

## DOUBLE DOWN SPRAY OIL

### Solution

A highly pure dormant and summer horticultural spray oil used for the control or suppression of listed insects, mites, scales, powdery mildew and to deter the feeding of aphids, whiteflies, thrips on: apples, apricots, cherries, chestnuts, filberts, grapes, hazelnuts, hops, nectarines, ornamental plants (outdoor & greenhouse), pears, peaches, plums, rutabagas, wasabi; Berries and small fruits crop group 13-07; Fruiting vegetables crop group 8-09 (field & greenhouse); Cucurbit vegetables crop group 9 (field & greenhouse); Herbs & Spices crop group 25 & 26 (field and greenhouse) and Leafy vegetables crop group 4-13.

### AGRICULTURAL

ACTIVE INGREDIENT: Mineral oil ..... 99%

REGISTRATION NO. 33589  
PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING  
KEEP OUT OF THE REACH OF CHILDREN  
EYE IRRITANT

### NET CONTENTS

LOVELAND PRODUCTS CANADA INC.  
789 Donnybrook Drive Dorchester,  
Ontario N0L 1G5 1-800-328-4678

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS  
PRODUCT CALL DAY OR NIGHT, 1-800-561-8273

## **PRECAUTIONS:**

**KEEP OUT OF REACH OF CHILDREN.  
MAY IRRITATE EYES.  
HARMFUL IF INHALED.**

Handle with caution and apply and use only as recommended and at recommended rates. Wear a long-sleeved shirt, long pants, and shoes and socks during mixing, loading, application, clean-up and repair. Do not apply to areas occupied by unprotected humans or domestic animals and do not allow to drift to such areas. Apply only when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings. Do not contaminate foodstuffs or feed and do not store with such consumables. Do not contaminate streams, ponds or lake or any irrigation water or water used for livestock or domestic purposes. CAUTION: This is a mineral oil product and may be flammable - keep away from fire, open flame and other sources of heat or lighted electric bulbs.

Do not enter or allow others to enter treated areas during the restricted-entry interval (REI) of 12 hours.

If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact Loveland Products Canada Inc.

## **FIRST AID:**

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take the container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION:** This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

**STORAGE:** Keep container tightly closed and DO NOT allow water to be introduced to contents of this container. Do not store at temperatures below 0°C. Shake well prior to use.

**DISPOSAL:** Triple- or pressure-rinse the emptied container thoroughly and add the rinsings to the spray mixture in the tank. Follow provincial instructions for any required cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with municipal and provincial requirements. 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 information on the clean-up of spills.

**DIRECTIONS FOR USE:**

DOUBLE DOWN SPRAY OIL is an emulsifiable horticultural spray oil which controls or suppresses listed insects, mites, scales, powdery mildew and deters the feeding of aphids, whiteflies, thrips on: apples, apricots, cherries, chestnuts, filberts, grapes, hazelnuts, hops, nectarines, ornamental plants (outdoor & greenhouse), pears, peaches, plums, rutabagas, wasabi; Berries and small fruits crop group 13-07; Fruiting vegetables crop group 8-09 (field & greenhouse); Cucurbit vegetables crop group 9 (field & greenhouse); Herbs & Spices crop group 25 & 26 (field and greenhouse) and Leafy vegetables crop group 4-13.

FOR EFFECTIVE CONTROL THOROUGH COVERAGE IS ESSENTIAL. AVOID OVERSPRAYING.

DOUBLE DOWN SPRAY OIL should be applied using any conventional ground spray equipment as recommended in the provincial spray calendars.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

DO NOT APPLY BY AIR.

**DORMANT APPLICATION:**

**Note:** Do not apply just prior to or during freezing temperatures or rain.

CROP	INSECT OR MITE SPECIES	LITRES OF DOUBLE DOWN SPRAY OIL PER 1000 LITRES OF WATER	TIME OF APPLICATION
APPLES	European Fruit Scale	20	Dormant to Green tip up

	Lecanium Scale	20	to 1 cm green Maximum of two dormant applications, if summer spray applications are expected during the growing season.
	European Red Mite	20	
	San Jose Scale	20	
	Oyster Shell Scale	20	
Warning: May cause bark damage on Red Delicious, Empire and Mutsu Apples.			
PEACHES	Cottony Peach Scale	20	Dormant Pre-bloom
	San Jose Scale	20	
	European Red Mite	20	
Note: Only one application per season			
PEARS	European Fruit Scale	20	Dormant to green tip Maximum of two dormant applications, if summer spray applications are expected during the growing season.
	European Red Mite	20	
	Lecanium Scale	20	
	Pear Psylla	20	
	San Jose Scale	20	
	Oyster Shell Scale	20	
PLUMS	European Red Mite	20	Green tip Delayed Dormant Maximum of two dormant applications, if summer spray applications are expected during the growing season.
	San Jose Scale	20	
	Lecanium Scale	20	
SOUR CHERRY	European Red Mite	20	Pre-bloom. Maximum of two dormant applications, if summer spray applications are expected during the growing season.
APRICOTS	European Red Mite	20	Dormant to pre-bloom Maximum of two dormant applications, if summer spray applications are expected during the growing season.
RUTABAGAS	Deter feeding of Aphids which spread Turnip Mosaic Virus	10	See note for Rutabagas
BERRIES AND SMALL FRUITS, CROP GROUP 13-07*	Scale	20	Dormant to Green tip up to 1 cm green or first leaf. Foliar spray using ground application equipment only.  For Lecanium Scale in highbush blueberry, apply

			<p>one application as dormant spray in late winter. Use 1000L/ha for small bushes –1500L/ha for large bushes</p> <p>Maximum of two dormant applications per year if summer spray applications are expected during the growing season. Apply at 7 – 14 day intervals.</p>
<p>*Amur river grape, Aronia berry, Bayberry, Bearberry, Bilberry, Blackberry, Blueberry (highbush and lowbush), Buffalo currant, Buffaloberry, Chilean guava, Chokecherry, Cloudberry, Cranberry, Currant (black and red), Elderberry, European barberry, Gooseberry, Grape, Highbush cranberry, Edible honeysuckle, Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Kiwifruit (fuzzy and hardy), Lingonberry, Maypop, Mountain pepper berries, Mulberry, Muntries, Native currant, Partridgeberry, Pincherry, Raspberry (black and red), Salal, Schisandra berry, Sea buckthorn, Serviceberry, Strawberry, Wild raspberry</p>			

**USE PRECAUTIONS:**

Do not apply to apple after the green tips are 1 cm long or to pears after green-tip stage.

**NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS: SUMMER FOLIAR APPLICATIONS**

The DIRECTIONS FOR USE for the uses described below were developed by persons other than Loveland Products Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses Loveland Products Canada Inc., has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

This note specifically pertains to pome fruit varieties, grape varieties, stone fruit varieties, fruiting vegetable varieties (field grown), cucurbit vegetable varieties (field grown), berry and small fruit varieties, tree nut varieties [chestnuts hazelnuts (filberts)], hop varieties, wasabi varieties, all herb and spice varieties and all greenhouse ornamental varieties. With all of these crop varieties, do not apply more than 8 summer spray applications of DOUBLE DOWN SPRAY OIL on these crops per growing season.

**SUMMER SPRAYS:**

For foliar application using airblast equipment. Insects controlled by DOUBLE DOWN SPRAY OIL in Apples and Pears: Suppression of European Red Mites.

Diseases controlled by DOUBLE DOWN SPRAY OIL in Apples: Suppression of Powdery Mildew.

For summer sprays not all pome fruit, stone fruit and grape varieties have been tested for tolerance to DOUBLE DOWN SPRAY OIL. Apply the listed rate to a small area of each variety and observe for any phytotoxic effects prior to adoption as a general field practice.

CROP	PEST	APPLICATION RATES L product/ha	COMMENTS
APPLES, PEARS	Suppression of European Red Mite	10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Apply in sufficient water volume to ensure thorough coverage. Do not apply less than 1000 L water/ha (1% solution) as phytotoxicity may result.	Begin applications when mites first appear. Apply every 10-14 days depending upon the level of pest pressure. Post harvesting sprays may be made to reduce over-wintering pressure. Do not exceed more than 10 L oil per ha per application for summer treatments. For apples and pears do not use oil within 14 days before or after captan fungicide.
	Codling moth ( <i>Cydia pomonella</i> )	10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Apply in sufficient water volume to ensure thorough coverage. Do not apply less than 1000 L water/ha (1% solution) as phytotoxicity may result.	For codling moth overwintering, 1 <sup>st</sup> summer and 2 <sup>nd</sup> summer generations: apply at or just prior to first egg hatch and during egg laying. Apply every 7-14 days depending upon level of pest pressure. Do not exceed more than 10 L oil per ha per application for summer treatments. For apples and pears do not use oil within 14 days before or after captan fungicide. Do not apply as dormant spray.
APPLES	Suppression of Powdery Mildew ( <i>Podosphaera leucotricha</i> )	10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Apply in sufficient water volume to ensure thorough coverage. Do not apply less than 1000 L water/ha (1% solution) as phytotoxicity may result.	Apply at tight cluster and continue every 10-14 days. Avoid application during bloom. Use the shorter spray interval when disease conditions are severe.
	Rosy Apple Aphid	<u>Summer Spray</u> : 10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Do not apply less than 1000 L water/ha (1% solution)	Apply only the lower rate during summer. The rate may be increased post-harvest to reduce overwintering pressure. The lower rate provides suppression only.

		<p>as phytotoxicity may result.</p> <p><u>Post-Harvest Spray:</u> 10-20 Litres of DOUBLE DOWN SPRAY OIL per hectare.</p> <p>Apply in sufficient water volume to ensure thorough coverage.</p>	
<p><b>Additional Information for Apple and Pear:</b></p> <ul style="list-style-type: none"> <li>• <b>Note for Pome Fruit: Do not use oil within 14 days before or after captan fungicide. See also use precautions and compatibility sections below.</b></li> <li>• <b>Do not apply more than 2 dormant applications of DOUBLE DOWN SPRAY OIL on these crops per growing season.</b></li> </ul>			
GRAPES	Suppression of mites and powdery mildew ( <i>Erysiphe necator</i> )	10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Apply in sufficient water volume to ensure thorough coverage. Do not apply less than 1000 L water/ha (1% solution) as phytotoxicity may result.	<p><b>Mites:</b> Begin applications when mites first appear. Apply every 10-14 days depending upon the level of pest pressure. Thorough coverage is essential.</p> <p><b>Powdery Mildew:</b> Make the first application pre-bloom and continue every 10-21 days depending on the level of disease pressure. Use the shorter spray interval when disease conditions are severe.</p> <p>PHI is 14 days for table grapes. Oil will remove the bloom on grapes. On grapes, do not tank mix oil and copper more than once per season. Do not use copper and oil together with fruit present. Do not use oil within 14 days before or after captan fungicide.</p>
	Suppression of leafhopper nymphs	10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Apply in sufficient water volume to ensure thorough coverage. Do not apply less than 1000 L water/ha (1%	<p>Eight (8) summer spray applications with a 10-14 day interval.</p> <p>Begin applications when eggs or small nymphs are present. Thorough coverage is</p>

		solution) as phytotoxicity may result	essential.  PHI is 14 days for table grapes as oil will remove bloom on grapes. On grapes, do not tank mix oil and copper more than once per season. Do not use copper and oil together with fruit present. Do not use oil within 14 days before or after captan fungicide.
<b>Additional Information for Grapes:</b> <ul style="list-style-type: none"> <li>• <b>Note for Grapes: Oil will remove the bloom on grapes. Do not spray table grapes within 2 weeks of harvest. On grapes, do not tank mix oil and copper more than once/season. Do not use copper and oil together with fruit present. Do not use oil within 14 days before or after captan fungicide. See also use precautions and compatibility sections below.</b></li> </ul>			
PLUMS, CHERRIES, APRICOTS, PEACHES	Suppression of European Red Mite Deter the feeding of aphids which spread Plum Pox Virus (PPV).	10 Litres of DOUBLE DOWN SPRAY OIL per hectare. Apply in sufficient water volume to ensure thorough coverage. Do not apply less than 1000 L water/ha (1% solution) as phytotoxicity may result.	Begin applications when mites and aphids first appear. Apply every 10-14 days depending on level of pest pressure. Certain varieties of plums and prunes may be injured by oil sprays. Check for tolerance prior to treatment. Do not apply oil to sensitive varieties. Do not apply to trees lacking moisture. Post harvest sprays may be made to maintain control and reduce over-wintering pressure. Oil may remove waxy bloom.  Thorough coverage is essential. Consult your local extension personnel for more precise information about aphid activity and spray timing.
PEACHES, PLUMS, APRICOTS, NECTARINES	Suppression of powdery mildew ( <i>Podosphaera clandestine</i> , <i>Sphaerotheca pannosa</i> )	10 L of DOUBLE DOWN SPRAY OIL in sufficient water volume to ensure thorough coverage (not less 1000 L water/ha (1% solution) as phytotoxicity	Foliar spray using airblast equipment. Begin applications two weeks after full bloom. Apply at 10-14 day intervals until terminal growth phase stops.

