

Reg # 3125-58

PM-15

1970

U.S. LABEL

Reason to Issue: To add insects on
ornamentals.

Date of Draft: 5/17/67 (Pre-Reg.)

SDA Reg. No. 3125-58

® DI-SYSTON

5% GRANULAR

SYSTEMIC INSECTICIDE

AMENDMENT

To Previously Registered Label

ACCEPTED
OCT - 3 1967
UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENT CIDE ACT
FOR ECONOMIC POISON REGISTE
ED UNDER NOS 3125-58. SUBJECT
TO ATTACHED COMMENTS.

Amend as follows:

RECOMMENDED DI-SYSTON APPLICATIONS

TOP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
ORNAMENTALS	Aphids Lace bug Leafhoppers Mites <u>Soft scale</u> <u>(Coccus hesperidium)</u> Thrips Whiteflies	32 ounces per 150 to 300 feet of row	Apply in a band on each side of the seed furrow or as a band over the row. Work into soil and water thoroughly. For treatment of Easter lilies and gladiolus, apply the specified dosage in the furrow over the bulbs after they are set but before covering with soil. Do not make in-furrow applications to garden lily bulbs. The higher dosage is recommended for heavy organic or muck soils.
Shrubs Trees Forest Plantings (Note 1)	Aphids Birch leaf miner <u>Camellia scale</u> <u>Elm leaf beetle</u> <u>European elm scale</u> <u>Holly leaf miner</u> Juniper tip mites Lace bug Leafhoppers Mimosa webworm Mites Fine tip moth <u>Soft scale</u> <u>(Coccus hesperidium)</u> <u>Tea scale</u> Thrips Whiteflies	1/2 to 5 pounds per tree or 8 ounces per inch of trunk diameter	Spread granules uniformly from trunk to drip line on all sides. Work into soil and water thoroughly. The higher dosage is recommended for heavy organic or muck soils. For transplanting, equivalent quantities should be applied into planting hole or by dipping seedling in a puddling clay slurry made up of 2 parts by weight of DI-SYSTON 5% in 4 to 9 parts by weight of clay.

BEST AVAILABLE COPY

Note 1: For use by commercial growers or professional applicators only.

ALL LABEL TEXT ABOVE EXCEPT THAT WHICH IS UNDERLINED HAS HAD PREVIOUS REGISTRATION ACCEPTANCE.

Above amendment is the original submitted with this application.

Reg. U.S. 2/27/67

DI-SYSTON
5% GRANULAR
SYSTEMIC INSECTICIDE

FOR EFFECTIVE SYSTEMIC CROP
PROTECTION

NET WEIGHT POUNDS



DANGER

KEEP OUT OF REACH OF CHILDREN
(See rear panel for antidote
and warning statements)

GUARANTEE

ACTIVE INGREDIENT:
O,O-Diethyl S-[2-(ethylthio)ethyl]
phosphorodithioate/ 5%

INERT INGREDIENTS: $\frac{95\%}{100\%}$

/U.S. Patent No. 2,759,010
Canadian Patent No. 518,967

USDA Reg. No. 3125-58

STOP - READ THE LABEL BEFORE USE

MANUFACTURED BY
CHEMAGRO CORPORATION
KANSAS CITY, MO.

Note: Underlined letters in chemical nomenclature should be italicized when printed,
not underlined.

DI-SYSTON 5% Granular is a systemic insecticide that enters the plant through the root system. The insecticide when placed near the roots, is picked up and moves in the sap stream to all parts of the plant where it kills insects as they feed on the plant.

DI-SYSTON 5% Granular formulation is highly versatile and may be applied by various methods. It can be drilled in the furrow with seed, broadcast, or banded on each side of the seed furrow. Foliage broadcast application may be applied by ground or air equipment. Time and method of application and limits for use are discussed in detail for each specific crop under "Remarks" below.

