

Caneberries — In Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries, Leafhoppers, Thrips, Aphids, Two-spotted Mites, Raspberry Scales. Mix 1 lb per 100 gals of water and apply up to 200 gals of spray per acre or apply 2 lbs per acre in sufficient water for thorough coverage.

Raspberry Fruitworms. Apply at the above rates when blossom buds separate and repeat application immediately before blossoms open.

Dryberry Mites. Mix 2 lbs per 100 gals of water. Apply as a dormant spray in early spring when canes are still on the ground and buds are closed. Make a second application when the buds are well developed but still closed.

Raspberry Crown Borers (Raspberry Root Borers). Mix 4 lbs per 100 to 200 gals of water and apply as a trench to the crown area and to the lower canes. Apply either in the spring before berries begin to form or in the fall after harvest.

Do not apply within 7 days of harvest.

Elm — Brown Apricot Scales, San Jose Scales, Black Scales, Black Cherry Aph, Eggs, Brown Mite eggs. Mix 1 1/2 lbs of Diazinon 50W plus 3 gals of dormant oil per 100 gals of water. Apply as a dormant spray.

Eye-spotted Bud Moths, Fruit-tree Leaf Rollers. Mix 1 lb per 100 gals of water. Apply in cover spray as necessary beginning with petal fall.

Leafhoppers. Apply 1 lb per 100 gallons of water in 3-5 applications beginning at petal fall and continuing through the growing season or apply as infestations develop.

Cherry Fruit Flies. Mix 1/2-1 lb per 100 gals of water. Make 3 or 4 applications beginning when adult flies begin to emerge and repeating at 10-day intervals.

Black Cherry Aphids. Mix 1 lb per 100 gals of water. Apply as a cover spray when aphids appear and repeat after 10 days.

San Jose Scale Crawlers. Mix 1 lb per 100 gals of water. Apply during the pre-bloom stage or when crawlers first appear.

Cherry Rust Mites. Mix 1/2-1 lb per 100 gals of water. Apply as a supplemental spray after harvest.

Do not apply within 10 days of harvest.

Cranberries — Black-Headed Fireworms, Rhopobola Naevana. Apply 4 lbs in 400 gallons of water per acre.

Cranberry Fruitworms. Apply 6 lbs in 400 gallons of water per acre.

Do not apply within 5 days of harvest.

Figs — Vinegar Flies (Drosophila spp.), Dried Fruit Beetle. Apply 1 lb per 100 gals of water. Do not apply within 5 days of harvest.

Filberts — Filbert Leaf Rollers, Aphids. Apply 2-4 lbs in 200-400 gals of water per acre as a thorough cover spray.

Citrus Fruits — Grapefruit, Lemon, Lime, Oranges, Tangerines, Citrus, Citrus Kumquats, and hybrids thereof. — Citrus Aphids, Cottony-cushion Scale Crawlers, and Soft Scale Crawlers. Apply 1/2-1 lb per 100 gals of water (maximum 1000 gals per acre) as a thorough cover spray when aphids and crawler stages of scale insects first appear.

Fruit Leaf Rollers. Mix 1/2-1 lb per 100 gals of spray (maximum 1000 gals per acre) when an average of 50 percent of eggs in egg masses have hatched in the spring.

Citrus Thrips. Apply 1 lb in 100 gals of water (maximum 1000 gals per acre) when thrips first appear.

Citrus Snow Scales. Apply 1-2 lbs per 100 gals water (maximum 1000 gals per acre) as a post-bloom spray and again as a summer spray. For heavy snow scale infestations use the higher dosage rate. Thorough coverage of tree trunk, limbs, and twigs is essential. Do not apply during bloom.

Do not apply to citrus within 21 days of harvest.

Grapes — Pacific Spider Mites, Leafhoppers, Grape Berry Moths, Grape Leaf Folders. Mix 1 lb per 100 gals of water and apply as a thorough cover spray or apply 2 lbs per acre in sufficient water for thorough coverage.

Do not apply within 16 days of harvest.

Drosophila spp. Mix 6 oz per 100 gals of water and apply as a thorough cover spray or apply a maximum of 18 oz per acre in sufficient water for thorough coverage when insects first appear. Make additional applications at weekly intervals as necessary.

Do not apply within 7 days of harvest. If a spreader-sticker is used, do not apply within 16 days of harvest.

Olives — Olive Scales. Mix 1/2-1 lb of Diazinon 50W plus 1 1/2 gals of light medium summer horticultural oil per 100 gals of water. Apply as a cover spray in June or July.

Do not apply during bloom to avoid injury to pollinating insects or within 75 days of harvest.

Pears and Nectarines — San Jose Scales, Brown Apricot Scales, Walnut Scales, Apricot Mealybugs. Mix 1 lb of Diazinon 50W plus 2 gals of dormant oil per 100 gals of water. Apply as a dormant spray.

Peach Twig Borers, Parlatona Scales. Mix 1 lb Diazinon 50W plus 1 gal of light medium summer horticultural oil per 100 gals of water. Apply at petal fall.

Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers. Mix 1 lb per 100 gals of water. Apply when aphids, mites, and scale crawlers first appear.

Olive Scale Crawlers. Mix 1/2 lb of Diazinon 50W plus 1 1/2 gals light medium horticultural oil per 100 gals of water. Apply when scale crawlers are present.

Oriental Fruit Moths. Mix 1 lb per 100 gals of water and apply at 100% petal fall. Make 2 additional applications at 10-15 day intervals. Time the last application to peak adult Oriental Moth flight, if possible.