		may result.	
CHERRIES	Suppression of powdery mildew ( <i>Podosphaera clandestine</i> , <i>Sphaerotheca pannosa</i> )	10 L of DOUBLE DOWN SPRAY OIL in sufficient water volume to ensure thorough coverage (not less 1000 L water/ha (1% solution) as phytotoxicity may result.	Foliar spray using airblast equipment. Begin applications two weeks after full bloom. Use up to pit hardening stage, Apply at 10-14 day intervals. Use shorter spray interval when disease conditions are severe. Postharvest applications may be made (to trees) to maintain control and reduce overwintering inoculums.
<p><b>Additional Information for stone fruits:</b></p> <ul style="list-style-type: none"> <li><b>Do not use oil within 14 days before or after captan fungicide. See also use precautions and compatibility sections below.</b></li> </ul>			
FRUITING VEGETABLES, CROP GROUP 8-09, FIELD GROWN*	Suppression of powdery mildew ( <i>Leveillula taurica</i> ) and spider mites	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000 L/ha) to ensure thorough crop coverage.	Mites: begin when mites appear. Powdery mildew: begin when conditions are favourable for disease development and/or when 1st symptoms appear. Apply at 7 – 14 day intervals.
FRUITING VEGETABLES, CROP GROUP 8-09, GREENHOUSE **	Suppression of powdery mildew ( <i>Leveillula taurica</i> ), mites, and thrips; deter feeding by aphids and whiteflies	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000 L/ha) to ensure thorough crop coverage.	Begin when mites, thrips, aphids or whiteflies appear. Powdery mildew: begin when conditions are favourable for disease development and/or when 1st symptoms appear. Apply at 7 – 14 day intervals.
<p>* Eggplant, African eggplant, Pea eggplant, Scarlet eggplant, Garden huckleberry, Goji berry, Groundcherry, Martynia, Okra, Pepino, Bell pepper, Non-bell pepper, Sunberry, Tomatillo, Tomato, Currant tomato</p> <p>** Cocona, Eggplant, African eggplant, Pea eggplant, Scarlet eggplant, Garden huckleberry, Goji berry, Groundcherry, Martynia, Naranjilla, Okra, Pepino, Bell pepper, Non-bell pepper, Roselle, Sunberry, Tomatillo, Tomato, Bush tomato, Currant tomato, Tree tomato</p>			

**Additional Information for fruiting vegetables:**

- See also use precautions and compatibility sections below.

CUCURBIT VEGETABLES, CROP GROUP 9 FIELD GROWN*	Suppression of powdery mildew ( <i>Sphaerotheca fuliginea</i> ), and spider mites	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000 L/ha) to ensure thorough crop coverage.	Mites: begin when mites appear. Powdery mildew: begin when conditions are favourable for disease development and/or when 1st symptoms appear. Apply at 7 – 14 day intervals.
CUCURBIT VEGETABLES, CROP GROUP 9 GREENHOUSE **	Suppression of powdery mildew ( <i>Sphaerotheca fuliginea</i> ), mites, thrips; deter feeding by aphids and whiteflies	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000 L/ha) to ensure thorough crop coverage.	Mites/aphids: begin when mites/aphids appear. Powdery mildew: begin when conditions are favourable for disease development and/or when 1st symptoms appear. Apply at 7 – 14 day intervals.

\* Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza), Edible gourd (includes hechima, Chinese okra), Momordica (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, [(C. mixta, C. pepo) {includes acorn squash, spaghetti squash}]), Watermelon

\*\* Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza), Edible gourd (includes hechima, Chinese okra), Momordica (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, [(C. mixta, C. pepo) (includes acorn squash, spaghetti squash)]), Watermelon

**Additional Information for cucurbit vegetables:**

- See also use precautions and compatibility sections below.

LEAFY VEGETABLES, CROP GROUP 4-13	Deter feeding by aphids	10 L of DOUBLE DOWN SPRAY OIL in 1000L water (1%	Ground application only. Begin when aphids appear. Apply at 7-14 day intervals.
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		solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000L/ha) to ensure thorough crop coverage.	Maximum 8 applications per year. 1 day PHI
<b>Crop Group 4-13 - Leafy Vegetables:</b> amaranth (leafy, Chinese), arugula (Roquette), Indian aster, blackjack, broccoli raab, Chinese broccoli, cabbage (Abyssinian, seakale), cat's whiskers, cham-chwi, cham-na-mul, chervil (fresh), Chinese cabbage (bok choy), chipilin, chrysanthemum (garland), cilantro (fresh), collards, corn salad, cosmos, cress (garden, upland), dandelion, dang-gwi, dillweed (fresh), dock, dol-nam-mul, ebolo, endive, escarole, flameflower, feather cockscomb, Good King Henry, Hanover salad, huazontle, jute leaves, kale, lettuce (bitter, head, leaf), maca, mizuna, mustard greens, orach, parsley (fresh), plantain (buckhorn, common), English primrose, purslane (garden, winter), radicchio (red chicory), radish leaves, rape greens, wild rocket, shepherd's purse, spinach, spinach (Malabar, New Zealand, tree), swiss chard, Tanier spinach, turnip greens, Chinese violet, watercress, cultivars, varieties and/or hybrids of these.			
BERRIES AND SMALL FRUITS, CROP GROUP 13-07*	Suppression of spider mites; deter feeding by aphids	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000 L/ha) to ensure thorough crop coverage.	Mites, aphids: begin when mites and/or aphids appear. Apply at 7 – 14 day intervals.
BLACKBERRY, BUFFALOBERRY, CLOUDBERRY, CURRANT, ELDERBERRY, GOOSEBERRY, JOSTABERRY, JUNE BERRY, RASPBERRY STRAWBERRY	Suppression of powdery mildew ( <i>Podosphaera</i> spp.)	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000 L/ha) to ensure thorough crop coverage.	Powdery mildew ( <i>Podosphaera</i> spp.): begin when conditions are favourable for disease development and/or when 1st symptoms appear. Apply at 7 – 14 day intervals.
*Amur river grape, Aronia berry, Bayberry, Bearberry, Bilberry, Blackberry, Blueberry (highbush and lowbush), Buffalo currant, Buffaloberry, Chilean guava, Chokecherry, Cloudberry, Cranberry, Currant (black and red), Elderberry, European barberry, Gooseberry, Grape, Highbush cranberry, Edible honeysuckle, Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Kiwifruit (fuzzy and hardy), Lingonberry, Maypop, Mountain pepper berries, Mulberry, Muntries, Native currant, Partridgeberry, Pincherry, Raspberry (black and red), Salal, Schisandra berry, Sea buckthorn, Serviceberry, Strawberry, Wild raspberry			
<b>Additional Information for berries and small fruits:</b>			
<ul style="list-style-type: none"> <li>• Do not use chlorothalonil, captan, sulphur or dimethoate in a spray program with this product on strawberries.</li> <li>• Do not use on strawberries when temperatures are high.</li> <li>• See also use precautions and compatibility sections below.</li> </ul>			

