

22-OCT-2001

((Label))

BASUDIN (R) 500EC

INSECTICIDE

AGRICULTURAL

FORMULATION OF DIAZINON

Emulsifiable Concentrate for: control of insect pests on fruit, hops, vegetables, lawns, Christmas tree plantations, ornamentals and for fly control.

NET CONTENTS: 4 litres

GUARANTEE:	
diazinon	500 g/L

READ THE LABEL AND PAMPHLET BEFORE USING

REGISTRATION NO.: 10979
PEST CONTROL PRODUCTS ACT

DANGER

Novartis Crop Protection Canada Inc.
140 Research Lane
Research Park, University of Guelph
Guelph, Ontario N1G 4Z3

POISON

LABEL

NOTICE TO USER:

This control product is to be used only in accordance with the directions on this label. It is an offence under the **PEST CONTROL PRODUCTS ACT** to use a control product under unsafe conditions.

NOTICE TO BUYER:

Seller's guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

GENERAL PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN AND DOMESTIC ANIMALS. Do not use on humans, pets, livestock. May be fatal if swallowed. Do not get into eyes. Avoid contact with skin and inhalation of spray mist. Wash thoroughly after handling. Use only as recommended on the label. Do not re-use container. When applying to turf wear coveralls over work clothes and chemical resistant gloves during mixing, loading application, irrigation and clean-up activities. Wear a NIOSH approved respirator during mixing and loading activities.

Do not re-enter treated lawns/turf for 24 hours following application and irrigation (except golf courses and sod farms). Warning signs must be posted advising people to keep off treated areas for 24 hours following application and irrigation.

Fish and Wildlife Precautions:

This product is toxic to birds, fish and wildlife, including waterfowl. Do not contaminate domestic or irrigation water supplies, lakes, streams and ponds. Birds and waterfowl feeding or drinking on treated areas may be killed. Do not apply where waterfowl are expected to inhabit the area or where there are resident populations of waterfowl. Do not exceed maximum permitted label rates as rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. Irrigation (watering) is recommended, applying a minimum of 0.7 cm (0.25 inches) of water immediately after application to reduce the hazards to birds. Stop irrigation as soon as puddling occurs.

Toxic to Bees

Avoid spraying open flowers.

FIRST AID:

In case of poisoning, call a physician or poison control centre immediately. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed, DO NOT induce vomiting as product contains a petroleum distillate. Never give anything by mouth to an unconscious or convulsive person. Artificial respiration may be required. Obtain prompt medical attention, taking product label with you or contact a poison control centre.

If inhaled, move to fresh air, change clothing. Wash thoroughly and see a doctor. Artificial respiration may be required.

If in eyes, splash repeatedly with large amounts of clean water for at least 15 minutes. Obtain medical attention or contact a poison control centre.

If on skin, remove contaminated clothing immediately. Wash skin thoroughly with soap and water. If irritation occurs, obtain medical attention or contact a poison control centre.

TOXICOLOGICAL INFORMATION:

Diazinon is an organophosphorus insecticide and, as such, a cholinesterase inhibitor. If cholinergic symptoms occur, give atropine as an antidote followed by Pralidoxime (2-PAM) and supporting therapy.

DECONTAMINATION AND CONTAINER DISPOSAL:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

FOR DISPOSAL OF UNUSED, UNWANTED PRODUCT:

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR
POISONING CALL 1-800-267-6351***

(R) Basudin is a registered trademark of Novartis Crop Protection Canada Inc.

((Pamphlet))

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CROP INFORMATION:

Basudin (R) 500EC provides selective insect control in:

FRUIT:

Apples, pears, cherries, peaches, apricots, plums, prunes, cranberries, currants, gooseberries, grapes, loganberries, raspberries, blackberries, and strawberries.

HOPS

VEGETABLES AND FIELD CROPS:

Beans, beets, broccoli, cabbage, cantaloupes, carrots, cauliflower, collards, cucumbers, kale, kohlrabi, lettuce, lima beans, mushrooms, muskmelons, onions, parsley, parsnips, peppers, potatoes, radishes, salsify, spinach, squash, Swiss chard, tomatoes, turnips, rutabagas and watermelon.

CHRISTMAS TREE PLANTATIONS

ORNAMENTAL PLANTS

LAWNS

INSECTS CONTROLLED AND TIMING OF APPLICATION:

See specific insects controlled and timing of application on the attached pages as per crop category.

TANK MIXES AND COMPATIBILITIES:

Note: Do not mix BASUDIN 500EC with any formulation of Captan because crop injury may occur.

