

Olin

Terraclor

2 LB. EMULSIFIABLE

Soil Fungicide

Controls certain soil-borne diseases of

Cotton • Beans • Garlic • Potatoes • Lawns • Ornamentals

ACTIVE INGREDIENT:

Pentachloronitrobenzene 24.0%

INERT INGREDIENTS: 76.0%

Total 100.0%

Contains 2 lbs. of Pentachloronitrobenzene per U. S. gallon at 68° F.

CAUTION

KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed. Avoid inhaling spray mist. This material may cause skin irritation. Wash hands and face thoroughly after using.

Use with adequate ventilation. Keep container closed. Avoid contamination of feed and foodstuffs.

CAUTION COMBUSTIBLE LIQUID

**DO NOT USE, POUR, SPILL OR STORE
NEAR HEAT OR OPEN FLAME.**

EPA Reg. No. 1258-279-AB

AGRICULTURAL DIVISION

LITTLE ROCK, ARKANSAS

LIN CORPORATION

Olin

USE CAUTIONS

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

Do not plant any root crop not registered for PCNB in rotation on PCNB treated soil.

DESTROY THIS CONTAINER WHEN EMPTY — NEVER RE-USE

DIRECTIONS FOR USE

BEANS (Root and Stem Rot - *Rhizoctonia solani*): FURROW - Application rates are to 14,500 linear feet of row for bush type beans and to 8,430 linear feet of row for pole beans. Apply 2-3 qts. in 8 to 10 gallons of water. Spray planting furrow and covering soil at planting time. Avoid applying directly to seed; otherwise delayed emergence may occur. In California and Arizona apply 3-4 pints in 8 to 10 gals. of water. Apply in-furrow and incorporate with covering soil at planting. Use lower rate for lighter soils. Avoid application to bare seed.

SNAP and DRY BEANS (White Mold - *Sclerotinia sclerotiorum*): Use 1 gal. mixed in 8 to 10 gals. of water and apply to 14,500 linear feet of row for bush type beans or to 8,430 linear feet of row for pole beans. Spray in an 8" wide band, centered on the row, immediately after or at time of seeding. Avoid applying directly to seed; otherwise delayed emergence may occur. (Where dinitro type pre-emergence herbicides are used, add 1 gallon to the final herbicide spray mix and apply simultaneously). If disease is severe, application may be repeated at 2 to 3 week intervals, using 1 or 2 nozzles per row and directing spray at base of plants. Do not apply after first bloom. Soil should remain undisturbed after treatment. Do not feed treated vines to livestock.

COTTON (Damping Off - *Rhizoctonia solani*): Use 1/2 to 1 gallon per acre in at least 15 gallons of water (per 13,000 linear feet of row based on 40" spacings). Spray on seed and surrounding soil at planting time. Do not allow the feeding or grazing of cotton foliage by livestock.

GARLIC (White Rot - *Sclerotium cepivorum*): Use 10 qals. mixed in 100 gals. of water and apply to 21,800 linear feet of row at planting time. Attach a suitable rig to the machine planter, using 2 nozzles per planting furrow. Direct the front nozzle to spray the bottom of the open furrow and the "seed" as it is dropped. Direct the rear nozzle to spray the covering soil.

POTATOES (*Rhizoctonia solani*): BROADCAST APPLICATION: - Apply 9 to 12 1/2 gals. to one acre mixed with sufficient water to total 25 gallons total volume. Apply to the soil surface prior to planting and thoroughly mix (disc and cross disc) to a depth of 4 inches. A drag harrow is usually attached behind the discs on the last discing. It is very important to thoroughly mix the Terraclor into the tuber-forming zone of the soil. It is desirable to make treatment when the soil is slightly moist.

DIRECTIONS FOR USE (cont.)