Peach Twig Borers. Mix 1 lb per 100 gals of water and apply to peaches in May and June.

Leafhoppers (Peaches only). Apply 1 lb per 100 gals of water in 3-5 applications beginning at petal fall and continuing through the growing season, or apply as infestations develop.

White Peach Scale (Peaches only). As a post-harvest spray, apply 1 1/2-2 lbs per 100 gallons of water timed to coincide with peak crawler and immature scale activity. Under conditions of heavy infestations 2 applications may be necessary.

Do not apply to peaches within 20 days, or to nectarines within 10 days, of harvest.

Pears — Pear Leaf Blister Mites, Mealybugs, San Jose Scales, Brown Apricot Scales. Mix 1 lb of Diazinon 50W plus 2 gals of dormant oil per 100 gals of water. Apply as a dormant spray.

Pear Psylla. Mix 1/2-1 lb per 100 gals of water. Apply as a cover spray at pre-bloom stage. Make 1 to 2 additional applications during the first and second cover sprays if necessary.

Tentiform Leaf Miners, Mealybugs. Mix 1 lb per 100 gals of water. Apply in 3 cover sprays beginning in April.

Refer also to the Apples Section.

Do not apply within 14 days of harvest.

Pecans — Aphids, Mites, Pecan Nut Casebearers, Walnut Caterpillars. Apply 2-6 lbs per acre as a foliage spray. Do not apply after husks crack.

Pineapple — Pineapple Scales. Apply 10 lbs Diazinon 50W plus 2 gals of light or medium horticultural oil in 500 gals of water per acre to the vegetative slips on the plant following harvest of the pineapple.

Pineapple Mealybugs. Apply 4 lbs per acre. May be applied on day of harvest.

Pineapple forage and refuse may be fed to livestock 7 days following last application.

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Plums and Prunes — Peach Tw. Borer, Mealy Plum Aphid eggs, San Jose Scale, Parlatoria Scale, Brown Almond Mite. Mix 1 lb of Diazinon 50W plus 2 gals of dormant oil per 100 gals of water. Apply as a dormant spray. For late Apr. or May applications, mix 1 lb of Diazinon 50W plus 1 gal of light medium summer horticultural oil per 100 gals of water.

Brown Mites (Clover Mites), European Red Mites Apply 1 lb. in 100 gals of water.
Leaf Curl Plum Aphids, Mealy Plum Aphids, Thistle Aphids Apply 1 lb per 100 gals of water.

Do not apply within 10 days of harvest.

Strawberries — Aphids, Two-spotted Spider Mites. Apply 1 lb. in 100 gals of water per acre. Cyclamen Mites. Apply 2 lbs. in 100 gals. of water per acre, directing spray to plant crowns. Plants should be sufficiently agitated to assure thorough coverage of the foliage. Make additional applications, if necessary, after harvest.

Mole Crickets Broadcast 2 lbs. per acre when insects are present. Apply 1 to 2 days before transplanting and mix into the top 1-2 inches of soil immediately.

Strawberry Leaf Rollers Mix 1/2-1 lb. per 100 gals of water. Apply 200 gals spray per acre when blossoms show color.

Do not apply within 5 days of harvest.

Walnuts — Aphids, Mites. Apply 2 lbs. per acre as a foliage spray.
Codling Moths, Scale Crawlers, Walnut Caterpillars Apply 5 lbs. per acre.
Do not apply after the husks open.

VEGETABLE FOLIAR INSECTS

Diazinon 50W should always be applied as a spray in sufficient water to assure thorough coverage of the foliage.

Beans (Pole Beans, Snap Beans, Lima Beans) — Black Bean Aphid, Mexican Bean Beetles, Leaf Miners. Apply 1-1 1/2 lbs. per acre.

Cucumber Beetles Apply 1/2-1 lb. in 100 gals. of water per acre.

Do not apply within 7 days of bean harvest. Bean forage or bean hay may be fed to dairy and beef cattle and sheep. Wait 4 days following treatment if forage is to be cut for hay.

Lima Beans — Dipterous Leaf Miners, Leafhoppers, Mites. Apply 1 lb. per acre.

Do not apply within 7 days of bean harvest. Bean forage or bean hay may be fed to dairy and beef cattle and sheep. Wait 4 days following treatment if forage is to be cut for hay.

Broccoli, Cabbage, and Cauliflower — Aphids, Diamondback Moths, Imported Cabbage-worms, Dipterous Leaf Miners. Apply 1/2-1 lb. per acre. Applications at 7-10 day intervals will usually be required.

Do not apply to broccoli or cauliflower within 5 days or to cabbage within 7 days of harvest.

Brussels Sprouts — Aphids, Diamondback Moths, Imported Cabbage-worms. Apply 1 lb. per acre. Applications at 7-10 day intervals will usually be required.

Do not apply to brussels sprouts within 7 days of harvest.

Carrots — Aphids. Apply 1 lb. per acre.

Do not apply within 10 days of harvest.

Calery — Aphids, Flea Beetles. Apply 1 lb. in 100 gals. of water per acre.

Dipterous Leaf Miners Apply 1/2 to 1 lb. per acre in sufficient water to achieve thorough coverage when infestations first appear. Repeat as necessary.

Do not apply within 10 days of harvest. Plants should be market trimmed (tops removed) before being shipped or used. Tops should not be used for feed or food.