Refer to provincial production recommendations for compatibility charts.

Do not allow spray mixtures to sit overnight.

Adhere to tank mix product labels for precautions, warnings, restrictions, tank mixing and spraying instructions, days to harvest, stage for crop application.

FRUIT INSECTS:

For control of insects and mites on fruit, apply in accordance with the directions in the following tables.

PESTS	QUANTITY OF BASUDIN 500EC PER 1000 L OF SPRAY	TIME AND NUMBER OF APPLICATIONS
APPLES - Do not apply within 14 days of harvest Do not apply after petal fall		
San Jose scale, eggs of apple aphids, eggs of European red mite and brown mite	500 mL + 20 L dormant emulsive oil	Dormant application with full coverage.
Fruit-tree leafroller	1 L	Apply with full coverage in 3-8 cover sprays beginning in pink stage.
Green fruitworm	1 L	Apply at pink stage.
APPLES AND PEARS - Do not apply within 14 days of harvest Do not apply on Apples after petal fall		
Pear psylla	1 L	Use in pre-pink, first, second and third cover sprays.
Eye-spotted bud moth	1 L	Apply at pink stage, also a special spray at full hatch (late July, early August).
Tentiform leaf miner	1 L	Apply with full coverage in calyx and first cover spray. Include in later cover sprays if 2nd and 3rd generations develop.
Codling moth	1 L	Apply in all cover (summer) sprays and in special sprays against 2nd brood.
Apple maggot	1 L	Include at least 3 cover sprays, 10 days apart, when flies are active and laying eggs.
Aphids (rose-apple-woolly)	500 mL - 1 L	Apply in a thorough cover spray; repeat as necessary.
Mites	1 L For heavy infestation, repeat as necessary	Apply when mites first appear; mites will be suppressed if Basudin 500EC is used in regular spray program.
Mealybugs, scales, (crawlers), stink bugs, pear leaf miner	1 L	Time applications according to insect incidence.

Blister mites	1.5 L + 10 L light to medium horticultural oil	Post-harvest treatment.
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NOTE: Slight russetting may occur on some varieties of apples such as Golden Delicious.

PESTS	QUANTITY OF BASUDIN 500EC PER 1000 L OF SPRAY	TIME AND NUMBER OF APPLICATIONS
PEARS - Do not apply within 14 days of harvest		
San Jose scale	1 L + 20 L dormant emulsive oil	Apply as a dormant application with full coverage.
CHERRIES - Do not apply within 10 days of harvest		
San Jose scale	1.25 L + 30 L dormant emulsive oil	Apply with thorough coverage as a dormant spray.
San Jose scale crawlers	1 L	Apply at pre-pink stage or when crawlers first appear.
Fruit-tree leafroller Eye-spotted bud moth	1 L	Apply with full coverage beginning with petal fall.
Cherry fruit flies	1 L	Apply when flies begin to emerge; repeat 2 or 3 times at 10-day intervals.
Black cherry aphids, mites	1 L	Spray on first appearance; repeat after 10 days.
Rust mites	1 L	Spray thoroughly after harvest.

PEACHES AND APRICOTS - Do not apply to peaches within 20 days and to apricots within 10 days of harvest		
Peach twig borer and San Jose scale	1 L + 20 L emulsive oil	Dormant spray with thorough coverage.
Peach twig borer	1 L + 10 L light medium summer oil	Apply at petal fall with thorough coverage.
	1 L	For control on peaches in May and June apply as a full cover spray.
Aphids, clover and two-spotted mites, San Jose scale crawlers	1 L	Apply in a thorough cover spray when pests are first noted; repeat as necessary.

PLUMS AND PRUNES - Do not apply within 10 days of harvest		
Peach twig borer, mealy plum aphid eggs, San Jose scale	1 L + 25 L dormant emulsive oil	Apply as a dormant spray.
	OR 1 L + 10 L light to medium flowable summer oil	Apply during late April or May.
Bud moth	1 L	Apply at pink stage.
Aphids (mealy plum, leaf curl plum, thistle)	1 L	Apply in a thorough cover spray; repeat as necessary.
Clover and European red mites	1 L	Apply when mites first appear; repeat as necessary.
Apple maggot	1 L	Where a problem on prunes, apply 2 or 3 sprays at 10-day intervals during July and early August.

CRANBERRIES - Do not apply within 7 days of harvest		
Black-headed fireworm, <i>Sparganothis sulfureana</i>	4.5 L in 3200 - 3500 L water per hectare	Apply when insects first appear; repeat when necessary.
Cranberry fruitworm	7 L in 3200 - 3500 L water per hectare	Apply when insects appear; repeat as necessary.

