



Pyramin FL

Herbicide

For weed control in sugar beets and red table beets

A flowable containing:

ACTIVE INGREDIENTS*	41.3%
Pyrazon (5-amino-4-chloro-2-phenyl-3(2H)-pyridazinone)	35.5%
Related aminochloro and dichlorophenyl pyridazinones	5.8%
INERT INGREDIENTS	58.7%

*Equivalent to 4.2 pounds per gallon of pyrazon and related aminochloro and dichlorophenyl pyridazinones. Pyrazon ANSI equals chloridazon BSI *et al.*

CAUTION: KEEP OUT OF REACH OF CHILDREN.
Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

STATEMENT OF PRACTICAL TREATMENT: In case of contact: for skin wash with plenty of soap and water; for eyes, flush with plenty of water and 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.

SHAKE WELL BEFORE USING.

Net Contents 2 1/2 Gallons

EPA Reg. Number 7969-50

EPA ESTABLISHMENT NO 7969-WG-01

BASF Wyandotte Corporation
Parsippany, New Jersey 07054

DIRECTIONS

Apply Pyramin FL to the soil surface before planting sugar beets. Pyramin FL controls weeds and grasses that emerge before the beets are planted. Pyramin FL also controls weeds and grasses that emerge after the beets are planted. Pyramin FL is a pre-emergence herbicide. It is not a contact herbicide. It does not kill weeds and grasses that are already growing in the soil. Pyramin FL is a systemic herbicide. It is absorbed by the roots of weeds and grasses and moves up to the leaves. Pyramin FL kills weeds and grasses by interfering with their ability to produce food. Pyramin FL is a selective herbicide. It kills weeds and grasses but does not harm sugar beets. Pyramin FL is a soil-applied herbicide. It is applied to the soil surface before planting sugar beets. Pyramin FL is a pre-emergence herbicide. It is not a contact herbicide. It does not kill weeds and grasses that are already growing in the soil. Pyramin FL is a systemic herbicide. It is absorbed by the roots of weeds and grasses and moves up to the leaves. Pyramin FL kills weeds and grasses by interfering with their ability to produce food. Pyramin FL is a selective herbicide. It kills weeds and grasses but does not harm sugar beets. Pyramin FL is a soil-applied herbicide. It is applied to the soil surface before planting sugar beets.

SUGAR BEETS

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**PRE-EMERGENCE APPLICATIONS
CENTRAL AND EASTERN STATES**

Pre-emergence without Irrigation

Apply Pyramin FL at the rate of 3 to 3.5 quarts per acre on soils with low to medium organic matter. Apply Pyramin FL at the rate of 3 to 3.5 quarts per acre on sandy, loam soils. Spray immediately after the beets are planted and before weeds emerge. Use a planter-mounted band applicator. Make sure that all planted beets are treated and that the band width and rate of chemical are uniform.

Where annual grasses are a soil problem, apply 4 to 6 lbs. a/c of TCA with the recommended rate of Pyramin FL. Follow label directions for both products.

Where dry weather follows application and weeds emerge, use a shallow cultivation before weeding to break the soil surface. Otherwise, do not disturb the soil on the treated land.

For soils with organic matter of 5-7% in the Red River Valley

In the RED RIVER VALLEY only, for the control of red top and prostrate sowards, summer lambquarters and wild mustard in soil with organic matter content of 5-7%, apply Pyramin FL at the rate of 2 quarts per acre as a soil pre-emergence application. Spray immediately after the beets are planted and before weeds emerge. Do not use with a pre-emergence treatment of Pyramin FL. Do not use the 2 quart 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 or where annual grasses are also a problem, refer to section titled "Pre-emergence without Irrigation."

For velvetleaf control in Michigan and Ohio

In Michigan and Ohio only, for the control of velvetleaf, apply Pyramin FL at the rate of 5 1/2 quarts per acre as a soil pre-emergence application. Spray immediately after the beets are planted and before weeds emerge. Do not use the 5 1/2 quart rate on soils with organic matter higher than 5% or less than 2%. Since this may result in unsatisfactory weed control or crop injury, respectively.