POTATOES (*Rhizoctonia solani*): - ROW (in furrow) APPLICATION: Use 5 gals. per 12,400 linear feet of row mixed in sufficient water to total 20 gallons of finished spray. Direct the spray solution to several points in the row to insure optimum treatment of the stem, stolon and tuber-forming zones, using three nozzles per row. Place one fan nozzle ahead of the furrow opening discs and two cone spray nozzles above and slightly ahead of the closing discs. Select nozzles that will deliver approximately 1/3 of the recommended spray volume per acre through each nozzle at the desired planting speed and pressure.

ORNAMENTALS

AZALEA AND CAMELLIA (Azalea Petal blight and Camellia flower blight): Apply as a drench under plants at a rate of 1 1/2 qts. in 30 gallons of water per 150 sq. ft. Begin application prior to opening buds and repeat every 3 to 4 weeks through the bloom period.

LAWNS (Brown Patch - *Rhizoctonia solani*): For Southern or warm season lawns such as St. Augustine, Bermuda and similar grasses: Make one application in the fall or spring at first indication of infection. Mix 1 qt. in sufficient water (10-15 gals.) to cover 1,000 sq. ft. Apply by means of a sprinkler can, spray or any other convenient method of obtaining even coverage. Following application, the treated area should be lightly watered to insure movement through the grass to the soil level. If the treated area is subjected to unusually heavy rainfall, or flooded, or if the disease is severe or reappears, the area should be retreated 3-4 weeks later. Under certain growing conditions, a temporary discoloration of the grass occasionally may occur. This causes no harm and will disappear in a short time. Do not graze treated areas. Do not feed clippings to livestock.

For Dichondra: Treat as above, using 1 1/2 qts. mixed in 40 gals. of water per 1,000 sq. ft.

NOTICE TO BUYER

Seller makes no warranty, express or implied, by operation of law or otherwise, except that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label. The product is sold in accordance with directions under normal conditions of use. This warranty shall not extend to the use of this product contrary to label instructions, or under abnormal conditions, or in combination with other materials or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any injury or damage resulting from such use. Seller shall not be responsible for special, consequential or contingent damages arising from a breach of this warranty.

PROTECT FROM TEMPERATURES BELOW 20° F.

LR374K-07W



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Terraclor and Olin

are Olin Trademarks

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BEANS: Root and Stem Rot, *Rhizoctonia solani*

In California and Arizona

SNAP and DRY BEANS: White Mold *Sclerotinia sclerotiorum*

COTTON: Damping Off, *Rhizoctonia solani*

GARLIC: White Rot, *Sclerotium cepivorum*

POTATOES: *Rhizoctonia solani*, BROADCAST APPLICATION

DIRECTIONS FOR USE (cont.)

