

D-C-TRON[®] PLUS

A PREMIUM QUALITY HORTICULTURAL MINERAL OIL

DIRECTIONS FOR USE:
RESTRAINTS: Observe all precautions listed in the General Instructions section.

1. Tree and Vine Crops

This table shows rates for **dilute spraying**. For **concentrate spraying**, refer to the **Mixing/Application** section.

CROP	PEST/DISEASE	STATE	RATE/100 L	CRITICAL COMMENTS
CITRUS	Citrus Leafminer	NSW, Qld, Vic, SA, WA, Tas only	250 to 500 mL for control of citrus leafminer 500 mL to 1 L if application coincides with need to control pests such as red scale	Spray every 5 to 14 days during each flush cycle; sprays will be required more frequently during Summer and early Autumn than in mid-to-late Autumn.
	Red Scale	Vic, SA, WA, NSW only	0.5 to 1.0 L	Apply in late Nov/early Dec and again in late Feb/early Mar if required.
			0.5 to 1.0 L + 50 mL Lorsban®1 500EC Insecticide	Apply between Nov-Mar. A second application may be necessary for heavy infestations.
		Qld only	0.5 to 0.6 L	Apply in late Nov/early Dec and in late Jan/early Feb if required.
			0.5 L + 100 mL Lorsban 500EC Insecticide	Apply between Nov-Mar. A second application may be necessary for heavy infestations.
	White Wax Scale, Pink Wax Scale	Vic, WA, NSW only	0.5 to 1.0 L	Apply in Dec/early Jan.
		Qld only	0.5 to 0.6 L	Apply in late Nov/early Dec and in late Jan/early Feb if required.
		Vic, Tas, SA only	1.0 L + 100 mL carbaryl	Apply in accordance with registered carbaryl insecticide label.
		NSW, WA only	1.0 L + 140 mL carbaryl	
		Qld only	0.6L + 140mL carbaryl	
	Circular Black Scale	Qld only	0.5 to 0.6 L	Apply in late Nov/early Dec and in late Jan/early Feb if required.
		WA only	0.5 to 1.0 L	
	Black Scale	Tas, WA only	0.5 to 1.0 L	Apply mid-Dec/early Jan and in Feb/Mar.
	Soft Brown Scale	Tas, WA only	0.5 to 1.0 L	Apply mid-Dec/early Jan and in Feb/Mar.
		QLD only	0.5 to 0.6 L	Apply in late Nov/early Dec and again in February/March.
		WA only	0.5 to 1.0 L	
	Broad mite	All States	250 mL + 15 or 25 mL Vertimec®2 Miticide/Insecticide	Apply in accordance with the Vertimec Miticide/Insecticide label.
	Brown citrus rust mite		0.7 to 1.0 L	Apply Nov/Dec and again in Feb/Mar if required.
	Citrus red mite		NSW only	Apply Aug/Sep and again in Mar/Apr if required.

CRITICAL COMMENTS

For all uses in this table: Apply by dilute or concentrate spraying equipment.
Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. For concentrate spraying, DO NOT use at rates greater than 5 times the dilute spraying rate.

CROP	PEST/DISEASE	STATE	RATE/100 L	CRITICAL COMMENTS
CITRUS	Citrus rust mite	All states	250 mL + 15 or 25 mL Vertimec Miticide/Insecticide	Apply in accordance with the Vertimec Miticide/Insecticide label.
		QLD only	0.7 to 1.0 L	Apply Nov/Dec and again in Feb/Mar if required.
		NSW, Vic, SA, WA only		Apply in Feb/Mar.
	Black spot	All states	600 mL + copper oxychloride	Apply at half to ¾ petal fall. Consult copper fungicide label for suitable local rate and intervals for repeat application. Ensure thorough coverage is achieved throughout canopy.
		QLD only	600 mL + 200 g Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide	Apply in accordance with registered Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide label.
		NSW, Tas, Vic & SA only	250 mL + 200 g Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide	Apply in accordance with registered Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide label.
	Melanose, Smoky Blotch, Scab	All states	600 mL + copper oxychloride	Apply in accordance with registered copper oxychloride label. Ensure thorough coverage is achieved throughout canopy.
	Brown Spot in Mandarins	Qld only	600 mL + 375 g copper oxychloride + 500 g zinc sulphate heptahydrate + 140 g caustic soda	Apply in accordance with registered copper oxychloride label.
			625 mL + 200 to 300 g copper oxide	Apply in accordance with registered copper oxide label.
	Brown rot		625 mL + 200 to 300 g copper oxide	
GRAPES	Grapevine Scale	Qld, NSW, Vic, SA, WA only	3 L	May be controlled by spraying the dormant vines in Winter, preferably after pruning and when approximately 90% of crawlers have emerged. Do not apply after frost damage or if frosts are likely. Do not apply if soil is dry.
		Tas only	2 L	
POME FRUIT, STONE FRUIT (except Prunes)	San Jose Scale	VIC, SA, Tas, NSW only	2 L	Apply during dormant period up to green tip (Pome Fruit) or bud swell (Stone Fruit).
		WA only		Apply in combination with an appropriate chemical treatment during dormant period up to green tip (Pome Fruit) or bud swell (Stone Fruit).
		Qld only	3 L	Apply during dormant period up to green tip (Pome Fruit) or bud swell (Stone Fruit).
	Oyster Shell Scale	VIC, SA, WA, Tas, NSW only	2 L	
		Qld only	3 L	
	Bryobia Mite Eggs	VIC, SA, WA, Tas, NSW only	2 L	
		Qld only	3 L	
	European Red Mite Eggs	VIC, SA, WA, Tas, NSW only	2 L	
		Qld only	3 L	
	Two-Spotted Mite	NSW, Qld only		

