

Lignotiva®

Microbial lawn treatment product (dethatcher)



Phanerochaete, rhizobacteria (PGPR) and Trichoderma

Degrades thatch and boosts root system vitality

“Thatch” is a layer of dead organic matter in a lawn that accumulates over time around the base of the grass plant. This dead plant matter is poorly biodegradable and includes crowns, stolons, rhizomes, and roots. It hinders the passage of water and plant nutrients to the roots of the grass plants.

How does **Lignotiva®** work? Living spores of beneficial fungi and bacteria colonize the thatch layer and break down accumulated organic material that otherwise resists degradation. The fungus *Phanerochaete chrysosporium* decomposes lignin and thus facilitates the disintegration of highly resistant dead rhizome material in the thatch layer. The bacteria and *Trichoderma* further boost the degradation process, increase plant resistance and stimulate root growth.

	Increases	Reduces
Benefits:	Break down of poorly degradable organic material • Nutrient availability • Nutrient release • Resistance • Root growth • Ecological balance of the soil	Thatch • Loss of nutrients • Loss of nitrogen • Fertilizer use

Compatibility: **Lignotiva®** is compatible with the majority of fungicides if mixed together only briefly. However, avoid the use of biocides like hydrogen peroxide and chlorine during application. In general, the product is compatible with fertilizers. **Copper:** According to the present state of knowledge **Lignotiva®** is compatible with copper concentrations commonly used in the root zone. Though gram-negative bacteria like *Pseudomonas* fall out at these concentrations, gram-positive bacteria (*Bacillus*) and fungi, such as *Trichoderma* and *Phanerochaete* are generally compatible.

Application: Use **Lignotiva®** for biological lawn care and to accelerate the aerobic rotting of lawn thatch, e.g. in golf, sports or ornamental lawns. The product is a wettable powder and should be mixed with sufficient water before applying to the targeted surface area. It is recommended to apply during rain or to drench the suspension into the soil with subsequent sprinkling so that as much spore material as possible reaches the root area. Start with an initial treatment of 250-500g/ha when the plants start to grow at the beginning of the season. Continue with treatments of approximately 200g/ha at intervals of four to six weeks until the end of the growing season. Alternatively, the product can be applied by mixing with the sand that is used when scarifying. **Lignotiva®** can also be used in the refinement of high-quality compost, in the odour control of manure and in soil regeneration after contamination. For more details on dosage or application options, please contact our technical assistance.

Storage: Store product in a cool and dry place. Avoid high temperatures and direct sunlight. Use up content soon after opening. Do not reuse packaging – dispose of with household waste. The product has a shelf life of 12 months.

Ingredients:	Lignolytic fungus: <i>Phanerochaete chrysosporium</i>	1,500,000 CFU/g (1,5x10 ⁶ CFU/g)
	Beneficial fungi: <i>Trichoderma harzianum</i> , <i>T. viride</i> , <i>T. reesei</i> , <i>Gliocladium virens</i>	100,000,000 CFU/g (1x10 ⁸ CFU/g)
	Beneficial bacteria (PGPR): <i>Bacillus amyloliquefaciens</i> , <i>B. licheniformis</i> , <i>B. megaterium</i> , <i>B. polymyxa</i> , <i>B. pumilus</i> , <i>B. subtilis</i> , <i>Pseudomonas fluorescens</i>	10,000,000,000 CFU/g (1x10 ¹⁰ CFU/g)

CFU = Colony Forming Units