POTATOES (*Rhizoctonia solani*) POW in furrow APPLICATION

ORNAMENTALS

AZALEA AND CAMELLIA: Azalea Petal blight and Camellia Flower blight

LAWNS: Brown Patch, *Phytophthora*

For Dichondra

NOTICE TO BUYER

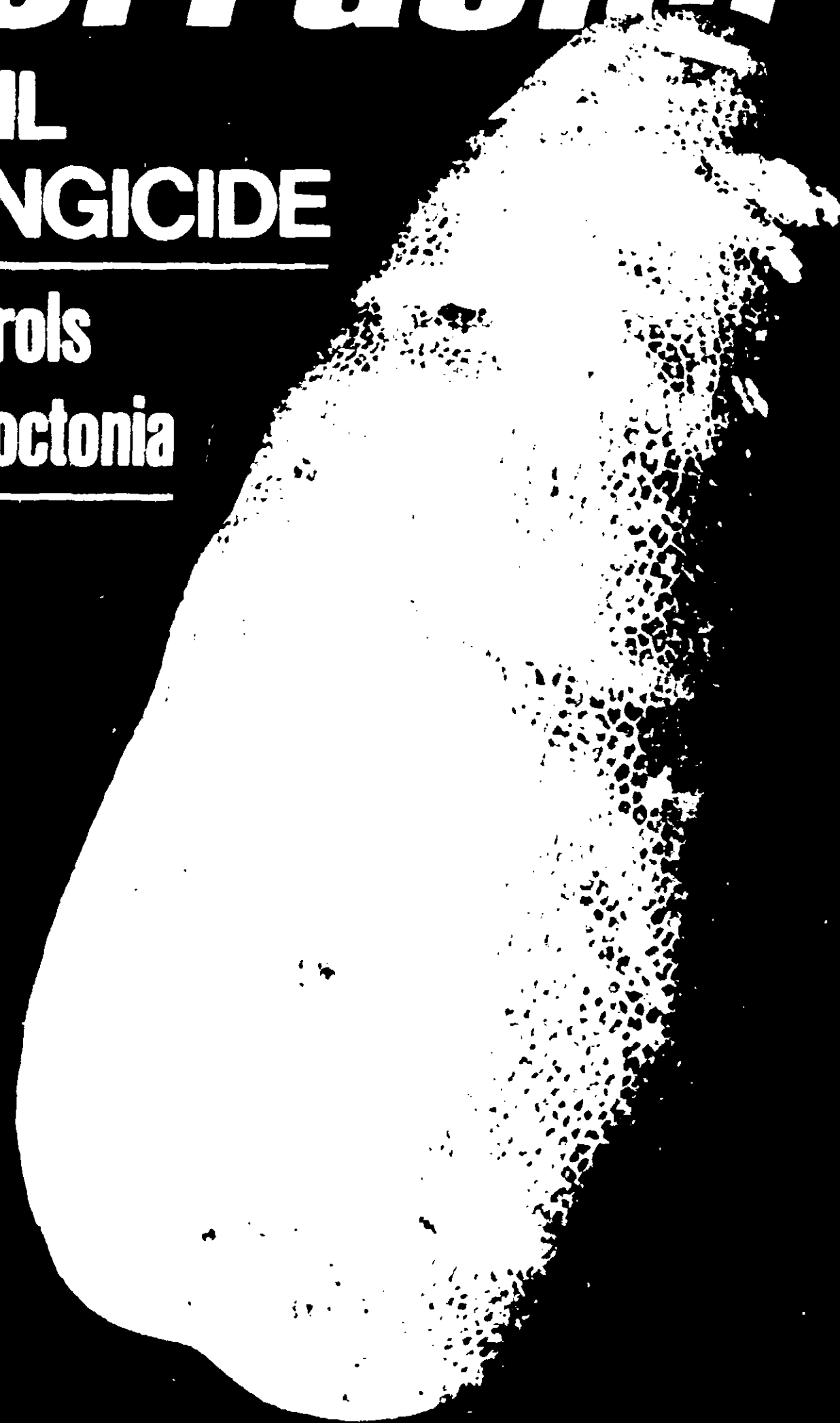
PROTECT FROM TEMPERATURES BELOW 20° F

RS74K-07W

Terraclor

**SOIL
FUNGICIDE**

**Controls
Rhizoctonia**



Another fine product from the rare bird in the business  Olin

Here's how Terraclor works: Rhizoctonia is a major limiting factor to optimum potato production and in some years can cause extensive reductions in both yield and quality.

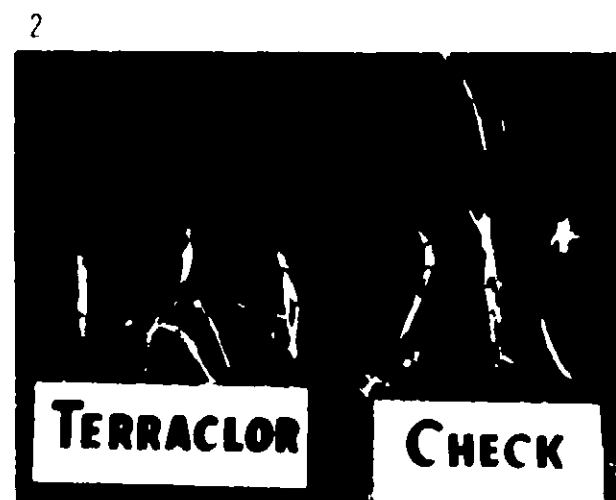
The effective control of Rhizoctonia should be of prime concern to potato growers in the cool climate areas where the optimum growing season is limited by freezing temperatures and the natural regenerative powers of the potato plant cannot be relied upon. Also, in the warmer climates where tubers must be dug in advance of excessive soil temperatures to prevent heat spoilage in the field, early stolon development and tuber set must be protected from Rhizoctonia disease if optimum production is to be realized. Rhizoctonia can also be a factor in preventing emergence of young seedlings, causing poor stand uniformity.