CROP	PEST/DISEASE	STATE	RATE/100 L	CRITICAL COMMENTS
APPLES	European red mite.	All states	5 L/ha + 750 mL/ha Vertimec Miticide/Insecticide	Apply in accordance with the Vertimec Miticide/Insecticide label.
PEARS	Two-Spotted mite			
COFFEE (non-bearing)	Mealybug	Qld, WA only	1.0 L + 125 mL Supracide®2 400 Emulsifiable Concentrate Insecticide	Apply in accordance with Supracide 400 Emulsifiable Concentrate Insecticide label.
AVOCADO	Scale insects	Qld, NSW, WA only	1.0 L	Apply after pruning in February to April when heavy scale populations occur on stems, foliage or fruit. Repeat application where infestation is severe. A further spray may be required when fruit is pigeon egg sized. Application is most effective against young crawler stages. Use high volume water application as for citrus. Do not apply during flowering. Do not apply if trees need watering.
KIWI FRUIT				
CUSTARD APPLE				
MANGO				
	Pink Wax Scale	Qld, NSW, WA, NT only		
	Mango Tipborer			
	Leafminers – (Acrocercops spp.)	Qld, WA only		
	Mango Seed Weevil	Qld, NSW, WA only		

2. Non Tree and Vine Crops

CROP	PEST/DISEASE	STATE	RATE/100 L	CRITICAL COMMENTS
CAPSICUMS, EGGPLANTS, TOMATOES, OKRA & CURCUBITS	Silverleaf Whitefly (Bemisia tabaci)	Qld only	500 mL	Apply via ground equipment. Avoid spraying during hot weather; the best time to spray is evening. Do not apply if crop is stressed or wilted. Good coverage is essential to achieve best results. Apply when silverleaf whitefly numbers are at a low level.
BANANAS	Cercospora Leaf Spot	Qld, NSW only	3.5-4.2 L/ha + 2.2 to 4.5 kg/ha Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide	Apply in accordance with the registered fungicide label.
		Qld, NSW, WA, NT only	3-6 L/ha + 230 mL/ha Folicur®³ 430SC Fungicide	
		Sth Qld, NSW only	3 to 5 L/ha + 200-400 mL/ha Tilt®² 250EC Systemic Fungicide	
			8 to 10 L/ha + 400 mL Tilt 250EC Systemic Fungicide	Spray using either a low or high volume regime as per the general instructions for application to bananas. Apply at 3 to 4 week intervals from December until late April. The interval may be reduced to 10 to 14 days in the wet season.
		Sth QLD only	12L/ha	
		Nth Qld only	3 L/ha to 5L/ha+ 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 L/ha to 10L/ha+ 400 mL/ha Tilt 250EC Systemic Fungicide	

