FOREST4EU

ITHub 5 – Agroforestry Systems

FOREST4EU partner: CNPF
OG: ARBRE
OG's country: France
Type of Innovation: Service

Transposing knowledge and tools on the adaptation of trees to climate change from the forest environment to the bocage environment

Introduction

Bocage and woodland are major features of the Perche landscape, with almost 11,500 km of hedgerows in 2020. On the scale of the territory's forestry charter of the Perche, woodland represents 21.25% of the area. Adapting wooded areas to climate change is an issue that affects both hedgerows and forests. At present, little attention is paid to this issue in hedgerow management, whereas a number of research projects have been carried out on the subject in forestry.

Methodology and results

Deciduous species are present in both environments, which is why it is interesting to be able to pool knowledge by relying on existing tools such as the "guide to choosing tree species in Normandy" drawn up in 2018 by the Normandy delegation of the National Forest Property Centre. This decision-making tool is based on the relationship between forest station and species, which takes into account changes in climate to guide silvicultural management. The aim is to disseminate existing information and to work collectively with target audiences (bocage and agroforestry workers) to draw up a list of bocage species suited to tomorrow's climate.

The partners met to discuss the feasibility of transposing the guide to the bocage context. A literature review on the adaptation of hardwood species to climate change was carried out. As a result, few studies have been carried out on non-productive species (for timber or fodder purposes). There is more flexibility in the choice of species for bocage, as the objective is not timber production. Farmland is generally richer, with a greater maximum water storage reserve.

The tool developed by the CNPF, while interesting, is difficult to apply in the bocage context, due to the absence of herbaceous indicator flora or its misleading presence due to human fertilisation. The guide as it stands cannot be used to create an open field hedge, but would be more effective for replanting a hedge or rehabilitating a damaged hedge.

A transfer of knowledge from the forestry sector and an appropriation of decision-making tools has been carried out by those working in the bocage environment. Scientific studies and data on bocage species are scarce, and tools developed in forestry are not directly transferable.

Lessons learned

The various partners share the view that there is a need to examine the issue in further detail at the regional and/or departmental scale. There is a common interest and motivation among the players to take collective action on the subject. In particular, this work could be pursued by the regional natural park of the Perche as part of the "Normandie Hedges" call for expressions of interest. In addition, the Normandy delegation of the National Forest Property Center is conducting a parallel study on the application of the Guide to choosing tree species for farmland afforestation projects.
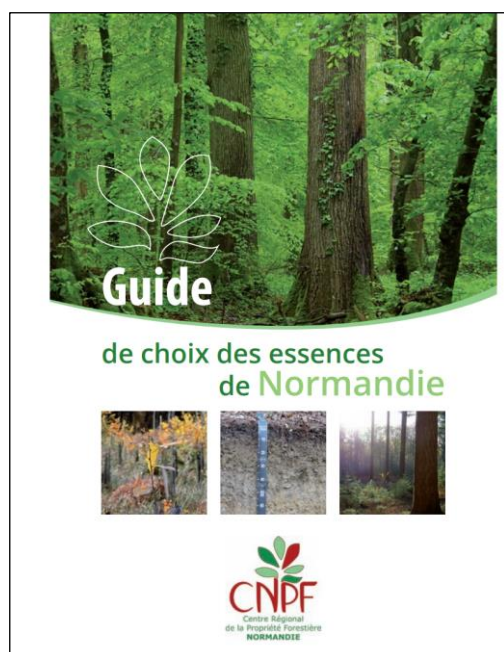
Figure 1. Cover of the guide for choosing tree species in Normandy region.
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Further information

https://www.xn--reseau-national-agricultures-ruralits-bkd.fr/centre-de-ressources/projets/approche-transversale-et-systemique-de-larbre-dans-le-perche

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