

59 Degrees

Soil Architects



TECHNICAL BRIEF

MyllaNo1



+46 70 323 7818

josef.winter@59degrees.com

www.59degrees.com

A BIOLOGICAL AMENDMENT FOR RELIABLE PLANT-SOIL CONNECTION



Overview

MyllaNo1 is a biological amendment developed for situations where root establishment must be dependable, repeatable, and biologically functional from the start. It is designed for growers, nurseries, landscapers, and land stewards working in contexts where the organic input cannot be left to the variability of green-waste compost.

The central distinction is straightforward from a procurement perspective: most composts are produced primarily as a way to process organic waste, whereas MyllaNo1 is formulated as a biological soil amendment specifically to strengthen the soil-root interface. That difference in design intent leads to a different biological outcome. Weak or delayed soil-root contact in the early establishment phase is a significant driver of transplant failure in urban planting systems. MyllaNo1 has been developed to address this risk directly, reducing uncertainty in the organic fraction of soil amendments and making root establishment more predictable in specification and practice.

WHY COMPOST INCONSISTENCY MATTERS

Green-waste compost quality is shaped by the waste stream that feeds it. Feedstock composition, moisture, turning regime, curing duration, and thermal exposure all affect the final material's chemistry and microbial character. This means two compost batches may both be labelled "mature compost" while performing very differently in the field.

How MyllaNo1 is different

That variability matters most during plant establishment. At this stage, roots are highly sensitive to salinity, oxygen availability, biological compatibility, and the speed at which a functional rhizosphere develops. If the organic input is unstable, salt-loaded, or biologically weak, the result is often slower rooting, weaker early vigour, and reduced resilience under stress.



MyllaNo1 is not a compost replacement in the broad sense. It is a purpose-built biological amendment for the root establishment phase.

Its formulation is built around carbon-rich materials prepared through fermentation and careful blending. Fermentation alters organic materials differently from high-heat composting and can preserve more biologically active fractions, reshape the microbial community, and improve the soil's biological responsiveness after application.

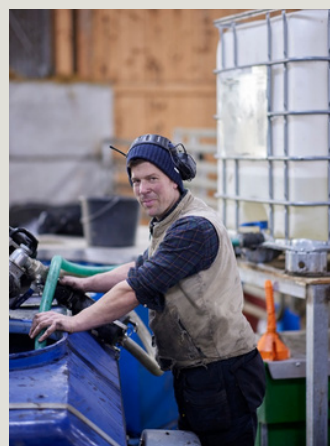
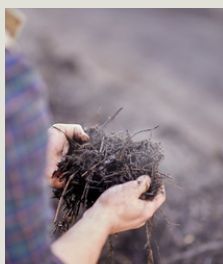
This makes MyllaNo1 relevant wherever the priority is not simply adding organic matter, but establishing a dependable biological interface between roots and soil.



THE SOIL-ROOT CONNECTION

The soil-root connection is the functional relationship between roots, mineral surfaces, organic matter, water films, gases, and rhizosphere biology. In practice, this connection determines how quickly a plant establishes, how effectively it accesses nutrients, how well it tolerates stress, and how resilient it becomes over time.

SOIL CRAFT





A STRONG SOIL-ROOT CONNECTION DEPENDS ON SEVERAL CONDITIONS:

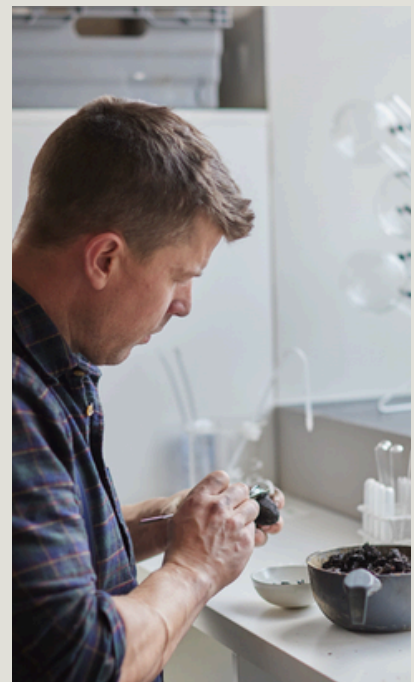


- A biologically active rhizosphere.
- Low stress from excess soluble salts.
- Carbon substrates that support aggregation and microbial metabolism.
- Physical structure that allows aeration, moisture buffering, and root exploration.



MYLLA NO1 IS DESIGNED TO SUPPORT THESE CONDITIONS SIMULTANEOUSLY

Young roots are especially sensitive to soluble salts. Elevated electrical conductivity can reduce water uptake, cause osmotic stress, and impair establishment. For that reason, MyllaNo1 is positioned as a no-added-chemical-salts input for users who want biological activation without the risks associated with salt-heavy fertility.





BIOLOGICAL FUNCTION, NOT JUST ORGANIC MATTER

This is particularly important in propagation, nursery establishment, transplanting, and challenging urban substrates where roots are already under physical and environmental pressure.

The value of an amendment is not determined only by how much organic matter it adds. Biological performance also depends on what that organic matter does after application. Research shows that different organic amendment processes can produce markedly different effects on microbial biomass, activity, and community structure.



Fermented amendments have been shown to stimulate microbial biomass rapidly and shape soil microbial networks differently from conventional composts. This supports the positioning of MyllaNo1 as a biologically functional input rather than a generic bulk amendment.

59 Degrees AB
Soil Architects



APPLICATION RELEVANCE IN STOCKHOLM-MODEL TREE PITS

***Koelreuteria paniculata*,
Sveavägen**



Stockholm-model tree pits and related structural-soil systems are designed to solve a physical problem: how to provide load-bearing urban surfaces while allowing root growth and stormwater movement. They do this well. But the biological outcome still depends heavily on the quality of the organic fraction inserted into that mineral framework. In these systems, a biologically active amendment can play an outsized role because the rooting environment is physically constrained and heavily engineered. MyllaNo1 is relevant here because it is designed to support establishment and biological activity in precisely this kind of demanding substrate context.

For more information on pricing, delivery timelines, production capacity, and bespoke products for targeted amendments contact
josef.winter@59degrees.com