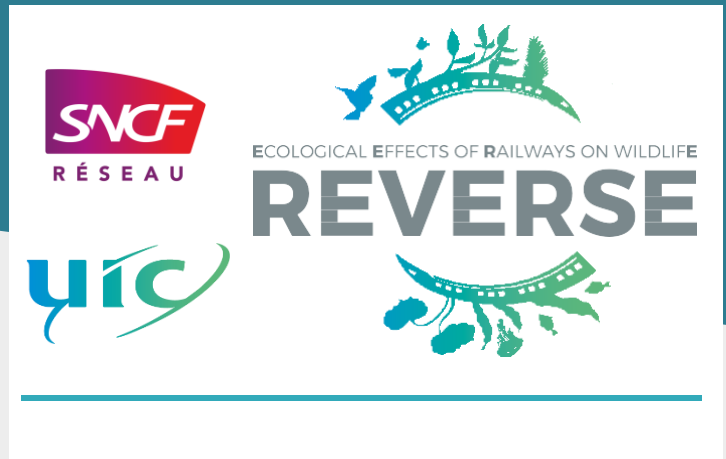


The International Union of Railways (UIC) is the worldwide professional association representing the railway sector and promoting rail transport. UIC leads an innovative and dynamic sector, helping our members find opportunities and build success. The purpose of UIC's **Ecological Effects of Railways on Wildlife (rEVERse)** project is to understand railway's role in the loss and gain of biodiversity and its habitats in Europe. It will seek to set out how railways can manage land in an ecologically sensitive way, providing solutions and best practice examples.



UIC is seeking solutions and best practice to manage rail lineside in a way that can help **halt and reverse the loss of biodiversity.**

This poster provides information about Theme 10:
“Examples of companies undertaking or commissioning biodiversity research”

France

Since 2016, SNCF Réseau has launched a “post-glyphosate” program to implement various experiments related to the reduction and discontinuation of several plant protection products. On the edges of the tracks, the vegetation is already maintained by mechanical means. Only the tracks and tracks are still treated by weeding trains, which carry out chemical treatments once or twice a year depending on the vegetation present. Treatment with glyphosate, as a total herbicide, is still today the most used method because it is the most effective for the company.

THE SOLUTION

In this context, SNCF Réseau has joined forces with an agronomic engineering laboratory to finance a test thesis on "seeding selection", in particular on the most problematic roads for vegetation, i.e., service areas used for freight or for parking trains. On these poorly maintained tracks, the ballast has almost disappeared, and the sandy substrate allows the development of pioneer plant species.

In order to prevent the development of these plants, the selected seeding could allow an effective competition of the plants. The species chosen for sowing meet several criteria:

- *the soil and climatic conditions (nature and composition of the soil, resistance to drought, cold, sunshine, etc.)*
- *the constraints of the company (low height, resistance to trampling, low maintenance, etc.)*
- *the industrialization of the process (possibility of sowing, availability of seed suppliers, cost of seeds, etc.)*

The trial protocol consisted of 2 trial sites on which 4 different species mixtures were tested, each on 3 plots corresponding to 3 seeding rates (4 - 8 - 12 g/m²).



Outcomes

- *Initial results show that neither seeding rates nor rail disturbances have an impact on cover rates or vegetation heights.*
- *Moreover, at the 2nd site, the majority of seed mixtures increased gradually, suggesting competition with the undesirable species initially present.*
- *Further tests should confirm these initial results.*

Keywords: research, vegetation



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