

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

360/425535
19/6

Mr. John S. Thornton, Manager
Miles Inc.
Agricultural Chemicals Division
P.O. Box 4913
Kansas City, Missouri 64120-0013

Dear Mr. Thornton,

Subject: Revised Labeling - Avian Granular Initiative
Di-Syston 5% Granular
✓ EPA Registration Number 3125-58
Di-Syston 10% Granular
EPA Registration Number 3125-61
Di-Syston Systemic Insecticide for Vegetables
EPA Registration Number 3125-126
Di-Syston 15% Granular Insecticide
EPA Registration Number 3125-172
Your Submissions Dated August 24, 1992

The label revisions referred to above submitted in response to EPA's Avian Granular Initiative are acceptable. Please submit 5 copies of complete labeling for our records.

Sincerely,

George T. LaRocca
Product Manager (13)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

Enclosure

cc: Margaret Rice
Special Review and Reregistration Division

CONCURRENCES

SYMBOL							
SURNAME	THU						
DATE	49/21/92						

58-7631.YLD

2 7 9
Base Pre-Reg. (7631)

U.S. LABEL

Date of Pre-Reg Draft: 8/20/92 (C)

Reason to Issue: To reduce avian exposure by adding soil incorporation to applications and decreasing the number of applications on peanuts and sorghum.

EPA Reg. No. 3125-58

RESTRICTED USE PESTICIDE

Acute human oral, dermal, and inhalation toxicity

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

**DI-SYSTON
5% GRANULAR
SYSTEMIC INSECTICIDE**

ACTIVE INGREDIENT:	
Q,0-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	5%
INERT INGREDIENTS:	<u>95%</u>
	100%

AMENDMENT

To Previously Registered Labeling

RECOMMENDED APPLICATIONS

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS									
<u>FIELD CROPS</u> Alfalfa Clover	Aphids Mites	20 pounds per acre	Apply only one broadcast treatment but not within 28 days of grazing or cutting for forage. Make only one application per crop season.									
Barley	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 for grain. Allow a minimum of 21 days between applications. Do not graze or cut for forage within 30 days of treatment									
Cotton	Aphids Mites Thrips	14 to 24 ozs per 1000 feet of row (for any row spacing*) -or- 12 to 20 lbs per acre (40-inch row spacing)	<p>At Planting: Place the granules in the seed furrow or in a soil incorporated band on each side of the furrow.</p> <p style="text-align: center;">RATE CHART FOR PLANTING TIME APPLICATION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Heavy Soils</th> <th style="width: 33%;">Medium Soils</th> <th style="width: 33%;">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>12 lbs. 5% Gran./acre</td> </tr> </tbody> </table> <p>Post Plant: (Irrigated Cotton Only) If an additional treatment is necessary, make one soil incorporated side-dress application. Do not apply more than twice per season. Allow at least 21 days between applications and at least 28 days between last application and harvest. Read "IMPORTANT" statement under "Recommended Application" 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	12 lbs. 5% Gran./acre
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RECOMMENDED APPLICATIONS (Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS
<u>FIELD CROPS</u> Peanuts	(Continued) Aphids Leafhoppers Mites Thrips	22 to 44 ozs per 1000 feet of row (for any row spacing*) -or- 20 to 40 lbs per acre (36-inch row spacing)	Place the granules in a soil incorporated band on each side of the seed furrow at planting, or as a soil incorporated side-dressing after plants are established. Do not feed treated vines.
Sorghum	Aphids (Greenbugs)	24 ozs per 1000 ft. of row (for any row spacing*) -or- 20 lbs per acre (40-inch row spacing)	Apply specified dosage by broadcasting into the whorl. Do not apply more than 1 time per season. Allow at least 30 days between application and harvest of grain and at least 14 days between application and harvest for forage or fodder.