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Collards, Kale, Swiss Chard, and Turnip Tops — Aphids, Imported Cabbage-worms, Diamondback Moths, Harlequin Cabbage Bugs, Corn Earworms. Apply 1/2-1 lb. per acre. Do not apply to collards, kale, or turnip tops within 10 days, or to Swiss Chard within 12 days of harvest.

Cucumbers — Aphids, Serpentine Leaf Miners, Thrips. Apply 1 lb. per acre.

Do not apply within 7 days of harvest.

Lettuce and Endive — Aphids, Dipterous Leaf Miners. Apply 1/2-1 lb. per acre.

Do not apply within 10 days of harvest.

Melons and Squash (Cantaloupe, Casaba, Crenshaw, Honeydew Melons, Muskmelon, Persian Melons, and hybrids of these; Watermelons and their hybrids; Summer and Winter Squash) — Aphids, Leafhoppers, Mites. Apply 1-1 1/2 lbs. per acre.

Serpentine Leaf Miners, Thrips Apply 1/2-1 lb. per acre.

Do not apply to melons or winter squash within 3 days, or to summer squash within 7 days of harvest.

Mushroom Houses — Mushroom Flies (Phorids and Sciarids). Mix 4-8 lbs. in 50 gals. of water (0.5% to 1.0% actual Diazinon) and spray on outside and inside walls and ventilators of mushroom houses, after compost in beds has been pasteurized by heating. Do not spray compost in beds or after spawning.

To treat wooden sides of beds, posts, doors, and door frames after pasteurizing, mix 1/2 lb. in 6 gals. of water and apply with a brush.

Do not treat compost.

Onions — Onion Thrips. Apply 1 lb. per acre.

Do not apply within 10 days of harvest.

Peas — Aphids, Leaf Miners. Apply 1/2-1 lb. per acre. Peas may be picked immediately. Pea vines and pea vine hay may be fed to dairy and beef cattle and sheep.

Wait 4 days following treatment if forage is to be cut for hay.

Peppers — Aphids, Serpentine Leaf Miners. Apply 1/2 lb. per acre.

Do not apply within 5 days of harvest.

Potatoes — Aphids, Flea Beetles, Colorado Potato Beetles, Dipterous Leaf Miners. Apply 1/2-1 lb. per acre.

Banded Cucumber Beetles, Leafhoppers, Southern Armyworms Apply 1/2-1 lb. per acre.

Do not apply within 35 days of harvest.

Radishes, Parsnips, and Turnips — Aphids, Flea Beetles, Dipterous Leaf Miners. Apply 1/2-1 lb. per acre.

Do not apply within 10 days of harvest.

Spinach and Beets — Aphids, Dipterous Leaf Miners. Apply 1/2-1 lb. per acre.

Do not apply to spinach within 10 days, or to beets within 14 days of harvest.

Squash (Summer and Winter) — See Melons and Squash above.

Sweet Corn — Corn earworms. Apply 2-2 1/2 lbs. per acre when silks first appear. Two or three repeat applications, at 2-3 day intervals will usually be necessary. Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle and sheep.

Refer also to Corn under Field and Forage Insects.

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Tomatoes — Aphids, Dotted Leaf Miners. Apply 1 lb per acre. To control stemminers weekly applications are usually required.
Banded Cucumber Beetles, Fall Armyworms, Southern Armyworms. Apply 1-1.5 lb per acre.
Vinegar Flies (Drosophila spp.) Apply 1-1.5 lbs per acre. Weekly applications are usually required.
 Do not apply within 1 day of harvest.
Watercress (Fallow Only) — Cyclamen Mites. Apply 1 lb in 100 gals of water per acre. Direct spray to flowers and growing tips of plants. If infestation is heavy, make a second application no later than 10 days after the first application. Repeat applications as necessary.
 Do not apply within 5 days of harvest.

VEGETABLE SOIL INSECTS

Diazinon 50W should always be applied as a spray in sufficient water to assure thorough coverage of the soil.

Carrot Root Fleas — Carrots. Apply 4 lbs per acre as a drench to the seed furrow at planting time.

Cutworms (Surface and Subterranean) — Broccoli, Brussels Sprouts, Cabbage, Cantaloupes, Cauliflower, Celery, Collards, Cucumbers, Endive (escarole), Kale, Lettuce, Lima Beans, Muskmelons, Parsley, Peas, Peppers, Potatoes, Snap Beans, Spinach, Summer Squash, Sweet Corn, Swiss Chard, Tomatoes, Watermelons, Winter Squash — Broadcast 4-8 lbs per acre, just prior to planting. Work into the soil immediately, 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Garden Symphylans (Centipedes) — Cabbage, Carrots, Corn, Lettuce, Peas, Pole Beans, Radishes, Red Beets, Snap Beans, Tomatoes, Turnips — Broadcast 20 lbs per acre just prior to planting. Work into soil 4 inches immediately. This pre-plant treatment will also control other soil insects such as cutworms (surface and subterranean), mole crickets, root maggots and wireworms.

Mole Crickets — Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Caulitus, Endive, escarole, Kale, Lettuce, Mustard, Peppers, Radishes, Tomatoes, Turnips — Broadcast 2 lbs per acre when insects are present. Make application in plant beds or fields 1-2 days prior to sowing of seed or transplanting, and work into soil 1-2 inches immediately.

Onion Maggots — Onions. Furrow Application: Apply 2 lbs per acre in sufficient water to drench the seed furrow at planting time.

Broadcast Application: Broadcast 4-8 lbs per acre just prior to planting. Work into soil 3-4 inches immediately.

