



NOVIHUM®

We make soil better.

Soil type: Sandy



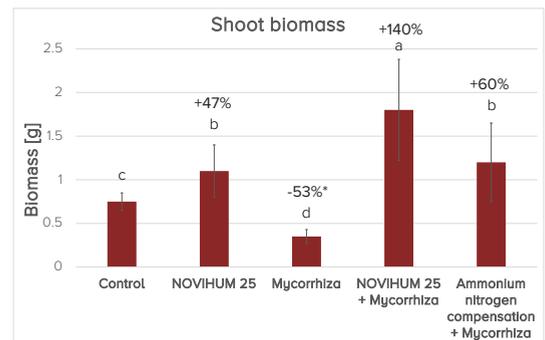
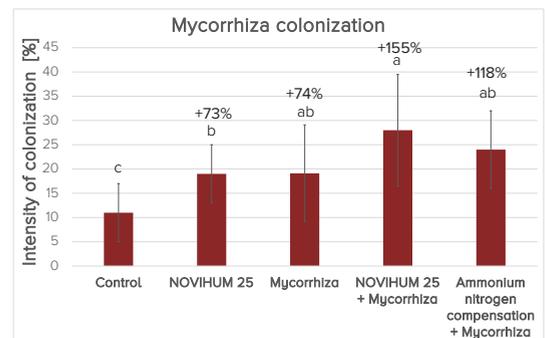
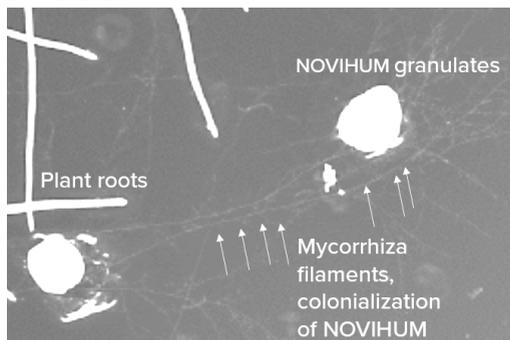
NOVIHUM® increases the efficacy of beneficial microorganisms

Background information:

Mycorrhizal fungi are an important symbiotic partner to plants that improve nutrient and water availability and uptake, especially in low-fertility soils. Unfortunately, such soils are often low in the nutrients and organic matter that microorganisms need to thrive. NOVIHUM provides soils with a balanced supply of organic nitrogen and carbon that allows mycorrhizae to better colonize roots.

Results:

- The application of NOVIHUM 25 at a rate of 4 g/pot positively influenced the establishment of mycorrhizal fungi on wheat.
- The combination of NOVIHUM 25 and arbuscular mycorrhizal fungi increased mycorrhizal colonization (see graph *Mycorrhizal colonization*) of the roots, and resulted in higher above-ground plant biomass (see graph *Shoot biomass*).
- Nitrogen uptake efficiency per unit root mass was significantly higher with NOVIHUM. The photo shows mycorrhizal filaments colonizing the plant roots and NOVIHUM granules.



*In this case, the wheat plant root and the Mycorrhizas were competing for limited nitrogen, resulting in lower shoot biomass.

Trial setup:

Trial: Greenhouse pot experiment - 1L pots
Crop: Spring wheat
Objective: Observe the impact of NOVIHUM nitrogen-modified lignite granules on root growth and mycorrhizal colonization.
Treatments: Control; NOVIHUM 25; arbuscular mycorrhizal fungi ;NOVIHUM 25 + mycorrhiza; Ammonium nitrogen compensation + mycorrhiza
Rates: NOVIHUM 25: 4 g/ pot ; arbuscular mycorrhizal fungi: 3 g/ pot; Ammonium nitrogen compensation 0,2 g/pot
Location/year: Soil Protection and Recultivation at Brandenburg University of Technology, Cottbus, Germany, 2019.

Recommendation

Apply NOVIHUM alone or in combination with mycorrhizal inoculants to maximize the benefits of symbiotic microorganisms. The synergistic effect of NOVIHUM on beneficial microbes will increase nutrient uptake and general soil health.