



AGROFORESTRY SYSTEMS: SILVOARABLE, AF WITH HIGH NATURAL AND CULTURAL VALUE

Year of foundation	1996
Specialization	Crop growing: wheat, barley, rapeseed, wheat
Farm area	31 ha
Number of employees	3
Year of starting agroforestry practices	2011
Location	Pajotten land, Vollezele, Flanders
Web page	...

In 2011, the farmer began agroforestry, though they had been planting trees for other purposes for over 20 years on the farm. Their main goal was **to limit erosion and create shadows. They also experimented with numerous type of trees to help further research in Agroforestry in Brussels.**





Reasons for establishment, challenges, previous knowledge about tree growing: Prior to the implementation of agroforestry the farmer planted trees on their field but not specifically for agroforestry. Rather, the **planting of trees around meadows in Pajottenland is a longtime tradition**. Erosion was an issue on the farm, prior to the implementation of the trees.



- After implementation of agroforestry, **the erosion decreased and the wind was slowed down**. Finally, the stronger and taller the trees grow, the greater the reduction of wind and erosion will be on the farm. The farmer has also seen an **increase in biodiversity**.
- The farmer expects to see **increased income through the sale of wood and nuts**.





The farmer wasn't able to find much agroforestry information when they first started so they decided to create their own agroforestry ideas. There wasn't really codes or rules for how to implement agroforestry so the farmer did what he felt would have the best results. He even planted trees that would help contribute to future agroforestry research.

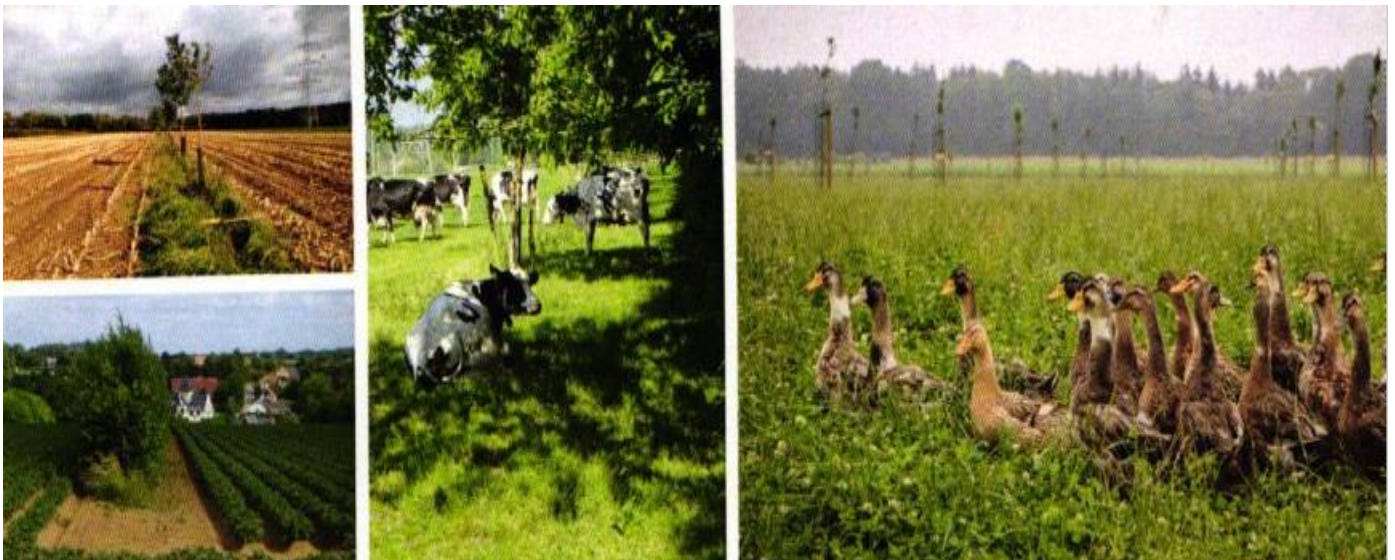
Key competences include **knowledge of forestry, knowledge of planting, and preparation for hard work**. The beginning phases of agroforestry are very labor intensive, including pruning so the farmer has to be prepared to put in the extra effort.

DESCRIPTION OF USED TECHNICS DURING ESTABLISHING OF AGROFORESTRY SYSTEMS

In 2011, the farmer planted 4 hectares of specifically designed agroforestry. **He kept the tree trunks as narrow as possible to the surface to keep the crop component maximized. Initially, he wanted to keep the rows of trees parallel to the planting counter lines to limit erosion the then the rows of trees would le be east/west oriented standing and would create more shadows. Instead, he planted north/south which also facilitates the machinability of the plot.** To help further research on agroforestry, he also planted sweet cherry, black walnut, common walnut, small-leaved lime, sweet chestnut and elm.

He also planted various shrubs such as hornbeam, dog rose, Elder, and Nordmann firs. The latter to increase the visibility of the tree trunk strips after planting and to indicate where walnut trees were sown. **The use of shrubs also makes the row of trees attractive to small game like rabbits, hares, and pheasants.**

He planted the trees in the row close together, about every half meter. This has several advantages. The trees are stimulated by each other to grow faster and more in height. In this way, they also form a straight trunk. Later on, they wanted a tree about every 6 meters, with a nice straight, branch-free trunk. In the case of walnut trees and cherries, the trees that will be used for this purpose will have strongly ascending branches to be used as a fruit tree. Those with more horizontal branches are retained for quality timber productions. **The other trees and shrubs would then be harvested for the production of coppice or grazing posts. As an additional advantage to using dense planting and low-growing shrubs is that the wind is slowed down more in the beginning.**



THREATS/CHALLENGES

- the subsidies are limited in scope, so for example, the farmer was only able to get funding for 200 trees per hectare but his plans called for well more than that.
- Another challenge is that wood pigeons and birds of prey sit on the tops of trees, causing damage.



Before you get started with agroforestry, it is important to be well informed. **Take note that there is a lot of extra work at the beginning and that your neighbors might not understand what you're doing at first.** Birds can cause damage to the trees when they're growing, so be sure to have plans. In fact, in general, be prepared for any challenges that you come across.



FUTURE PLANS

The farmer will continue to do research on different types of trees and wood to see what is most successful.

FINAL RECOMMENDATION

Try to learn from other people, but it is possible to do it yourself when necessary.

KEY WORDS

Timber, shrubs, nuts, shadows, fruit, alley cropping

Farmer recommendation:

"I'm a strong believer that creating a nice source of income from agroforestry will help others farmers understand that it can be profitable."



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