Root Maggots — Broccoli, Brussels Sprouts, Cabbage, and Cauliflower. Broadcast Application: Broadcast 4-6 lbs per acre and immediately work into the soil 3-4 inches before seeding, either in the seedbed or in the field or before transplanting.

Transplant Water (Drench) Application. Mix 1/2 lb in 50 gals of transplant water when 200-300 gals of water are used per acre. May be applied at the rate of 1/2-1 cupful per plant, either hand or by tractor-mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. Transplant water treatments may result in stand reduction due to plant stress at time of transplanting.

Radishes. Mix 2 lbs in 50 gals of water. Apply 80-100 gals per acre (1-1 1/3 gals per 1,000 linear feet of row) in the seed furrow at planting time.

Wireworms — Broccoli, Brussels Sprouts, Cabbage, Cantaloupes, Carrots, Cauliflower, Celery, Collards, Cucumbers, Endive (escarole), Kale, Lettuce, Lima Beans, Muskmelons, Onions, Parsley, Peas, Peppers, Snap Beans, Spinach, Summer Squash, Sweet Corn, Sweet Potatoes, Swiss Chard, Tomatoes, Watermelons, Winter Squash — Broadcast 6-8 lbs per acre prior to planting, and work into soil 4-8 inches immediately.
 Potatoes: Broadcast 6-12 lbs per acre prior to planting. Immediately disk or harrow into soil 4-8 inches.

Southern Potato Wireworms — Potatoes (Southeastern U.S.). For potatoes on mineral soils, broadcast 4-8 lbs per acre prior to planting and immediately work into soil 3-6 inches depending on location of wireworms.

FIELD FORAGE INSECTS

Diazinon 50W should always be applied as a spray in sufficient water to assure thorough coverage of the foliage or soil, depending on the type of application.

Alfalfa and Clover — Spotted Alfalfa Aphids, Yellow Clover Aphids, Pea Aphids, Leafhoppers, Plant Bug Nymphs, Mites. Apply 1-1.5 lb per acre.

Grasshoppers. Apply 1 lb per acre.

Cutworms (Surface and Subterranean). Broadcast 4-8 lbs per acre just prior to planting. Work into the soil immediately, 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Dairy and beef cattle and sheep (1) may be grazed immediately following application, (2) may be fed green alfalfa or clover immediately following cutting, and (3) may be fed hay provided alfalfa or clover is not cut for hay for 7 days following treatment.

Alfalfa Weevil Larvae. For control in the spring, apply 2-3 lbs per acre when feeding damage to growing tips becomes evident. Repeat application if necessary. If damage is already extensive, cut the hay and make application to the stubble. Do not graze dairy and beef animals or sheep for 2 days. Do not cut for hay for 10 days following treatment.

Do not spray livestock directly except as directed below under Live Stock. Insects with either air or ground equipment.

Do not treat during bloom to avoid injury to pollinating insects.

Corn — Corn Rootworm Larvae. Post-emergence insect treatment. Apply 1/2 to 2/3 oz per 1,000 linear feet of corn row in sufficient water to wet soil in corn plant and narrow band of soil next to the plant. Refer to row spacing chart for amounts recommended per acre. Cover treated band with 2-3 inches of soil using a disk hiller or cultivator immediately after spraying. Application should be made at the first sign of corn rootworm larvae. Application should not be made later than June 24 in the Middle Corn Belt or July in the Northern Corn Belt.

SUGGESTED RATES ACCORDING TO ROW SPACING FOR CORN ROOTWORM LARVAE CONTROL

Row spacing	Linear feet of corn row/acre	Amount of Diazinon 50W per acre Post-emergence basal treatment
48"	10,890	14.28 oz
42"	12,455	15.5-31 oz
40"	13,068	16.32 oz (1-2 lbs)
38"	13,939	17.5-35 oz
36"	14,250	18.36 oz
30"	17,424	22.44 oz (1 1/2-2 1/2 lbs)
24"	21,780	27.5-55 oz
20"	26,136	32.64 oz (2-4 lbs)
15"	34,848	44.88 oz

NOTE: For row spacing not listed, calculate the appropriate dosage rates based on the 40-inch row spacing.

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Seed Corn Maggots Broadcast 4-8 lbs. per acre just prior to planting. Work into soil 2 inches immediately.

Cutworms (Surface and Subterranean) Broadcast 4-8 lbs. per acre. For surface cutworms apply just prior to planting or when larvae first appear and work into soil 1-2 inches immediately. Do not apply later than 1 day. For subterranean cutworms apply just prior to planting and work into soil 3-6 inches immediately.

Wireworms Apply 6-8 lbs. per acre prior to planting and work into the soil 4-8 inches immediately.

Corn Rootworm Adults Apply 1/2-1 lb. per acre.

Corn Leaf Aphids Apply 1-2 lbs. per acre in sufficient water to provide complete coverage of the upper portions of plants. Repeat application as necessary.

Grasshoppers Apply 1 lb. per acre.

Soybeans Apply 2-2 1/2 lbs. per acre. Add 1-2 gals. of soluble mineral oil per acre to the spray mixture. Consult local agricultural authorities for proper timing of sprays.

Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle and sheep.

Cotton — Spider Mites, Aphids, Leafhoppers, Lygus, Cotton Leafworms, Cotton Leaf Perforators. Apply 1-2 lbs. in 5-25 gals. of water per acre. Repeat as infestation warrants. Do not apply within 14 days of harvest. Do not graze treated cotton plants, or feed gin waste to livestock.

