

ProBlad®

A BROAD SPECTRUM BIOFUNGICIDE FOR THE CONTROL OR SUPPRESSION OF POWDERY MILDEW, BOTRYTIS, ANTHRACNOSE AND OTHER DISEASES IN CERTAIN CROPS

Active Ingredient:

Banda de *Lupinus albus* doce (BLAD)* 20%

Other ingredients 80%

* BLAD is a naturally-occurring seed storage protein in sweet lupines

ZEMA Registration No:
LSK/PTS/04163/Z03/2021:IP-PN:7677

Net volume: **1** LITRE



Manufacturer by:
CEV, S.A.

Zona Industrial de Cantanhede, Lote 120,
3060-197 Cantanhede
PORTUGAL

- **Batch number:** See on the container.
- **Manufacturing date:** See on the container.
- **Expiration date:** 3 years after manufacturing date in its original closed packaging.



WARNING

Hazard statements

- May cause slight eye irritation.
- May cause slight skin irritation.
- May cause irritation of respiratory tract.



Supplied by:
Bancella Ltd

4, Riverview Business Centre,
Black River, MAURITIUS
Reg No: C16134976
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Distributed by:

Bancella Zambia Ltd
Stand No 11973 Zambia Railways
Sheds. Off Chandwe Musonda Road,
Light Industrial Area, Lusaka,
ZAMBIA

CAREFULLY READ THE LABEL BEFORE USE

PRECAUTIONS:

- Handle with care and avoid breathing spray mist. Avoid contact with skin, eyes or clothing.
- Harmful if inhaled or absorbed through the skin.
- **KEEP OUT OF REACH OF CHILDREN** and **APART FROM FOOD AND FOODSTUFFS**.
- Remove contaminated clothing and wash before re-use.
- Wash exposed body parts with soap and water after use and before eating, drinking or smoking.
- **DO NOT CONTAMINATE PONDS, WATERWAYS AND DITCHES BY STORAGE OR DISPOSAL.**
- **DO NOT** eat, drink or smoke during application.
- **DECONTAMINATION OF SPRAYER:** Clean applicator/spraying equipment thoroughly after use and ensure that all traces of PROBLAD are removed. Make use of the following method:
 - a) Drain and rinse tank, spray boom and hoses with clean water for at least 10 minutes.
 - b) Fill tank with clean water and add 1.0 litre household bleach (Sodium hypochlorite) 5% per 200 litres of water. Rinse hoses and spray boom and leave in tank for 15 minutes whilst agitating. Drain through nozzle outlets.
 - c) Repeat step (b) and thereafter, rinse thoroughly with clean water and dispose of the wash water at a site designated for disposal of pesticides.
- **EMPTY CONTAINER DISPOSAL:** Non-refillable container. Do not reuse or refill this container. Completely empty container into the application equipment and thereafter, thoroughly rinse the container 3 times with a volume of water equal to a volume of 10% of the container. Add the rinsings to the contents of the spray tank. Dispose the container in accordance with local regulations. **DO NOT** use for any other purpose. If possible, offer for recycling.
- **STORAGE:** Store in a cool, dry place in original tightly closed container. **KEEP UNDER LOCK AND KEY.**

SYMPTOMS OF POISONING:

Product may cause skin and eye irritation.

FIRST AID MEASURES:

Inhalation:	Move to fresh air. If person is not breathing, give artificial respiration, preferably by mouth-to-mouth, if possible. Call a doctor for further treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a doctor for treatment advice
Eye contact:	Hold eyes open and rinse with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a doctor for further treatment advice.
Ingestion:	Call a doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: There is no known antidote for exposure to this material. Treatment of overexposure should be directed at the control of symptoms and clinical condition.

WARRANTY:

This product and the recommendations concerning its use should give excellent results. Since the performance and effectiveness of crop protection chemicals can be greatly influenced by factors outside the manufacturer's control, the manufacturer and seller give no guarantee or warranty, expressed or implied concerning the use of this product and they assume no responsibility for damage or injury arising from the use thereof.

GENERAL INFORMATION

PROBLAD is a novel bio-fungicide whose active ingredient is a polypeptide extracted from germinated seeds of *Lupinus albus* plants. PROBLAD has an excellent mammalian and environmental toxicological profile. 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.