As a preplant treatment for ornamental flowers, shrubs, and trees, apply granules evenly to seed bed and mix into soil; seeds or transplants are then placed in the normal manner. Established plants may be treated by distributing granules uniformly under foliage canopy. Mixing the granules into top soil and watering will accelerate entry into the plant, as the chemical will leach into the root zone and be taken up by the root system.

RECOMMENDED DI-SYSTON APPLICATIONS

IMPORTANT: When used on cotton, sugar beets, tomatoes, beans, or lettuce at the maximum recommended rates under adverse conditions such as extremely cool or wet or extremely dry weather, DI-SYSTON may cause some delay in emergence, stunting of seedlings, or reduction of stand. Such damage may be more pronounced in light, sandy soils. Plant injury may also occur or may be enhanced when certain pre-emergent herbicides are used in conjunction with DI-SYSTON.

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
<u>FIELD CROPS</u>			
Alfalfa	Aphids Mites	20 pounds per acre	Apply by broadcast treatment as needed. Allow a minimum of 28 days between applications.
Clover	Aphids Mites	20 pounds per acre	Apply by broadcast treatment as needed but not within 7 days of harvest or grazing. Allow a minimum of 28 days between applications.
Barley Oats	Aphids Mites	20 pounds per acre	Apply by drilling or broadcast at planting time, or as a broadcast after emergence. Do not apply more than twice per season nor within 60 days of harvest. Allow a minimum of 21 days between applications. Do not graze or cut for forage within 30 days of treatment.

DI-SYSTON 5% Gran.

RECOMMENDED DI-SYSTON APPLICATIONS

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS									
<p>FIELD CROPS (Continued)</p>												
<p>Corn</p>	<p>Rootworms Aphids Leafhoppers Mites Thrips</p>	<p>24 ounces per 1000 feet of row (for any row spacing*) or 20 pounds per acre (40 inch row spacing)</p> <p>Note: Do not apply to corn more than once per season regardless of the method of application.</p>	<p><u>Treatment at Planting Time:</u> Place the granules in a 4- to 6-inch band directly behind the planter shoe in front of the press wheel. Do not forage or cut treated corn for feed or ensilage within 40 days of planting. Do not harvest for human food purposes within 100 days of treatment.</p> <p><u>Post-plant Side-Dress Treatment:</u> An alternative treatment for early season control of aphids, leafhoppers, mites and thrips may be made as a side-dress application after emergence. Do not forage or cut treated corn for food, feed, or ensilage within 100 days of treatment.</p>									
<p>Cotton</p>	<p>Aphids Mites Thrips</p>	<p>14 to 24 ounces per 1000 feet of row (for any row spacing*) -or- 12 to 20 pounds per acre (40 inch row spacing)</p>	<p><u>At Planting:</u> Place the granules in the seed furrow or in a band on each side of the furrow.</p> <p>RATE CHART FOR PLANTING TIME APPLICATION</p> <table border="1" data-bbox="1023 1270 1719 1485"> <thead> <tr> <th>Heavy Soils</th> <th>Medium Soils</th> <th>Light Soils</th> </tr> </thead> <tbody> <tr> <td>24 oz. 5% Gran./1000 ft. of row</td> <td>20 oz. 5% Gran./1000 ft. of row</td> <td>14 oz. 5% Gran./1000 ft. of row</td> </tr> <tr> <td>20 lbs. 5% Gran./acre.</td> <td>16 lbs. 5% Gran./acre.</td> <td>14 lbs. 5% Gran./acre.</td> </tr> </tbody> </table> <p><u>Post-Plant:</u> (Irrigated Cotton Only) If an additional treatment is necessary make one side-dress application or a single broadcast application over the foliage. Rates up to 40 pounds per acre can be applied to first squaring cotton (90 days before harvest) and rates up to 20 pounds per acre can be applied to within 28 days of harvest. Do not apply more than twice per season. Allow a minimum of 21 days between applications. Read "IMPORTANT" statement under "Recommended DI-SYSTON Applications" for additional information before use on this crop.</p>	Heavy Soils	Medium Soils	Light Soils	24 oz. 5% Gran./1000 ft. of row	20 oz. 5% Gran./1000 ft. of row	14 oz. 5% Gran./1000 ft. of row	20 lbs. 5% Gran./acre.	16 lbs. 5% Gran./acre.	14 lbs. 5% Gran./acre.
Heavy Soils	Medium Soils	Light Soils										
24 oz. 5% Gran./1000 ft. of row	20 oz. 5% Gran./1000 ft. of row	14 oz. 5% Gran./1000 ft. of row										
20 lbs. 5% Gran./acre.	16 lbs. 5% Gran./acre.	14 lbs. 5% Gran./acre.										
<p>Peanuts</p>	<p>Aphids Leafhoppers Mites Thrips</p>	<p>22 to 44 ounces per 1000 feet of row (for any row spacing*) -or- 20 to 40 pounds per acre (36 inch row spacing)</p>	<p>Place the granules in a band on each side of the seed furrow at planting, or as a side-dressing after plants are established. Do not apply directly on the seed. Where necessary, granular may be applied in a band over the row or as a side-dressing at pegging time.</p>									

