



EURAF 2024

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



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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