



Agroforestry in support of afforestation

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Agroforestry practices can significantly mitigate climate change-related adverse effects: changes in heat and radiation, as well as soil temperature and soil moisture content.

One example is when afforestation is supported by alley cropping or intercropping. The main purpose of using this technology is to protect the seedlings in the first years and thus ensure the success of reforestation. By the use of intercropping in forest plantations, the shading of herbaceous plants on saplings, soil cover and thus improvement of water management and protection of the soil from sunlight (a reduction in soil temperature and increase of soil moisture content in hot and drought periods) can be achieved.

It can significantly reduce the tree plant mortality rate, improve the quality and growth parameters of the plantation, while reducing damage by game. The positive effects of the application of agroforestry practices in forest plantations are proved by several experiments made by Hungarian forestry companies.

Further information:

Vityi, A; Kovács, K (2018): Improve the efficiency of afforestation by the use of alley cropping system, In: Nuria, Ferreiro-Domínguez; María, Rosa Mosquera-Losada (ed.): Proceedings of the 4th European Agroforestry Conference: Agroforestry as Sustainable Land Use. Nijmegen, The Netherlands; European Agroforestry Federation, (2018) pp. 457-461. 5 p.
http://www.eurafagroforestry.eu/conferences/IVEURAFConference_2018_nijmegen



Figure 1. Intercropping between rows of seedlings in an afforested area in Hungary.

Photo by Kovács K.

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