RECOMMENDED DI-SYSTON APPLICATIONS
(Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
FIELD CROPS			
(Continued)			
Rice	Leafhoppers	40 pounds per acre	Apply as a broadcast application at planting or prior to flooding. Do not apply more than twice per season nor within 100 days of harvest.
Sugar Beets	Aphids Leafhoppers Mites	18 ounces per 1000 feet of row (for any row spacing*) -or- 20 pounds per acre (30 inch row spacing)	Place the granules in the seed furrow 2 inches under the seed or in a band on each side of the seed furrow at planting; or apply to foliage and crown after emergence. Do not apply directly on the seed. Do not apply more than 3 times per season nor within 30 days of harvest. Allow a minimum of 21 days between applications. Read "IMPORTANT" statement under "Recommended DI-SYSTON Applications" for additional information before use on this crop.
Tobacco	Aphids Flea beetles	60 to 120 ounces per 1000 feet of row (for any row spacing*) -or- 40 to 80 pounds per acre (48 inch row spacing)	Apply in a 6- to 12-inch band over the row immediately before transplanting. Incorporate the granules by working them into the top 2 to 3 inches of soil. Set tobacco transplants into the band of treated soil.
	Southern Potato wireworm	40 to 80 pounds per acre	When applied in the above manner, DI-SYSTON will aid in control of this wireworm.
Wheat (Fall)	Hessian fly	20 pounds per acre	Apply by drilling or broadcast at planting time in the fall.
SEED FIELD CROPS			
Clover	Aphids Mites	30 pounds per acre	Apply by broadcast treatment as needed. Allow a minimum of 21 days between applications. Do not pasture or use treated crop for feed or forage.
Corn Soybeans	Aphids Leafhoppers Mites Thrips	24 ounces per 1000 feet of row (for any row spacing*) or 20 pounds per acre (40 inch row spacing)	Place the granules in a band on each side of the seed furrow at planting or as a side-dressing after plants are established. Do not pasture or use treated crop for feed, food, or forage. Do not apply directly to seed.
FRUIT			
Coffee (Puerto Rico Only)	Leaf miner	6 to 12 grams per foot of tree height	Distribute granules uniformly under the tree canopy. Do not apply more than twice per year. Make no more than one pre-harvest and one post-harvest application. Do not make the pre-harvest application within 90 days of harvest.