Cowpeas — Cutworms (Surface and Subterranean) Broadcast 4-8 lbs. per acre just prior to planting. Work into the soil immediately 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Worms — Aphids, Mites. Apply 2 lbs. per acre.

Do not apply within 14 days of harvest.

Lespedeza — Cutworms (Surface and Subterranean) Broadcast 4-8 lbs. per acre just prior to planting. Work into the soil immediately 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Peanuts — Cutworms. Apply 4 lbs. per acre in a 12-inch band over the row. Use sufficient water to achieve thorough coverage. Begin application when small larvae are present. Two or three additional applications at three-week intervals may be necessary.

Do not apply within 21 days of peanut harvest.

Note: Livestock (1) may be fed peanut hulls, (2) may be fed peanut forage 7 days following treatment and (3) may be fed peanut hay 21 days following treatment.

Sorghum — Sorghum Midge. Apply 1/2-1 lb. per acre when 90% of the heads have emerged from the boot. Repeat application within 4 days.

Crop may be fed to livestock immediately following treatment. Do not apply within 7 days of harvesting for grain.

Cutworms (Surface and Subterranean) Broadcast 4-8 lbs. per acre just prior to planting. Work into the soil immediately 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Beet — Cutworms (Surface and Subterranean) Broadcast 4-8 lbs. per acre just prior to planting. Work into the soil immediately 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Sugar Beets — Beet Leafhoppers, Diterous Leaf Miners, Aphids. Apply 1/2-1 lb. per acre.

Grasshoppers Apply 1 lb. per acre.

Wireworms Broadcast 6-8 lbs. per acre just prior to planting and work into soil 4-8 inches immediately. Tops may be fed to beef and dairy animals.

Sugarcane — Aphids. Apply 1/2-1 lb. per acre.

Note: Allow 1 day between last application and harvest. Bagasse and forage may be fed to livestock.

Wireworms Apply 8 lbs. per acre in a 12-inch band centered over the furrow in sufficient water to obtain thorough coverage. Make application directly to seed pieces in open furrow at covering time.

Worms — Aphids, Flea Beetles. Apply 1/2-2 1/2 lb. per acre.

Do not apply within 3 days of harvest.

Cutworms Broadcast 4-6 lbs. per acre before transplanting and work immediately into the soil 2-3 inches.

Greenhouse Beetle Larvae Mix 1/2 lb. in 50 gals. of water and apply as a drench (100 gals. per 100 sq. yd.) to uprooted areas of plant beds with sprinkling can.

Mole Crickets Broadcast 2 lbs. per acre when insects are present. Make application to beds or fields 1-2 days prior to sowing of seed or transplanting and work into soil 1-2 inches immediately.

Seed-corn Maggots Broadcast Application. Broadcast 3 lbs. per acre, 3-4 weeks before transplanting. Work into soil 2 inches immediately.

Transplant Water Application Mix 1 1/2-3 oz. in 50 gals. of transplant water.

Wireworms Broadcast Application. Broadcast 4-6 lbs. per acre, 3-4 weeks before transplanting. Work into soil 6-9 inches immediately.

Transplant Water Application Mix 1 1/2-3 oz. in 50 gals. transplant water.

RANGE, PASTURE, AND GRASSLAND INSECTS

Bermudagrass — Thrips, Whiteflies, Grasshoppers. Apply 1 lb. per acre.

Rangeland, Pasture, Grass Forage, Ditch Banks, Roadside, Washland, Noncrop Areas and Barrier Strips — Grasshoppers. Apply 1/2-1 lb. per acre in sufficient water or oil to obtain thorough coverage when insects first appear, preferably in the nymphal stage.

Dairy and beef cattle and sheep (1) may be grazed immediately following applications (2) may be fed green forage immediately following cutting, and (3) may be fed hay provided grass is not cut for hay for 21 days if the spray is a water solution or for 30 days if the spray is an oil solution. Do not spray livestock directly except as directed below under livestock insects with either air or ground equipment. Do not repeat for 30 days.

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LIVESTOCK INSECTS

Sheep Ticks (Head Lice) — High gallonage, high pressure spray. Mix 1 lb in 100 gals of water and apply at rate of 1 gal per animal.
 Low gallonage, low pressure spray. Mix 1 lb in 100 gals of water. Apply at rate of 1 qt per animal.

Sprinkler Can Mix 1 oz in 6 gals of water. Crowd sheep into a small pen and sprinkle 1 qt of this mixture over the head, neck, top and side of each sheep. Stir or agitate mixture frequently.

Note: Do not slaughter sheep within 4 days after treatment. Repeat applications as necessary.

ORNAMENTAL INSECTS

To control certain insects on ornamentals such as Arborvitae, Azalea, Birch, Boxwood, Camellia, Carnation, Chrysanthemum, Douglas Fir, Elm, Gladiolus, Hawthorn, Holly, Juniper, Lilac, Locust, Maple, Oak, Pine, Plum, Poplar, Rhododendron, Rose, Spruce, and Willow, apply the recommended rates indicated below.

Insects	Amount Diazinon 50W to use	
	per 3 gals. water	per 100 gals. water
Aphids, Bagworms, Carnation Bud Mites, Carnation Shoot Mites, Clover Mites, Cyclamen Mites, Dip-terous Leaf Miners, European Pine Shoot Moths, European Red Mites, Flea Beetles, Holly Bud Moths, Leafhoppers, Obscure Root Weevils, Omnivorous Leaf Tiers, Privet Mites, Scale Crawlers (Cottony-cushion, Lecanum, Pine Needle, San Jose, Soft Scale), Thrips, Two spotted Mites, Webworms, Whiteflies	1/2 oz.	1 lb.
Apple and Thorn Skeletonizers, Cotoneaster Webworms, Fall Webworms, Hemlock Chermes, Oak Loopers, Oblique-banded Leaf Rollers, Pear Slugs, Tent Caterpillars	1 1/2 oz.	3 lbs.

