

**BASF**

RT 5-1-95  
Copy 3

7/1/95 7969-81  
28 1/2

**ACCEPTED**  
JUN 28 1995  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No. 7969-81

# Pyramin<sup>®</sup> DF

herbicide

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

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

**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.

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.

Made in Germany

Net Contents: 10 pounds

19/6

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

Specimen Label

**Precautionary Statements  
HAZARDS TO HUMANS (AND  
DOMESTIC ANIMALS)  
Personal Protective Equipment:  
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 are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Control Statements**  
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  
User 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 gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**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. 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 the 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.

**Exception:** if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter treated areas if there will be no contact with anything that has been treated. 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, are:

- Coveralls
- Waterproof gloves
- Shoes plus socks

**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.

**In Case of Emergency**

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

**General Information**

Among the weeds controlled by **Pyramin® DF herbicide** are lamb-quarters, pigweed, ragweed, shepherdspurse, fanweed, purslane, nightshade (black and hairy), mustard, henbit, smartweed, nettleleaf goosefoot, and velvetleaf (Michigan and Ohio only).

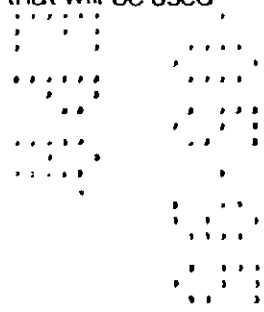
**Pyramin DF** will not provide acceptable control of annual grasses. Where grasses are a serious problem, follow the directions on this label for grass control with specific combinations featuring **Pyramin DF**, or use a subsequent postemergent herbicide treatment. The correct application method for **Pyramin DF** varies depending on area and cultural practices. Always follow label recommendations that fit your area and cultural system. Check with local experts to ensure that you are applying **Pyramin DF** according to label directions. See sections titled **Mixing Directions and Restrictions and Limitations**.

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

**Mixing Directions**

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

Fill sprayer tank three-quarters with clean water. Start agitation with a mechanical or good bypass agitator. Assure adequate hydraulic agitation. Remove any filter screen that may interfere with adding **Pyramin DF** to the tank. While agitating slowly, add the 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 the amount of spray that will be used immediately.



**Pyramin® DF herbicide & 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 **Jar Test for Estimating Suitability of Mixes**.

**Jar Test for Estimating Suitability of Mixes**

1. **Water Supply:** Use only water from the intended source at the source temperature.
2. **Amount of Water in Jar:** For 20 gallons per acre spray volume, (broadcast basis) use 4 cups (946 ml) of water. For 30 gallons per acre spray volume, (broadcast basis) use 6 cups (1420 ml) of water. For other spray volumes, adjust proportionately to above.
3. **Amount of Herbicide to add:** Add 2 leveled teaspoons of **Pyramin DF** for each pound of recommended label rate. Add 1 teaspoon of liquid herbicide for each pint of recommended labeled rate.
4. **Add components in the following sequence, gently mixing between component additions:**
  - 1) Dry products (**Pyramin DF**)
  - 2) Water miscible products, liquid flowables
  - 3) Emulsifiable concentrates (such as **Nortron® SC** herbicide) when applicable.
  - 4) Add remaining 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 will be uniform; thus, the suitability of the 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.

**Restrictions and Limitations**

Do not use this product on soils classified as sands or loamy sands as crop injury may result. 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 2.5% in Michigan or Ohio for velvetleaf control (see special section) as 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 mix or apply **Pyramin DF** with any other pesticide or with any fertilizer except as specifically recommended on this label 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, reseed 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 wash waters. Do not store near fertilizers, seeds, insecticides, or fungicides. Always follow the **Restrictions and Limitations** for all products used in a tank mixture. The most restrictive labeling applies in tank mixtures. Do not apply this product through any type of irrigation system.

**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** titled **Banded Application Rates**.

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

**Table 1. Banded Application Rates**

Band and Row Width	Pounds of Pyramin DF Per Banded Acre For Broadcast Rate of:	
	4.6 Pounds Per Acre	5.4 Pounds Per Acre
6-inch band on 24-inch rows	1.2	1.4
7-inch band on 22-inch rows	1.5	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

## Sugar Beets

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

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

#### General Information

#### Preemergence Without

**Irrigation:** Apply 4.6-5.4 pounds of Pyramin DF per acre in enough water (20-40 gallons per acre) for good coverage. Use the lower rate on sandy loam soils. Spray immediately after beet seeds are planted and before beets and weeds emerge.

