



Weed control in the public area: combining environmental and economical targets

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Introduction

Herbicide runoff from pavements to surface water is much higher than from agricultural fields and contributes more than proportionally to the costs of drinking water production. An actor-participative project on Sustainable WEEd control on Pavements (SWEEP) was started in The Netherlands in 2002. The project aims at a substantial reduction of herbicide runoff (mainly glyphosate) from pavements.

SWEEP concept

Information on weed prevention and weed control methods is incorporated into simple guidelines for sustainable weed management, i.e. a cost-effective, environmentally-friendly and socially acceptable system.

Tests in practice

Weed control under the SWEEP guidelines was tested in 5 to 25 ha urban areas in each of nine Dutch municipalities from 2002 to 2004.



While maintaining the targetted level of weed control, the use of glyphosate was reduced by 11 to 66% compared to standard practice. Herbicide runoff was substantially reduced and ecological threshold concentrations for surface waters were not exceeded (the mean glyphosate concentration in worse case surface water samples was 0.8 µg/l).

The cost of weed control in the new concept (€ 0.05-0.15) was a little higher compared to standard practice chemical weed control, but was much lower on average compared to non-chemical weed control systems.



Weed control methods: brushing (left) and selective spraying (Weed-it, right).

Conclusions and perspectives

The project demonstrates that the SWEEP concept meets with both the economical and ecological objectives of weed management on pavements.

SWEEP contributes to achieving the objectives of the EU water frame work directive. The SWEEP concept contains specific restrictions for herbicide use on pavements near vulnerable surface waters.

The SWEEP guidelines have become part of a certification scheme for the management of pavements.

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