Know the disease

Rhizoctonia may attack the potato plant in several ways and is recognizable by a number of striking characteristic symptoms. A common indication is hills in which sprouts decay or "burn off" to be succeeded by secondary sprouts, which in turn may decay.

In later stages, affected plants show symptoms similar to those of drought injury, with curling of the leaves (Photo 1) and stunting or rosetting. The stems are often decayed at or below the soil line (stem canker), as seen in the comparison in Photo 2. This results in low yields, as seen in Photo 3, where no Terraclor was used. Stem canker interrupts the downward flow of food, which often results in the formation of clusters of small green or reddish aboveground (aerial) tubers. Underground, stolons and secondary feeding roots may be severely killed back, to be replaced by successions of nonproductive adventitious rootlets and stolons. Infected vines produce a high percentage of small sub-quality tubers. Probably the best known symptom occurs on the surface of the tuber: a black,

crust-like deposit which appears as "dirt that won't wash off" or "black scurf." (4) This form materially affects grade and acceptance of the tuber for seed. Other less-common tuber symptoms sometimes encountered are a brown, deep stem-end rot, jelly-rot of the stem end, and dry blackened pits or lesions at the lenticals or "eyes." Rhizoctonia infection is favored by high moisture, cool soil temperatures (48-70° F.), heavy soils, high fertility, and a soil pH of 7.0 or less.



How to use Terraclor



A. Broadcast Application (2-lb. emulsifiable concentrate):

Terraclor should be sprayed evenly over the soil surface prior to or during seed bed preparation. A slightly moist soil surface is desirable.

The spray method of application provides the greatest degree of effectiveness with least investment in application equipment. A standard broadcast spray boom equipped with 800 series fan nozzles or "K" series flood nozzles is recommended (see Table No. 1 for suggested tractor speeds and nozzle sizes). An agricultural roller or gear pump with a minimum 15 gal./min. capacity mounted on the tractor power take-off shaft, an appropriate pressure regulator, gauge, line strainer, quick cut-off valve and necessary hoses for intake, by-pass and boom hookups are required. Standard tractor mounted drum racks carrying 55-gallon drums are recommended. Larger capacity tanks will require additional agitation necessitating greater supplemental pump capacity or special hydraulic agitation arrangements. Even distribution over the entire field is very important. Best consistent results can be obtained only with good, properly-calibrated equipment.



SOIL MIXING:

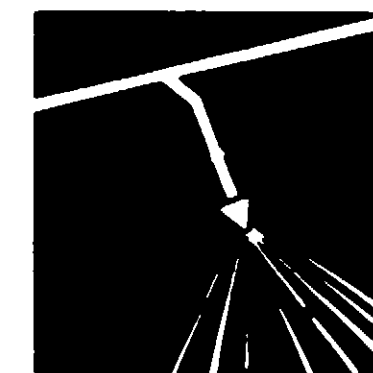
Terraclor must be very thoroughly mixed with the top four inches of soil to be completely effective. Good, uniform mixing can be the difference in the success or failure of the disease control program.