RECOMMENDED APPLICATIONS (Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS
<p><u>FIELD CROPS</u></p> <p>Soybeans</p>	<p>(Continued)</p> <p>Aphids Leafhoppers Mites Thrips (except flower thrips) Mexican bean beetle</p>	<p>24 ozs per 1000 ft of row (for any row spacing*) -or- 20 lbs per acre (36 inch row spacing)</p>	<p>Place the granules in a 4-inch soil incorporated band over the seed furrow behind the planter shoe and in front of the press wheel or in a soil incorporated band on each side of the seed furrow at planting time. Do not apply directly on the seed.</p> <p><u>Soybeans Grown for Seed Only:</u> As an alternate to the applications above, soybeans grown for seed only can be treated with a soil incorporated band on each side of the seed furrow at planting time or with a soil incorporated side-dress after plants are established. Soybeans treated in this way should not be pastured and the treated crop cannot be used for feed, food or forage.</p>
<p>Tobacco</p>	<p>Aphids Flea beetles</p>	<p><u>Transplant Seed Beds:</u></p> <p>3 ounces per 100 square feet of bed</p>	<p>Apply evenly over bed area. Incorporate the granules thoroughly into the top 2 to 3 inches of soil; seed beds in normal manner. An alternative treatment may be made by broadcasting the granules evenly over the plants after emergence and watering to thoroughly incorporate the granules. Only one application may be made to transplant seed beds.</p>
	<p>Aphids Flea beetles **Southern potato wireworm</p>	<p><u>Field Application:</u></p> <p>60 to 120 ounces per 1000 feet of row (for any row spacing*) -or- 40 to 80 lbs per acre (broadcast or with 48 inch row spacing)</p>	<p>Apply in a 6- to 12-inch soil incorporated band over the row or as a soil incorporated broadcast treatment immediately before transplanting. Incorporate the granules by working them into the top 2 to 3 inches of soil. Plant crop in the usual way. Only one field application may be made per crop season regardless of DI-SYSTON formulation used.</p> <p>**DI-SYSTON 5% Granular will aid in control of this wireworm.</p>
<p>Wheat (Fall)</p>	<p>Hessian fly Aphids (Greenbugs) (Oat bird cherry) Grasshoppers</p>	<p>20 lbs per acre</p>	<p>Apply by drilling or broadcast at planting time in the fall. Make only one application and do not graze or cut for forage within 75 days of treatment.</p> <p><u>NOTE:</u> Due to greenbug resistance in certain areas, DI-SYSTON used alone may not provide satisfactory control. Consult your local agricultural advisor or Extension Service for recommendations.</p>

RECOMMENDED APPLICATIONS (Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS
<u>FRUIT</u> 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.
<u>NON-BEARING FRUIT</u> Fruit Trees (apples, apricots, cherries, crabapples, peaches, pears, plums, and prunes)	Aphids Lace bug Leafhoppers Mites Thrips Whiteflies	0.5 to 5 lbs per tree or 8 ozs 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. Do not apply to trees that will bear fruit during current crop year.
Strawberries (Propagating Plants only)	Aphids Mites (except cyclamen mite)	52 to 104 ozs per 1000 feet of row (for any row spacing*) -or- 40 to 80 lbs 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.
<u>NUTS</u> Pecans (South Central and South-western States) (NOTE 1)	Aphids	30 to 60 lbs 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 granules 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. Do not graze grass under treated trees. Do not mix this product with Phosalone.

RECOMMENDED APPLICATIONS (Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS
<p><u>VEGETABLES</u></p> <p>Beans</p>	<p>Aphids Leafhoppers Mexican bean beetle (larvae) Mites Thrips</p>	<p>18 to 38 ozs per 1000 feet of row (for any row spacing*) -or- 20 to 40 lbs per acre (30-inch row spacing)</p>	<p>For snap or green Lima beans, place the granules in a soil incorporated band on each side of the seed furrow at planting time only. For dry beans, apply as above at planting time or as a soil incorporated side-dressing on each side of the row. Allow at least 60 days between application and harvest. Do not apply directly on the seed. Only one application is allowed per season. Read "IMPORTANT" statement under "Recommended Applications" for additional information before use on this crop. Do not feed vines or hay.</p>
<p>Brussels Sprouts Broccoli Cabbage (Includes tight-heading varieties of Chinese cabbage) Cauliflower</p>	<p>Aphids Flea beetles Leafhoppers</p>	<p>22 ozs per 1000 feet of row (for any row spacing*) 20 lbs per acre (36-inch row spacing)</p>	<p><u>Transplant Seed Beds:</u> Apply granules evenly over bed area. Thoroughly incorporate into the top 2 to 3 inches of soil; seed beds in normal manner. An alternate seed bed treatment may be made by broadcasting the granules evenly over the plants after emergence and watering to thoroughly incorporate the granules. Do not apply more than one seed bed treatment</p> <p><u>Field Applications:</u> Place the granules as a soil incorporated band on each side of the seed furrow or transplanted row at planting and/or as a soil incorporated side-dressing after plants become established. Do not apply directly on the seed.</p>
<p>Brussels Sprouts</p>	<p>Mites Thrips</p>		<p>Only one field application is allowed for broccoli and cabbage. For broccoli, allow at least 14 days between application and harvest. For cabbage, allow at least 42 days between application and harvest.</p>
<p>Cabbage (Includes tight-heading varieties of Chinese cabbage)</p>	<p>Root Aphid</p>	<p>34 ozs per 1000 feet of row (for any row spacing*)</p>	<p>Two field applications are allowed for Brussels sprouts and cauliflower. For Brussels sprouts, allow at least 30 days between last application and harvest. For cauliflower, allow at least 40 days between last application and harvest. Allow a minimum of 21 days between applications.</p>