CHESTNUTS HAZELNUTS (FILBERTS)	Suppression of spider mites	10L DOUBLE DOWN SPRAY OIL in sufficient water volume to ensure thorough coverage (not less 1000 L water/ha (1% solution) as phytotoxicity may result.	Begin when mites appear. Apply at 10 – 14 day intervals.
<b>Additional Information for tree nuts:</b>			
<ul style="list-style-type: none"> <li>• <b>Do not apply after husk split on walnuts.</b></li> <li>• <b>See also use precautions and compatibility sections below.</b></li> </ul>			
HOPS	Suppression of powdery mildew ( <i>Podosphaera macularis</i> ), spider mites; deter the feeding of aphids	10 L of DOUBLE DOWN SPRAY OIL in sufficient water volume to ensure thorough coverage (not less 1000 L water/ha (1% solution) as phytotoxicity may result.	Mites, aphids: begin when mites and/or aphids appear. Powdery mildew; begin when conditions are favourable for disease development and/or when 1st symptoms appear. Apply at 10 – 14 day intervals.
<b>Additional Information for hops:</b>			
<ul style="list-style-type: none"> <li>• <b>Discontinue sprays at burr development.</b></li> <li>• <b>On hops, do not tank mix oil and copper.</b></li> <li>• <b>See also use precautions and compatibility sections below.</b></li> </ul>			
Wasabi ( <i>Wasabia japonica</i> )	Deter feeding by Aphids.	6.8-9 L of DOUBLE DOWN SPRAY OIL per hectare in 900 L water or 0.75-1.0% solution	Begin when aphids appear. Apply at 7 day interval. Pre-Harvest Interval (PHI): 14 days
<b>Additional Information for wasabi:</b>			
<ul style="list-style-type: none"> <li>• <b>See also use precautions and compatibility sections below.</b></li> </ul>			
HERBS and SPICES, CROP GROUP 25* & 26** GREENHOUSE & FIELD	Suppression of powdery mildew ( <i>Podosphaera</i> spp.) on CG 25 and CG 26 crops that are susceptible to these diseases; suppression of mites; deter the	10 L of DOUBLE DOWN SPRAY OIL in 1000 L water (1% solution) otherwise phytotoxicity may result. Use sufficient spray volume (up to 1000L/ha) to ensure thorough crop coverage	Mites, aphids: begin when mites and/or aphids appear. Minimum reapplication interval of 7 days. Powdery mildew: begin when conditions are favourable for disease development and/or when first symptoms appear. Reapplication interval of 7 – 14 days.

**Additional Information for herbs and spices:**

- See also **USE PRECAUTIONS** and **COMPATIBILITY** sections below.

\* Herbs (CG 25): Agrimony, fresh leaves; Agrimony, dried leaves; Amla, fresh leaves; Amla, dried leaves; Angelica, fresh leaves; Angelica, dried leaves; Angelica, dahurian, fresh leaves; Angelica, dahurian, dried leaves; Applemint, fresh leaves; Applemint, dried leaves; Avarum, fresh leaves; Avarum, dried leaves; Balloon pea, fresh leaves; Balloon pea, dried leaves; Balm, fresh leaves; Balm, dried leaves; Barrenwort, fresh leaves; Barrenwort, dried leaves; Basil, fresh leaves; Basil, dried leaves; Basil, American, fresh leaves; Basil, American, dried leaves; Basil, Greek, fresh leaves; Basil, Greek, dried leaves; Basil, holy, fresh leaves; Basil, holy, dried leaves; Basil, lemon, fresh leaves; Basil, lemon, dried leaves; Basil, Russian, fresh leaves; Basil, Russian, dried leaves; Bay, fresh leaves; Bay, dried leaves; Bearberry, fresh leaves; Bearberry, dried leaves; Bisonsgrass, fresh leaves; Bisonsgrass, dried leaves; Blue mallow, fresh leaves; Blue mallow, dried leaves; Boneset, fresh leaves; Boneset, dried leaves; Borage, fresh leaves; Borage, dried leaves; Borage, Indian, fresh leaves; Borage, Indian, dried leaves; Burnet, fresh leaves; Burnet, dried leaves; Burnet, garden, fresh leaves; Burnet, garden, dried leaves; Burnet, salad, fresh leaves; Burnet, salad, dried leaves; Butterbur, fresh leaves; Butterbur, dried leaves; Calamint, fresh leaves; Calamint, dried leaves; Calamint, large-flower, fresh leaves; Calamint, large-flower, dried leaves; Calamint, lesser, fresh leaves; Calamint, lesser, dried leaves; Calendula, fresh leaves; Calendula, dried leaves; Caltrop, fresh leaves; Caltrop, dried leaves; Camomile (Chamomile), fresh leaves; Camomile (Chamomile) dried leaves; Camomile (Chamomile), German, fresh leaves; Camomile (Chamomile), German, dried leaves; Camomile (Chamomile), Roman, fresh leaves; Camomile (Chamomile), Roman, dried leaves; Caraway, fresh leaves; Caraway, dried leaves; Cat's claw, fresh leaves; Cat's claw, dried leaves; Catnip, fresh leaves; Catnip, dried leaves; Catnip, Japanese, fresh leaves; Catnip, Japanese, dried leaves; Celandine, greater, fresh leaves; Celandine, greater, dried leaves; Celandine, lesser, fresh leaves; Celandine, lesser, dried leaves; Celery, dried leaves; Centaury, fresh leaves; Centaury, dried leaves; Chaste tree, fresh leaves; Chaste tree, dried leaves; Chaste tree, Chinese, fresh leaves; Chaste tree, Chinese, dried leaves; Chervil, dried leaves; Chinese blackberry, fresh leaves; Chinese blackberry, dried leaves; Chinese foxglove, fresh leaves; Chinese foxglove, dried leaves; Chive, dried leaves; Chive, Chinese, dried leaves; Cicely, sweet, fresh leaves; Cicely, sweet, dried leaves; Cilantro, dried leaves; Clary, fresh leaves; Clary, dried leaves; Coriander, Bolivian, fresh leaves; Coriander, Bolivian, dried leaves; Coriander, Vietnamese, fresh leaves; Coriander, Vietnamese, dried leaves; Costmary, fresh leaves; Costmary, dried leaves; Creat, fresh leaves; Creat, dried leaves; Culantro, fresh leaves; Culantro, dried leaves; Curry leaf, fresh leaves; Curry leaf, dried leaves; Curryplant, fresh leaves; Curryplant, dried leaves; Cut leaf, fresh leaves; Cut leaf, dried leaves; Damiana, fresh leaves; Damiana, dried leaves; Dillweed, dried leaves; Dokudami, fresh leaves; Dokudami, dried leaves; Echinacea, fresh leaves; Echinacea, dried leaves; Epazote, fresh leaves; Epazote, dried leaves; Eucommia, fresh leaves; Eucommia, dried leaves; Evening primrose, fresh leaves; Evening primrose, dried leaves; Eyebright, fresh leaves; Eyebright, dried leaves; Fennel, common, fresh leaves; Fennel, common, dried leaves; Fennel, Florence, dried leaves; Fennel, Spanish, fresh leaves; Fennel, Spanish, dried leaves; Fenugreek, fresh leaves; Fenugreek, dried leaves; Feverfew, fresh leaves; Feverfew, dried leaves; Field pennycress, fresh leaves; Field pennycress, dried leaves; Flowers, edible, fresh leaves, multiple species; Flowers, edible, dried leaves, multiple species; Fumitory, fresh leaves; Fumitory, dried