Uniform mixing may be obtained by discing and cross-discing to a depth of four inches, using a tandem off-set mixing disc. It is suggested that the spray boom be mounted on the disc-frame directly ahead of the forward disc gangs for optimum control of the spray pattern and to assure that the entire swath of the disc will be treated. Alternatively, the boom may be mounted beneath the tractor immediately ahead of the rear wheels. The boom should be of sufficient width to avoid untreated strips in the field. Experience has shown that chemical mixing in the soil occurs to a depth approximately one-half the cut of the disc. (A disc running 8" deep will mix to a depth of 4 inches.) Terraclor should not be mixed deeper than 4 inches. Rototillage does a good job of incorporating Terraclor, but care should be taken to prevent simply "turning over" the Terraclor in the soil. A spike tooth harrow equipped with a drag board should follow the final discing or rototilling.

Poor soil mixing or excessive direct spraying of the seed piece may result in delayed emergence and temporary stunting; however, the plants will usually attain their normal height and vigor in a short period of time with no measurable delay in maturity or effect on yield.

Terraclor may be applied and mixed into the soil immediately prior to planting, or up to several months prior to planting without sacrificing the effectiveness of Terraclor. Recent tests in Colorado show that Terraclor applied in the

fall (October) is as effective in controlling the Rhizoctonia diseases of potatoes as spring treatments (April) applied just prior to planting. Many growers may find fall treatment advantageous as it fits effectively into fall land preparation programs. Fall soil incorporation should be as thorough as that done in the spring. Remember, do not incorporate deeper than four inches.

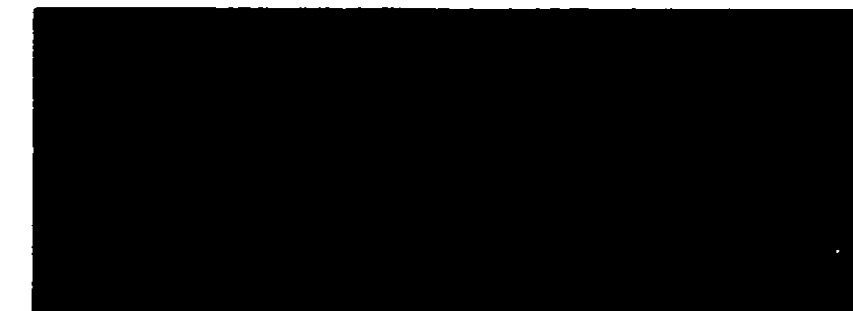


Modified Broadcast Row Application:

Western potato growers have successfully controlled Rhizoctonia diseases using this method of applying Terraclor. This modification entails the broadcast application of Terraclor, then pulling the treated soil into the beds at planting.

Specifically, Terraclor is broadcast evenly on the soil surface, followed by thorough incorporation by double discing or roto-tilling to a depth of four inches. When the potatoes are planted, the covering discs are positioned to pull about four inches of surface soil containing the incorporated Terraclor into the planting beds, forming a bed of Terraclor-treated soil surrounding and over the seed pieces.

Terraclor Broadcast Dosage Rates		
Equipment	Rate (lb. per acre)	Tractor Speed (m.p.h.)
800 Series Fan Nozzles	2.0	4.0 - 5.0
"K" Series Flood Nozzles	2.0	4.0 - 5.0



Here's how Terraclor works:

Rhizoctonia is a major limiting factor to optimum potato production and in some years can cause extensive reductions in both yield and quality.

