



PROBLAD®

A NATURAL BIO-FUNGICIDE

A BROAD SPECTRUM BIO-FUNGICIDE FOR PREVENTIVE CONTROL OF FUNGAL DISEASES IN VEGETABLES, FRUIT TREES AND OTHER HORTICULTURAL CROPS.

GENERAL INFORMATION

PROBLAD is a novel bio-fungicide whose active ingredient is a polypeptide extracted from germinated seeds of *Lupinus albus* plants. The BLAD polypeptide structure is the unique and driving force behind PROBLAD's performance. This is a multisite mechanism with a very low probability of resistance developing over time. This Mode of Action (MOA) is an excellent fit into current, standard fungicide programs as an effective, resistance management tool for use in IPM programs. PROBLAD stands apart from existing products with its own biological mode of action FRAC Group, BM01 as a truly novel MOA.

APPLICATION RATES AND RECOMMENDATIONS

Crop	Disease	Rate/Ha	Application
BERRIES Blackberry Blueberry Goose berry Strawberry	Powdery mildew (<i>Sphaerotheca macularis</i>)	1.5 – 2.2 L	Apply as preventive starting at early bloom and repeat applications at 7 to 10-day intervals if conditions favour disease development. Apply in a minimum water volume of 500 litres/ha to achieve thorough coverage of the foliage and fruits. Alternate with another fungicide with a different mode of action such as CUPERDEM.
	Gray mould (<i>Botrytis cinerea</i>) Anthracnose (<i>Colletotrichum spp</i>)	2.5 – 3.0 L	
CUCURBITS Cucumber Pumpkins Squash Watermelons	Powdery mildew (<i>Goloninomyces cichoracearum</i>) (<i>Erysiphe cichoracearum</i>) (<i>Podosphaera xanthii</i>) (<i>Sphaerotheca fuliginea</i>)	1.5 – 2.2 L	Apply as preventive before the onset of disease and repeat applications at 7 to 10-day intervals if conditions favour disease development. Apply in a minimum water volume of 500 litres/ha to achieve thorough coverage of foliage and fruits. Alternate with another fungicide with a different mode of action such as PRESTIGE 38 SC.
VEGETABLES Carrots, Chillies Eggplant, Okra Onions, Peas, Pepper, Tomato	Powdery mildew (<i>Leveillulataurica</i>)	1.5 – 2.2 L	Apply as preventive before the onset of disease and repeat applications at 7 to 10-day intervals. Apply in a minimum water volume of 500 litres/ha to achieve thorough coverage. Use the higher rate under conditions of severe disease pressure. Alternate with another fungicide with a different mode of action to manage resistance.
	Gray mould (<i>Botrytis cinerea</i>)	2.5 – 3.0 L	
GRAPES	Powdery mildew (<i>Erysiphe necator</i>)	1.5 – 2.2 L	Apply in at least 500 litres water/ha in a preventive spray program. Increase the spray volume/ha as vine growth increase to achieve good coverage of vines and fruits. Use spray intervals of 10 to 14 days alternating with another fungicide with a different mode of action.
	Gray mould (<i>Botrytis cinerea</i>) Anthracnose (<i>Elsinoe spp</i>)	2.5 – 3.0 L	
POME FRUIT Apples	Powdery mildew (<i>Podosphaera leucotricha</i>)	1.5 – 2.2 L	Apply from early bloom to petal fall as preventive before the onset of disease and

Pears			repeat applications at 10 to 14-day intervals. Apply in a minimum water volume of 800 litres/ha and increase the spray volume/ha as crop growth increases to ensure thorough coverage of foliage and fruits. Alternate with another fungicide with a different mode of action such as PRESTIGE 38 SC or KUMULS DF.
	Scab (<i>Venturia inaequalis</i>) Fire Blight (<i>Erwinia amylovora</i>)	2.5 – 3.0 L	
STONE FRUIT Apricots Cherries Nectarines Peaches Plums	Blossom Blight (<i>Monilinia spp</i>) Brown Rot (<i>Monilinia spp</i>)	2.5 – 3.0 L	Apply from tight bud as preventive before the onset of disease and repeat applications at 7 to 14-day intervals. For Brown Rot control, apply at 7-14 day intervals a month before harvesting. Use the higher rate under conditions of severe disease pressure. Apply in a minimum water volume of 800 litres/ha and increase the spray volume/ha as crop growth increases to ensure thorough coverage of foliage and fruits. Alternate with another fungicide with a different mode of action such as CUPERDEM.
TREE CROPS Almond Avocado Cashew Nuts Citrus Macadamia Mango Pecan Nuts	Anthracnose (<i>Colletotrichum spp</i>) Black spot (<i>Guignardia citricarpa</i>) Blossom blight (<i>Cladosporium cladosporioides</i>) Gray mould (<i>Botrytis cinerea</i>) Husk spot (<i>Pseudocercospora macadamiae</i>)	2.5 – 3.0	Apply prior to disease development, as a preventive program, commencing at flower tassel emergence, followed with a second application 14 days later. Apply a third application if conditions for disease development persist. Apply in 800 to 1500 litres of water/ha to ensure thorough coverage of foliage and fruits. Alternate with another fungicide with a different mode of action such as CUPERDEM or PRESTIGE 38 SC.

DIRECTIONS FOR USE

PROBLAD is a contact fungicide with penetration properties. Apply as a **preventive spray before the onset of diseases** in at least 500 litres of water per hectare to provide thorough coverage of crop foliage and fruits. **Use the higher dosage rate under conditions of severe disease pressure.**

WARNING:

Do not apply more than 5 applications per growing cycle or season.
Do not apply more than 2 sequential applications before alternating to a fungicide with a different mode of action. The use of adjuvants with PROBLAD is not required.

PRE-HARVEST INTERVAL:

All crops – 0 days

RESTRICTED ENTRY INTERVAL: 0 Hours

RAINFASTNESS:

A minimum four hours drying time on plant foliage is required before rain or irrigation occurs. If, during the next 12 hours after an application occurs a significant rain even, a new application is recommended as soon as possible during the next 4 days.
Do not apply if rain is expected within 4 hours.
Do not apply under slow drying conditions.
Do not apply to wet crops.

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