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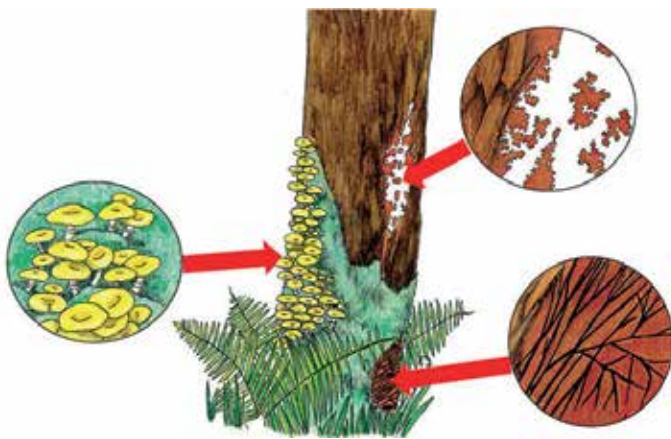
With  
antagonist  
*Trichoderma*  
*atrobrunneum*

# BioControl Agent Avengelus

## Soil decontamination of *Armillaria mellea* (Honey Fungus)

### Soil decontamination over several years

*Armillaria mellea* is one of the most important global pathogens of woody plants. Urban forests, orchards, vineyards and parks struggle with soil contamination by *Armillaria* and the accompanying infections. Stressed woody plants (e.g. due to drought) are more susceptible to infection by *Armillaria*. Trees become infected



via the roots when rhizomorphs, which grow through the soil, (melanized mycelia) penetrate the root bark. It acts as a bark parasite (cambium killer) or canker rot pathogen.

*Armillaria* decomposes wood pulp (lignin) and cellulose at equal rates. It belongs to a fungal group called white rots.

*Armillaria* can become very large and very old. It can spread over hectares and attack all kinds of wood. Only a soil treatment lasting several years can lead to success.

### Simple to use

Avengelus granulate can be easily applied to the soil before rainfall. This way no water supply is needed. Or the Avengelus spore solution is spread in diluted water. The aim is to introduce the spores of *Trichoderma atrobrunneum* into the uppermost 20-40 cm of the soil where roots and/or *Armillaria* are located.



Depending on the level of infestation 1-4 applications per year every 4 weeks for several years are recommended.

### Monitoring Stakes

In order to measure the success of using *Trichoderma*, monitoring stakes are inserted into the soil. The stakes are placed where fruiting bodies have been observed and in areas where the tree would become critical if infested. In order to find the stakes again, it is recommended to mark the stakes in colour or to draw a map with the location of the stakes. One year after insertion, the stakes are checked and the degree of decomposition (0 = intact,



no decomposition, 4 = very severe decomposition) is determined using a table. This way the monitoring of the treated area is enabled.

