FarmBioNet

Farmer-focused biodiversity and agricultural knowledge network

Planting native trees

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Photo credit: Dheeraj Rathore

Large-scale tree planting driven by carbon credit markets has incentivised fast-growing monocultures of non-native species, resulting in plantations with low habitat value and limited resilience. Some species carry elevated wildfire risk, while conifers outside their natural range are more vulnerable to windthrow, pests, and climate stress.

Using diverse native tree species strengthens ecosystem resilience, biodiversity and long-term profitability, while diversifying income from timber, fruits, nuts, nectar, and/or biomass. Mixed native stands increase resistance to drought and pests, and can improve eligibility for CAP eco-schemes. Native broadleaf mixtures host 2–3 times more bird and invertebrate species than single-species conifer plantations. Integrating native trees in agroforestry systems improves soil structure, water infiltration, and pollinator support, reducing irrigation and plant protection costs.

EU-certified Forest Reproductive Material (FRM) with site-matched provenance, increases tree survival rates and climate adaptation. Locally adapted fruit varieties reduce management and support niche markets tied to regional identity.

Practical recommendations

- Prioritise mixed stands combining productive trees with species that enhance soil fertility, biodiversity, and microclimate regulation.
- Source certified material via EUFGIS or FOREMANTIS; consult GlobalUsefulNativeTrees (GlobUNT) for ecological and economic trait information.
- Integrate trees strategically within fields, pastures, and/or forest stands to maximise resilience and economic return.
- Combine native timber trees and heritage fruit varieties to complement ecological functions.

Further Information on farmbionet.eu

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