds are 2 inches tall. Otherwise, do not disturb or cover treated band.

### Minnesota and North Dakota

**For Soils with Organic Matter of 5% to 7%:** Apply Pyramin DF at 11.25 pounds per acre as a single preemergence application for control of common lambsquarters, prostrate pigweed, redroot pigweed and wild mustard in Red River Valley soils containing 5 to 7% organic matter. Spray after beet seeds are planted and before beets and weeds emerge. Do not follow with a postemergence treatment of Pyramin DF.

Do not use the 11.25 pound rate on soils with organic matter higher than 7% or less than 5% since this may result in unsatisfactory weed control or crop injury, respectively.

Where dry weather follows application, refer to section entitled **Preemergence Without Irrigation**.

### Michigan and Ohio

**For Velvetleaf Control Preemergence:** In Michigan and Ohio Only, for control of velvetleaf preemergence, apply Pyramin DF at 8.9 pounds per acre as a single preemergence application. Spray immediately after beet seeds are planted and before beets and weeds emerge. Do not use the 8.9 pound rate on soils with organic matter higher than 5% or less than 2½% since this may result in unsatisfactory weed control or crop injury, respectively. Where dry weather follows application, refer to section entitled **Preemergence Without Irrigation**.

### Plains, Mountain and Western States (CA, CO, ID, KS, NE, OR, TX, UT, WA, WY)

**Preemergence with Sprinkler Irrigation:** Prepare seedbed and pre-irrigate to field capacity of soil. Plant seed ¾ to 1 inch deep. Apply Pyramin DF as a preemergence banded surface application.

Do not incorporate Pyramin DF where sprinkler irrigation is used, as crop injury may result. Do not use broadcast treatments.

Immediately, or within 3 days after planting, apply Pyramin DF; use 4.6 pounds per acre on low organic matter (less than 3%) loam soils or 5.4 pounds per acre on loam and clay soils. Follow directions for banded treatments (see section entitled **Band Treatment, Table 1**) and adjust application rates accordingly. Follow with no more than ¾ inch of sprinkler irrigation water per set before beets and weeds emerge, as greater amounts may cause beet injury. Repeat irrigation as needed to get good beet emergence, however, do not

4 9 7

exceed ¾ inch of sprinkler irrigation water per set until beets have 2 true leaves. (Do not count cotyledonary leaves.) **Preplant Incorporation with Furrow Irrigation:** Use the following planting procedure on fields to receive furrow irrigation. Prepare seedbed or form beds for planting. Apply and incorporate Pyramin DF at 4.6 pounds per acre on low (less than 3%) organic matter and sandy loam soils. Apply 5.4 pounds of Pyramin DF per acre on loams, silt loams and clays. Follow directions for banded treatments (see section entitled **Band Treatment, Table 1**) and adjust application rates accordingly. Incorporate no more than 2 inches deep using a rotary type tiller. Plant beets and furrow irrigate. Irrigate until tops of beds are thoroughly wetted. Pyramin DF requires moisture to control weeds effectively.

Repeat furrow irrigation as often as necessary to ensure good beet emergence and growth. Sprinkler irrigation can be substituted for furrow irrigation after beets have developed 2 true leaves. (Do not count cotyledonary leaves which are the first 2 leaves to appear).

To assure planting into treated bands, do the following in one tractor operation: (1) spray Pyramin DF, (2) incorporate, and (3) plant beets. Treat a band 1 or 2 inches wider than tiller head used. Do not incorporate Pyramin DF with a disk because unsatisfactory weed control and sugar beet injury may result.

### Tank Mixes

Pyramin DF + Nortron® EC herbicides for winter-grown sugar beets in California: A tank mix of Pyramin DF plus Nortron

at rates listed in Table 2 are recommended in fields where wild oats and volunteer cereals are expected to be a problem. When mixing, add Pyramin DF slowly to three-quarters the spray volume of water. Do not empty contents into the tank as one large mass. Agitate spray solution thoroughly, and then add Norton EC. Agitate while filling to final spray volume and during spraying.

Under sprinkler irrigation or where natural rainfall is adequate, apply this tank mix pre emergence. See Preemergence with Sprinkler Irrigation for directions and precautions regarding application of sprinkler irrigation. Where furrow irrigation is to be used, apply this tank mix preplant incorporated. See Preplant Incorporation with Furrow Irrigation for directions and precautions regarding application. Use this mixture under conditions where Nortron is recommended. Before use, read the label for Nortron for additional information and precautions.

**Pyramin DF + Antor<sup>®</sup> 4ES Herbicides (In California, Northwest and Intermountain States, Michigan and Ohio)**

For control of a mixed population of weeds included on labels for Pyramin DF and Antor 4ES, apply a tank mix according to directions presented by region. Observe all cautions and limitations on labeling of both products. The most restrictive labeling applies in tank mixes.

