

PM 25
524-152

ACCEPTED
OCT 19 1987
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-152

LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose set forth in the Complete Directions for Use ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANDISABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this company including but not limited to incompatibility with products other than those set forth in the Directions, unusual weather (i.e. weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied with the normal range being determined on the basis of the average range for the prior 40 years computed from the best available information, and weather perils including but not limited to hurricanes, tornadoes and floods) as well as weather considerations set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil or crop.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT (PAID FOR, OR AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY OR IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

The buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

GENERAL INFORMATION

Ramrod 20 is recommended for use as a pre-emergence herbicide to control most annual grasses and certain broadleaf weeds. It should be applied to the soil surface prior to weed or crop emergence. The soil surface should be freshly worked and free of weed top growth. The seed bed should be fine, firm and free of clods and trash.

Some moisture either as rain or irrigation is required soon after application to activate Ramrod 20. On light sandy soil one third inch of rainfall and on heavy clay and/or high organic soils one third to three-fourths inch of rainfall is required depending upon original soil moisture. Best results are obtained when moisture occurs within 10 days after application. Generally lower amounts of rainfall are required where soil moisture is high at time of planting.

Ramrod 20 with lesser amounts of rainfall in some instances will allow the grass seedlings to emerge, but they will be severely stunted and with a subsequent cultivation they can be covered up.

If soil crusting becomes a problem and hoeing is necessary, hoe in the same direction the rows are planted.

Where deep lister planting is practiced only partial weed control can be expected on steep furrow sides. It is suggested that a 7 inch band be applied at the bottom of the furrow. Best results can be expected where the granules lie on an even flat surface not subject to shifting by wind or rain.

With broadcast treatment as long as Ramrod 20 is controlling the grasses and weeds there is no need for cultivation. For band treated fields when first cultivation is made, set cultivator to throw soil into the row covering the band.

NOTE: Rates of application given on this label are general. Consult your Agricultural Experiment Station or Extension Service Weed Specialists concerning specific usage, dosages and methods of application.

Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination. Do not contaminate fertilizers, insecticides, fungicides and seed with Ramrod.

This product is toxic to fish. Keep out of lakes, ponds and streams. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

Do not reuse container. Destroy when empty.

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WEEDS CONTROLLED

Annual Ryegrass Lolium spp	Cenchrus Eleusine indica
Barnyardgrass (Watergrass) Echinochloa crusgalli	Groundnut Senecio vulgaris
Carpetweed Mollisago verticillata	Lambquarters Chenopodium album
Crabgrass Digitaria spp	Pigweed Amaranthus spp
Fall Panicum Panicum dichotomiflorum	Purslane Portulaca oleracea
Florida Panhandle Richardia scabra	Ragweed Ambrosia artemisiifolia
Goat Footail (Wild Millet) Setaria faberii	Sandbar Cenchrus spp
Green Foxtail Setaria viridis	Shepherdspurse* Capsella bursa-pastoris
Yellow Foxtail Setaria glauca	Smartweed Polygonum persicaria
	Wild Buckwheat* Polygonum convolvulus

*At 25 to 30 pounds per acre granular Ramrod 20. Granular Ramrod 20 WILL NOT CONTROL Johnson grass, Canada thistle, field bindweed, quackgrass, morningglory, cocklebur and bell needle.

CALIBRATION AND APPLICATION INSTRUCTIONS

It is important that the applicator be calibrated properly to deliver the desired amount of Ramrod 20 to avoid applying too little or too much material. To calibrate, attach a cloth bag or strong plastic bag over the spreader plate or remove the delivery tube and attach a plastic nursing bottle over the spout. Operating over normal terrain to be planted, at planting speed collect the granules for five hundred (500) linear feet and measure the VOLUME ounces collected. Use the following table to determine the correct volume of granules required for a 14 inch band at a given broadcast application rate.

Lbs. Per Acre To Be Applied	Volume To Be Collected (in 500 Feet)
20	6 1/2 oz
25	7 3/4 oz
30	9 1/4 oz

Use plastic nursing bottle or other measuring container gently to settle the granules when taking a reading. Adjust the application equipment so that each spout dispenses the proper amount.