CROP	PEST/DISEASE	STATE	RATE/100 L	CRITICAL COMMENTS
BANANAS	Cercospora Leaf Spot	WA, NT only	3 to 5 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	Apply in accordance with Tilt 250EC Systemic Fungicide label.
			8 to 10 L/ha + 400 mL Tilt 250EC Systemic Fungicide	
	Cordana Leaf Spot	Sth Qld, NSW only	3 to 5 L/ha + 200-400 mL/ha Tilt 250EC Systemic Fungicide	
			8 to 10 L/ha + 400 mL Tilt 250EC Systemic Fungicide	
		Nth Qld only	3 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
		WA, NT only	3 to 5 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 to 10 L/ha + 400 mL Tilt 250EC Systemic Fungicide	
	Leaf Speckle	Qld, NSW, WA, NT only	3-6 L/ha + 230 mL/ha Folicur®³ 430SC Fungicide	Apply in accordance with registered fungicide label.
		Qld, NSW only	3 to 5 L/ha + 200-400 mL/ha Tilt 250EC Systemic Fungicide	
			8 to 10 L/ha + 400 mL Tilt 250EC Systemic Fungicide	
		Nth Qld only	3 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
		WA, NT only	3 to 5 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 to 10 L/ha + 400 mL Tilt 250EC Systemic Fungicide	
	Black Sigatoka	Qld, NSW, WA, NT only	3-6 L/ha + 230 mL/ha Folicur 430SC Fungicide	
		Sth Qld, WA, NT only	3 to 5 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 to 10 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
		Nth Qld only	3 L/ha + 400 mL/ha Tilt 250EC Systemic Fungicide	
			8 L/ha + 400 mL Tilt 250EC Systemic Fungicide	

CROP	PEST/DISEASE	STATE	RATE/100 L	CRITICAL COMMENTS
GREENHOUSE ROSES	Two-Spotted Mite	All states	0.5 to 1.0 L	Apply when the first mites are detected. Apply lower rate at 14d intervals. During high pest pressure, shorten the spray interval to 7d or increase the rate to 1% and keep 14d intervals. Use high water volumes. Ensure good coverage on both sides of leaves. Do not apply consecutive 1% sprays. D-C-Tron Plus can be used in an IPM program with <i>Phytoseiulus persimilis</i> .
	Powdery Mildew	Qld only	300 to 500 mL	Apply low rate at 7d intervals. Increase to 14d intervals for higher rate when disease pressure is reduced. Use high water volumes. Ensure good coverage on both sides of leaves.
		NSW, Vic only	500 mL	Apply at 14d intervals. Use high water volumes. Ensure good coverage on both sides of leaves. During periods of high disease pressure, a rate of 300ml/100L can be used at 7 days intervals.
ORNAMENTALS	White wax scale	Qld, WA only	1.0 L + 150mL carbaryl	Apply in accordance with the registered carbaryl label. NOTE: Because of the wide range of ornamentals and their pests, phytotoxicity and efficacy of this product cannot be guaranteed, so use a small test area before widespread use.
OUTDOOR ROSES	Black Spot	All states	1.0 L	Apply when conditions favour disease outbreak. Apply at 10d intervals. Use high water volumes. Ensure good coverage on both sides of leaves.
PASSIONFRUIT	Anthracnose	NSW, WA only	600 mL + 200 g Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide	Apply in accordance with the registered Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide label.
LUPINS	Green Peach Aphids (<i>Rhopalosiphum maidis</i>)	All states	1 L (ground rig) 10L (air)	D-C-Tron Plus may be used as an anti-evaporant in a spray mixture with pirimicarb. Refer to the label of the insecticide.
WINTER CEREALS	Cow Peach aphid (<i>Rhopalosiphum padi</i>)			
WEED CONTROL	Weeds as specified on herbicide labels	All states	250 to 500 mL/100L	D-C-Tron Plus may be used as a crop oil in a spray mixture with such selective herbicides as atrazine and diuron to improve their wetting and penetrating properties.
			2L/ha	D-C-Tron improves the coverage and uptake of Sertin 186 EC® in a tank of not more than 400 L/ha.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS
AUTHORISED UNDER APPROPRIATE LEGISLATION.

WITHHOLDING PERIOD: DO NOT APPLY LATER THAN 1 DAY BEFORE HARVEST. FOR WITHHOLDING PERIODS WHEN USED
IN MIXTURES WITH OTHER HERBICIDES AND INSECTICIDES, REFER TO OTHER HERBICIDE OR INSECTICIDE LABEL.

GENERAL INSTRUCTIONS

PRECAUTIONS
General

Different plant stresses can have cumulative effect. In general, follow good farming practice to minimise all other sources of plant stress. Avoid applying D-C-Tron Plus when environmental conditions elevate plant stress. AVOID spraying complex tank mixtures. In particular DO NOT spray:

- when the soil is dry
- if trees are suffering from moisture stress
- if hot weather (> 35°C) is imminent or has occurred in the previous 4 days
- if the shade temperature exceeds 32°C
- in slow drying conditions

Since D-C-Tron Plus can be used as a herbicide adjuvant, any phytotoxic tendencies of other insecticides mixed with D-C-Tron Plus may be enhanced. Follow the label precautions on the other insecticides carefully and if in doubt about a certain mixture then test on a small area first before widespread use.

