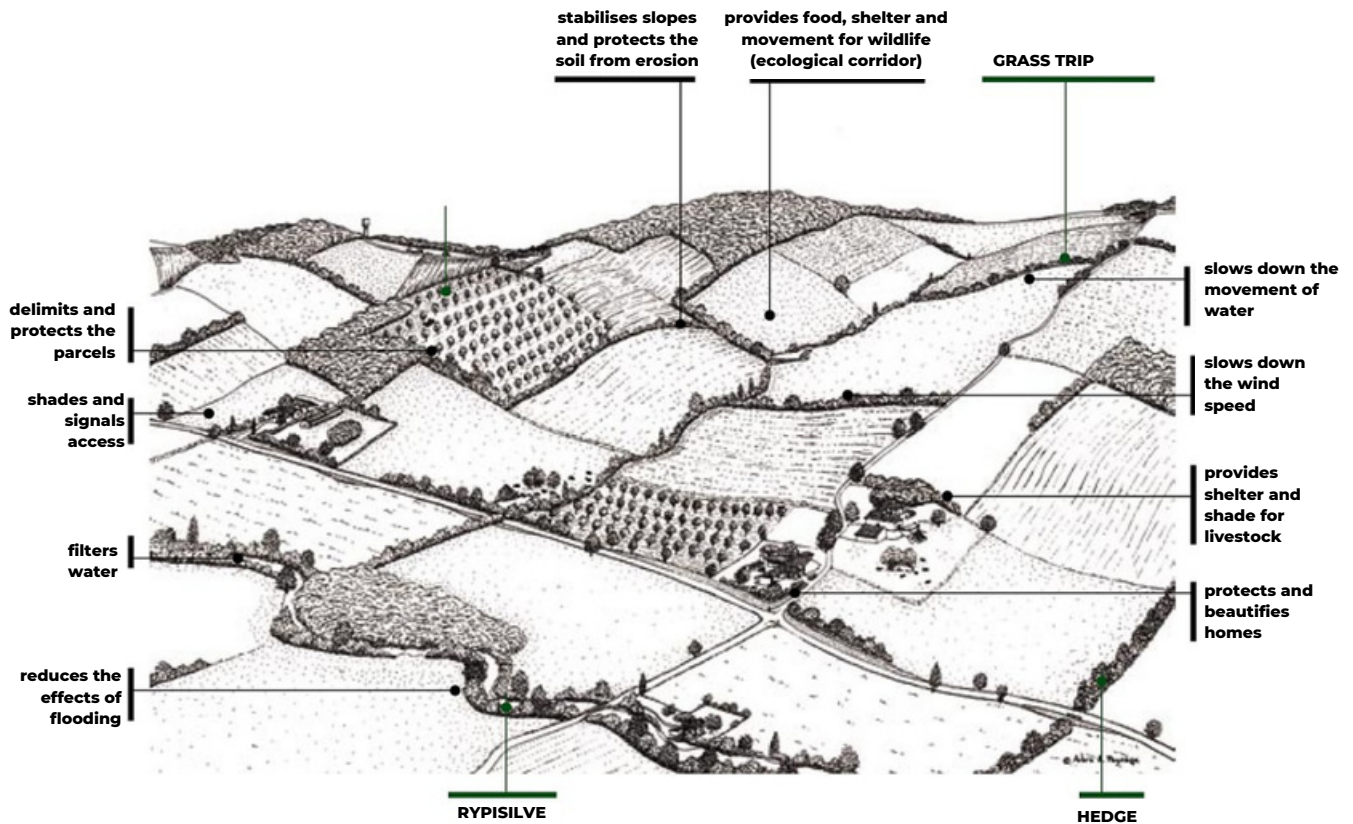


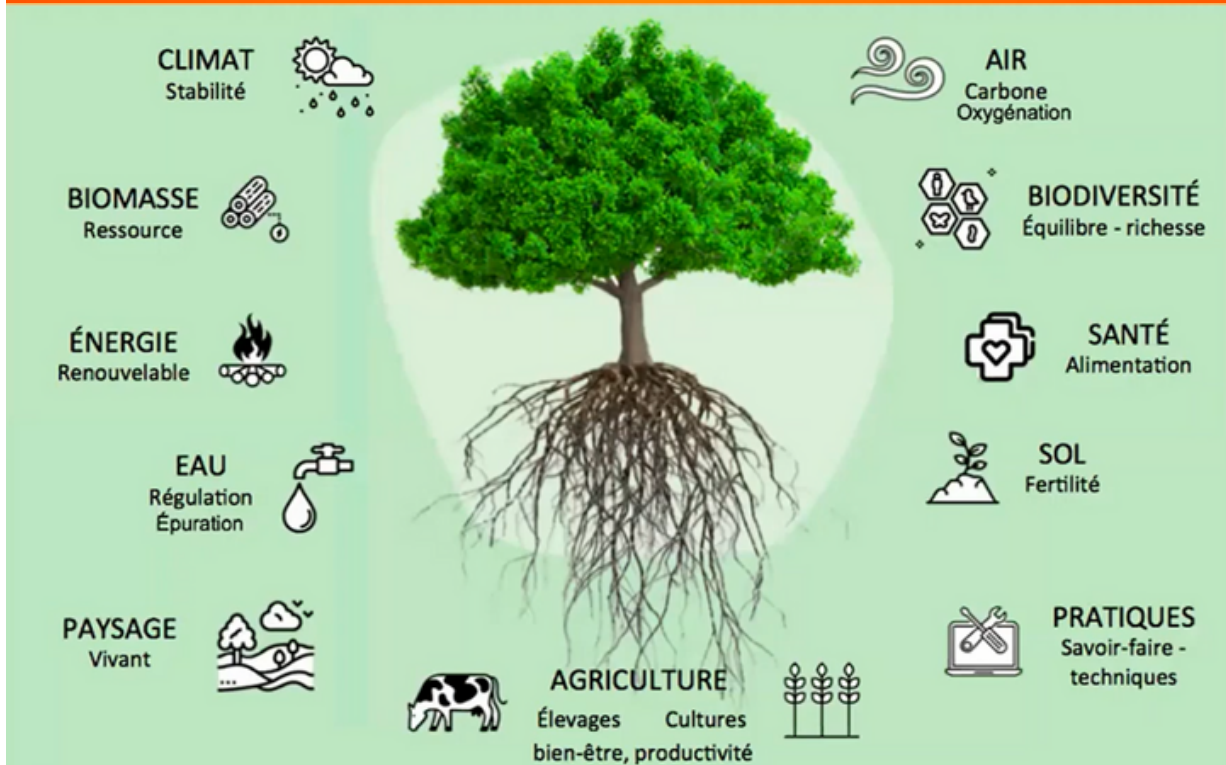
# THE AGROFORESTRY ECONOMY



## WHAT DOES IT INVOLVE?

- Trees offer many advantages and have a variety of uses: production of fuel, raw material, bedding for livestock, mulch for cultivated plants, food and quality landscapes.
- It has many advantages in the production systems in which they are integrated. They do not require irrigation, fertilisation and tillage.
- The natural sowing of woody species makes it possible to obtain plants that are better adapted to the climate and the place. Moreover, it is free of charge.
- The tree can be inserted in all dimensions: isolated, in rows, intra-parcel.
- Trees are a legacy that must be maintained or restored when they have been cut down.

## BECAUSE EVERYTHING REMINDS US OF THE TREE...



## Trees at the heart of poultry run design

### Benefits

- Trees are essential for the development of poultry runs. Shading reduces heat stroke and thus avoids animal losses
- Reduction of heating costs for livestock buildings
- Reduction of daily food intake (up to 10%)
- Carbon storage
- Production of biodiversity
- Diversification of production bringing additional income to the farmer

To design an agroforestry pathway, it is important to keep the design simple and functional, and to adapt it to each site. Design assistance can be provided by the various agroforestry advisory associations.

## Vines: plant cover and trees

### Benefits

- Better water storage in the soil
- Better soil porosity
- Better management of weeds such as bindweed, ericenna, pigweed, or nightshade due to less compacted soil
- Lower fuel consumption and reduced tillage with the FACA roller

Revegetation of vineyards through the use of plant cover and the introduction of trees has many advantages in a context of climate change where extreme weather events, such as hail and high temperatures, represent real threats to wine production.

## Tools for vineyards



Equipment: FACA roller for the installation of plant cover in the vineyard. A significant saving in fuel consumption for the passage of the tillage tools is achieved.

## Arboriculture and market gardening : Two complementary productions but requiring careful initial design

The Maraîchage Sol Vivant network is seeing many agroforestry projects emerge to beautify gardens and expand the range of products. These projects must be well designed to avoid mistakes.

