

MOSKULT[®]

MICROBIAL SUSPENSION with TRICHODERMA

Product description

A straw-coloured liquid consisting of a variety of beneficial soil microbes that coexist with the hair roots of plants (rhizophilic). It contains a number of Rhizophilic Bacillus species together with Trichoderma sp and associated synergistic support organisms. Together they provide a living shield against potential pathogens, such as Rhizotonia, Phytophthora, Fusarium, Pythium, Sclerotinia etc. This is accomplished by crowding out attackers and by consuming the root exudates which attracts them.

See **advantages of MOSKULT** The various species have the following known advantages for the plant.

A few advantages of MOSKULT[®]

- Dissolves fixed nutrients, phosphate, potassium calcium and makes them accessible to the plant.
- Produces natural chelates (siderophores) that increase the absorption of nutrients in plants.
- Consists of various bacterial species known for their ability to bind nitrogen and make it available to the plant.
- Manufactures antimycotics and enzymes that suppress a variety of root diseases and fungal pathogens.
- Produces chitinase, an enzyme known to digest the cell walls of larvae, pupae, eggs and mature insects in the soil.
- Induces natural disease resistance in plants.
- Breaks down organic material and toxic chemical compounds in the soil.
- Manufactures a variety of growth hormones that stimulate plant growth.
- Produces vitamins and amino acids that stimulate plant growth.
- Stimulates and promotes the germination of seed.

Packaging

300 g **MOSKULT[®]**

11 kg **MOSAKT[®]** (to prepare 1 000 ℓ solution)

2 kg **MOSKOS[®]** (to supply carbon for 1 000 ℓ solution)

100 ml **HUME-DF[®]** (to prepare 1 000 ℓ solution)

250 g **HUME-STERI[®]** (to prepare 1 000 ℓ solution)

Characteristics

pH.....4,5 to 4,8

Appearance.....straw-coloured solution

Smellyeasty smell

Residue (0,5 mm).....none

Specific gravity.....1,01

Storage

Store **MOSKULT[®]** package in cool, dry place.

Instructions for application

NB: Do not subject product to pressure in excess of 10 bar. Always apply after the filter system.

Methods

- **MOSKULT[®]** suspension may be applied through the irrigation system, whether drip, micro or overhead pivots.
- With spray apparatus on ridge (bankie) to be followed by about 5 mm irrigation.
- In planting furrow with planter.

Orchards and Vineyards

Micro and drip

Apply 100 litres per ha on root zone; repeat 3 times during summer .

Supplements

The product may be used on its own, but should ideally be supplemented with **Aminofix:AF3000** as follows:

Apply 4 liters **Aminofix:AF3000** & 100 liters **MOSKULT[®]** per ha. Repeat 3 times from October to March.

Vegetable crops, fields and Tunnels

Micro and drip

Apply 50 litres per ha at planting, either with planter or during irrigation. Repeat monthly until one month before harvest.

Supplements

The product may be used on its own, but should ideally be supplemented with **Aminofix:AF3000** as follows:

Apply 4 liters **Aminofix:AF3000** & 100 liters **MOSKULT[®]** per ha at planting; repeat monthly until one month before harvest.

Nurseries

Premix after fermentation 40 liters of **Aminofix:AF3000** and 1000 liters **MOSKULT[®]**. Apply 300 ml of mixture per tray direct after seeding.

Humos Manufacturing(Pty)Ltd

VAT/BTW nr: 4880229952

Reg nr:2005/017791/07

Instructions for use of HUMOS FERMENTATION

UNIT.

NB: To be used only with the **HUMOS®** fermentor :

1. Switching the system on and off

It is important to switch off the heating element as well when the pump is switched off. To avoid problems, proceed as follows:

Switch on system

Set thermostat at zero and switch on system using vacuum switch; then set thermostat at 25 °C.

Switch off system

Set thermostat at zero and switch off system using vacuum switch.

Switch on/off pump only

Keep thermostat at zero and use vacuum switch.

2. Rinse tank

Rinse tank with clean water and remove all deposits using high-pressure water. Switch on system with both valves open and circulate water in tank. Drain water, at the same time letting in more water until water drains clear.

3. Filling tank with water and sterilisation

Fill tank with 1 000 litres water and add 250g **HUMOS-STERI**, as supplied. Switch on system at 25 °C and rinse for 1 hour.