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

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

Do not use the 11.25 pounds rate on soils with organic matter concentrations higher than 7% or less than 5% as this may cause unsatisfactory weed control or crop injury, respectively.

Where dry weather follows application or where annual grasses are also a problem, refer to **Preemergence Without Irrigation.**

## Michigan and Ohio For Velvetleaf Control

**Preemergence:** To control velvetleaf in Michigan and Ohio only, apply 8.9 pounds of Pyramin DF 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 pounds rate on soils with organic matter higher than 5% or less than 2.5% as this may cause unsatisfactory weed control or crop injury, respectively. If dry weather follows application or if annual grasses are also a problem, refer to **Preemergence Without Irrigation.**

### Plains, Mountain, and Western States

(CA, CO, ID, KS, MT, NE, OR, TX,  
UT, WA, WY)

#### Preemergence With Sprinkler Irrigation

Prepare seedbed and pre-irrigate to field capacity of soil. Plant seed  $\frac{3}{4}$ -1" 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.

Apply Pyramin DF within 3 days after planting. Use 4.6 pounds per acre on low organic matter loam soils (less than 3%) or 5.4 pounds per acre on loam and clay soils. Follow the directions for banded treatments (see **Band Treatment, Table 1**) and adjust the application rates accordingly. Follow treatments with no more than 0.75 inch of sprinkler per irrigation 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 exceed 0.75 inch of sprinkler water per irrigation set until the beets have 2 true leaves. Do not count cotyledonary leaves, which are the first 2 leaves to appear.

## Preplant Incorporation with Furrow Irrigation

Use the following planting procedure on fields that will receive furrow irrigation. Prepare seedbed or form beds for planting. Apply and incorporate 4.6 pounds of Pyramin DF per acre on low (less than 3%) organic matter and sandy loam soils. Apply 5.4 pounds per acre on loams, silt loams, and clays. Follow directions for banded treatments (see **Band Treatment, Table 1**) and adjust application rates accordingly. Incorporate Pyramin DF 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.)

To be sure you are planting into treated bands, do the following in one tractor operation:

- 1) spray Pyramin DF,
- 2) incorporate, and
- 3) plant beets.

Treat a band 1-2 inches wider than tiller head used. Do not incorporate Pyramin DF with a disk as unsatisfactory weed control and sugar beet injury may result.

**Tank Mixes  
Pyramin® DF herbicide +  
Nortron® SC Herbicides for  
Winter-grown Sugar Beets in  
California**

A tank mix of Pyramin DF plus Nortron SC at rates listed in Application Rate 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 of the spray volume of water. Do not empty contents into the tank as one large mass. Agitate spray solution thoroughly, and then add Nortron SC. Agitate while filling to final spray volume and during spraying.

Under sprinkler irrigation or where natural rainfall is adequate, apply this tank mix preemergence. See **Preemergence With Sprinkler Irrigation** for directions and precautions regarding 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 tank mix under conditions where Nortron SC is recommended. Before use, read the label for Nortron SC for additional information and precautions.

**Pyramin DF + Nortron SC  
Herbicides for Sugar Beets in  
Idaho and Montana**

Sugar beets must be sprinkler irrigated to use this tank mix. Apply this tank mix pre-emergence to silt loam or finer textured soils (use higher rates in finer texture soils). Apply 1/2 inch of water within 7 days after application to incorporate the products.

This tank mix shall be followed as needed with suitable postemergence chemicals to control later germinating weeds. In addition, minimal crop injury must be tolerated. Refer to Table 3 for application rates and timing.

**Postemergence Application  
(All States)**

**General Information**

Timing is very important to successful treatment. Treat after beets have 2 expanded true leaves (Do not count the cotyledonary leaves.), 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 pre-emergence control.

Good soil moisture before 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 0.75 inch of water on the first irrigation set after the herbicide application.