CURRENTS AND GOOSEBERRIES - Do not apply after bloom		
Aphids, Lecanium scale crawlers, sawfly	1 L	Apply immediately before first blooms open.

GRAPES - Do not apply within 16 days of harvest		
Leafhoppers, grape berry moth, grape leaf folder, mealybugs	1 L/1000 L (2.75 - 3.5 L/hectare)	When insects first appear; repeat when necessary.
Pacific mites	1.9 - 2.5 L/1000 L	When mites first appear; repeat when necessary.

LOGANBERRIES, RASPBERRIES AND BLACKBERRIES - Do not apply to these fruits after bloom		
Raspberry crown borer	1 L/1000 L	Apply as a drench to the crown area using 600 mL of the mixture per plant (4000 L per hectare).

		Apply when new cane growth is about 10 cm above the ground.
Leafhoppers (including <i>Macropsis</i>), aphids, fruitworm, thrips and raspberry sawfly	1 L	Apply when blossom buds separate.

STRAWBERRIES - Do not apply within 5 days of harvest		
Strawberry leafroller, spittlebugs	1 L/1000 L of water	Apply when blossoms show colour. Use thorough coverage. Use at the rate of 2000 L per hectare.
Aphids and two-spotted mites	1 - 2 L/1000 L	Apply as a thorough cover spray when pests first noted; repeat as necessary.
Cyclamen mites	2 L/1000 L	Direct spray into the crowns of plants; agitate the plants to ensure thorough coverage. For supplemental treatment additional applications should be made after fruit harvest.

INSECTS ON HOPS:

APHIDS AND MITES

Apply 2.2 L Basudin 500EC per hectare in sufficient water to achieve thorough coverage when insects first appear; repeat as necessary. Do not apply to hops within 14 days of harvest.

VEGETABLE INSECT PESTS:

For control of the insects listed below, apply the specified amount of Basudin 500EC with a sprayer in sufficient water to achieve thorough coverage of the attacked crop. Apply when the insects first appear and repeat as infestations warrant. Do not apply Basudin 500EC closer to harvest than the time interval shown in the table.

CROP	INTERVAL TO HARVEST IN DAYS	PESTS	QUANTITY OF BASUDIN 500EC PER HECTARE
Beans	7	Aphids, Mexican bean beetles	1.1 L
Beets	14	Aphids, Dipterous leaf miners	1.1 L
Broccoli	5	Aphids, diamondback moths, cabbageworm	1.1 L

Cabbage	7	Aphids, diamondback moths, cabbageworm	1.1 L
Cantaloupes	10	Aphids, cucumber beetles, thrips, leafhoppers, mites	1.1 to 2 L
Carrots	10	Aphids	1.1 L
	10	Carrot rust fly (adults). Apply when insects first appear and repeat at 7 - 10-day intervals as infestation warrants. Consult local agricultural authorities for correct timing of spray application.	1.1 L
Cauliflower	5	Aphids, diamondback moths, cabbageworm	1.1 L
Collards	7	Aphids, diamondback moths, cabbageworm	1.1 L
Cucumbers	7	Cucumber beetles, aphids, mites, thrips	2.2 L
Kale and Kohlrabi	7	Aphids, diamondback moths, cabbageworm	1.1 L
Lettuce	10	Aphids, Dipterous leaf miners	1.1 L
Lima Beans	3	Black bean aphids, Mexican bean beetles, Dipterous leaf miners, leafhoppers, mites	1.1 L
Mushrooms	<p>*Mushroom flies (Phorids and Sciarids)</p> <p>Use 1 to 2 L of Basudin 500EC to 100 L of water (0.5% to 1% actual) and spray on the outside and inside walls and ventilators of mushroom houses after the compost in the beds has been pasteurized by heating. *Do not spray on the compost in the beds, or after spawning. To treat the wooden sides of the beds, posts, doors and door frames after pasteurizing, add 100 mL of Basudin 500EC to 10 L water and apply with a brush. Repeat these applications when necessary. *Do not allow the material to get onto the casing soil or the mushrooms.</p>		
CROP	INTERVAL TO HARVEST IN DAYS	PESTS	QUANTITY OF BASUDIN 500EC PER HECTARE

