



TRAFIKKONTORET

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TREE HEALTH REPORT

MyllaNo1 in the Urban environment



Written By
Josef Winter

+46 70 323 7818

josef.winter@59degrees.com

www.59degrees.com

EXECUTIVE SUMMARY

This report describes how Mylla No1 performs within Stockholm's existing planting system at four sites: Sveavägen, Norrmälarstrand, Brommaplan and Maltesholmsvägen. The purpose is to assess whether Mylla No1 provides more reliable establishment and better tree condition in exposed street environments, without changing the established "Stockholm model"



goldenrain, Sveavägen

General observation

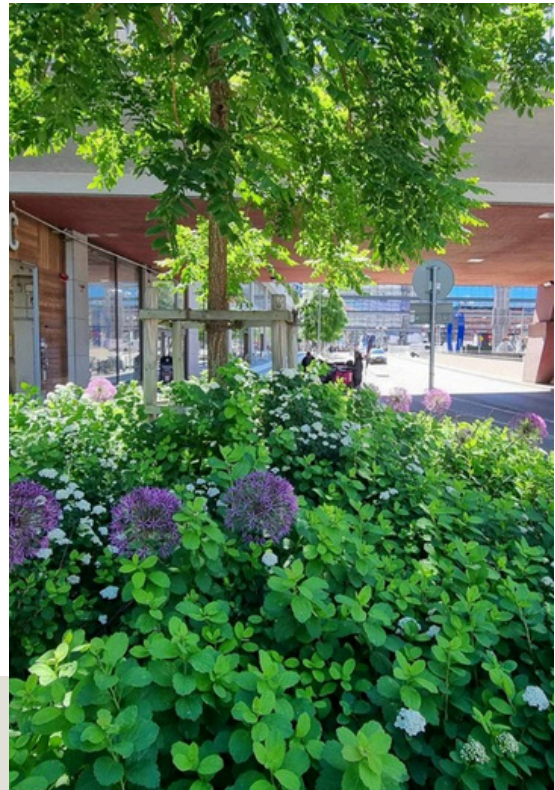
At Sveavägen, Norrmälarstrand and Brommaplan, trees show consistently good establishment, dense and even crowns, and sap measurements that indicate good physiological status. At Maltesholmsvägen, several trees instead show crown condition and symptoms consistent with long-term drought stress and failed or failing establishment

Conclusion

The conclusion is that Mylla No1 strengthens establishment and vigour in demanding urban conditions within the current substrate and construction solutions. Introducing a Mylla No1-enriched variant of the existing substrate as standard on higher-risk streets therefore appears to be a low-risk, high-benefit measure for future procurement.

WHAT THIS REPORT CAPTURES

This report was prepared for Trafikkontoret in Stockholm and is intended to describe the impact of Mylla No1 on the plantings at Sveavägen, Norrmälarstrand, Brommaplan and Maltesholmsvägen, within the existing planting design and infrastructure.



Picture 1.1 Goldenrain, Sveavägen

What we captured

Plant health is an emergent property of the soil's capacity to function as a vital living system. When soil physical, chemical, and biological processes are impaired, plants cannot maintain a stable state of physiological health.

For efficient photosynthesis during the establishment year, the rooting zone must supply sufficient energy, plant-available water, and bioavailable mineral nutrients to support continuous growth and stress tolerance.

This report documents visual canopy observations (crown form, dieback, and symptoms), relative tree health based on visual assessment, and leaf traits (size, colour, and leaf volume). We also quantified the internal metabolic state of the trees using a LAQUA Twin leaf-sap meter (pH and EC) and a Hanna Brix meter. Brix measures total dissolved solids in the sap, which are dominated by sugars, and is therefore used as a proxy for photosynthate production and nutrient density. Leaf-sap pH reflects the ionic balance at the time of sampling and is widely interpreted as an indicator of nutrient uptake dynamics; in many crop species, optimal sap pH is close to 6.4–6.5 under healthy conditions. Electrical conductivity (EC) shows the ionic loading of the sap (total mobile ions), which under normal conditions should fall within a species-specific range that supports osmotic regulation without excess salt stress.



Picture1.2 Normälarstrand

NORRMÄLARSTRAND

A green pocket of space, occupied by *Celtis australis*, *Calycanthus* spp. & *Heptacodium* planted utilising MyllaNo1 within Stockholm city's existing framework.

OBSERVATIONS





Picture 1.2 Calycanthus, Norrmälarstrand

OUR FINDINGS

Overall plant vigour was high, with an even and sufficient distribution of leaf mass, volume, and size across the assessed species, with the exception of Heptacodium. This species produced adequate leaf volume, but exhibited clear stress signals in the form of depressed sap pH (see pH readings) and necrotic leaf tissue. Based on the scope of measurements in this assessment, it was not possible to determine a single definitive cause for the observed stress in Heptacodium.

