E R G O F I T O I N A C T I O N

Give Nature What Nature Wants

Ergofito application for Tree Growth and Stump decomposition

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TREES:

When trees are planted artificially in selected plantations to produce products such as cellulose or simply timber for construction, certain problems arise in both the nurseries and in the plantation itself. (Fruit trees are excluded from this presentation due the their annual crop cycle. (see "**Ergofito Fruit Trees**" documentation)

Over a period of time any mono crops will suffer from a series of illnesses, deficiencies and soil tiredness. The continuous use of fertilization may also contribute to the above-mentioned negative effects. Opportunistic plant illnesses will strike large sections of the plantation, provoking plant loss and therefore financial losses.

SAPLINGS:

Saplings, like all plants, require a healthy rhizosphere to thrive.
(See **Ergofito** document on **Rhizosphere**).

There are numerous fertilization approaches for saplings, but radical health is vital in all cases.

In order to ensure correct beneficial microbial activity at root level, a small dose (2 grams) of **Ergofito Universal Plus** per sapling is advisable.
(*Please refer to "**Ergofito Benefits**" brochure for details*)

The above application is applied by mixing **Ergofito Universal Plus** with water at a ratio of 1:50. 1gram of **Ergofito Universal Plus** to 50grams of water.
It is advisable to reduce the usual fertilization by 30%.

As the **Ergofito** range of natural microbial products is not a fertilizer, the same dose can be applied to all types of trees.

ERGOFITO *application to Saplings on the Right.*
A Dramatic Improvement in Development (Health and Growth) is clearly visible.

GROWING TREES:

Growing trees will benefit from a balanced rhizosphere with a correct beneficial microbial activity.

Soil Exhaustion

Plants send out explorer roots to identify nourishing soil. They use a capillary element (a root hair), which explores a very small space (micro-habitat) and samples the nutrients available.

If there is only enough 'food' for one root hair the plant deposits toxins along the exterior surface of this space to stop the occupied area from being explored by other capillary elements.

When the food is finished the plant makes the microhabitat toxic and sheds off its root hair. This prevents other root hairs from exploring soil that has been exhausted.

Through chemical fertilization you can replenish the nutrients in the spaces but if there is not sufficient bacterial activity to detoxify the soil these areas will still be avoided by new roots.

This is why it is possible to reduce the chemical fertilization by up to 30% for the efficiency (nutrients absorbed by plant as applied to land).

Ergofito contains the enzymes and bacteria that destroy these toxins and they actually transform the poison back into food for plants.

This emulates the properties of non-agricultural land that is full of organic material, high in microbiological activity and does not get affected by soil tiredness. The same applies to any soil rich in humus.

Soil exhaustion does not occur where humus is present.

Yearly or bi-yearly application:

Apply the following protocol once or twice a year on the ground around the tree in the diameter of the canopy:

The application will ensure a superior growth and a strong preventive defense against plant sicknesses and parasitic attacks.

Ergofito Product	Quantity per Hectare	Dilute With Water	When
Ergostart Bio	125Kg	1:50	Immediately
Ergofito Universal	20Kg	1:200	10 Days later

Soil exhaustion is the main culprit of low yields in tree plantations.

The **Ergostart Bio** application can be omitted if the trees are not currently in a distressed state.

TREE STUMP DECOMPOSITION:

In plantations that have produced timber, many stumps are usually left in the ground.

The stumps present a multitude of problems, such as decreasing the levels of available Nitrogen due its decomposition, occupation of ground space for new trees and damage to vehicle tires etc.

To remove large number of stumps in often difficult terrain may impractical.

The **Ergofito Tree Stump** solution is to do what nature does best, which is to decompose the entire stump and roots, in an accelerated process.

Applying **Ergofito Tree Stump** will not deplete the ground of Nitrogen.

Requirement for in situ decomposition and transformation into humus:

The stump should be cut as lower to ground level as possible.

Once cut, drill as large and as many holes possible from the top of the stump to the bottom. It is advisable to make large incisions with the chain saw as deep as possible.

All the sawdust from the above-mentioned drilling should be collected to mix with the **Ergofito Tree Stumps** solution.

Application:

Ergofito Product	Quantity	Dilute With Water
Ergofito Tree Stump	5Kg	1:20

Pour the well-mixed ingredients into the holes and cover the stump with earth.
Depending on the size of the tree, the above formula will take care of:

Small size trees (100mm diameter)	100 stumps
Medium size trees (300 mm diameter)	30 stumps
Large trees (600 mm diameter)	15 stumps

It is important to keep the soil moist during the decomposition period.
Depending on ambient temperature, size and humidity available, the stump should decompose in between 4 and 12 months into humus.

Please note that if the tree is <u>not completely dead</u> when the application is applied,

The application may spur its growth instead of decomposing.

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