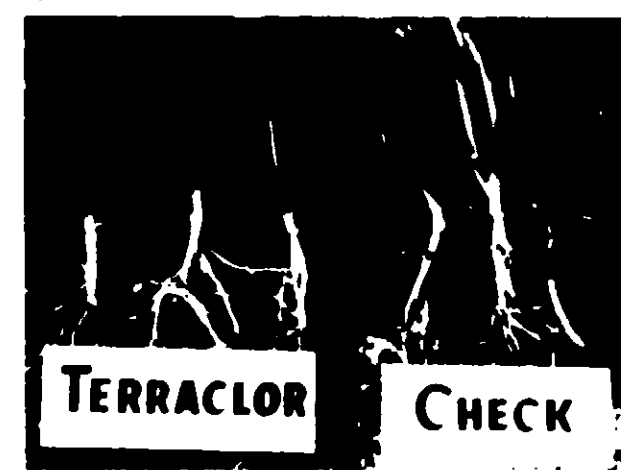
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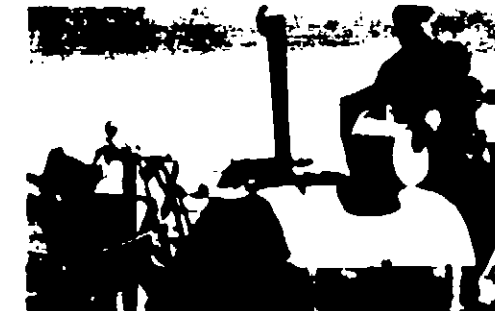
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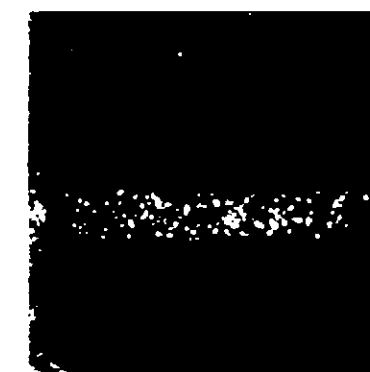


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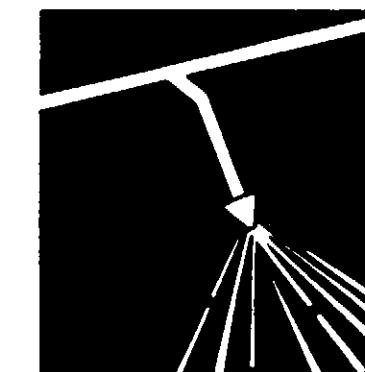
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Terraclor Broadcast Dosage Rates:

Formulation	Dosage / Acre	Active Terraclor / Acre
Terraclor 2-lb. Emulsifiable Concentrate	9.0-12.5 gal.	18-25 lb.

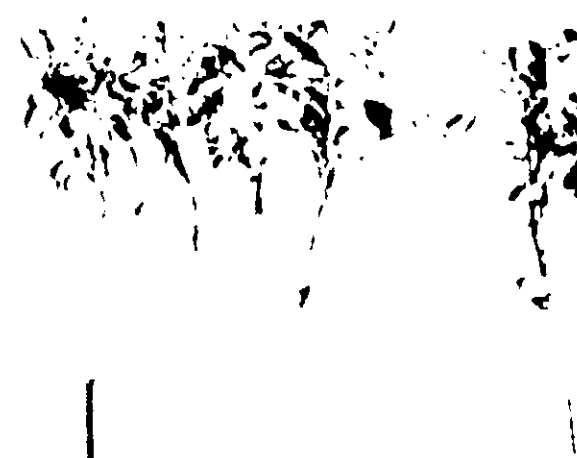
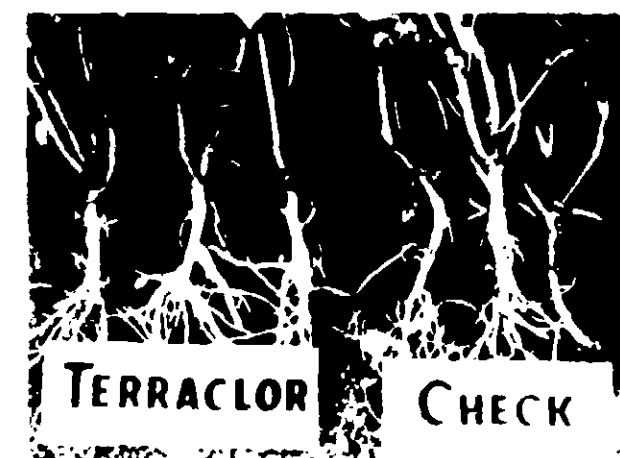