leaves; Galbanum, fresh leaves; Galbanum, dried leaves; Galega, fresh leaves; Galega, dried leaves; Gambir, fresh leaves; Gambir, dried leaves; Geranium, fresh leaves; Geranium, dried leaves; Geranium, lemon, fresh leaves; Geranium, lemon, dried leaves; Geranium, rose, fresh leaves; Geranium, rose, dried leaves; Germander, golden, fresh leaves; Germander, golden, dried leaves; Goldenrod, European, fresh leaves; Goldenrod, European, dried leaves; Goldenseal, fresh leaves; Goldenseal, dried leaves; Gotu kola, fresh leaves; Gotu kola, dried leaves; Greater periwinkle, fresh leaves; Greater periwinkle, dried leaves; Guayusa, fresh leaves; Guyana, dried leaves; Gumweed, fresh leaves; Gumweed, dried leaves; Gymnema, fresh leaves; Gymnema, dried leaves; Gypsywort, fresh leaves; Gypsywort, dried leaves; Hawthorn, fresh leaves; Hawthorn, dried leaves; Heal-all, fresh leaves; Heal-all, dried leaves; Hemp nettle, fresh leaves; Hemp nettle, dried leaves; Honewort, fresh leaves; Honewort, dried leaves; Honeybush, fresh leaves; Honeybush, dried leaves; Horehound, fresh leaves; Horehound, dried leaves; Horsemint, fresh leaves; Horsemint, dried leaves; Horsetail, fresh leaves; Horsetail, dried leaves; Hyssop, fresh leaves; Hyssop, dried leaves; Hyssop, anise, fresh leaves; Hyssop, anise, dried leaves; Indian tobacco, fresh leaves; Indian tobacco, dried leaves; Ironwort, fresh leaves; Ironwort, dried leaves; Ivy, fresh leaves; Ivy, dried leaves; Jamaica dogwood, fresh leaves; Jamaica dogwood, dried leaves; Jasmine, fresh leaves; Jasmine dried leaves; Labrador tea, fresh leaves; Labrador tea, dried leaves; Lavender, fresh leaves; Lavender, dried leaves; Lemon verbena, fresh leaves; Lemon verbena, dried leaves; Lemongrass, fresh leaves; Lemongrass, dried leaves; Lovage, fresh leaves; Lovage, dried leaves; Love-in-a-mist, fresh leaves; Love-in-a-mist, dried leaves; Mamaki, fresh leaves; Mamaki, dried leaves; Marigold, fresh leaves; Marigold, dried leaves; Marigold, African, fresh leaves; Marigold, African, dried leaves; Marigold, Aztec, fresh leaves; Marigold, Aztec, dried leaves; Marigold, French, fresh leaves; Marigold, French, dried leaves; Marigold, Irish lace, fresh leaves; Marigold, Irish lace, dried leaves; Marigold, licorice, fresh leaves; Marigold, licorice, dried leaves; Marigold, Mexican mint, fresh leaves; Marigold Mexican mint, dried leaves; Marigold, signet, fresh leaves; Marigold, signet, dried leaves; Marjoram, fresh leaves; Marjoram, dried leaves; Marjoram, pot, fresh leaves; Marjoram, pot, dried leaves; Marjoram, sweet, fresh leaves; Marjoram, sweet, dried leaves; Marshmallow, fresh leaves; Marshmallow, dried leaves; Meadowsweet, fresh leaves; Meadowsweet dried leaves; Mint, fresh leaves; Mint, dried leaves; Mint, corn, fresh leaves; Mint, corn, dried leaves; Mint, Korean, fresh leaves; Mint Korean, dried leaves; Monarda, fresh leaves; Monarda, dried leaves; Moringa, fresh leaves; Moringa, dried leaves; Motherwort, fresh leaves; Motherwort, dried leaves; Mountainmint, fresh leaves; Mountainmint, dried leaves; Mountainmint, clustered, fresh leaves; Mountainmint, clustered, dried leaves; Mountainmint, hoary, fresh leaves; Mountainmint, hoary, dried leaves; Mountainmint, Virginia, fresh leaves; Mountainmint, Virginia, dried leaves; Mountainmint, whorled, fresh leaves; Mountainmint, whorled, dried leaves; Mugwort, fresh leaves; Mugwort, dried leaves; Mulberry, white, fresh leaves; Mulberry, white, dried leaves; Mullein, fresh leaves; Mullein, dried leaves; Mustard, hedge, fresh leaves; Mustard, hedge, dried leaves; Nasturtium, fresh leaves; Nasturtium, dried leaves; Nasturtium, bush, fresh leaves; Nasturtium, bush, dried leaves; Nasturtium, garden, fresh leaves; Nasturtium, garden, dried leaves; Nettle, stinging, fresh leaves; Nettle, stinging, dried leaves; Oregano, fresh leaves; Oregano, dried leaves; Oregano, Mexican, fresh leaves; Oregano, Mexican, dried leaves; Oregano, Puerto Rico, fresh leaves; Oregano, Puerto Rico, dried leaves; Oswego tea, fresh leaves; Oswego tea, dried leaves; Pandan leaf, fresh leaves; Pandan leaf, dried leaves; Pansy, fresh leaves; Pansy, dried leaves; Paracress, fresh leaves; Paracress dried leaves; Parsley, dried leaves; Partridge berry, fresh leaves; Partridge berry, dried leaves; Patchouli, fresh leaves; Patchouli, dried leaves; Pennyroyal, fresh leaves; Pennyroyal, dried leaves; Pepper leaf, black, fresh leaves; Pepper leaf, black, dried leaves; Peppermint, fresh leaves; Peppermint, dried leaves; Perilla, fresh leaves; Perilla, dried leaves; Pill bearing spurge, fresh leaves; Pill bearing spurge, dried