D-C-Tron Plus sprays greater than 250 mL/100L water should not be applied for at least one month after spraying with sulphur or lime sulphur, as severe injury may occur, especially if the oil is applied in hot weather.

DO NOT apply D-C-Tron Plus in combination with Propargite or within 4 weeks of a Propargite application.

Adding spraying oils with Torque®¹ Miticide/Insecticide can reduce the speed of action of Torque Miticide/Insecticide. Avoid applying Torque with D-C-Tron Plus

where rapid speed of action is required.

DO NOT apply D-C-Tron Plus in combination with, or following a chlorothalonil application. DO NOT use in combination with Supracide 400®² Emulsifiable Concentrate Insecticide on mangoes after fruit set and while fruit is on the tree. DO NOT use D-C-Tron Plus on mangoes during flowering or while fruit is on the tree.

CITRUS
Application

D-C-Tron Plus is an effective insecticide when used alone to control light-moderate infestations of pests as indicated in the directions for use table.

When a range of D-C-Tron Plus rates is indicated, use the lower rate for light pest infestations and the high rate for moderate to heavy infestations, but only if weather and tree conditions are favourable (*see general instructions – precautions*).

Alternatively for heavy pressures, apply low rate 2-3 times at an interval of about a fortnight. DO NOT exceed maximum recommended annual dosage (*see precautions section*.) Time applications to target crawler stages of pests. Apply when trees are in good condition 7-10 days after rain or irrigation.

Apply sprays thoroughly to ensure complete coverage is achieved on both sides of susceptible leaves throughout whole canopy. The preferred type of sprayer for large trees is the oscillating boom with outrigger.

As a general guide, 4m high trees with heavy infestations of armoured scale could require spray volumes from 10,000 to 14,000 L/ha, soft scales 8,000 to 10,000 L/ha, and mites 5,000 to 8,000 L/ha.

Adjust volume proportionally for tree size, planting density, target foliage (eg flush growth or whole canopy), canopy density and degree of infestation.

When pest pressure is moderate to heavy, and/or your spray equipment cannot achieve coverage comparable to an oscillating boom with outrigger, consider using D-C-Tron Plus in one of the mixtures indicated in the directions-for-use table. However, achieving thorough coverage should always be the aim no matter what mixture is used.

PRECAUTIONS – CITRUS
Refer to Precautions – General section above

DO NOT use rates higher than 0.6% in Queensland. Use high rate (1%) in southern Australia ONLY when all general spraying precautions are met (*see PRECAUTIONS – General*) and when pest pressure warrants. Always consider the low rate as the first spray option.

DO NOT apply when high rate of natural fruit drop is expected.

DO NOT apply within 4 weeks of harvest.

DO NOT apply Lorsban 500EC Insecticide in IPM programs. In SA, do not spray D-C-Tron Plus with Lorsban 500EC Insecticide if spraying in November/December.

DO NOT apply to Glen Retreat variety of mandarins.

If petroleum spray oil is applied more than once from Spring to Autumn, either alone or in combination with other materials, the total strength of oil used in commercial orchards should not exceed 3L of oil in Queensland, and 2L of oil in southern Australia.

DO NOT apply D-C-Tron Plus with Supracide 400 Emulsifiable Concentrate Insecticide to any citrus.

DO NOT apply D-C-Tron Plus in combination with Torque to Torque susceptible varieties of citrus such as tangerines, tangelos and some varieties of grapefruit.

DO NOT apply copper fungicides when slow drying conditions prevail or if it is likely to rain before spray is dry.

DO NOT use this product with copper fungicides on copper shy varieties.

BANANAS
Application

High volume applications can be made from either a ground rig in a convenient volume of water eg. 200 to 500 L/ha, or from the air in at least 30 L/ha water. Low volume aerial application does not require any further dilution of the mixture indicated.

D-C-Tron Plus can be applied alone, with DMI fungicides or dithiocarbamate fungicides. When a range of oil rates is indicated, use the higher rate when weather conditions particularly favour disease development.

Maintain good deleafing practices to reduce disease inoculum. Very old leaves, and leaves with advanced lesions should be removed, or infected parts of the leaf removed, prior to the application of DMI fungicides.