Here's how it works:

Know the disease

Root rot is a common soil-borne disease of many plants. It is caused by a fungus which attacks the roots of the plant. The fungus enters the roots through wounds or by growing into the roots. Once inside the roots, the fungus kills the root tissue. This causes the plant to wilt and eventually die. Root rot is most common in plants that are grown in soil that is too wet or too dry. It is also common in plants that are grown in soil that is too rich in nitrogen. Root rot can be prevented by using good cultural practices, such as watering properly and using well-drained soil. Terraclor is a fungicide that can be used to control root rot. It is applied to the soil around the base of the plant. Terraclor kills the fungus that causes root rot, preventing it from spreading to other plants.

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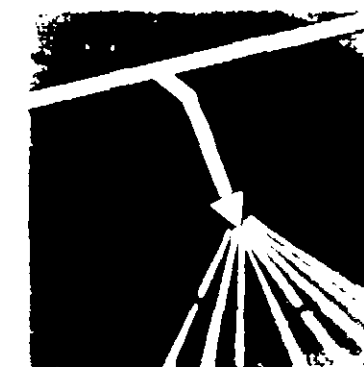


How to use Terraclor

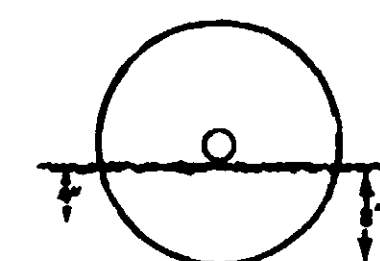


Tractor-mounted applicators are used to apply Terraclor to the soil around the base of the plants. The applicator is attached to the tractor and is operated by the driver. The applicator sprays the product onto the soil in a fan-shaped pattern around the base of the plants. This ensures that the product is applied evenly and thoroughly. The tractor-mounted applicator is the most efficient way to apply Terraclor to a large area of land.

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Terraclor 2-lb. Emulsifiable Concentrate	9.0-12.5 gal.	10-25 lb.

Table No. 1 — Suggested Tractor Speeds and Nozzle Sizes — Broadcast Application — 25 Gal./Acre (approx.)

Tractor Speed (m.p.h.)	Seconds Required to Travel 300 ft.	Nozzle Size	Boom Nozzle Spacing	Gauge Setting (p.s.i.)	Gal./Acre
2	102	8001 5	20"	50	25
		1 1/8 K 2	40"	30	26
3	68	8003	20"	30	26
		1 1/8 K 2 5	40"	40	25
4	51	8003	20"	50	25
		1 1/8 K 5	40"	20	27
5	41	8005	20"	30	26
		1 1/8 K 5	40"	30	26
7.5	27	8008	20"	25	25
		1 1/8 K 7 5	40"	30	26
10	20	8010	20"	30	26
		1 1/8 K 10	40"	30	26

Recommended tank mix dilution ratios: Terraclor 2-lb. EC to water per acre:

18 lb./acre (active) — 25 gal. total volume

9.0 gal. Terraclor 2-lb. EC to 16 gal. water per acre

25 lb./acre (active) — 25 gal. total volume

12.5 gal. Terraclor 2-lb. EC to 12.5 gal. water per acre

B. In-Furrow or Row Application:

Terraclor 2-lb. Emulsifiable Concentrate may be applied in the row at planting time, using tractor/planter mounted spray equipment. In-furrow application provides a main advantage of combining the Terraclor application and planting into a single operation, this eliminating tractor equipment and man-hour costs involved in the separate broadcast operation. Additionally, only two-fifths (10 lb. active Terraclor/acre) of the broadcast rate is required, materially reducing the chemical cost per acre. Experimental results indicate some measurable performance differences in the in-furrow versus broadcast methods of application. Performance is usually in favor of the broadcast method.

Spray Application:

It is important to distribute the spray at several points in the row to insure optimum treatment of the stem, stolon and tuber-forming zones. Tests have shown the use of three nozzles per row to give adequate coverage. The sprayer should be calibrated to deliver approximately 20 gallons of total volume per acre.