Where dry weather follows application or where annual grasses are also a problem, refer to section titled "Pre-emergence without Irrigation."

PLAINS, MOUNTAIN & WESTERN STATES

Pre-emergence with Sprinkler Irrigation

If sprinkler irrigation is used, apply Pyramin FL as a banded surface pre-emergence application. Do not incorporate Pyramin FL where sprinkler irrigation is to be used, as crop injury may result. Do not use broadcast treatments. Prepare the seed bed and pre-irrigate to the field capacity of the soil. Plant seed 1/4 to one inch deep.

Immediately, or within 3 days after planting, apply Pyramin FL at the rate of 3 quarts per acre on low organic matter loam soils or 3 1/2 quarts per acre on loam and clay soils. Follow directions for banded treatments shown on side panel, and adjust application rates accordingly. Follow with no more than 1/4 inch of sprinkler irrigation per set before beets and weeds emerge, as greater amounts may cause beet injury. Repeat as needed to get good beet emergence. Do not exceed 1/4 inch of sprinkler irrigation per set until the beets have 2 true leaves. (Do not count the cotyledonary leaves, which are the first 2 leaves to appear.)

Pre-plant Incorporation with Furrow Irrigation

On fields to receive furrow irrigation, use the following planting procedure. Prepare seed bed or form beds for planting. On low organic matter, sandy, loam soils, apply and incorporate Pyramin FL at the rate of 3 quarts per acre. On loams, silty loams and clays, use the 3 1/2 quart per acre rate. Follow directions for banded treatments shown on side panel, and adjust application rates accordingly. Use a rotary tiller type of incorporator and incorporate not more than 2 inches deep. Plant beets and furrow irrigate. Since Pyramin FL must have moisture to control weeds effectively, irrigate until tops of beds are thoroughly wetted.

Pyramin FL + Herbicide 283 Tank Mix
For pre-emergence use, apply 1.5 to 3 quarts of Pyramin FL per acre with 1/2 to 1 quart of Herbicide 283 per acre. Apply to the soil surface in the row or broadcast. Do not apply to the soil surface after the beet seeds have been planted. Do not apply to the soil surface after the beet plants have emerged.

Pyramin FL + Herbicide 283 Tank Mix
For pre-emergence use, apply 1.5 to 3 quarts of Pyramin FL per acre with 1/2 to 1 quart of Herbicide 283 per acre. Apply to the soil surface in the row or broadcast. Do not apply to the soil surface after the beet seeds have been planted. Do not apply to the soil surface after the beet plants have emerged.

Pyramin FL + Nortron EC or Flowable Herbicides
For Winter-grown Sugar Beets in California
In California, apply 1.5 to 3 quarts of Pyramin FL per acre with 1/2 to 1 quart of Nortron EC or Flowable Herbicide per acre. Apply to the soil surface in the row or broadcast. Do not apply to the soil surface after the beet seeds have been planted. Do not apply to the soil surface after the beet plants have emerged.

Application Rate Table

Soil Texture	10 Feet Bed Width (1)		
	NORTRON EC Acre (2)	NORTRON Flowable Acre (3)	Pyramin FL Acre
Coarse Textured Soils Silt loams, silty loams, and sandy loams	30 Row	30 Row	30 Row
Medium Textured Soils Silt loams, silty loams, which contain less than 3% organic matter	30 Row	30 Row	30 Row
Fine Textured Soils Clay loams which contain more than 3% organic matter and clays	30 Row	30 Row	30 Row

(1) For other bed widths, multiply the acreage by the ratio of the bed width to 10 feet.
(2) For other bed widths, multiply the acreage by the ratio of the bed width to 30 feet.
(3) Nortron Flowable (4.0 b) active ingredient per gallon.