Sth Qld and NSW: Commence a protectant regime of fungicide sprays at the start of summer and continue until May. Alternate sprays according to an appropriate fungicide anti-resistance strategy using the following guidelines:

Apply DMIs at least twice consecutively and to a maximum of 5 per season at 21 to 28 day intervals. Apply Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide sprays at 3 to 4 week intervals from the ground and at 7–10 day intervals from the air.

Nth Qld, WA and NT: Alternate fungicides according to an appropriate fungicide anti-resistance strategy. Use dithiocarbamates as major component of strategy. Apply sprays at 10-14 day intervals during all periods favouring disease development. Extend this to 21 or 28 days during drier, cooler periods. Apply oil with all fungicides. Apply DMIs a maximum of 6 times per year and no more than twice consecutively.

Do not apply DMIs from July-November. In Nth Qld only, apply Dithane Rainshield Fungicide or Penncozeb 750DF Fungicide sprays at 2-week intervals during the wet season, 3 weeks after this, and 4 or 5 weeks during the dry season. Prior to the next wet season return to 3-week intervals. Folicur®³ 430SC Fungicide is approved for use in banana plantations interplanted with avocados.

PRECAUTIONS – BANANAS

Refer to Precautions – General section above

DO NOT apply D-C-Tron Plus directly to unprotected fruit. Cover all bunches prior to spraying D-C-Tron Plus at high rates (>5 L/ha) from ground. If a spray directly to fruit is warranted DO NOT use D-C-Tron Plus. Spray to a maximum of 100L oil/ha per season. There are certain conditions when the surface of recently emerged fruit is particularly prone to marking damage from spray applications of DMI or dithiocarbamate fungicides. Refer to DMI or dithiocarbamate labels for precautions when spraying directly onto fruit.

DORMANT FRUIT TREES – POME FRUIT, STONE FRUIT AND GRAPEVINES

Ensure thorough coverage of limbs and branches.

PRECAUTIONS

Refer to Precautions – General section above

DO NOT apply to prunes or other known soil sensitive varieties.

DO NOT apply during the early dormant period.

Very occasionally Vertimec®2 Miticide/Insecticide plus summer oil has caused slight fruit russetting on some sensitive pear varieties such as Anjou. DO NOT apply Vertimec Miticide/Insecticide to apples or pears before or after applications of Delan®1 or Captan. DO NOT make Vertimec Miticide/Insecticide plus D-C-Tron Plus applications:

- when the temperature exceeds 28°C or are expected to exceed 28°C within 48 hours after application
- under poor or slow drying conditions or
- with equipment that may leave large droplets on fruit after application

DO NOT apply D-C-TRON PLUS to pome fruit following Delan sprays or within 14 days, before or after, Captan sprays.

MIXING INSTRUCTIONS

Pour the required amount of water into the mixing tank then add the D-C-Tron Plus and agitate well. When using in combination with other pesticides, mix the pesticide first (except Carbaryl) according to the manufacturers instructions, then add the D-C-Tron Plus. For specific mixing instructions when using D-C-Tron Plus with other insecticides, refer to the other insecticide label.

Consult insecticide/fungicide labels for minimum spray volumes per hectare. Follow appropriate resistance management strategies recommended on insecticide/fungicide labels.

Ensure that oil-water mixtures held in spray tanks or containers during application are continually and effectively agitated or stirred to prevent the oil separating from the water.

PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:

Do not contaminate streams, rivers or waterways with chemical or used container.

STORAGE AND DISPOSAL:

Store in the original container, tightly closed in a safe well-ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight.

This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple rinse container for disposal. Dispose of rinsate by adding it to the spray tank.

DO NOT dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any *drumMUSTER* collection point or similar container management program site. The cap should not be replaced but may be taken separately.

If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers and product.

SAFETY DIRECTIONS

Will irritate the eyes and may irritate the skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear elbow-length PVC gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves and face shield or goggles.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (**PHONE AUSTRALIA: 131126**). If swallowed do NOT induce vomiting, give a glass of water. Additional Information is given in the Safety Data Sheet.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet which is available from the supplier.

NOTE: Caltex Australia Petroleum Pty Limited accepts no responsibility for any consequences whatsoever arising from the use of the product otherwise than in accordance with this label.

- ®1 – Registered Trademark of BASF
- ®2 – Registered Trademark of Syngenta
- ®3 – Registered Trademark of Bayer Crop Science



CALTEX

PRECISION
SPRAY OILS

1380-220-205-05/15