



Technical leaflet

Combining trees and grazed grasslands

1 Description of the innovation

Agroforestry in arable land

Agroforestry is obtained by planting trees on grazed or mowed grasslands or on plots of annual crops

This activity allows to combine a farm income from annual breeding activities and from delayed long term production by trees. Trees are all about stimulating animals to pasture all over the grassland area, by providing a cooler and shaded environment and a weather protection.

Tree distribution all over the plot avoids animal concentration on the same places and allows a better cattle waste distribution. This land-use system improves cattle grazing.

This type of afforestation with a low density of trees on plots and with adapted tree protection doesn't affect grass and grazing management.



Advantages

- Animal welfare : trees provide shadow, freshness, shelter from the wind and the rain
- A better use of land by the animals
- A larger grazing season
- Improvement of biodiversity, carbon sequestration and soil erosion
- Original and attractive landscape
- Diversification of farming activities with the building-up of an inheritance of valuable trees
- A higher productivity of the grassland area



Disadvantages

- It needs technical expertise (pruning work, choose of tree species)
- A high investment in cost and labour in the year of planting
- Delayed profitability by trees
- Constraints of mechanization





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Trees are planted in rows spaced from 10 to 20 meters (rows could be more spaced in annual crop plots). The width between tree rows must be adapted to farm machinery to enjoy the benefits of trees without constraining mechanization.

In pastureland, young trees have to be individually protected to avoid damage by browsing. Even set up with care, this protection doesn't prevent from a regular monitoring.



A grazed area with linear tree plantation seen from the sky



A tree protected by a fence

More information

- Technical file on agroforestry from "Bassin de l'Oudon" : <http://www.bvoudon.fr/content/le-dossier-technique-de-l-oudon-ndeg1>
- Booklet from Prom'Haies : http://www.promhaies.net/wp-content/uploads/2012/07/plaquette_agroforesterie2015.pdf
- Paper from AFAC : <https://afac-agroforesteries.fr/lagroforesterie-intraparcellaire-au-coeur-dune-elaboration-paysagere-menee-par-lagriculteur/>