The following nozzle arrangement has performed well and is suggested:

1. One 800 series fan nozzle placed ahead of furrow-opening discs
2. Two TX series cone spray nozzles placed above and slightly ahead of closing discs to insure coverage of soil falling over the potato seed piece

For the above arrangement, select nozzle sizes that will deliver approximately $\frac{1}{3}$ of the suggested spray volume per acre through the leading nozzle and $\frac{2}{3}$ of the volume per acre through the trailing covering soil nozzles at the desired planting speed and pressure (see Tables 2 and 2A).

The total spray pattern should be of sufficient width to treat all of the soil which is moved by action of the planter.



- Terraclor spray pattern
- 1 — location of front fan nozzle
 - 2 — location of 2 rear cone nozzles
 - 3 — furrow opening discs
 - 4 — fertilizer drop tubes
 - 5 — seed piece drop tube
 - 6 — closing discs

Table No. 2 — Seed Furrow Application — 36" Row

Tractor Speed (m.p.h.)	Nozzle Front	Nozzle Rear (2)	Gauge Setting (p.s.i.)	Gallons/Acre Front	Gallons/Acre Rear	Gallons/Acre Total
3	8001.5E	TX-6	40	7.4	13.2	20.6
	9501.5E					
4	8002E	TX-8	40	7.4	13.2	20.6
	9502E					
5	8002E	TX-10	40	6.0	13.2	19.2
	9502E					

Recommended Tank Mix: 1 gal. Terraclor 2-lb. EC to 3 gal. water;
Apply approximately 20 gal. mix per acre

Table No. 2A — Tractor Speeds

Speed (m.p.h.)	Time Required to Treat 1 Acre (200 Feet)
1.0	205
1.5	136
2.0	102
2.5	82
3.0	68
3.5	58
4.0	51
4.5	45
5.0	41



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It is important to distribute the spray at several points in the row to insure optimum treatment of the stem, stolon and tuber-forming zones. Tests have shown the use of three nozzles per row to give adequate coverage. The sprayer should be calibrated to deliver approximately 20 gallons of total volume per acre.

The following nozzle arrangement has performed well and is suggested:

1. One 800 series fan nozzle placed ahead of furrow-opening discs
2. Two TX series cone spray nozzles placed above and slightly ahead of closing discs to insure coverage of soil falling over the potato seed piece

For the above arrangement, select nozzle sizes that will deliver approximately $\frac{1}{3}$ of the suggested spray volume per acre through the leading nozzle and $\frac{2}{3}$ of the volume per acre through the trailing covering soil nozzles at the desired planting speed and pressure (see Tables 2 and 2A).

The total spray pattern should be of sufficient width to treat all of the soil which is moved by action of the planter.



Terraclor spray pattern
1 — location of front fan nozzle
2 — location of 2 rear cone nozzles
3 — furrow opening discs
4 — fertilizer drop tubes
5 — seed piece drop tube
6 — closing discs

Table No. 2 — Seed Furrow Application — 36" Row

Tractor Speed (m.p.h.)	Nozzle Size		Gauge Setting (p.s.i.)	Gallons/Acre		Gallons/Acre Total
	Front	Rear (2)		Front	Rear	
3	8001.5E	TX-6	40	7.4	13.2	20.6
	9501.5E					
4	8002E	TX-8	40	7.4	13.2	20.6
	9502E					
5	8002E	TX-10	40	6.0	13.2	19.2
	9502E					

Recommended Tank Mix: 1 gal. Terraclor 2-lb. EC to 3 gal. water;
Apply approximately 20 gal. mix per acre

Table No. 2A — Tractor Speeds

Speed (m.p.h.)	Time Required in Seconds to Travel 300 Feet
1.0	205
1.5	136
2.0	102
2.5	82
3.0	68
3.5	58
4.0	51
4.5	45
5.0	41