leaves; Pipsissewa, fresh leaves; Pipsissewa, dried leaves; Plantain, common, fresh leaves; Plantain, common, dried leaves; Rooibos, fresh leaves; Rooibos, dried leaves; Rose, fresh leaves; Rose, dried leaves; Rosemary, fresh leaves; Rosemary, dried leaves; Sage, fresh leaves; Sage, dried leaves; Sage, Greek, fresh leaves; Sage, Greek, dried leaves; Sage, Spanish, fresh leaves; Sage, Spanish, dried leaves; Sage, white, fresh leaves; Sage, white, dried leaves; Savory, summer, fresh leaves; Savory, summer, dried leaves; Savory, winter, fresh leaves; Savory, winter, dried leaves; Senna, fresh leaves; Senna, dried leaves; Siberian fir, fresh leaves; Siberian fir, dried leaves; Skullcap, fresh leaves; Skullcap, dried leaves; Small flower willow head, fresh leaves; Small flower willow head, dried leaves; Sorrel, fresh leaves; Sorrel, dried leaves; Sorrel, French, fresh leaves; Sorrel, French, dried leaves; Sorrel, garden, fresh leaves; Sorrel, garden, dried leaves; Southernwood, fresh leaves; Southernwood, dried leaves; Spearmint, fresh leaves; Spearmint, dried leaves; Spearmint, Scotch, fresh leaves; Spearmint, Scotch, dried leaves; Spilanthes, fresh leaves; Spilanthes, dried leaves; Spotted beebalm, fresh leaves; Spotted beebalm, dried leaves; St. John's Wort, fresh leaves; St. John's Wort, dried leaves; Stevia, fresh leaves; Stevia, dried leaves; Stoneroot, fresh leaves; Stoneroot, dried leaves; Swamp leaf, fresh leaves; Swamp leaf, dried leaves; Tansy, fresh leaves; Tansy, dried leaves; Tarragon, fresh leaves; Tarragon, dried leaves; Thuja, fresh leaves; Thuja, dried leaves; Thyme, fresh leaves; Thyme, dried leaves; Thyme, creeping, fresh leaves; Thyme, creeping, dried leaves; Thyme, lemon, fresh leaves; Thyme, lemon, dried leaves; Thyme, mastic, fresh leaves; Thyme, mastic, dried leaves; Toon, Chinese, fresh leaves; Toon, Chinese, dried leaves; Toothed clubmoss, fresh leaves; Toothed clubmoss, dried leaves; Trailing arbutus, fresh leaves; Trailing arbutus, dried leaves; Vasaka, fresh leaves; Vasaka, dried leaves; Verbena, blue, fresh leaves; Verbena, blue, dried leaves; Veronica, fresh leaves; Veronica, dried leaves; Violet, fresh leaves; Violet, dried leaves; Watermint, fresh leaves; Watermint, dried leaves; Waterpepper, fresh leaves; Waterpepper, dried leaves; Wild bergamot, fresh leaves; Wild bergamot, dried leaves; Wintergreen, fresh leaves; Wintergreen, dried leaves; Wood betony, fresh leaves; Wood betony, dried leaves; Woodruff, fresh leaves; Woodruff, dried leaves; Wormwood, fresh leaves; Wormwood, dried leaves; Wormwood, Roman, fresh leaves; Wormwood, Roman, dried leaves; Yarrow, fresh leaves; Yarrow, dried leaves; Yellow gentian, fresh leaves; Yellow gentian, dried leaves; Yerba santa, fresh leaves; Yerba santa, dried leaves; Yomogi, fresh leaves; Yomogi, dried leaves; Cultivars, varieties, and hybrids of these commodities.