Under sprinkler irrigation or where natural rainfall is adequate, apply this tank mix pre-emergence. See Pre-emergence with broadcast applications above for directions and precautions regarding use of this tank mix pre-plant. Where furrow irrigation is to be used, apply this tank mix pre-plant. See Pre-plant Incorporation with Furrow Irrigation above for directions and precautions regarding application of furrow irrigation. Do not use this tank mix pre-plant where Nortron alone is not recommended. Before use, read Nortron label for additional information and precautions.

POST-EMERGENCE APPLICATIONS

GENERAL DIRECTIONS—All Areas
Timing is very important. Observe weeds at which they have 2 expanded true leaves (do not count the cotyledonary leaves which are the first 2 leaves to appear) and before any weeds have more than 2 to 4 true leaves. Treatments on larger weeds will not be effective.
Good soil moisture prior to treatment is necessary. If soil is dry, irrigation is recommended prior to chemical application. For optimum performance, a post-emergence application should be followed with irrigation. Where furrow irrigation is possible, irrigate shortly after application. If the soil surface has reached maximum water holding capacity, if overhead irrigation is used, do not apply more than 1/2 inch of water in the first 48 hours after the herbicide is applied.
Do not apply Pyramin FL if weeds have been sprayed for 2 weeks before, or heat, high winds, frost or low temperature have occurred within 2 weeks before, or if soil is more favorable for plant growth than the soil.
In the Central and Eastern States, the use of Pyramin FL for pre-emergence use of Pyramin FL provided a total of 3 quarts Pyramin FL per acre per season is not exceeded.

Pyramin FL + Dalapon All Areas
When pre-emergence use of weeds are present, apply 3 quarts of Pyramin FL per acre with 1/2 to 1 quart of Dalapon per acre. Apply to the soil surface in the row or broadcast. Do not apply to the soil surface after the beet seeds have been planted. Do not apply to the soil surface after the beet plants have emerged.

Pyramin FL + Betanalf All Areas
For pre-emergence use, apply 1.5 to 3 quarts of Pyramin FL per acre with 1/2 to 1 quart of Betanalf per acre. Apply to the soil surface in the row or broadcast. Do not apply to the soil surface after the beet seeds have been planted. Do not apply to the soil surface after the beet plants have emerged.

Pyramin FL + Non-Phytotoxic Emulsifiable Oil—All Areas
Add 1/2 to 1 quart of non-phytotoxic emulsifiable oil to Pyramin FL to improve broad leaf weed control and to increase leaf wetness in timing of susceptible applications. Apply 3 to 3 1/2 quarts Pyramin FL per acre according to soil type and organic matter content. Add 1/2 to 1 quart of non-phytotoxic emulsifiable oil per acre on a broadcast basis. Use sufficient spray solution for good coverage. 40-100 gallons of water are treated. Use a non-phytotoxic oil containing 25% emulsifier and characterized as having an unsaponated residue of over 10%.

Apply Pyramin FL first and mix thoroughly in the spray tank, then add the emulsifiable oil with the agitator running. Finally fill the tank with water to required volume.
Do not use oil when maximum temperatures are expected to exceed 90 F at any time during the 48-hour period following the application as excessive crop injury may result.
For pre-plant applications, using a non-phytotoxic oil with Pyramin FL in your spray tank and for summer brands of oil to use, consult your local State Extension Agent for list.

If severe temporary sugar beet injury has been observed where Pyramin FL pre-plant treatments have followed pre-plant applications of Tilam or R-Nat.

RED TABLE BEETS

Pre-emergence Application
Apply 3 to 3 1/2 quarts per acre of Pyramin FL 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 FL. If irrigation is not possible, use a shallow cultivation before weeds are 2 inches tall.

Early Post-emergence Application
Apply 3 1/2 quarts per acre of Pyramin FL. Timing is very important. Observe weeds with daily. Treat after beets have 2 expanded true leaves and before any weeds have more than 2 to 4 true leaves. This is usually within 2 weeks after planting. Treatment on larger weeds will not be effective.
NOTE: Pyramin FL may be used both pre- and post-emergence in the same season. Follow directions given on this label for each type of application.