RECOMMENDED DI-SYSTON APPLICATIONS
(Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
FRUIT, (Continued)			
Pineapple	Mealybug	50 pounds per acre	Apply as a broadcast application, or topically by base leaf feeding after plants have developed root systems. Repeat as necessary but not more than twice per crop period nor within 60 days of harvest. When two treatments are used, do not ensile foliage less than one year after last application.
NON-BEARING FRUIT			
Fruit Trees	Aphids Lace bug Leafhoppers Mites Thrips Whiteflies	1/2 to 5 pounds per tree or 8 ounces per inch of trunk diameter	Spread granules uniformly from trunk to drip line on all sides. Work into soil and water thoroughly. The higher dosage is recommended for heavy organic or muck soils. For transplanting, equivalent quantities should be applied into planting hole.
Strawberries (Propagating Plants Only)	Aphids Mites (except cyclamen mite)	52 to 10 ⁴ ounces per 1000 feet of row (for any row spacing*) -or- 40 to 80 pounds per acre (42 inch row spacing)	Apply by side-dressing on each side of the row or by broadcasting over the row as needed. Do not use fruit from treated plants for food purposes.
NUTS			
Pecans (South Central & Southwestern States)	Aphids	30 to 60 pounds per acre	Apply by treating 6-foot bands of soil on both sides of the trees. The bands should be located under the main drip area of the trees. Work the granular into the upper 2 to 3 inches of soil. On irrigated pecans, apply water as soon as possible after treatment. Make only 1 application per season. Early spring treatment is recommended. Do not harvest nuts within 80 days of treatment.
VEGETABLES			
Beans	Aphids Leafhoppers Mexican bean beetle (larvae) Mites Thrips	18 to 38 ounces per 1000 feet of row (for any row spacing*) -or- 20 to 40 pounds per acre (30 inch row spacing) If grain drills or similar equipment are used which give narrow row spacing, do not exceed the 40-lb. per acre rate	For snap or green Lima beans, place the granules in a band on each side of the seed furrow at planting time only. For dry beans, apply as above at planting time or as a side-dressing on each side of the row after plants become established but not within 60 days of harvest. Do not apply directly on the seed. Do not apply more than once per season. Read " <u>IMPORTANT</u> " statement under "Recommended DI-SYSTON Applications" for additional information before use on this crop.

RECOMMENDED DI-SYSTON APPLICATIONS
(Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
VEGETABLES, (Continued)			
Brussels Sprouts	Aphids Flea beetles Leafhoppers Mites Thrips	22 ounces per 1000 feet of row (for any row spacing*) or 20 pounds per acre (36 inch row spacing)	Place the granules in a band on each side of the seed furrow at planting or as a side-dressing after plants become established. Do not apply directly on the seed. Do not apply more than twice per season, nor within 30 days of harvest for Brussels sprouts, or 40 days of harvest for cauliflower. Allow a minimum of 21 days between applications.
Cauliflower	Aphids Flea beetles Leafhoppers		
Broccoli	Aphids Flea beetles Leafhoppers	22 ounces per 1000 feet of row (for any row spacing*) or - 20 pounds per acre (36 inch row spacing)	Place the granules as a band on each side of the seed furrow at planting or as a side-dressing after plants become established. Do not apply directly on the seed. Do not apply more than once per season. Do not use within 14 days of harvest for broccoli or 42 days of harvest for cabbage.
Cabbage	Aphids Flea beetles Root aphid	34 ounces per 1000 feet of row (for any row spacing*)	
Lettuce	Aphids Leafhoppers Mites Thrips	12 to 24 ounces per 1000 feet of row (for any row spacing*) -or- 20 to 40 pounds per acre (20 inch row spacing)	<u>Spring or Summer Seeded Lettuce:</u> Use the higher rate on heavy organic soils. Place the granules in a band on each side of the row at seeding time only. Do not apply directly on the seed. Do not apply to transplanted lettuce. <u>Fall or Winter Seeded Lettuce:</u> Apply as a side-dressing at thinning time. Do not apply within 60 days of harvest. Read "IMPORTANT" statement under "Recommended DI-SYSTON Applications for additional information before use on this crop.
Peas	Aphids Leafhoppers	20 to 50 pounds per acre	Apply by drilling or broadcasting at planting time, or as a side-dress on each side of the row after emergence. Do not apply more than once per season nor within 50 days of harvest.
Potatoes	Aphids Flea beetles (except tuber flea beetles) Leafhoppers Potato psyllid Southern potato wireworm Colorado potato beetle (early season reduction)	46 to 70 ounces per 1000 feet of row (for any row spacing*) -or- 40 to 60 pounds per acre (38 inch row spacing)	Place the granules in the seed furrow or in a band on each side of the seed furrow at planting. Applications may also be made as a side-dressing after plants become established. Do not apply within 75 days of harvest. Higher rate to be used in organic soils.
Spinach	Aphids Leafhoppers Mites Thrips	12 ounces per 1000 feet of row (for any row spacing*) -or- 20 pounds per acre (20 inch row spacing.)	Place the granular in a band on each side of the seed furrow at planting time only. Do not apply directly on the seed.

