Artemis & Angel Co. Ltd.

99/296 President Park, Sukhumvit 24, Klongtoey, Bangkok 10110, Thailand

Tel.: (President) +66-86-329-6038; (Sales): +66-993377866

E-mail: artemisandangelcoltd@gmail.com **Website:** www.artemisthai.com

<u>Using Bio-Plant and Pro-Plant to Deal with Fungal Diseases</u>

Introduction

Firstly, Bio-Plant and Pro-Plant are microbial, liquid, 100% organic bio-fertilisers, not chemical sprays, fungicides, or insecticides. However, they help farmers to deal with fungus. By "deal with" we mean prevent and eradicate.

The Main Cause of Fungal Problems

Crops are prone to have problems with fungus and insect pests when their immune system is weak. Plants are no different to human beings. When our immune system is weak, we are more likely to get ill and for viruses to infect the body. If the body's immune system is strong, we will be healthy.

When the soil's microbial life is weak, such as in chemical farming, the plants can easily be attacked by fungi and insect pests. The immune system will be weak when the soil is exhausted as a result of continuous chemical farming; because the soil is not mixed with organic matter; because there is no crop rotation; because no cover crops are used; etc.

In this situation, the microbial mechanism for plants to develop a strong immune system is not working properly, if at all. As a result, plants are easily attacked by undesirable fungi as well as by insect pests. Insect pests feel the low vibration energy of the crop through their antennae and see it as food. In contrast, high vibrations are emitted by plants with a strong immune system, which is why they do not experience pest and fungal problems.

The Main Solution

The main solution is not to use chemical fungicides and insecticides because they make the problem worse. They kill more of the remaining microbial life of the soil, which is the main element of the mechanism to prevent and eradicate fungal and insect attacks. In any case, gradually, the fungi and pests get used to the chemicals, so the farmer has to use stronger chemicals, which do even more damage to the microbial life of the soil. So it goes on!

The solution is to restore the microbial life and fertility of the soil. Bio-Plant does this. Pro-Plant provides 50+ nutrients to the plants so that they are healthy and strong. This is Nature's way. It is why the crops of farmers using these bio-fertilisers rarely have insect and fungal problems. Insect pests sense the high vibration and go elsewhere, often to the chemical crops, which emit a low vibration.

Using Bio-Plant as a Fungicide

Bio-Plant is very concentrated in bacteria and fungi. It is so concentrated that it can kill fungi. The bacteria kill it, not any chemicals as there are none in these two bio-fertilisers. The way to use it is explained below.

How to Apply Bio-Plant as a Fungicide to Plants

If a crop already has fungal problems, spray a dosage of 5 cc - 10 cc / 20 litres of water. Start off with 5 cc per 20 litres of water.

How to Apply Bio-Plant as a Fungicide to Trees

• Replace the chemical fungicide you may be using with Bio-Plant mixed with water.

a. For Prevention:

• Dosage: 5 cc - 10 cc / 20 litres of water. Spray on the tree. Avoid the leaves as much as possible. This is to prevent fungus.

b. A Little Fungus:

• 10 cc - 20 cc per 20 litres of water. Spray on the tree, if there is some fungus already. Avoid the leaves as much as possible.

c. The Whole Tree Has Fungus:

- 1. Spray 50 cc/20 litres of water only on the branches. Or:
- 2. The farmer can scrub or brush on the branches 50 cc/20 litres of water. Avoid the leaves. Spray every 7-10 days for a better effect, if the trees have fungus already. When you spray Pro-Plant the leaves get coated with micro-organisms that protect the trees from disease. The Bio-Plant strengthens the immune system so that the trees are less susceptible to disease.
- If there is a need to spray pesticides, please spray them <u>at least 3 days apart</u> from when you apply the bio-fertilizers as the chemicals kill the micro-organisms that will now be multiplying in the soil and being sprayed onto the leaves.

Using Pro-Plant to Prevent Fungal Attacks

Pro-Plant contains a wide range of the major, minor, and trace minerals of fertile soil, and also provides essential micro-organisms, which enrich the soil and also coat the surface of the leaves to act as a natural fungicide that protects the leaves from fungal diseases.

It does not kill fungi. Plants do not get attacked by fungi because the micro-organisms in Pro-Plant spread over the leaves and keep the plant safe. At the same time, because the plant is receiving a full range of 50+ nutrients, unlike only 3 in the case of NPK, the plant grows healthily and its immune system is strong so that it can resist any fungal attacks.

Normally, a farmer would spray his crop with a dosage of Pro-Plant according to the kind of crop. Small vegetables would be sprayed every 7 days; 3-month crops would be sprayed 6-7 times; trees would be sprayed every 2 weeks ideally, but once a month will work before the flowering and fruiting. The ratio is 20 cc per 20 litres of water. 500 cc mixed with 500 litres of water will be enough for a hectare. If the hectare is covered with trees, then as much as one litre mixed with 1,000 litres of water might be needed.

How to Assist Farmers

The answer is quite simple. Nature's way is the solution, not the chemical sprays and inputs sold by fertiliser dealers. Nor quick-fix spraying of Bio-Plant. So:

- Teach farmers how to make compost mixed with Bio-Plant. This is the best way to restore the soil's fertility and microbial life, and in turn the plants will grow healthily.
- If the farmers do not wish to make compost, then teach them how to prepare their soil with organic matter mixed with Bio-Plant, ideally 1 litre mixed with 1,000 litres of water per hectare to begin with mixed with 5 MT or more of organic matter. The amount of Bio-Plant can be reduced later on, if the farmer wishes to do so.
- Teach them how to apply Pro-Plant so that the crops receive all the nutrients they need. Then they will be strong and healthy, and grow abundantly.

Summary

In short, feed the soil with micro-organisms and fungi, and the crops will be healthy and fungal and insect pest attacks will diminish and fade away. Simply applying a Band-Aid fix by spraying Bio-Plant or Pro-Plant while the farmers continue to use chemical inputs will not solve the problems though. The farmers have to get away from chemicals altogether and restore their soil organically.

Finally: Dr. Arden B. Andersen explains: "Insects get sick from healthy plants because they cannot handle the rich nutrients present in those plants."

This statement relates closely to the Trophobiosis Theory of Francis Maboussou, an agronomist of France's National Institute of Agricultural Research. The former Minister for the Environment in Brazil, Jose Lutzenberger, reformulated this theory in a simple statement: "a pest starves on a healthy plant."