### Mistakes to avoid when designing an agroforestry project in vegetable production:

- Do not overtighten the tree lines
- Too vigorous rootstocks
- Avoid choosing low-yielding varieties to reduce the initial budget when designing the project



Do not underestimate the workload imposed by the fruit harvest. Harvesting time and the ability to add value to the fruit must be anticipated from the start.

# Livestock:

## Example of the GAEC du Mont Hardy organic farm, owned by Gilles Delaunay

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75 dairy cows



35 farrow-to-finish sows



Feed mill on 132ha



18km of hedges with an annual production of 450m<sup>3</sup> of wood (without affecting the capital)



Additional inter-plot hedge lines were planted with a tree every 3m on the row and a strip every 27m, one in two of which was used for timber.

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### Production and on-site use of woodland production

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- On the farm, there are 5 ha of apple trees in pre-orchards. Wood energy is used to power a boiler on the farm which supplies the 3 houses around the farm and the hot water for the farm.
- The wood chips are also used as bedding for dairy cows (10cm underlay, then straw), for heifers (20cm layer of 100% wood, stirred every week/ new material added every 2 months) and for pigs. The comfort for the animals and the farmer is greatly enhanced by the greater cleanliness and time saving for the farmer. The absorbency is 4 times higher than that of straw.
- For bedding, the cost of straw and bedding is the same, but above all it saves time because 15 minutes a week are enough instead of 2 to 3 times a week, which previously took 3 hours.
- No use of slug pellets for plots bordered by hedges due to the good presence of carabids. During heatwaves, grass grows better under hedges than in the centre of plots.
- The savings for the heating of the houses made it possible to go from 6000l to 7000l of fuel oil replaced by 100m<sup>3</sup> of wood chips.



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## To go further:

An illustrated primer outlining agroforestry can be found on AEEU website: [www.agroecology-europe.org](http://www.agroecology-europe.org)

Agroforestry in market gardening: see the documentation of the VERTICAL, SMART or RMT Agroforestry projects.

## Author:

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