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RECOMMENDED DI-SYSTON APPLICATIONS
(Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
<p><u>VEGETABLES, Cont.</u></p> <p>Tomatoes</p>	<p>Aphids Flea beetles Leafhoppers Leaf miners Mites Colorado potato beetle (early season reduction)</p>	<p>24 to 70 ounces per 1000 feet of row (for any row spacing*) or 20 to 60 pounds per acre (38 inch row spacing)</p>	<p>Apply in a band on each side of the seed furrow at planting time. Do not apply directly on the seed. Where 2 treatments are required, use only 24 to 48 ozs. of 5% Gran. per 1000 ft. of row, or 20 to 40 lbs. per acre, applied in a band on each side of the seed furrow at planting and as a side-dressing after plants become established. Allow a minimum of 21 days between applications. (Note: <u>Florida Only</u> - Rates up to 220 ozs. of 5% Gran. per 1000 ft. of row, with a 72 inch row spacing may be applied to highly alkaline soils in a band on each side of the seed furrow at planting time only; or where 2 treatments are required, up to 110 ozs. of 5% Gran. per 1000 ft. of row, with a 72 inch row spacing at planting time, and up to 110 ozs. of 5% Gran. per 1000 ft. of row as a side-dressing after plants become established.) Do not apply within 30 days of harvest. Read "IMPORTANT" statement under "Recommended DI-SYSTON Applications" for additional information before use on this crop.</p>
<u>SEED VEGETABLES</u>			
<p>Cowpeas (Southern Peas, Black-eyed Peas, Crowder Peas)</p>	<p>Aphids Leafhoppers Mites Thrips</p>	<p>24 to 48 ounces per 1000 feet of row (for any row spacing*) -or- 20 to 40 pounds per acre (38 inch row spacing)</p>	<p>Place the granules in a band on each side of the seed furrow at planting, or as a side-dress application after plants are established. Do not apply directly on the seed. Repeat as necessary. Do not pasture or use treated crop for feed, food, or forage.</p>
<p>Carrots Garlic Onions Radishes Turnips</p>	<p>Aphids Leafhoppers Mites Thrips</p>	<p>12 to 22 ounces per 1000 feet of row (for any row spacing*) -or- 20 to 40 pounds per acre (18 inch row spacing)</p>	<p>Place the granules in a band on each side of the seed furrow at planting. Do not apply directly on the seed. Broadcast or side-dress applications may be made after plants become established. Repeat as necessary. Do not pasture or use treated crop for feed, food, or forage.</p>

RECOMMENDED DI-SYSTON APPLICATIONS
(Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5%	REMARKS
<u>ORNAMENTALS</u> Flowers (Note 1)	Aphids Lace bug Leafhoppers Mites Thrips Whiteflies	32 ounces per 150 to 300 feet of row	Apply in a band on each side of the seed furrow or as a band over the row. Work into soil and water thoroughly. For treatment of Easter lilies and gladiolus, apply the specified dosage in the furrow over the bulbs after they are set but before covering with soil. Do not make in-furrow applications to garden lily bulbs. The higher dosage is recommended for heavy organic or muck soils.
Shrubs Trees Forest Plantings (Note 1)	Aphids Birch leaf miner Lace bug Leafhoppers Mimosa webworm Mites Pine tip moth Thrips Whiteflies	1/2 to 5 pounds per tree or 8 ounces per inch of trunk diameter	Spread granular uniformly from trunk to drip line on all sides. Work into soil and water thoroughly. The higher dosage is recommended for heavy organic or muck soils. For transplanting, equivalent quantities should be applied into planting hole or by dipping seedling in a puddling clay slurry made up of 2 parts by weight of DI-SYSTON 5% in 4 to 9 parts by weight of clay.

