

Large-scale silvoarable agroforestry experiment in the Netherlands: Experimental design, monitoring choices and first results

Lennart Fuchs, Maureen Schoutsen, Maria-Franca Dekkers

Wageningen University & Research – Field Crops











Flevoland, Netherlands

Local context

- 'New' flat land, large and square fields
- Light clay, loamy soils, very fertile
- Mostly arable cropping
 - potatoes, onions, carrots, bulbs



Two different experiments

Tree row distance experiment

Effects of trees as windbreak on arable crops



Tree form experiment

 Hazelnut production in arable setting





Both started in 2021

Video of tree row distance experiment

Two different experiments

Tree row distance experiment

- Effects of trees as windbreak on arable crops
- 15 ha with rotating arable crops
- Fast establishing windbreak and hazelnut production, North-South
- Monitoring of crop performance, microclimate, biodiversity, pest control, carbon sequestration, soil quality





Two different experiments



Tree form experiment

- Hazelnut production in arable setting
- Hazels planted in 1, 2 or 3 rows per tree line
- 3 pruning strategies
 - Vase, hedge manual, hedge mechanical
- Monitoring hazel growth, production, C-seq, windbreak function and labour

Thanks for your attention!

We welcome all of you to visit and/or do measurements or research in our experiment!

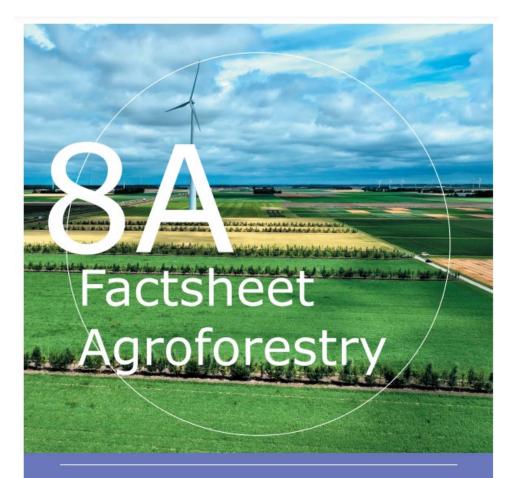
There's lots more to find out!

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The long-term agroforestry research facility for Dutch arable farming: the experimental design and monitoring choices





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