

## Use of wild seed mixtures in re-vegetation of road embankments in Austria

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For establishing site-specific vegetation on road embankments seed and plant material from the same natural area and adapted to the characteristics of the site has to be used. A plant community is site-specific when it is permanently self-supporting or self-stabilising even under extensive use. As substrate for the construction of road embankments diaspore-free, humus-poor top soil with low nutrient content has to be used. In Austria, a lot of constructed roads were built in an intensive used agricultural landscape, where a thick humus layer with high nutrient content is present and has to be used to cover the slope. In such cases, regional wild seed mixtures are not suitable for re-vegetating in humus and nutrient-rich areas.

Following methods can be used to set up extensive meadows and turfs with regional seed and plant material on road embankments: 1. seeds from wild collections, 2. hay flowers, 3. on-site threshing or 4. hay mulching and all this methods in combination with seed mixtures produced in nurseries. In general, the seed density should be between 1 and 5 g/m<sup>2</sup> and the de-mixing of the seed mixture has to be avoided. Based on the extreme site conditions of road embankments (exposition and inclination) a combination of hydro- or hand seeding with a mulch layer (hay or straw), if necessary with additional nets or mats, should be used. With hydroseeding the fertilizer component has to be reduced to an absolute minimum. For ideal growth conditions the mulch layer should not be thicker than 3-4 cm and has to be light-transmissive. For the conservation of rare plant species or rare plant communities, the use of sods or tiles is also a successful method.