MIXING DIRECTIONS

Use 20 to 40 gallons of water per acre, broadcast basis, or proportionately less for banded applications.
Fill sprayer tank halfway with water. Start agitation with a mechanical or good hydraulic agitator. Add Pyramin FL. Add water to fill tank to required volume.
Continue agitation during spraying. Mix only the amount of spray that will be used immediately.
Use fresh screens in the line and Tee jet 8004E nozzles or 1/2 gal. or their equivalent.

BAND TREATMENT

Sugar Beets
When spraying a band over the row, the amount of Pyramin FL applied per banded acre is reduced in proportion to the area actually treated. Example: If a 3-foot band is sprayed over rows 28 inches apart, the amount of Pyramin FL applied per banded acre is one-fourth the amount recommended for broadcast applications.

Band and Row Width	Quarts Pyramin FL Per Banded Acre for Broadcast Rate of	
	3 Quarts Acre	3 1/2 Quarts Acre
10 ft. band, 24 in. row	1.67	1.92
12 ft. band, 24 in. row	1.43	1.67
10 ft. band, 30 in. row	1.33	1.56
12 ft. band, 30 in. row	1.11	1.25

Using planter-mounted and row-type applicators that will plant seeds and treat and that band width and rate of chemical are uniform.

BAND TREATMENT

Red Table Beets

When spraying a band over the row, the amount of Pyramin FL applied per acre is in proportion to the area actually treated.

Example:

Beet Rows 24 inches apart and band width of	Quarts Pyramin FL Per Banded Acre for Broadcast Rate of	
	3 Quarts Acre	3 1/2 Quarts Acre
6 inch band	1.00	1.17
12 inch band	1.00	1.17

PRECAUTIONS

Do not use this product on soils classified as *sands* or *loamy sands* because this may result in crop injury. Do not use pre-emergence 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% since this may result in insecticide, weed control or crop injury.

Do not use Pyramin FL as a broadcast treatment in the dry irrigated regions. If the beet crop is lost due to climatic or soil conditions following application of Pyramin FL do not plant other crops in the Pyramin FL treated land during the same season. If beets are replanted to sugar beets, reseed into the treated band. Do not use Pyramin FL again as a pre-emergence treatment on the replanted beets because crop injury may result.

Do not use the same spray equipment for other purposes unless thoroughly cleaned. Coarse sprays are less likely to drift. Do not store near fertilizers, seeds, insecticides or fungicides. Do not contaminate water used for irrigation or domestic purposes.

Where this material is used in combination with TCA, do not use treated beet tops for feed or forage. Do not mix Pyramin FL with liquid fertilizers.

Observe all cautions and limitations on labeling of all products used in mixtures.

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 rinsate that cannot be used or chemically re-processed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies.

Triple rinse container (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place.

Consult Federal, State or Local disposal authorities for approved alternative procedures such as limited open burning.

Conditions of Sale and Warranty

The Directions for Use of this product refer to 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 entirely. Associated with this product is the possibility of injury, illness or death to humans and animals, including the operator, if used in a manner inconsistent with the label. The user must be aware of the presence of other chemicals or use of the product in a manner inconsistent with the label. The user must be aware of the control of BASF WYANDOTTE CORPORATION (BWC) for the Seller. All such risks shall be assumed by the Buyer.

BWC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes intended in the Directions for Use. BWC does not warrant the performance of any other BWC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. In no event shall BWC or the Seller be liable for damages, including consequential damages, resulting from the use of this product. BWC and the Seller disclaim any liability for the use of this product. A list of BWC's authorized agents is available upon request. The Seller's liability for this product and the Buyer and user accept a list of BWC's authorized agents is available upon request. The Seller's liability for this product and the Buyer and user accept a list of BWC's authorized agents is available upon request.

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Norton is a trademark of Fisons Limited.
U.S. Patent 3,210,353.