

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

Give Nature What Nature Wants

## Understanding the Rhizosphere

The Microbial Action Area for Any Plant is called the Rhizosphere



ERGOFITO

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## Rhizosphere

The Rhizosphere is the narrow region of soil that is directly influenced by root secretions and associated soil micro-organisms. Soil, which is not part of the Rhizosphere, is known as bulk soil. The Rhizosphere contains many bacteria that feed on sloughed-off plant cells, termed Rhizodeposition, and the proteins and sugars released by roots. Protozoa and nematodes that graze on bacteria are also more abundant in the Rhizosphere. Thus, much of the nutrient cycling and disease suppression needed by plants occurs immediately adjacent to roots.

The Rhizosphere is composed by Symbiotic Fungi (Mycorrhizae), *Pseudomonas* spp, *Bacillus* spp, Actinomycetes, Saprophytic Fungi (*Trichoderma* spp). This micro-biological consortium is fundamental for the plant's health.

Plants secrete exudates radically (and through its leaves), which are the plant's produced excrements due to its chlorophyll photosynthesis action. Such exudates damage the plant, but are food for the micro-organisms in the Rhizosphere. After been eaten by the micro-organisms this becomes food for the plant again. Chemical fertilizers, especially Urea, mineralize the humus, which is the habitat for the bacteria in the Rhizosphere. The forced reduction of the said bacteria in the Rhizosphere will result in an exudates accumulation and therefore intoxication in the Rhizospheric habitat.



## Chemical fertilization application

Normally chemical fertilization is never efficient and its intended purpose decreases in efficiency with time and usage. The plant is not in equilibrium with the soil, it cannot absorb what it requires. It is not economically prudent to continue a fertilization practice which ignores the requirements of the Rhizosphere and its bacteria colony.

The conclusion is that often, what is missing in most soils is not nutrition but the correct micro-biological activity needed by the plant to absorb it.

## Solution

A regular application of **ERGOFITO** will maintain the natural balance in the Rhizosphere.



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