THE DATA



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SAP INTERPRETATION

- Across the site, most trees are sitting in a “comfort zone” for sap pH, EC and Brix – so the system as a whole is functioning well.
- The exception is the stressed Heptacodium samples with lower pH: that signal says ion balance and uptake are off, which matches the necrosis observed.
- T1 tends to have higher EC and Brix than S1–S2b, which means the trees at that point are carrying more dissolved ions and sugars in the sap – photosynthesising harder and have better nutrient availability.
- S1–S2b are still in a workable range but look more moderate; they’re “fine” rather than “high-performance,” while the outlier Heptacodium is the one clearly sliding towards dysfunction



Picture1.4 Downy Oak, Brommaplan

BROMMAPLAN

A total of nine downy oaks (*Quercus pubescens*) were planted along Drottningholmvägen in Bromma, replacing the former horse chestnut trees. The new trees occupy a highly demanding urban streetscape, exposed to heavy traffic-related emissions, winter de-icing salts, and a high likelihood of heat stress during summer. The observations presented below were recorded on 2026-06-12.

OBSERVATIONS



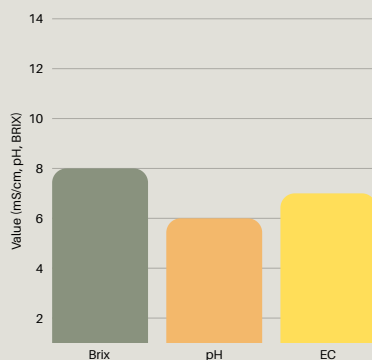


Picture1.5 downy oaks, Brommaplan

OUR FINDINGS

Overall plant vigour was high, with foliage showing an even and ample distribution of leaf biomass, volume, and size across the surveyed trees, apart from a single previously-topped specimen. Canopy performance was robust, with consistently uniform and sufficient leaf area, volume, and dimensions in all other species and individuals assessed. Brix readings were elevated, leaf sap pH fell within the optimal interval, and EC values were similarly high. Collectively, these indicators demonstrate that the trees were exhibiting an excellent level of physiological health.

THE DATA



SAP INTERPRETATION

This sample shows a functioning but constrained metabolic profile: sap sugars are modest, sap pH is more acidic than ideal, and ionic loading is only moderate, together indicating a downy oak that is maintaining canopy performance but operating below its potential resilience and growth capacity potentially due to the establishment phase.

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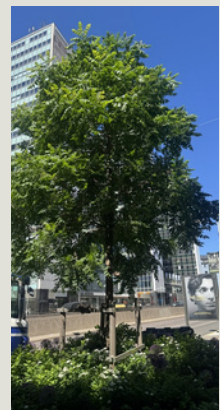


Picture1.3 goldenrain, Sveavägen

SVEAVÄGEN

Container-grown goldenrain trees (*Koelreuteria paniculata*) along Sveavägen were assessed on 2026-06-12. All eight specimens identified in Appendix 2 exhibited excellent overall vigour, with high leaf density and uniform leaf size and colour.

OBSERVATIONS



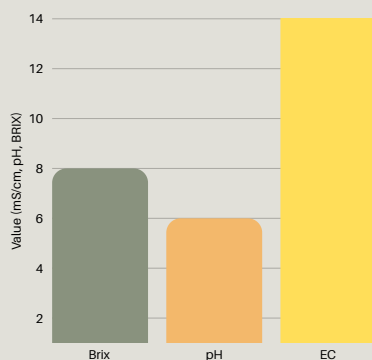


Picture1.4 goldenrain, Sveavägen

OUR FINDINGS

Overall plant vigour was strong, with a uniform and adequate distribution of leaf area, volume, and size across all evaluated species and individuals. Brix values were elevated, leaf sap pH was within an optimal range, and EC readings were likewise high. Taken together, these observations indicate that the specimens were displaying outstanding health status.

THE DATA



SAP INTERPRETATION

Brix 8 with pH 6 and EC 19 points to a tree running at very high performance: sugars are strong, sap pH is close to the healthy band, and ionic loading is high, together indicating active nutrient uptake, vigorous photosynthesis and a canopy that is physiologically robust rather than stressed at the time of sampling.

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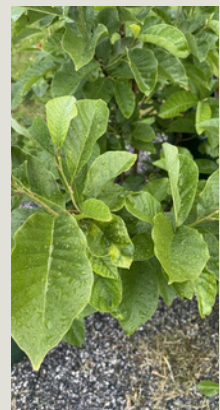


Picture1.5 Roadside planting, Maltesholmsvägen

MALTESHOLMSVÄGEN

Numerous species, Quercus, Carpinus, Corylus, Tsuga, Viburnum & Magnolia were established alongside Maltesholmsvägen. Most specimens were exhibiting what was suspected chronic drought stress. As such, no leaf tissue samples were taken.

OBSERVATIONS





Picture1.6 Magnolia spp. Maltesholmsvägen

OUR FINDINGS

Despite sustained chronic stress in Tsuga, Quercus and Corylus, the other taxa were, by comparison, exhibiting generally satisfactory vigour. Several individuals will, however, require removal due to premature senescence and unsuccessful establishment associated with chronic water deficit.



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SAP INTERPRETATION

None taken