For broadcast (over-all treatment) -- use broadcast applicators or fertilizer spreaders that can apply small amounts of granules evenly.

For band treatment -- use applicators designed for this purpose. Calculate the amount of granules per acre needed for band treatment as follows:

Band Width	Recommended	Pounds of
in inches	Rate	Ramrod 20
inches Between	Over all	needed per acre
Crop Rows	Rate	for band treatment

For example: If 25 pounds per acre are recommended for over all treatment and you wish to treat a band of 14 inches wide in crop rows spaced 38 inches apart:

14 x 25 = 9.2 pounds of granules needed per acre of crop for the band treatment

For application of granular Ramrod 20 do not rely on settings used for other granular herbicides.

Storage and Disposal

Do not contaminate water, foodstuffs, seed or feed by storage and disposal.

DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal.

or buried on site in a safe place away from water supplies. All disposal should be in accordance with applicable Federal, state or local procedures.

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.

CROP USE DIRECTIONS

FIELD CORN, HYBRID SEED CORN, SALAGE CORN AND SWEET CORN.

Broadcast (over-all treatment) -- Apply 20 to 30 pounds of granular Ramrod 20 per acre on soil surface after planting and prior to emergence of either crop or weeds. See table below for recommended rates on various soil textures and levels of organic matter. In areas of heavy grass or broadleaf weed infestations use the higher rate shown for your soil texture.

SOIL TEXTURE	BROADCAST RATES PER ACRE	
	Less than 3% organic matter	More than 3% organic matter
Sand to Sandy Loam	20 lbs.	25 lbs.
Silt Loam	22 lbs.	27 lbs.
Clay Loam to Clay	25 lbs.	30 lbs.

Band Treatment (Behind Press Wheel) -- Apply granular Ramrod 20 on soil surface after planting and prior to emergence of either crop or weeds. Use the higher broadcast rate for high organic soil, or in areas of heavy grass or broadleaf weed infestations. With the broadcast rate for your soil texture, the following table gives the pounds per acre needed for your row spacing.

Broadcast Rate	BAND TREATMENT			
	20 lbs. / acre	25 lbs. / acre	27 lbs. / acre	30 lbs. / acre
14" BAND ON VARIOUS ROW SPACINGS				
ROW SPACINGS IN FEET	16	18	20	22
40	7.0	7.7	8.3	10.5
38	7.4	8.1	8.7	11.0
36	7.8	8.6	9.2	11.7
35	8.3	10.3	11.7	14.0

FOR LISTER OR DEEP FURROW PLANTED CORN.

Broadcast (over-all treatment) -- Apply granular Ramrod 20 at the broadcast rate of 25 to 30 pounds per acre.

Band Treatment (Behind Press Wheel) -- For a 7 inch band treatment over the row (38 inch spacing), apply 4.6 to 5.5 pounds of granular Ramrod 20 per acre.

If heavy rains follow application, the treatment on the top and sides of the furrow may not provide as good weed and grass control as that obtained in the bottom of the furrow.

FOR FURROW IRRIGATED CORN.

Granular Ramrod 20 must be incorporated into the soil by harrow, finger weeder or rotary hoe for weed control on furrow irrigated land. Shallow incorporation of at least one half inch but not more than 2 inches is most effective for weed control. Incorporation deeper than 2 inches will result in unsatisfactory weed control. If applied on very dry soil, irrigation is necessary to activate granular Ramrod 20. See the table above for recommended rates on various soil textures and levels of organic matter.

GRAIN SORGHUM (corn)
SOYBEANS (to be grown for seed only)

Broadcast (over-all treatment) -- Apply 20 to 25 pounds of granular Ramrod 20 per acre on soil surface after planting and prior to emergence of either crop or weeds. In areas of heavy grass or broadleaf weed infestations and on high organic matter soils, use 25 pounds per acre.