**Mixing Directions:** Add Pyramin DF slowly to three-quarters the spray volume of water. Do not empty contents into the tank as

**Table 2.  
Tank Mix of Pyramin DF + Nortron EC  
(California Only)**

Soil Texture	Pyramin DF per Acre		Nortron EC <sup>(2)</sup> per Acre	
	Broadcast (for calibration purposes only)	10-inch Band Width <sup>(1)</sup> 30" Row	Broadcast (for calibration purposes only)	10-inch Band Width <sup>(1)</sup> 30" Row
Coarse-textured Soils: Sands, loamy sands, and sandy loams	NOT RECOMMENDED			
Medium-textured Soils: Loams, silt loams, clay loams which contain less than 3% organic matter	4.6 pounds	1.55 pounds	8 pints	2% pints
Fine-textured Soils: Clay loams which contain more than 3% organic matter and clays	4.6 pounds	1.55 pounds	10 pints	3% pints
<small>(1) For other band or row widths, adjust rates in proportion to the area actually treated. Do not apply this mixture broadcast. (2) Nortron EC (1.5 lbs active ingredient per gallon).</small>				

**Table 3.  
Tank Mix of Pyramin DF + Antor 4ES\*  
Application Rate Table**

Area	Soil Texture	Broadcast Rate/Acre <sup>(1)</sup>	
		Pyramin DF	Antor 4ES
California, Northwest and Intermountain States, Michigan and Ohio	Coarse: Sandy loams only.	3.9 pounds	2 quarts
	Medium: Loams, silt loams and clay loams containing less than 3% organic matter.	4.6 pounds	2 to 3 <sup>(2)</sup> quarts
	Fine: Clay loams and clays containing 3%-5% organic matter.	4.6 pounds	3 quarts
<small>(1) See section of both labels on band application for calculation of proportional amounts. (2) Use higher rate on clay loam soils. * In California, Northwest and Intermountain States, Michigan and Ohio.</small>			

one large mass. Agitate spray solution thoroughly and continue agitation while filling tank to near final spray volume (allowing enough volume for addition of Antor 4ES) and then add Antor 4ES. Complete sprayer solution volume by the addition of water (if necessary) to tank. Agitate while filling to final spray volume and during spraying.

**California:** For preplant incorporation with furrow irrigation, apply tank mix to soil surface prior to or at time of planting. Incorporate to a depth of 1 to 2 inches using a rotary type tiller. Use recommended rates in the Application Rate Table 3. Irrigate until tops of beds are thoroughly wetted.

For preemergence application with sprinkler irrigation, apply tank mix to soil surface at time of planting or shortly after, but prior to weed germination using rates recommended in the Application Rate Table 3. Irrigate prior to crop and weed germination. Follow direction and precautions on label for preemergence use with sprinkler irrigation. Do not exceed 3/4 inch of sprinkler irrigation water per set until sugar beets have 2 true leaves, (do not count cotyledonary leaves, which are the first 2 leaves to appear).

**Northwest, Intermountain States:** Apply tank mix to soil surface at planting time or shortly after, but prior to weed germination, using rates recommended in the Application Rate Table 3 for preemergence use under sprinkler irrigation. Irrigate prior to crop and weed germination. Follow directions and precautions on this label for preemergence use with sprinkler irrigation. Do not exceed 3/4 inch of sprinkler irrigation water per set until sugar beets have 2 true

leaves. (Do not count cotyledonary leaves, which are the first 2 leaves to appear).

**Michigan and Ohio:** For use preemergence without irrigation, apply tank mix to soil surface at planting time or shortly after, but prior to weed germination using rates recommended in the Application Rate Table 3.

## Pyramin DF Postemergence Application (All States)

### General Information

Timing is very important. Treat after beets have 2 expanded true leaves (do not count cotyledonary leaves, which are the first 2 leaves to appear) and before any weeds have emerged. Treatments on emerged weeds will not be effective. Pyramin DF may be used postemergence to beets; however weeds must not have emerged. When used postemergence to the crop, Pyramin DF can extend preemergence weed control. For postemergence control of emerged weeds consult the label for Pyramin FL.

Good soil moisture prior to treatment is necessary. If soil is dry, irrigation is recommended prior to chemical application. For optimum performance, a postemergence application should be followed with moisture. Where furrow irrigation is possible, irrigate shortly after application to the point that the bed surface has reached maximum water-holding capacity. If sprinkler irrigation is used, do not apply more than 3/4 inch of water on the first set after herbicide application.

Postemergence applications can

follow preemergence Pyramin DF use provided a total of 11.25 pounds per acre per season of Pyramin DF is not exceeded.

Do not apply Pyramin DF if weeds are stressed by lack of moisture, excessive heat, high winds, frost or low temperature, as insufficient weed control may result. Postemergence applications should be made only when favorable conditions from crop and weed growth occur.

### Tank Mixes

Increased temporary sugar beet injury has been observed where postemergence Pyramin DF in combination treatments has followed preplant applications of Tillam® or Ro-Neet® herbicides.

### Red Table Beets Preemergence Application

Apply 4.6 to 5.4 pounds per acre of Pyramin DF in enough water for good coverage. Use lower rate on sandy loam soils. Spray after beet seeds are planted but before beets and weeds emerge.

If rain does not fall within 5 to 10 days after treatment, beets should be irrigated to activate Pyramin DF. If irrigation is not possible, use a shallow cultivation before weeds are 2 inches tall.

### Early Postemergence Application

Apply 5.4 pounds per acre of Pyramin DF. Timing is very important. Treat after beets have 2 expanded true leaves and before any weeds have emerged. This is usually within 2 weeks after planting. Treatment on emerged weeds will not be effective.

7 9 7

Note: Pyramin DF may be used both pre- and postemergence in the same season provided the maximum application does not exceed 11.25 pounds per acre. Follow directions given on this label for each type of application.

### 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**

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