Muskmelons	10	Aphids, cucumber beetles, thrips, leafhoppers, mites	1.1 L to 2 L
Onions	10	Onion thrips	1.1 L
	10	Onion maggot flies. Apply when flies become numerous and repeat at 7 to 10-day intervals as infestation warrants.	1.1 L
Parsley	14	Aphids, cabbageworms, diamondback moths	1.1 L
Parsnips	10	Aphids, flea beetles, Dipterous leaf miners	1.1 L
	10	Carrot rust fly (adults). Apply when insects first appear and repeat at 7 - 10-day intervals as infestation warrants. Consult local agricultural authorities for correct timing of spray applications.	1.1 L
Peppers	5	Aphids	550 mL to 1.1 L
Greenhouse Peppers	5	Aphids. Use conventional high volume power sprayers. Make applications monthly or when aphids reach treatment levels. (Rates are equivalent to 230 mL in 250 L of water over 4000 m ²)	575 mL per 625 L of water
Potatoes	14	Aphids, flea beetles, Colorado potato beetles, leafhoppers, Dipterous leaf miners	1.1 L
Radishes and Salsify	10	Aphids, flea beetles, Dipterous leaf miners	1.1 L
Spinach	10	Aphids, Dipterous leaf miners	1.1 L
Squash	3	Aphids, cucumber beetles, thrips, leafhoppers, mites	1.1 L to 2 L
Swiss Chard	14	Aphids, diamondback moths, imported cabbage moth	1.1 L

Tomatoes	1	Aphids, Dipterous leaf miners, vinegar flies (<i>Drosophila</i> spp). For leaf miners and vinegar flies applications at weekly intervals will generally be required.	1.1 L to 1.7 L
Turnips	14	Aphids, flea beetles, Dipterous leaf miners	1.1 L
Rutabagas	14	Root maggot fly adults: Apply when insects first appear and repeat at 7 - 10-day intervals as infestations warrant. Spray the soil surface and plants in order to kill. Consult local agricultural authorities for correct timing of spray applications.	1.1 L
Watermelon	10	Aphids, cucumber beetles, thrips, leafhoppers, mites	1.1 L to 1.7 L

INSECTS ON ORNAMENTALS:

Apply Basudin 500EC thoroughly at rates given below when insects first appear. Repeat as necessary.

ORNAMENTAL PLANTS	PESTS	QUANTITY OF BASUDIN 500EC PER 1000 L OF SPRAY
Arbor vitae	Leaf miners	1 L
	Bagworms, scale insect (crawlers)	1.5 L
Aralia	Privet mites	1 L
Azalea	Privet mites, leaf miners	1 L
Birch	Leaf miners	1 L
Boxwood	Leaf miners	1 L
Carnations	Aphids, mites, thrips, caterpillars and leaf miners	1.5 L
Chrysanthemums	Aphids, mites, thrips, caterpillars and leaf miners	1 L
Holly	Leaf miners	1 L
	Pulvinaria and Coccus scales	3.75 L
	Aphids, bud moths - Note: apply when new growth is about 0.6 cm long and before blossoms open.	2 L

Ivy	Privet mites	1 L
Oak	Leaf miners	1 L
Pines	Scale insects (crawlers), European pine shoot moth	1.5 L
Taxus (Yew)	Scale insects (crawlers), European pine shoot moth	1.5 L

INSECT CONTROL IN CHRISTMAS TREE PLANTATIONS:

BALSAM GALL MIDGE AND BALSAM TWIG APHID

Wear protective clothing, including gloves, head cover, coveralls and rubber boots. Apply Basudin 500EC by mist blower at 1.7 L in 50 - 100 L of water per ha., to ensure thorough coverage of Christmas trees. Before spraying with Basudin, spray trees in a half-hectare area with 50 L of water only, to confirm that coverage is adequate.

INSECT CONTROL ON LAWNS:

For control of insect pests on lawns and around buildings, follow the directions given in the table below. Applications to infested area should be thorough and should be repeated as necessary to maintain control.

PESTS	Type of Treatment	Rate	Comments
Ants, Sod webworms Sowbugs, Pillbugs, Collembola (Springtails)	Spot treatment only	0.75-1.5 ml/1L water/m ²	For spot treatment only in areas of infestation
Chinch Bugs	Spot treatment only	0.9-1.8 ml/1L water/ m ²	For spot treatment only in areas of infestation. Water lightly before and after application.
Earwigs	Spot treatment only	11 ml/1L water	For spot treatment only in areas of infestation.
Fleas, Ticks	Surface spray	56 ml/5L water	5L will treat 100 m ²
White grubs (such as European chafer and Japanese beetle larvae)	Surface spray for suppression	90 ml/100L water	100L will treat 100 m ² . Apply when sampling indicates that white grub larvae are actively feeding Thoroughly irrigate after treatment. Do not use in

			areas where the thatch is more than 3 cm thick.
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