RECOMMENDED APPLICATIONS (Continued)

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS
<u>VEGETABLES</u>	(Continued)		
Lettuce	Aphids Leafhoppers Mites Thrips	12 to 24 ozs per 1000 feet or row (for any row spacing*) -or- 20 to 40 lbs 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 soil incorporated band on each side of the row at seeding time only. Do not apply directly on the seed. Do not apply to transplanted lettuce.
Peas	Aphids Leafhoppers	20 to 50 lbs per acre	Apply by drilling or broadcasting at planting time, or as a soil incorporated side-dress on each side of the row after emergence. Do not apply more than once per season nor within 50 days of harvest. Do not feed vines or hay.
Potatoes	Aphids Flea Beetles (except tuber flea beetles) Leafhoppers Potato psyllid Southern potato wireworm Colorado potato beetles (early season reduction)	46 to 70 ozs per 1000 feet of row (for any row spacing*) -or- 40 to 60 lbs per acre (38-inch row spacing)	<u>ROW TREATMENTS</u> Place the granules in the seed furrow or in a soil incorporated band on each side of the seed furrow at planting. An additional application may also be made as a soil incorporated side-dress after plants become established. Higher rate to be used in organic soils.
		60 to 80 lbs per acre	<u>BROADCAST APPLICATION</u> Apply specified dosage per acre as a preplant broadcast application. Incorporate granules into soil to a depth of 2 to 3 inches using a disc or other suitable equipment. Plant crop in usual manner. A postemergence soil incorporated side-dress may also be made after the plants become established. A total of 2 soil incorporated applications (row treatments and/or broadcast) is allowed per season. Allow at least 75 days between last application and harvest. See <u>NOTE 1</u> below for "foliar applications". Do not mix this product with Phosalone.

RECOMMENDED APPLICATIONS (Continued)

NOTE 1: East of the Rocky Mountains foliar applications of DI-SYSTON 8 may be made in addition to an at-planting soil incorporated treatment. Refer to label for DI-SYSTON 8.

NOTE 2: Colorado potato beetle populations in Northeast U.S. (except Maine) and in Virginia and North Carolina have developed resistance to some insecticides, including DI-SYSTON. Consult your state extension agent/agricultural advisor for insect resistance management strategies and recommended insect control methods for your area.

***ON ROW CROPS WHERE ROW SPACING IS EXTREMELY NARROW, DO NOT PLACE TREATED ZONES (BAND OR FURROW) CLOSER TOGETHER THAN 6 INCHES.**

CROP	INSECT	DOSAGE DI-SYSTON 5% G	REMARKS
<u>ORNAMENTALS</u> Flowers (NOTE 1)	Aphids Lace bug Leafhoppers Mites Thrips Whiteflies	32 oz per 150 to 300 square feet	Apply in a band on each side of the seed furrow, or as a band over the row. Incorporate thoroughly into soil and water heavily. The higher dosage is recommended for heavy organic or muck soils. For treatment of Easter lilies and gladiolus, apply 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.
Shrubs Trees Including Christmas trees (NOTE 1)	Aphids Birch leaf miner Camellia scale Elm leaf beetle European elm scale Holly leaf miner Lace bug Leafhoppers Mimosa webworm Mites Pine tip moth Soft scale (<u>Coccus</u> <u>hesperidium</u>) Tea scale Thrips Whiteflies	0.5 to 5 lbs per tree -or- 8 ounces per inch of trunk diam- eter measured 4 feet from the ground	Spread granules uniformly from trunk to drip line on all sides. Incorporate thoroughly into soil and water heavily so that no pesticide remains on the soil surface. 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% Granular in 4 to 9 parts by weight of clay.

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