4. Adding MOSAKT®

After one hour of sterilization, add 11 kg **MOSAKT®** slowly to tank.

5. Adding MOSKULT®

Immediate after the **MOSAKT®** add 300 g **MOSKULT®** slowly to system, add the the **HUMOS- DF**(anti foam) and run for 18 hours. Make certain that all venturi jets, sprayers and air intake are open.

6. Measuring if the fermentation process was successful.

Do a Glucose test with the test strip supplied. **The strip should stay Blue/green after being dipped in the sample.**

NB.Take reading within 10 seconds after dipping into the sample.

7. Adding MOSKOS®

Slowly add 2 kg **MOSKOS®** to system and mix for 15 min.

NB: This must be done directly prior to application.

8. Draining the tank

Switch off system and close valves of both venturi jets and sprayers, top and bottom. Pump product through drainage valve, using the pump only, without heating.

9. Cleaning the system

It is important to clean the system immediately after use to prevent the formation of tough deposits.

If necessary, the inside of the tank may be cleaned with high-pressure water. As long as the tank is being filled, all sprayers should be operational, whereupon the drainage valve should be opened and the system rinsed until the water drains clear.

If followed by immediate re-use, continue with sterilation as described in point 3.

If the tank is to be store, drain completely and store a clean dry tank.

THE HUMOS FERMENTATION UNIT



MOSKULT FERMENTATION KIT



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MOSKULT® BIOCULTURES

MOSKULT BIOCULTURES is a range of dried culture products of selected spectrum of microorganisms that can be quickly reactivated and applied to the soil or to other growing mediums.

- **MOSKULT BIOCULTURES with Trichoderma** contains a number of Rhizophilic Bacillus species together with Trichoderma sp and associated synergistic support organisms.

Together they provide a living shield against potential pathogens, such as Rhizotonia, Phytophthora, Fusarium, Pythium, Slerotinia etc. This is accomplished by crowding out attackers and by consuming the root exudates which attracts them. See **advantages of MOSKULT BIOCULTURES**

- **MOSKULT BIOCULTURES NEMA** contains a blend of fungal micro-cultures of Dactylaria and Arthrobotrys. The spores of the fungi germinate in the soil and spread rapidly through the root zone forming a network of threads (mycelia) that form loops capable of trapping nematodes as they make their way through the soil.

A few advantages of MOSKULT BIOCULTURES

- Dissolves fixed nutrients, phosphate, potassium, calcium and makes them accessible to the plant.
- Produces natural chelates (siderophores) that increase the absorption of nutrients in plants.
- Consists of various bacterial species known for their ability to bind nitrogen and make it available to the plant.
- Manufactures antimycotics and enzymes that suppress a variety of root diseases and fungal pathogens.
- Produces chitinase, an enzyme known to digest the cell walls of larvae, pupae, eggs and mature insects in the soil.
- Induces natural disease resistance in plants.
- Breaks down organic material and toxic chemical compounds in the soil.
- Manufactures a variety of growth hormones that stimulate plant growth.
- Produces vitamins and amino acids that stimulate plant growth.
- Stimulates and promotes the germination of seed.

Packaging

1 kg **MOSKULT® BIOCULTURE**

Storage

Store **MOSKULT®** package in cool, dry place.

Instructions for application.

Re-activate the MOSKULT BIOCULTURE prior to application using 500 grams per ha.

Disperse 1 kg of **MOSKULT BIOCULTURE** in 20 liters of luke warm chlorine free water. Leaf for 2 hours and stir regularly. (Enough for 2 ha)

Methods of application:

- **MOSKULT®** suspension may be applied through the irrigation system, whether drip, micro or overhead pivots.
- With spray apparatus on ridge (bankie) to be followed by about 5 mm irrigation.
- In planting furrow with planter.

NB: Do not subject product to pressure in excess of 10 bar. Always apply after the filter system.

Orchards and Vineyards

Micro and drip

Apply 500 grams of **MOSKULT BIOCULTURE** with 4 liters **AminoFix3000** per ha on root zone; repeat 3 times during summer.

Vegetable crops, Tunnels and Nurseries

Overhead sprayers, Micro and drip

Apply 500 grams of **MOSKULT BIOCULTURE** with 4 liters **AminoFix3000** per ha on root zone at planting, either with planter or during irrigation. Repeat monthly until one month before harvest.