CAP and AGROFORESTRY PRACTICES IN EUROPE

AF definitions

EU definition:
For the purposes of article 1305/2013, agroforestry systems means land use systems in which trees are grown in combination with agriculture on the same land.

EURAF definition:
Agroforestry is the integration of woody vegetation, crops and/or livestock on the same area of land. Trees can be inside parcels or on the boundaries (hedges). Agroforestry can be applied to all agricultural systems, in all parts of Europe.
Agroforestry

The integration of woody vegetation, crops and/or livestock in the same area of land

Therefore:

“forestry” including Fruit trees as woody component

Can be mixed following a temporal

Temporal

Spatial scale

Landscape

Farm (AF systems)

Plot level (AF practices)
Europe agriculture goal

Increase food production in a sustainable way

FAO

*Improvement efficiency in the use of resources*

ECOINTENSIFICATION
Agroforestry practices

Silvopasture
Silvoarable
Kitchen gardens
Forest Farming
Riparian buffer strips
Agroforestry practices

Silvopasture
Silvoarable
Kitchen gardens
Forest Farming
Riparian buffer strips

Pie chart showing the percentage of each practice:
- Silvopasture: 85.65%
- Multipurpose silvopasture: 4.03%
- Silvoarable: 0.89%
- Multipurpose silvoarable: 0.93%
- Kitchen gardens: 0.18%
- Riparian Buffer Strips: 8.32%
<table>
<thead>
<tr>
<th><strong>Silvopasture</strong></th>
<th><strong>Brief description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Silvopasture" /></td>
<td>Woody + forage and animal production</td>
</tr>
<tr>
<td><strong>19.5 Million ha</strong></td>
<td><strong>10% EU potential area</strong></td>
</tr>
</tbody>
</table>

**CAP: PERMANENT GRASSLANDS**
<table>
<thead>
<tr>
<th>Silvopasture + Fruit trees</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Woody (fruit trees) + animal production</td>
</tr>
<tr>
<td>216700 ha</td>
<td>0.17% EU potential area</td>
</tr>
</tbody>
</table>

CAP: PERMANENT CROPS
SILVOPASTURE AND FOREST GRAZING

Wood pastures
20 million ha
(4.6%)
Agroforestry practices

Silvopasture
Silvoarable
Kitchen gardens
Forest Farming
Riparian buffer strips
<table>
<thead>
<tr>
<th>Silvoarable</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>422,250 hectares</strong>&lt;br&gt;<strong>0.4% EU Arable land</strong>&lt;br&gt;<strong>USA: &lt;1%</strong></td>
<td><strong>Woody + annual or perennial crops.</strong></td>
</tr>
</tbody>
</table>

CAP: SILVOARABLE
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<th>Silvoarable + Fruit trees</th>
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<tr>
<td>190,000 hectares</td>
<td>Fruit trees + annual or perennial crops</td>
</tr>
<tr>
<td>USA: &lt;1%</td>
<td>CAP: PERMANENT CROPS</td>
</tr>
</tbody>
</table>

![Map of Europe showing silvoarable and fruit trees](image-url)
SILVOARABLE (SAFE PROJECT)
Agroforestry practices

Silvopasture
Silvoarable
Kitchen gardens
Forest Farming
Riparian buffer strips
<table>
<thead>
<tr>
<th>Kitchengardens</th>
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<tbody>
<tr>
<td>Trees + vegetable production in urban or periurban areas, also known as part of “trees outside the forest”</td>
<td></td>
</tr>
<tr>
<td>1.8 million ha</td>
<td>60% Agroforestry</td>
</tr>
</tbody>
</table>

LINKING BIOECONOMY//RURAL AND URBAN AREAS
Agroforestry practices

Silvopasture
Silvoarable
Kitchen gardens
Forest Farming
Riparian buffer strips
<table>
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<tr>
<th>Forest Farming</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td>Forested areas used for production or harvest of natural standing specialty crops for medicinal, ornamental or culinary uses</td>
</tr>
<tr>
<td>Market</td>
<td>Ministerial Conference of protection of forests in Europe. Madrid 2015</td>
</tr>
<tr>
<td>Services: 723 Million €</td>
<td></td>
</tr>
<tr>
<td>Social and other 79.62%</td>
<td></td>
</tr>
<tr>
<td>Biospheric 21.19%</td>
<td></td>
</tr>
<tr>
<td>Amenity 0.03%</td>
<td></td>
</tr>
</tbody>
</table>

**CHALLENGE: ESTIMATE THE AREA AND THE POTENTIAL AREA**
Lack of data

1680 million

NON WOOD PLANT PRODUCTS FROM FOREST

- Food (berries, acorns, mushrooms): 29
- Decorative foliage, ornamental plants: 47.2
- Raw material for medicines, aromatic products, colourants: 1.5
- Other plant products: 20.9
- Exudates: 0.7

NON WOOD ANIMAL PRODUCTS FROM FOREST

- Wild meat: 51.1
- Wild honey and bees wax: 45.69
- Hide, skins, trophies: 2.9
- Raw materials for medicine, colourants: 0.02
- Living animals: 0.08
- Other edible and non-edible animal products: 0.21

2770 million €

Ministerial Conference of protection of forests in Europe. Madrid 2015
Agroforestry practices

Silvopasture 85.65%
Silvoarable 8.32%
Kitchen gardens 4.03%
Forest Farming 0.93%
Riparian buffer strips 0.18%
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<th>Riparian buffer strips</th>
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<tr>
<td>Strips of perennial vegetation (tree/shrub and grass) natural or planted between croplands/pastures and water sources such as streams, lakes, wetlands, and ponds to protect water quality</td>
<td></td>
</tr>
</tbody>
</table>

- **Running waters**
  - 26239 ha
- **Water bodies**
  - 10165 ha
Agroforestry practices

Fallow land
<table>
<thead>
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<th>Improved fallow</th>
<th>Brief description</th>
</tr>
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<tbody>
<tr>
<td>15 Million ha</td>
<td>Fast growing, preferably leguminous woody species planted during the fallow phase of shifting cultivation; the woody species improve soil fertility and may yield economic products, sometimes linked to slash and burn.</td>
</tr>
</tbody>
</table>
Conclusions

Agroforestry practices are poorly implemented in EU

Silvopasture and homegardens

Huge potential

Pillar I: silvopasture and silvoarable

Pillar II forest farming and improved fallow

Periurban: Homegardens?

Lack of data: Fallow lands and forest farming