**Table 2. Tank Mix of Pyramin DF + Nortron SC (California only)**

Soil Texture	Pyramin DF Per Acre		Nortron SC <sup>2</sup> Per Acre	
	Broadcast (for calibration purposes only)	10-inch Band Width <sup>1</sup> 30-inch row	Broadcast (for calibration purposes only)	10-inch Band Width <sup>1</sup> 30-inch row
<b>Coarse-Textured Soils:</b> Sands, loamy sands, and sandy loams	Not Recommended			
<b>Medium-Textured Soils:</b> Loams, silt loams, clay loams which contain less than 3% organic matter	4.6 pounds	1.55 pounds	3.0 pints	1.0 pints
<b>Fine-Textured Soils:</b> Clay loams which contain more than 3% organic matter and clays	4.6 pounds	1.55 pounds	3.75 pints	1.25 pints

<sup>1</sup> For other band or row widths, adjust rates in proportion to the area actually treated. Do not apply this mixture broadcast.  
<sup>2</sup> Nortron SC (4.0 pounds active ingredient per gallon).

**Table 3. Tank Mix of Pyramin DF + Nortron SC  
Application Rate Table for Idaho and Montana Only**

Soil Texture	Pyramin DF Rate		Nortron SC Rate <sup>1</sup>	
	Broadcast (for calibration only)	7" Bandwidth <sup>2</sup> 22" Rows	Broadcast (for calibration only)	7" Bandwidth <sup>2</sup> 22" Rows
<b>Coarse-Textured Soils:</b> sands, loamy sands, and sandy loams	Not recommended			
<b>Medium-Textured Soils:</b> silt loams and clay loams with less than 3% organic matter (When kochia, Russian this- tle or grasses are problem weeds, apply these rates)	2.3-3.6 pounds per acre	0.78-1.2 pounds per acre	1.5-3 pints per acre	0.5-1 pint per acre
	1.5-2.3 pounds per acre	0.5-0.78 pounds per acre	3-4.5 pints per acre	1-1.5 pints per acre

<sup>1</sup> Nortron SC (4 pounds active ingredient per gallon)  
<sup>2</sup> For other band or row widths, adjust rates in proportion to the area actually treated. Do not apply this mix broadcast

Postemergence applications can follow preemergence **Pyramin® DF** herbicide use provided a total of 11.25 pounds of **Pyramin DF** per acre, per season 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** has followed preplant applications of **Tillam®** or **Ro-Neet®** herbicides.

**Pyramin DF + Betamix® or Betanex® Herbicides**

(Not intended for use in California) This tank mix can be used for broad spectrum weed control including pigweed, kochia, wild buckwheat, lambsquarters, smartweed, mustard, nightshade (black and hairy), ragweed, and green and yellow fox-tails. This combination provides residual as well as quick postemergence weed control. Follow the directions on the respective product labels. Add the **Betamix** or **Betanex** to the half-full spray tank after the **Pyramin DF** is adequately suspended.

Do not add additional surfactants to the mixture. Do not apply in more than 30 gallons of water per acre. The most restrictive labeling applies for tank mixes.

**Red Table Beets Preemergence Application**

Apply 4.6-5.4 pounds of **Pyramin DF** per acre in enough water for good coverage. Use the lower rate on sandy loam soils. Spray after beet seeds are planted but before beets and weeds emerge. If rain does not fall within 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 which is usually within 2 weeks after planting. Treating emerged weeds will not be effective.

**Note:** **Pyramin DF** may be used 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 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**.

The following are scientific names for the broadleaf weeds listed in this label.

Common Name	Scientific Name
Fanweed	<i>Thlaspi arvense</i>
Henbit	<i>Lamium amplexicaule</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Goosefoot, Nettleleaf	<i>Chenopodium murale</i>
Nightshade (black and hairy)	<i>Solanum</i> spp.
Pennycress, Field	<i>Thlaspi arvense</i>
Pigweed	<i>Amaranthus</i> spp.
Purslane, Common	<i>Portulaca oleracea</i>
Ragweed	<i>Ambrosia</i> spp.
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Thistle, Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Wild Mustard	<i>Sinapsis arvensis</i>

*Pyramin* is a registered trademark of **BASF AG**.  
*Nortron* is a registered trademark of **Schering Agrochemicals Limited**.  
*Tillam* and *Ro-Neet* are registered trademarks of **ICI Americas Inc**.  
*Betamix* and *Betanex* are registered trademarks of **Schering AG**.

U.S. Patent 3,210,353

©1995 **BASF Corporation**

NVA 0495/PF 4200-0262

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

**BASF**