Do not use on certain Ferns, Poinsettia, Hibiscus, Papaya, Pine, and Gardenia, since injury to the plants may occur.

Mimosas Webworms: Mix 1/2 oz in 3 gals of water (or 1 lb in 100 gals of water) and apply as a thorough foliar spray when adults first appear. Make a second and third application at 4-5 week intervals.

LAWN INSECTS

To control insects listed below, apply recommended rates. For insects such as Ants, Brown Dog Ticks, Clover Mites, Crickets, Earwigs, Fleas, Millipedes, Sowbugs, and Collembola (Springtails), which are commonly found near the house and may enter the house, spray a 5 ft band of soil around the house as well as the house foundation wall to a height of 2-3 ft. Repeat application if necessary.

Insects	Rate/1,000 sq. ft.		Remarks
	Diazinon 50W	water	
Lawn Chinch Bugs	2-3 oz. or 3-6 oz.	25* gals.	Use higher rate for longer residual control and in lawns of dense growth such as St. Augustine lawns.
Ants, Armyworms, Clover Mites, Collembola (Spring-tails), Crickets, Cutworms, Digger Wasps, Earwigs, Frit Flies, Lawn Billbugs, Sod Webworms (Lawn Moths), Sawbugs.	4 oz.	3 gals.	Spot spray ant hills and wasp ground nest openings. For lawn billbugs, irrigate the lawn thoroughly immediately after treatment. For frit flies, mow grass and water well before treatment but rewater application until grass is dry. Do not water again until necessary.
Brown Dog Ticks, Bermuda Mites, Chiggers, Fleas, Leafhoppers, Ticks	1 1/2 oz.	3 gal.	Do not apply to animals. For brown dog ticks, spray grass and under shrubbery, particularly near house.
Millipedes	8 oz.	3 gals.	
Rhodes-grass Scales	5 oz.	25* gals.	Apply when crawlers first emerge.

*Alternatively, make applications in 3 gals. of water per 1,000 sq. ft. and thoroughly water immediately following application.

Boxelder Bugs: Spray bugs outside the home with 1 1/2-2 1/2 oz in 1 gal. of water. At the same time, spray thoroughly around foundation, windows, doors, tree trunks, and into cracks and other places where the insects hide.

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SEED TREATMENT — PLANTER BOX TREATMENT

Corn: Seedcorn beetles. Mix 3 oz. per bushel of seed as a dry mixture in the planter box as a seed treatment prior to planting.

Corn, Peas, Soybeans, and Beans (Lima, Snap, White, and Kidney)

Seedcorn maggot. Mix 1/2 oz. per bushel of seed as a dry mixture in the planter box as a seed treatment prior to planting.

Planter-box Mixing Instructions: Stir seed slightly using a mixing stick. Additional mixing will result from the operation of the planter. **DO NOT MIX WITH BARE HANDS.**

Note: If seed has not been treated with a fungicide, use Captan or Thiram in combination with Diazinon 50W at rates indicated on fungicide package. Failure to use a fungicide with Diazinon 50W may result in injury to the seed. If the seed treatment increases the friction between seeds sufficiently to reduce the rate of delivery through the planter, 1/2 oz. of oil per bushel of seed should be added as a drill lubricant. Adjust the planter to give the desired rate of seed delivery with the treated seed.

Caution: Treated seed must not be used for, or mixed with food or animal feed, or processed for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time. Exposed treated seeds may be hazardous to birds and other wildlife. Dispose of all excess treated seeds by burial away from bodies of water.

FLY CONTROL

Fly control in barns and animal sleeping quarters (except dairy barns, milk rooms, and poultry houses)

Residual Sprays: Remove animals from buildings prior to treatment and keep animals out for at least four hours. Mix 2 1/2 lbs. of Diazinon 50W in 25 gals. of water and apply as an overall spray to ceilings and walls of livestock sheds, calf pens, h, q. barns, loading sheds, and other farm buildings except poultry houses, dairy barns, and milk rooms. Areas where flies congregate, such as garbage dumps and corrals, should be sprayed thoroughly. Longer residual control may be obtained by increasing the rate to 4 lbs. in 25 gals. of water. Applications should be made to point of run-off. One gal. of the above spray should cover from 350-750 sq. ft. of area, depending on the surface treated. Repeat applications as fly populations warrant.

Bait Sprays: Mix the appropriate amount of Diazinon 50W with 1 lb. of sugar for 2 cups of syrup or molasses for the desired application.

For knapsack or similar type sprayer, mix 1/2 lb. with the sugar in 2 1/2 gals. of water. Spot treat areas frequented by flies including cracks, crevices, doorways, around windows, or other areas where flies congregate. Repeat applications as fly populations warrant.

For sprinkling can application, mix 2 oz. with the sugar in 3 gals. of water and sprinkle lightly over the floor in areas frequented by flies. Applications every day or two will generally be required.

Do not contaminate milk, feed, drinking water, or apply to animals or poultry. Do not use in edible product areas of food processing plants or other areas where food is commercially prepared or processed. Do not use in dwellings.

