



## Structurally biodiverse agroforestry systems linked to syntropic agriculture

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Biodiverse and structure-rich agroforestry systems - such as this example from the Börde region in Saxony-Anhalt - offer numerous ecological benefits, enhance the landscape's attractiveness, and simultaneously improve agricultural productivity.

Enhanced structurally biodiverse agroforestry systems linked to systems such as syntropic agriculture are emerging as innovative solutions for sustainable agriculture in Germany and Europe. These multi-layered systems integrate different types of woody perennials such as trees or shrubs with understory (crops), and sometimes livestock on the same land in a spatial or temporary framework. They enable high biomass productivity while boosting biodiversity, soil fertility, climate change adaptation and resilience if adequate combinations are provided.

Enhanced structural biodiverse agroforestry linked to syntropic agriculture characteristics include (i) diversity and structure: combining adequately woody perennials (trees, shrubs) and annual species into multi-layered, nature-based setups that optimize resources, boost biodiversity, and support wildlife; (ii) productivity: diverse outputs (food, fodder, spices, honey, timber, materials) reducing external inputs, raising profitability, and enhancing land use efficiency; (iii) ecological benefits such as higher soil organic matter, increased carbon sequestration and a higher biodiversity.

Structurally biodiverse agroforestry linked to syntropic agriculture differ in approach and application as it targets multilayered designs emphasizing syntropy, succession, and energy flow. Dynamic agroforestry linked to syntropic agriculture can also be simplified simplifies the prior concept by prioritizing high diversity, high density via close planting, regular pruning, and low inputs.

By providing several ecosystem services and economic benefits for value creation, these agroforestry systems significantly contribute to ecosystem restoration and EU Green Deal goals.



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