WARNING



RECOMMENDED APPLICATION RATES

Crop	Disease	Rate/Ha	Application
BERRIES Blackberry Blueberry Goose berry Strawberry	Powdery mildew (<i>Microspheera vaccinii</i> ; <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 to manage resistance.
	Grey mould (<i>Botrytis cinerea</i>)	2.5 – 3.0 L	
	Anthraxnose (<i>Colletotrichum</i> spp.)		
CUCURBITS Cucumber Pumpkins Squash Watermelons	Powdery mildew (<i>Golovinomyces 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 to manage resistance.
	Grey mould (<i>Botrytis cinerea</i>)	2.5 – 3.0 L	
PASSION FRUIT	Powdery mildew (<i>Oidium passiflorae</i>)	1.5 – 2.2 L	Apply as preventive at 7 to 10-day intervals when conditions are favourable for 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 to manage resistance.
	Septoria Spot (<i>Septoria passifloricola</i>)	2.5 – 3.0 L	
	Anthraxnose (<i>Colletotrichum gloeosporioides</i>)		
	Scab (<i>Cladosporium oxysporum</i>) Brown Spot (<i>Alternaria passiflorae</i>)		
VEGETABLES Brassicas, Carrots, Chillies, Eggplant, Fine Beans, Okra, Onions, Peas, Pepper, Paprika, Potato, Tomato	Powdery mildew (<i>Leveillula taurica</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.
	Grey mould (<i>Botrytis cinerea</i>)	2.5 – 3.0 L	
LETTUCE	Sclerotinia (<i>Sclerotinia sclerotiorum</i>)	2.5 – 3.0 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.
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 increases 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 to manage resistance.
	Grey mould (<i>Botrytis cinerea</i>)	2.5 – 3.0 L	
POME FRUIT Apples Pears	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 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 to manage resistance.
STONE FRUIT Apricots Cherries Nectarines Peaches Plums	Blossom Blight (<i>Monilinia</i> spp.)	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 to manage resistance.
	Brown Rot (<i>Monilinia</i> spp.)		

RECOMMENDED APPLICATION RATES

Crop	Disease	Rate/Ha	Application
TREE CROPS Almond Avocado Cashew Nuts Citrus Macadamia Mango Pecan Nuts	Anthraxnose (<i>Colletotrichum</i> spp.)	2.5 – 3.0 L	Apply prior to disease development, as a preventive program, commencing at flower tassle emergence, followed with a second application 14 days later. Apply a third application if conditions for disease development persists. 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 to manage resistance.
	Black spot (<i>Guignardia citricarpa</i>)		
	Grey mold (<i>Botrytis cinerea</i>)		

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. Increase spray volume as crop growth increases to ensure thorough coverage of the foliage and fruit. Complete coverage and uniform application are essential for effective results, especially when lower spray volumes are applied. **Use the higher dosage rate under conditions of severe disease pressure.**

MIXING INSTRUCTIONS

Make sure the spray tank is clean and free of residues from previous spray treatments. Fill spray tank to ¾ full with clean water. Shake the PROBLAD container before opening and pour the required amount of PROBLAD into the spray tank while agitating. Continue agitating while filling in the remainder of the water to the spray tank. It is recommended that the spray solution has a pH above 6. Adjust pH if necessary. Spray mixture should be used on the same day, do not store overnight.

CHEMIGATION APPLICATION

Apply PROBLAD through Centre Pivot, Sprinkler and Drip irrigation systems only. Do not apply this product through any other irrigation systems. The irrigation system must be fitted with metered injector pump effectively designed and constructed of materials that are compatible with pesticides and capable of being easily calibrated. The irrigation system should be fitted with functional interlocking controls to automatically shut off the pesticide injection pump when the water pumping system stops or when pressure drops to a point where pesticide distribution is adversely affected. Always consult your irrigation equipment suppliers to assist with calibration before applying this product through irrigation systems.

COMPATIBILITY

Do not tank mix PROBLAD with products containing a prohibition against tank mixing. PROBLAD may be mixed with foliar fertilizers, provided that the fertilizer is added after PROBLAD has been diluted to the recommended field application. Follow the most restrictive labelling requirements of any tank mix product. To determine the physical compatibility of PROBLAD with other products, use a jar test. The following procedure should be followed: Pour the specified proportions of the products into a suitable container. Add one litre of water; mix thoroughly and allow to stand for at least 15 minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered a homogeneous solution and physically compatible. If separation occurs (e.g. oils float to top, clumps of solids form, etc.), the combination is incompatible and cannot be used.

WARNING:

Do not apply more than 5 applications per growing cycle or season.

Do not apply more than 2 sequential applications before alternating with a fungicide with a different mode of action.

PRE-HARVEST INTERVAL: All crops - 0 days

RESTRICTED ENTRY INTERVAL: 2 Hours

RAINFASTNESS:

A minimum of four hours drying time on plant foliage is required before rain or irrigation occurs. If, during the next 12 hours after an application it rains significantly, 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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