

## BIOCHAR IN URBAN APPLICATIONS

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Urban use of Biochar is increasing but the effect on the plant growth is neither verified nor estimated. Biochar use in urban tree plantings and raingardens is becoming generic in some of the largest Sweden Cities. The objective behind using biochar in tree plantations have been that it is safer to establish in this substrate than in structural soils and the trees grow well. Carbon/macadam and structural soils are used below hardcover surfaces and sustain the load from traffic. In raingardens, which is a dry system, biochar increases the water-holding capacity and thereby secure the establishment and growth of the plants. Biochar is also purifying the storm-water reducing the pollution loads to recipients. New applications that have been tested is in green roofs, in living walls, in parks, street trees, courtyards and urban meadows. Survival and growth of the vegetation is determined and preliminary results show that biochar can be used in and benefit these vegetation systems. By expanding the use of biochar into urban vegetation, the CO<sub>2</sub> mitigation potential is increasing.



*Figure 1. Different types of urban vegetation systems, living wall, urban meadow, urban forest and green roof, which have been shown to benefit from biochar.*