\*\*Spices (CG 26): Ajowan, seed; Alder buckhorn; Allspice; Ambrette, seed; Amla, seed; Angelica, dahurian, seed; Angelica, seed; Angostura, bark; Anise pepper; Anise, seed; Anise, star; Annatto, seed; Asafoetida; Ashwagandha, fruit; Autumn crocus; Balsam, Peruvian; Barberry, bark; Batavia-cassia, bark; Batavia-cassia, fruit; Belleric myrobalan; Betel vine; Birch, bark; Bisnaga, seed; Bitterwood; Black bread weed; Bloodroot; Blue mallee; Blushwood, seed; Boldo, leaf; Buchu; Calamus root; Candlebush; Canella, bark; Caper buds; Caper spurge, seed; Caraway, black; Caraway, fruit; Cardamom, black; Cardamom, Ethiopian; Cardamom, green; Cardamom, Nepal; Cardamom-amomum; Cascara sagrada; Cassia, bark; Cassia, Chinese, bark; Cassia, Chinese, fruit; Cassia, fruit; Cat's claw, bark; Catechu, bark; Celery, seed; Chaste tree, berry; Chaste tree, Chinese, roots; Chervil, seed; Chinese hawthorn; Chinese nutmeg tree; Chinese wineberry, fruit; Chinese-pepper; Cinnamon, bark; Cinnamon, fruit; Cinnamon, Saigon, bark; Cinnamon, Saigon, fruit; Clove buds; Clusterleaf; Comfrey; Copaiba; Coptis; Coriander, fruit; Coriander, seed; Cotton, bark; Crampbark; Cubeb, seed; Culantro, seed; Culvers root; Cumin; Cumin, black; Dill, seed; Dorrigo pepper, berry; Dorrigo pepper, leaf; Dragon blood; Echinacea, seed; Epimedium; Eucalyptus; Eucommia, bark; European beech; Felty germander; Fennel flower, seed; Fennel, common, fruit; Fennel, common, seed; Fennel, Florence, fruit; Fennel, Florence, seed; Fenugreek, seed; Fingerroot; Flame lily, seed; Frankincense; Frankincense, Indian; Fringetree, bark;

Galbanum, resin; Gambooge; Grains of paradise; Grains of Selim; Guaiac; Guarana; Guggul; Gum Arabic; Gum ghatti; Gum karaya; Gum tragacanth; Haw, black; Honewort, seed; Imperatoria; Indian tobacco, seed; Iva; Jalap; Jamaica dogwood, bark; Juniper berry; Kaffir lime, leaf; Kewra; Kokam; Linden, leaf; Lovage, seed; Mace; Magnolia, bark; Mahaleb; Malabar cardamom; Malabar-tamarind; Malabathrum; Mastic; Micromeria, white; Milk thistle; Mioga; Miracle fruit; Mistletoe; Mojave yucca; Muira puama; Mustard, black; Mustard, brown; Mustard, seed; Mustard, white; Myrrh; Myrrh, bisabol; Myrtle, anise; Myrtle, leaf; Myrtle, lemon; Nasturtium, bush, pods; Nasturtium, garden, pods; Nasturtium, pods; Nettle, stinging, seed; Nutmeg; Osha; Pepper, black; Pepper, Indian long; Pepper, Javanese long; Pepper, leaf; Pepper, pink; Pepper, Sichuan; Pepper, white; Pepperbush, berry; Pepperbush, leaf; Peppercorn, green; Peppertree; Peppertree, Peruvian; Perilla, seed; Phellodendron; Pine, maritime; Poppy, seed; Prickly ash, Chinese; Prickly ash, Southern, bark; Pygeum; Qing hua jiao; Quassia, bark; Quebracho, bark; Quillaja; Quinine; Rauwolfia, bark; Resin spurge; Rue; Saffron crocus; Sandalwood, seed; Sassafras, bark; Sassafras, leaf; Saunders, red; Saw palmetto; Sesame, seed; Silktree, bark; Simaruba, bark; Skunk cabbage, root; Slippery elm; Stemona, root; Suma; Sumac, fragrant; Sumac, smooth, leaf; Taheebo, bark; Tamarind, seed; Tasmanian pepper, berry; Tasmanian pepper, leaf; Threeleaf caper; Tsaoko; Vanilla; Wattleseed; White willow; Willow; Witch hazel; Yaw root; Yellow gentian, roots; Yohimbe; Cultivars, varieties, and hybrids of these commodities.

## OUTDOOR ORNAMENTALS:

Apply as a dormant spray in early spring when most danger of freezing nights is over, BUT PRIOR TO LEAFBUD SWELL OR BREAK. Spray on a mild morning so that the trees will dry quickly after spraying. Never spray in the late afternoon or during freezing weather.

DO NOT apply on shrubs or trees other than the ones listed on this label.

ORNAMENTAL PLANTS, SHADE TREES AND SHRUBS	PEST	LITRES OF DOUBLE DOWN SPRAY OIL PER 1000 LITRES OF WATER	TIME OF APPLICATION
APPLE (Malus) Crabapple Barberry Hawthorne	Oyster Shell Scale San Jose Scale European Red Mite	20	Dormant
ASH (Fraxinus)	Oyster Shell Scale	20	Dormant
ELM (Ulmus)	European Fruit Scale Lecanium Scale European Red Mite	20	Dormant
PRUNUS Flowering Cherry, Peach & Plum	European Red Mite Lecanium Scale San Jose Scale	20	Dormant
HONEYLOCUST (Gleditsia)	Cottony Maple Scale	20	Dormant
LILAC (Syringa)	Oyster Shell Scale	20	Dormant
MAPLE (Acer) (except Japanese and sugar)	Cottony Maple Scale Lecanium Scale	20	Dormant
MOUNTAIN ASH (Sorbus)	European Red Mite	20	Dormant
OAK (Quercus)	European Fruit Scale Lecanium Scale Golden Oak Scale Kermes Oak Scale	20	Dormant
PACHYSANDRA (Pachysandra)	Euonymus Scale	20	Dormant
PINE (Pinus) (except White Pine)	Pine Needle Scale Spruce Spider Mite	20	Dormant
SPRUCE (picea) (except Colorado)	Pine Needle Scale Spruce Spider Mite	20	Dormant

Blue)			
TULIPTREE (Liriodendron)	Tuliptree Scale	20	Dormant
WILLOW (Salix)	Oyster Shell Scale	20	Dormant
Birch, Dogwood, Hawthorn, Privet, Sycamore	Scales (immature)	10-30	Dormant
	Spider Mites	10-30	Dormant

### GREENHOUSE ORNAMENTALS

CROP	PEST	LITRES OF DOUBLE DOWN SPRAY OIL PER 1000 LITRES OF WATER	TIME OF APPLICATION
GREENHOUSE ORNAMENTAL PLANTS*	Control of scales and mealybug	<b>Foliar:</b> 20 L product/1000 L of water	<b>For insect foliar spray:</b> Apply once for thorough coverage when monitoring indicates the need.
	Suppression of mites and thrips  Deter feeding by aphids and whiteflies;  Suppression of powdery mildew ( <i>Podosphaera</i> spp., <i>Leveillula taurica</i> , <i>Sphaerotheca pannosa</i> and <i>Erysiphe necator</i> ) ( <i>E. necator</i> on ornamental grape ( <i>Vitis</i> spp.) varieties only).	<b>Foliar:</b> 10 L product/1000 L of water	
	Suppression of thrips and whiteflies by plant/cutting dip.	<b>Dip:</b> 5 mL product/1 L of water	<b>For dipping:</b> one application only, prior to planting. Cuttings should remain fully submerged for at least one minute.