Note 1: For use by commercial growers or professional applicators only.

*FOR EXTREMELY NARROW ROW SPACING OR BROADCAST APPLICATION, DO NOT EXCEED THE MAXIMUM PER ACRE RATE.

SEED CROPS

Applications at the rates shown may be made at any time to all crops listed on this label provided they are being grown for seed purposes only and are not to be used for feed, food, or forage. For specific recommendations regarding timing of applications, etc., consult your local Agricultural Experiment Station or Extension Service.

RESTRICTIONS

Not for home garden use. In commercial topping of flowers by hand, clean gloves should be worn. Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not treat food crops grown in the greenhouse.

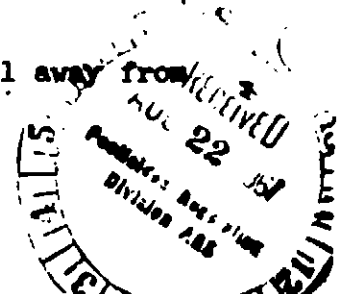
This product is poisonous to fish and wildlife. Keep out of lakes, ponds and streams. Do not apply in any manner not specified on the label.

CONTAINER DISPOSAL

DO NOT RE-USE THE CONTAINER - Completely empty the contents and bury the unused chemical at least 18 inches deep in an isolated location away from water supplies.

Burn the empty container completely. Exercise extreme caution and stay well away from the smoke.

Do not use container in any connection with feed, food, or drinking water.



WARNING

Poisonous if swallowed, inhaled, or absorbed through the skin. Rapidly absorbed through the skin. Do not get in eyes or on skin. Do not breathe dust. Wear protective clothing and cotton or natural rubber gloves. If cotton gloves are used, they must be laundered or discarded after each day's use. Do not wear the same gloves for other work. Rubber gloves should be washed with soap and water after each use.

When using DI-SYSTON 5% Granular on non-food crops in greenhouses or other enclosed areas, wear a mask or respirator of a type approved by the U.S. Department of Agriculture for DI-SYSTON protection.

Do not contaminate feed or food. Keep out of reach of children. Keep all unprotected persons out of the operating area or vicinity. Wash hands, arms, and face thoroughly with soap and warm water before eating or smoking. Wash all contaminated clothing with soap and hot water before re-use.

SYMPTOMS OF POISONING: A sense of "tightness" in the chest. Sweating. Contracted pupils. Stomach pains. Vomiting and diarrhea.

TREATMENT: In case of poisoning, call a physician immediately. Have patient lie down and keep quiet. If swallowed, induce vomiting by giving a tablespoonful of salt in a glass of warm water. Administer milk or water freely and again induce vomiting until vomit fluid is clear. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes.



TO PHYSICIAN:

ANTIDOTE - Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine.

Compound inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

PATENT LICENSE

The principal active ingredient of this product is patented under U.S. Patent No. 2,759,010 and Canadian Patent No. 518,967 of Chemagro Corporation, Kansas City, Missouri, and the purchase of this product includes a limited license under said patents to use or reformulate the product only in the manner provided by the recommended applications on the present label. The purchaser obligates itself to notify Chemagro Corporation of any proposed use or reformulation of such licensed product not provided by said recommended applications, and to obtain Chemagro's approval in writing before making any such use or reformulation of the licensed product. Any use, or reformulation intended for use, of the licensed product in the home or garden field is specifically prohibited by said license.

DI-SYSTON is Reg. TM in U.S. and Canadian Pat. Offs. by Farbenfabriken Bayer A.G., Chemagro Corporation licensee.