

Agroforestry in Flanders: range, opportunities and barriers



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Agroforestry offers opportunities...

... to enhance farm resilience & respond to future challenges in Flemish agriculture:

- Shock-proof investment (expected increase in demand for biomass and high-quality wood products)
- Diversified production, broadens farm activities and differentiates from other farm enterprises
- Supplies a wide range of ecosystem services

Agroforestry could meet the social demand for eco-efficient agro-ecological production methods and be profitable for the farmer.

Current Appearance and Range

Experience with agroforestry is still very limited in Flanders.

- Trees bordering agricultural parcels are still common in some regions.
- Few agroforestry systems exist in which (rows of) trees are planted inside crop parcels.
- Most common agroforestry species are walnut (*Juglans regia*), poplar (*Populus* spp.), wild cherry (*Prunus avium*), common ash (*Fraxinus excelsior*), black locust (*Robinia pseudoacacia*), oak (*Quercus* spp.), chestnut (*Castanea sativa*), lime (*Tilia* spp.) or fruit trees.
- Combined with grassland or crops such as winter wheat, maize or potatoes.
- Combining agroforestry with vegetables is generally considered difficult (heterogeneous growth & contamination with twigs or leaves)
- Very often shifts towards (temporary) grassland after 5-10 years.



A common view: trees bordering a parcel



Common walnut in mowed grassland



Poplar trees in mowed grassland (previously with maize and winter wheat)



Young trees of common ash in winter wheat



Young wild cherry trees in maize crop

Further implementation promoted through subsidy

- Since 2011, the Flemish government subsidizes the installment of agroforestry parcels that meet certain preconditions (e.g. parcels at least 0.5 ha wide, having an agricultural crop production, between 30 and 200 trees per ha, at least 3 rows of trees, etc.).
- Up to 70% of the plantation costs may be recovered through this subsidy.
- However, the response to the subsidy program remains relatively low so far, for two main reasons: (1) the current subsidy system doesn't really compensate actual costs or crop production losses, and (2) it does not solve the most pressing obstacles to planting trees.

Obstacles

- Biggest problems are legal and administrative: e.g. conflicts between rules or uncertainty regarding ownership, tree-planting or tree-felling permit
- Lack of experience in Flanders: many technical and organizational questions remain unanswered e.g. expected difficulties with mechanization, lack of (large) farming parcels
- Economical issues: what to expect from an agroforestry system? How to handle decreasing crop production? Price volatility?
- True potential insufficiently acknowledged?



From young plantation to mature agroforestry plot: challenges abound...



Research needed?

To promote feasible and profitable agroforestry systems in Flanders, we need:

- Increased knowledge of ecological interactions, ecosystem services and technical impact.
- Broad insight into economic opportunities for agroforestry systems relevant to the Flemish agricultural context.
- Increased understanding of intention, attitude, norms, perception and social identity of those involved, to overcome the psychological and social barriers to agroforestry adoption.