Band Treatment (Behind Press Wheel) -- Apply granular Ramrod 20 on the soil surface after planting and prior to emergence of either crop or weeds. Use the higher rate for high organic soil or in areas of heavy grass or broadleaf weed infestations.

Broadcast Rate	BAND TREATMENT		
	20 lbs. / acre	22 lbs. / acre	25 lbs. / acre
14" BAND ON VARIOUS ROW SPACINGS			
ROW SPACINGS IN FEET	16	18	20
40	7.0	7.7	8.3
38	7.4	8.1	8.7
36	7.8	8.6	9.2
35	8.3	10.3	11.7

NOTE: Do not graze or feed sorghum (milk) forage or silage from treated fields to dairy animals.

Do not use soybean seed for food feed or oil purposes.

Do not graze or feed soybean forage from treated area.

*Ramrod is a registered trademark of Monsanto Company.

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Granular
RAMROD 20
NET 50 LBS.



RAMROD. 20
Granular

NET 50 LBS.



Granular

RAMROD. 20

SELECTIVE HERBICIDE

For pre-emergence weed control in field corn, hybrid seed corn, silage corn, sweet corn, and grain sorghum (milo); and soybeans (for seed only).

READ "LIMIT OF WARRANTY AND LIABILITY" BEFORE BUYING OR USING IF TERMS ARE NOT ACCEPTABLE. RETURN AT ONCE UNOPENED

KEEP OUT OF REACH OF CHILDREN.

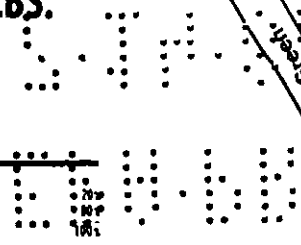
WARNING!
IRRITATING TO SKIN, EYES, NOSE AND THROAT.
MAY CAUSE ALLERGIC SKIN REACTION.

Avoid contact with eyes and skin.
While handling, wear freshly laundered cotton or clean rubber gloves.
Avoid breathing dust.
Do not take internally.
In case of contact, flush skin or eyes with plenty of water; for eyes, get medical attention.
Wash thoroughly after handling.
Launder clothing before re use.
Avoid contamination of seed, feed, and foodstuffs.

NET WT. 50 LBS.

USE ONLY IN ACCORDANCE WITH THE DIRECTIONS
NOT FOR USE AS A FERTILIZER

ACTIVE INGREDIENT:
2-chloro-N-isopropylacetamide
INERT INGREDIENTS



NET 50 LBS.

RAMROD 20

Granular



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ACCEPTED
JAN 28 1985
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-152



Granular

RAMROD 20

SELECTIVE HERBICIDE

For pre-emergence weed control in field corn, hybrid seed corn, silage corn, sweet corn, and grain sorghum (milo); and soybeans (for seed only).

READ "LIMIT OF WARRANTY AND LIABILITY" BEFORE BUYING OR USING. IF TERMS ARE NOT ACCEPTABLE, RETURN AT ONCE UNOPENED.

KEEP OUT OF REACH OF CHILDREN.

WARNING!
IRRITATING TO SKIN, EYES, NOSE AND THROAT.
MAY CAUSE ALLERGIC SKIN REACTION.

Avoid contact with eyes and skin.
While handling, wear freshly laundered cotton or clean rubber gloves.
Avoid breathing dust.
Do not take internally.
In case of contact, flush skin or eyes with plenty of water; for eyes, get medical attention.
Wash thoroughly after handling.
Launder clothing before re-use.
Avoid contamination of seed, feed, and foodstuffs.

NET WT. 50 LBS.

ACTIVE INGREDIENT
2-chloro-N-isopropylacetamide 20%
INERT INGREDIENTS: 80%
100%

PRINT: PMS 362 Green
MINIATURE FOSMILE
Type Size Meets Requirements

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PMS 25



sidered normal at the application site and for the time period when the product is applied within the normal range being determined on the basis of the average range for the prior 40 years computed from the best available information, and weather periods, including but not limited to hurricanes, tornadoes and floods as well as weather considerations set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions or the presence of products other than those set forth in the Directions in or on the soil or crop.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT NEGLIGENCE STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED OR AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY OR IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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GENERAL INFORMATION

Ramrod 20 is recommended for use as a pre-emergence herbicide to control most annual grasses and certain broadleaf weeds. It should be applied to the soil surface prior to weed or crop emergence. The soil surface should be freshly worked and free of weed top growth. The seed bed should be firm, firm and free of clods and trash.