\* Greenhouse ornamental varieties may vary in their tolerance to mineral oil, including to DOUBLE DOWN SPRAY OIL. Additionally, consult your seed or plant supplier for information on tolerance of specific varieties of greenhouse ornamentals to DOUBLE DOWN SPRAY OIL.

**SUMMER SPRAY:**

CROP	INSECT OR MITE SPECIES	LITRES OF DOUBLE DOWN SPRAY OIL PER 1000 LITRES OF WATER	TIME OF APPLICATION
Ornamental shade trees, evergreens, hardy shrubs (such as Rosa, Euonymus, Cornus, Syringa, Viburnum, Salix, etc.)	Scale insects, red spider mites, mealybugs and whitefly larvae	20	Summer Spray: Apply when monitoring indicates applications are required. Consult recommendations of provincial spray calendar.
GREENHOUSE ORNAMENTAL PLANTS*	Scales	20	Ground application or plant cutting/dip. For foliar spray: Apply when monitoring indicates the need. For dipping: one application only, prior to planting. Cuttings should remain fully submerged for at least one minute.

\* Greenhouse ornamental varieties may vary in their tolerance to mineral oil, including to DOUBLE DOWN SPRAY OIL. Additionally, consult your seed or plant supplier for information on tolerance of specific varieties of greenhouse ornamentals to DOUBLE DOWN SPRAY OIL.

**NOTE:** The precise timing of treatment must be determined to suit local growth and climatic conditions. Contact provincial agricultural authorities for further information.

**CAUTION:**

To prevent injury, do not apply on:

- |                      |             |                  |            |
|----------------------|-------------|------------------|------------|
| Arbovitae            | Cocos palms | Japanese maple   | Walnut     |
| Beech                | Douglas fir | Juniper          | White Pine |
| Butternut            | Hickory     | Maidenhair ferns | Yew        |
| Colorado Blue Spruce | Holly       | Sugar maple      |            |

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

**BUFFER ZONES:**

Use of the following spray methods or equipment DO NOT require a buffer zone: handheld or backpack sprayer and spot treatment.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: DO NOT apply during periods of dead calm.

Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

DO NOT apply by air.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:			
			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:	
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m
Field sprayer*	Berries and small fruits Crop Group 13-7, cucurbits, fruiting vegetables, leafy vegetables, highbush blueberries, rutabaga, herbs and spices		2	1	1	1
Airblast	Outdoor ornamental plants, shade trees and shrubs		5	3	1	0
	Grapes, Chestnuts, hazelnuts (filberts), hops	Early growth stage	15	10	2	1
		Late growth stage	10	4	2	1

	Pome fruit, stone fruit	Early growth stage	<b>20</b>	<b>10</b>	<b>4</b>	<b>1</b>
		Late growth stage	<b>10</b>	<b>5</b>	<b>2</b>	<b>1</b>

\*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

### **ENVIRONMENTAL PRECAUTIONS:**

TOXIC to aquatic organisms. Observe BUFFER ZONES specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

### **USE PRECAUTIONS:**

All horticultural oils interfere with or slow plant transpiration and respiration during the period of evaporation. DO NOT APPLY DURING PERIODS OF DROUGHT, WHEN PLANTS EXHIBIT MOISTURE STRESS AND JUST PRIOR TO OR DURING FREEZING WEATHER. Do not use in combination with dinitro compounds, fungicides such as Captan, Folpet, or any other product containing sulphur.

### **NOTE FOR RUTABAGAS:**

DOUBLE DOWN SPRAY OIL can be used on rutabagas to deter the feeding of aphids, which spread Turnip Mosaic Virus. Apply 10 L of DOUBLE DOWN SPRAY OIL in 550-1100 L of water per hectare. Thorough coverage is essential. Application should be made at 2500 kPa with hollow cone nozzles. Spray at one week intervals beginning in mid-June or at the first appearance of aphids in the local area. Consult your local extension office for more precise information about aphid activity and spray timing. Application may be required for up to 10 weeks of aphid activity. Do not apply closer than 21 days to harvest.

**CAUTION:** Do not apply DOUBLE DOWN SPRAY OIL in direct sunlight. Spray rutabagas early in the morning or in the evening. Allow at least 24 hours to elapse after the DOUBLE DOWN SPRAY OIL application before applying other insecticide sprays. Do not apply DOUBLE DOWN SPRAY OIL more concentrate solutions than recommended as crop injury may occur.

**MIXING INSTRUCTIONS:**

Before mixing, be certain the spray tank is clean. To mix add water to agitator level, start agitation and add the required amount of DOUBLE DOWN SPRAY OIL. The mixture should turn white indicating good emulsification. After mixing, continue filling tank and do not stop agitation until tank has been emptied. Do not mix with Captan, Sevin, or Wettable Sulphur. When mixing oil combination sprays, add the chemical to the tank first, when the tank is one-quarter to one-half full of water. Mix thoroughly and add the 1-800-328-4678 last, when the tank is almost full. For further instructions regarding mixing, compatibility, method of application, consult your local Fruit Extension Office or Provincial Fruit Production Recommendations.

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Loveland Products Canada Inc. at 1-800-328-4678 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.

**CAUTION:** Do not use the spray mixture before the oil has been properly emulsified or if the emulsion “breaks”. Do not use this material if it does not emulsify.

**COMPATIBILITY:**

DOUBLE DOWN SPRAY OIL is compatible with Ferbam for use on Peaches in a dormant spray. If used with Oil, fill tank ¼ full of water, add the Ferbam slowly with agitator running, and resume filling tank with water before adding Oil concentrate. DOUBLE DOWN SPRAY OIL is compatible with Dodine (Cyprex), and Ferbam.

Do not apply sulphur within 10 days of an oil application. On all other Crops: Do not apply micronized sulphur within 10 days of an oil application and do not apply oil within 14 days of an application of wettable or dusting sulphur.

Do not use the following chemicals: captan, folpet, during, with or following an oil spray. A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: chlorothalonil (Bravo), permethrin (Pounce). Do not use chlorothalonil (Bravo) or dimethoate (Cygon, Lagon) in a spray program with this product on grapes, ornamentals and strawberries.

**NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.