

# CannaPM™

CannaPM biological fungicide offers cannabis and hemp growers powerful and versatile tool to control fungal pathogens. CannaPM works just like other biological controls (the classic example of a biological control is the use of ladybugs to control aphids), only the organisms in CannaPM act on a microscopic level. CannaPM uses a natural enemy of fungal pathogens to keep these pathogens from destroying your crops. This natural enemy is a beneficial bacteria called ***Streptomyces lydicus* WYEC 108**, which is a naturally occurring soil bacterium that was originally isolated from the roots of a linseed plant in England, and patented worldwide. CannaPM is effective and versatile, utilized both indoors and outdoors.

## How does CannaPM protect against fungal pathogens?

CannaPM can be utilized to combat fungal soil diseases, as well as foliar diseases. The organism within CannaPM colonizes plant structures in a beneficial symbiotic manner, when introduced into the root zone or applied to foliage. The ***Streptomyces lydicus*** spores germinate and form a mutually beneficial relationship within the rhizosphere of plants by feeding off the plant's waste and secreting beneficial byproducts, such as Chitinase to break down fungal walls, byproducts that kill or repel other microbes, and iron carriers to starve competing microbes. Essentially, the ***S. lydicus*** feeds off the root's secretions, and discharges toxins that keep other microbes (including pathogens) out. This assortment of byproducts and toxins discharged by ***S. lydicus*** means that CannaPM utilizes several modes of anti-fungal action to protect plants, lawns, and gardens from pathogens, rather than relying on a single mode of action as many other fungicides do.



# CannaPM™

## What pathogens can CannaPM help control against?

Similar to a probiotic used to keep our own digestive systems in healthy balance, CannaPM works within the root zone microbiome to keep the system healthy and in-balance.

CannaPM's *S. lydicus* organism is registered and will actively suppress against several common soil pathogens, such as **seed rot**, **pre-emergence damping-off**, **post-emergence damping-off** and **root rot** caused by *Pythium spp.*

In foliar applications, CannaPM is registered and will suppress **Botrytis grey mould** and **powdery mildew** on indoor and field-grown cannabis and hemp.

## When should CannaPM be applied?

As with most biological controls, it is best to use CannaPM as a preventative tool. For best results, apply CannaPM as early as possible to the plant's root system, and reapply every 7-14 days as needed. In foliar applications, it is best to apply prior to disease development, or at the first signs of pathogen infection, and repeat at 7-14 day intervals to protect new foliage.

CannaPM is relatively safe when compared with many other fungicides, though caution is advised when using any pesticide. Please read the label thoroughly for all precautionary statements and PPE requirements. When sprayed onto foliage or used in chemigation via sprinkler or other spray irrigation, the re-entry period is only one hour, or once the solution has dried. Always clean application equipment prior to use of this product, and use the prepared CannaPM solution within 4 hours of preparation.



## How can Growers apply CannaPM?

CannaPM is a soluble powder which can be added to water to create a solution and then applied to the plant's root zone or foliage using the applications below.

For foliar applications dissolve 425 g CannaPM in 1100 L water per hectare, and apply as foliar spray to leaves and blossoms. Spray to wet, but avoid run-off. Make the first application when conditions are conducive to disease development, and repeat applications every 7-14 days. Use the shorter application interval under high disease pressure. CannaPM can be applied using hand-held backpack or ground spray equipment.



# CannaPM™

For hydroponic systems and soil drenches dissolve recommended rate of CannaPM per 1100 L of water to create a solution. Apply solution as a drench or through hydroponic systems to plants/growing media until the pot is thoroughly wetted without creating run-off. Make the first preventative application immediately after seeding or transplanting or when conditions are conducive to disease development. Repeat application every 7 to 14 days. Use the shorter application interval under high disease pressure. CannaPM can be applied using low pressure watering nozzles such as fan nozzles, through overhead boom type sprayers or sprinklers, hydroponics systems, injectors, flood benches or other drench watering systems.

Clean application equipment before use of this product, and use prepared sprays within 4 hours of preparation.

Always refer to the CannaPM product label for complete instructions, precautions, safety, and storage and handling before use.

## What CannaPM products are available for Growers?

CannaPM is a proven technology that has been utilized by growers with confirmed success for many years. CannaPM is available in 510g packages, and has a 12-month shelf life.

# CannaPM™

## PRODUCT BENEFITS

1

### **BROAD SPECTRUM**

Provides Broad Spectrum Activity on Both Soil and Foliar Diseases

2

### **BENEFICIAL BACTERIA**

Contains Beneficial Bacteria with Multiple Modes of Action

3

### **SUSTAINABLE CROPS**

Fits Organic and Sustainable Crop Production Systems

4

### **ORGANIC PRODUCTION**

US OMRI Listed for Organic Production



## Where can I find these products and learn more about how to use them?

The best way to determine where you can get your hands on CannaPM is to contact MustGrow.

MustGrow's information is available online at [www.mustgrow.ca](http://www.mustgrow.ca), or you can reach the MustGrow sales staff by calling (306) 241-6095 or emailing [info@mustgrow.ca](mailto:info@mustgrow.ca)