Service plants to control weeds in railways: an experiment to test sowing methods and service plants efficiency

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Résumé

The RATP, a major railway company in France, faces numerous risks associated with vegetation along its railway tracks, including obstructing access paths, hindering visibility, and posing fire risks and track destabilization. Since the company no longer uses chemical herbicides on railways, vegetation management strategy is now based on manual and mechanical cuttings with a provider. Although this alternative method is the most efficient, it is not sustainable as it takes a long time and requires much staffing. RATP actively searches for new and effective weed management methods. Therefore, we tested in this study the ability of service plant cover to grow on railways and to limit weed installation. Three methods of sowing of a plant mixture (comprising *Festuca rubra, Festuca ovina, Medicago sativa* and *Lolium perenne*) were compared: hydromulching, direct sowing and lawn roll. Plant mixture establishment and weed flora were surveyed by plant counting. We presented here the results of this experiment. Plant mixture density was recorded in order to determine the capacity of the different species to grow in this restrictive environment and to regrow after a cutting. Weed species were identified to characterize weed community composition and structure in the different plant mixture treatments. This study should help to propose the most efficient sowing method in order to establish service plant mixtures and to control weeds in railways.

Mots-Clés: RATP railways, service plant establishment, sowing methods, weed flora survey

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