Note: California Department of Agriculture has set a 5-day reentry for Diazinon on citrus, apples, peaches and nectarines. Five days should lapse between the time of application and the time a worker may enter the field to engage in any activity requiring substantial contact with treated foliage. When a mixture of two or more organic phosphate pesticides are applied in combination, the interval should be prolonged by adding to the largest applicable interval an additional 50% of that interval.

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ERP
9/20/82

Prentiss Drug & Chemical
Co., Inc.
363 7th Avenue
New York, NY 10001

OCT 05 1982

Attention: Mr. Nick Sanchez

Gentlemen:

Subject: Amendment - Update label, Add application sites
Prentox 50W
EPA Registration No. 655-456
Application Dated: June 23, 1982

The amendment referred to above, submitted in connection with registration under FIFRA sec. 3(c)(7)(A), is acceptable, provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
 - a. Unless the product will only be sold in unbroken carton lots of 12 x 4 pound bags, the directions booklet must be revised, since it frequently calls for use of more product than an entire bag (4 pounds). Affected directions include those for cranberries, pineapples, mushroom houses, cutworms, garden symphylans, onion maggots, root maggots, wireworms, southern potato wireworms, alfalfa and clover, corn, cowpeas, lespedeza, sorghum, soybeans, sugar beets, sugarcane, and tobacco.
 - b. Delete "Ticks" (unspecified) from the lawn insects pest listing, since the Agency only has acceptable control data for brown dog ticks (already claimed on label).
 - c. Revise "CAUTION" to "WARNING" before the treated seed precaution.
 - d. Relocate the paragraph about the California Department of Agriculture to appear at the end of the "Fruit and Nut Insects" section.
 - e. Delete "Directions" from the front page of the directions booklet. Also delete "cautions" from the front page statement "Use strictly in accordance with label cautions, warnings and directions."

- f. Note that "Diazinon" is now an accepted common name and should appear in the Ingredients Statement followed by the formula name which should be enclosed in brackets.
 - g. Gastric lavage is usually recommended only when a high petroleum distillate content presents an aspiration pneumonia hazard. It is therefore recommended that the Note to Physician be revised to read "If signs of cholinesterase inhibition are present, atropine is antidotal. 2-PAM may be administered in conjunction with atropine."
3. Submit five (5) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

George T. LaRocca
Product Manager (15)
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Enclosure

TS-767:LaRocca:DCR-07594:WANG-0070C:tfn/lisa:Raven:479-2013: 9/13/82



ACCEPTED
with COMMENTS
in EPA Letter Dated:

OCT 0 5 1982

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
62717-1

prentox

DIAZINON® 50W

Insecticide

FOR AGRICULTURAL/COMMERCIAL USE ONLY

For control of certain insects on fruits, nuts, vegetables, field crops, and ornamentals.

ACTIVE INGREDIENT:	
0,0-dieethyl 0-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate	50%
INERT INGREDIENTS	50%
TOTAL	100%

DIAZINON 50W IS A WETTABLE POWDER

WARNING
KEEP OUT OF REACH OF CHILDREN

STATEMENT OF PRACTICAL TREATMENT

If Swallowed — Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching back of the throat with finger. Repeat until vomit is clear. Do not induce vomiting or give any thing by mouth to an unconscious person.

If Inhaled — Remove victim to fresh air and apply artificial respiration if indicated.

If On Skin — Wash promptly with soap and water. Rinse thoroughly.

If In Eyes — Rinse eyes for at least 15 minutes with water and call a physician immediately.

NOTE TO PHYSICIAN — Gastric lavage is indicated. Atropine sulfate and 2-PAM are specific antidotes.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
WARNING:

May be fatal if swallowed. May be absorbed through skin. Do not breathe dust or spray mist. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling and before eating or smoking. Keep out of reach of domestic animals. Do not use on humans or household pets. Do not permit children or pets to go onto treated areas until spray has completely dried.

Environmental Hazards
This product is toxic to fish, birds and/or other wildlife. Birds feeding on treated areas may be killed. Keep out of lakes, streams, ponds, tidal marshes, and estuaries (except for effluence from treated watercress beds). Do not apply to water that will be used for recreational purposes and human and livestock consumption. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. This product must not be used in areas where impact on threatened endangered species is likely. Contact your State Fish and Game Agency for information pertaining to areas having threatened endangered species. Apply this product only as specified on this label.

This pesticide is highly toxic to bees exposed to direct treatment or to residues remaining on the treated area. Do not apply when bees are actively visiting the crop, cover crop, or weeds blooming in the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

E.P.A. REG NO. 655-456

NET CONTENTS 4 LBS.

* Trademark of
CIBA-GEIGY CORP

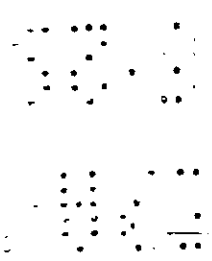


Manufactured by

prentiss
Drug & Chemical Co., Inc.

Plant: 338 Wilson Avenue
Newark, N.J. 07105

Office: 363 7th Avenue
New York, N.Y. 10001



prentox[®]

DIAZINON 50W

Insecticide

**FOR AGRICULTURAL/
COMMERCIAL USE ONLY**

253-456
This is a Restricted Insecticide under the Federal Insecticide, Fungicide, and Rodenticide Act, registered under EPA Reg. No. 655-456

5 1982
EPA (EPA) No. 655-456

DIRECTIONS

Read and follow directions. Use strictly in accordance with label cautions, warnings and directions.