Some moisture either as rain or irrigation is required soon after application to activate Ramrod 20. On light sandy loam soil one-third inch of rainfall and on heavy clay and/or high organic soils one-third to three-fourths inch of rainfall is required depending upon original soil moisture. Best results are obtained when moisture occurs within 10 days after application. Generally lower amounts of rainfall are required where soil moisture is high at time of planting.

Ramrod 20 with lesser amounts of rainfall in some instances will allow the grass seedlings to emerge, but they will be severely stunted and with a subsequent cultivation they can be covered up.

If soil crusting becomes a problem and tilling is necessary, hoe to the same direction the rows are planted.

Where deep lister planting is practiced only partial weed control can be expected on steep furrow sides. It is suggested that a 7 inch band be applied at the bottom of the furrow. Best results can be expected where the granules lie on an even flat surface not subject to shifting by wind or rain.

With broadcast treatment of 25 to 30 lbs Ramrod 20 controlling the grasses and weeds, there is no need for cultivation. For band treated fields when lister cultivation is made, set cultivator to tillage depth into the soil covering the band.

NOTE: Rates of application given on this label are general. Consult your Agricultural Experiment Station or Extension Service. Weed experts concerning specific usage, dosages and methods of application.

La. Sedges	<i>Xenopodium album</i>
Carpetweed	<i>Rigweed</i>
<i>Moringa verticillata</i>	<i>Amaranthus spp</i>
Crabgrass	<i>Panicum</i>
<i>Digitaria spp</i>	<i>Portulaca oleracea</i>
Fall Panicum	<i>Ragweed</i>
<i>Panicum</i>	<i>Ambrosia artemisiifolia</i>
<i>dichotomiflorum</i>	<i>Sandspur</i>
Florida Pusley	<i>Cenchrus spp</i>
<i>Rickardia scabra</i>	<i>Shoehornplant</i>
Great Foxtail (Wild Millet)	<i>Cassia bursa-pastoris</i>
<i>Setaria faberii</i>	<i>Smartweed</i>
Green Foxtail	<i>Polygonum lasiocarpum</i>
<i>Setaria viridis</i>	<i>ooh</i>
Yellow Foxtail	<i>Wild Buckwheat</i>
<i>Setaria glauca</i>	<i>Polygonum convolvulus</i>

*At 25 to 30 pounds per acre granular Ramrod 20 Granular Ramrod 20 WILL NOT CONTROL Johnson grass, Canada thistle, field bindweed, quackgrass, morning glory, cocklebur and bull needle.

CALIBRATION AND APPLICATION INSTRUCTIONS

It is important that the applicator be calibrated properly to deliver the desired amount of Ramrod 20 to avoid applying too little or too much material. To calibrate, attach a cloth bag or strong plastic bag over the spreader plate or remove the delivery tube and at each plastic measuring bottle over the spout. Operating over normal terrain to be planted, at planting speed collect the granules for the hundred (100) linear feet and measure the VOLUME ounces collected. Use the following table to determine the correct volume of granules required for a 14 inch band at a given broadcast application rate.

lbs. Per Acre To Be Applied	Volume To Be Collected (in 100 Feet)
(Broadcast Rate)	
20	6 1/2 oz
25	7 3/4 oz
30	9 1/2 oz

Use plastic measuring bottle or other measuring container gently to settle the granules when taking a reading. Adjust the application equipment so that each spout dispenses the proper amount.

For broadcast (over-all) treatment - use broadcast applicators or fertilizer spreaders that can apply small amounts of granules evenly.