**KEEP OUT OF REACH OF CHILDREN
WARNING**

DIAZINON 50W Insecticide

For control of certain insects on fruits, nuts, vegetables, field crops, and ornamentals.

ACTIVE INGREDIENTS	
O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate	50%
INERT INGREDIENTS	50%
TOTAL	100%

DIAZINON 50W IS A WETTABLE POWDER.

**KEEP OUT OF REACH OF CHILDREN
WARNING**

STATEMENT OF PRACTICAL TREATMENT

If Swallowed — Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching back of the throat with finger. Repeat until vomit is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

If Inhaled — Remove victim to fresh air and apply artificial respiration if indicated.

If On Skin — Wash promptly with soap and water. Rinse thoroughly.

If In Eyes — Rinse eyes for at least 15 minutes with water and call a physician immediately.

NO. 1 PHYSICIAN — Gastric lavage is indicated. Atropine sulfate and 2-PAM are specific antidotes.

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PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

WARNING

May be fatal if swallowed. May be absorbed through the skin. Do not breathe dust. Do not get into eyes. Wash thoroughly after handling and before eating or drinking. Keep out of reach of domestic animals. Do not use on home lawns or gardens. Do not permit children or pets to enter areas until spray has completely dried.

Environmental Hazards

This pesticide is toxic to fish and other wildlife. Do not treat areas where water is used for drinking, bathing, swimming, fishing, or other purposes. Do not use on lawns or gardens where children or pets are likely to play. Do not use on lawns or gardens where children or pets are likely to play. Do not use on lawns or gardens where children or pets are likely to play. Do not use on lawns or gardens where children or pets are likely to play.

This pesticide is slightly toxic to birds. Do not apply to trees or shrubs remaining on the treated area. Do not apply to lawns or gardens where children or pets are likely to play. Do not use on lawns or gardens where children or pets are likely to play. Do not use on lawns or gardens where children or pets are likely to play.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with the labeling.

IMPORTANT:

Read the entire directions for use before using this product. Please see attachment for directions.

STORAGE & DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Disposal — Pesticide, spray mixture, or residue that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures.

Container Disposal — Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of residue in a sanitary landfill or by incineration if allowed by State and local rules.

GENERAL INFORMATION

In the directions for use given below, unless otherwise noted, Drazinon 50W should be mixed with sufficient water to assure thorough coverage. Best control is obtained when application is made at first sign of insects. Applications should be repeated as necessary to maintain control.

Since Drazinon 50W is a wettable powder formulation, constant agitation is necessary during application.

FRUIT AND NUT INSECTS

Almonds — Mites, Twig Borers. Apply 1-1 1/2 lbs. per 100 gals. of water.
Peaches — Scales, San Jose Scales. Mix 1-1 1/2 lbs. Drazinon 50W plus 2-3 gals. dormant oil per 100 gals. of water and apply as a dormant spray.

Almond hulls may be fed to livestock.
Apples — Leafhoppers. Apply 1 lb. per 100 gallons of water in 3-5 applications beginning at petal fall and continuing through the growing season or apply as infestations develop.

San Jose Scales, Mealybugs, Apple Aphid eggs, European Red Mite eggs, Brown Mite eggs. Mix 1 lb. of Drazinon 50W plus 1 gal. of superior type oil or 2 gals. of dormant oil per 100 gals. of water. Apply as a dormant or a delayed dormant spray.

Eye-spotted Bud Moths, Fruit-tree Leaf Rollers, Vealybugs. Mix 1 lb. per 100 gals. of water. Make 3 to 8 cover spray applications, beginning in the pink stage. Do not apply within 14 days of harvest.

Apples and Pears — Codling Moths, Rosy Apple Aphid, Green Apple Aphid, Woolly Apple Aphid, Mites. Mix 1 lb. of Drazinon 50W per 100 gallons of water. Make 3 to 8 cover spray applications, beginning with the first cover. Applications should be timed according to insect infestations.

Apple Maggots — Mix 1 lb. of Drazinon 50W per 100 gallons of water. Make at least 3 cover spray applications when flies are active and laying eggs.

San Jose Scale Crawlers — Forbes Scale Crawlers. Mix 1 lb. per 100 gallons of water. Apply early in the season when crawlers first appear. If infestation migrants, make a second application 7 to 10 days later.

Note: Mites will be suppressed if Drazinon 50W is used in the regular cover spray program. Slight russeting may occur on some varieties of apples, such as Golden Delicious. Do not apply to apples or pears within 14 days of harvest.

Apricots — San Jose Scales, Brown Apricot Scales, Walnut Scales, Apricot Mealybugs. Mix 1 lb. of Drazinon 50W plus 2 gallons of dormant oil per 100 gallons of water. Apply as a dormant spray.

Aphids — Brown Mites (Clover Mites), Two-Spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers. Mix 1 lb. per 100 gallons of water. Apply when aphids, mites and scale crawlers first appear.

Scale Crawlers — Mix 1 lb. of Drazinon 50W plus 1 1/2 gallons of light medium kerosene oil per 100 gallons of water. Apply when scale crawlers are present.

Apricot Mealybugs — Mix 1 lb. per 100 gals. of water. Apply as a cover spray from petal fall to June.

Do not apply within 10 days of harvest.

Blueberries — Cranberry Fruitworms, Cherry Fruitworms, Blueberry Maggots, Aphids, Thrips, Two-spotted Mites. Mix 1 lb. per 100 gals. of water. Apply up to 200 gals. of spray per acre or apply 2 lbs. per acre in sufficient water for thorough coverage. Do not apply within 7 days of harvest.

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