For band treatment - use applicators designed for this purpose. Calculate the amount of granules per acre needed for band treatment as follows:

Band Width in Inches	Recom- mended Over all Rate	=	Pounds of Ramrod 20 needed per acre for band treatment
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For example, if 25 pounds per acre are recommended for over-all treatment and you wish to treat a band of 14 inches wide in crop rows spaced 38 inches apart:

14 x 25 = 352 pounds of granules needed per acre of crop for the band treatment

For application of granular Ramrod 20 do not rely on settings used for other granular herbicides.

Storage & Disposal

Do not contaminate water, foodstuffs, seed or feed by storage and disposal.

DISPOSAL:

Wastes resulting from the use of this product that cannot be used, chemically reprocessed, should be disposed of in a landfill approved for pesticide disposal.

SOIL TEXTURE	organic matter	organic matter
Sand to Sandy Loam	20 lbs.	25 lbs.
Silt Loam	22 lbs.	27 lbs.
Clay Loam to Clay	25 lbs.	30 lbs.

Band Treatment (Behind Press Wheel) - Apply granular Ramrod 20 on soil surface after planting and prior to emergence of either crop or weeds. Use the higher broadcast rate for high organic soils, or in areas of heavy grass or broadleaf weed infestations. With the broadcast rate for poor soil texture, the following table gives the pounds per acre needed for your row spacing.

Broadcast Rate / Row Spacings	BAND TREATMENT			
	20 lbs. / 14" BAND	22 lbs. / 14" BAND	25 lbs. / 14" BAND	27 lbs. / 14" BAND
Row Spacings in feet	to 2 feet	to 2 feet	to 2 feet	to 2 feet
40	7.0	7.7	8.8	9.5
38	7.4	8.1	9.2	9.9
36	7.8	8.6	9.7	10.5
30	9.3	10.3	11.7	12.6

FOR LISTER OR DEEP FURROW PLANTED CORN.

Broadcast (over-all treatment) - Apply granular Ramrod 20 at the broadcast rate of 25 to 30 pounds per acre.

Band Treatment (Behind Press Wheel) - For a 7 inch band treatment over the row (38 inch spacing), apply 4.6 to 5.5 pounds of granular Ramrod 20 per acre.

If heavy rains follow application, the treatment on the top and sides of the furrow may not provide as good weed and grass control as that obtained in the bottom of the furrow.

FOR FURROW IRRIGATED CORN.

Granular Ramrod 20 must be incorporated into the soil by harrow, finger weeder or rotary hoe for weed control on furrow irrigated land. Shallow incorporation of at least one-half inch but not more than 2 inches is most effective for weed control. Incorporation deeper than 2 inches will result in unsatisfactory weed control. If applied on very dry soil, irrigation is necessary to activate granular Ramrod 20. See the table above for recommended rates on various soil textures and levels of organic matter.

GRAIN SORGHUM (mills)

SUITABLE (to be grown for seed only)

Broadcast (over-all treatment) - Apply 20 to 25 pounds of granular Ramrod 20 per acre on soil surface after planting and prior to emergence of either crop or weeds. In areas of heavy grass or broadleaf weed infestations and on high organic matter soils, use 25 pounds per acre.

Band Treatment (Behind Press Wheel) - Apply granular Ramrod 20 on the soil surface after planting and prior to emergence of either crop or weeds. Use the higher rate for high organic soil or in areas of heavy grass or broadleaf weed infestations.

Broadcast Rate / Row Spacings	BAND TREATMENTS		
	20 lbs. / 14" BAND	22 lbs. / 14" BAND	25 lbs. / 14" BAND
Row Spacings in feet	to 2 feet	to 2 feet	to 2 feet
40	7.0	7.7	8.8
38	7.4	8.1	9.2
36	7.8	8.6	9.7
30	9.3	10.3	11.7

NOTE: Do not graze or feed sorghum (mills) forage or stlage from treated fields to dairy animals.

Do not use soybean seed for food, feed or oil purposes.

Do not graze or feed soybean forage from treated area.

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Granular RAMROD 20

NET 50 LBS.