From Czech history of silvopastoralism
Until 18th century silvopastoralism had been predominant way of livestock husbandry. Dried leaf fodder had been broadly used as winter feed for livestock. Since 19th century pasturing in forests has been prohibited. There are only fenced game hunting parks allowed (see Fig. 1). Ruminant pastoralism is still remained in White Carpathian.

Preconditions and situation of agriculture
- Mean size of farm/enterprise is 150 ha
- Small scale family farming as rural gardening- Fig. 2
- Agroforestry is not recognised by legislation
- Increasing soil erosion under industrial agriculture
- (50% of agricultural land threaten)
- Decreasing of soil water absorption capacity due to decrease of organic matter
- Industrial agriculture prevails, organic farming should increase proportion from 16% to 30% of agricultural land
- Large land blocks not determined and trees can be planted at borders
- Paradox- area of tree crown is deducted from area based payments if tree grow at or along arable land
- Decreasing number of livestock

Silvopastoralism nowadays
- Supportive to multifunctional small scale family farming (Fig. 3)
- Use to manage land of protected areas where dominant plants suppress diversity
- Mitigation of erosion
- Long term sequestration of carbon
- Agrotourism and living friendly
- In agreement with EU Adaptation Strategy to Climate Change

Table: Potential silvopastoral use on agricultural land in the Czech Republic

<table>
<thead>
<tr>
<th>Animal</th>
<th>Type of silvopastoral</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry</td>
<td>Poplar/willow coppice</td>
<td>Welfare, organic production, synergies on environment (Figs 4 and 5)</td>
<td>By law prohibited to grow coppice plantations on best soils</td>
</tr>
<tr>
<td>Pigs</td>
<td>Grazed orchard, poplar/willow coppice, high value harwood</td>
<td>Welfare, organic production, synergies on environment</td>
<td>Destruction of grasland by pigs, taken as positive in pigs</td>
</tr>
<tr>
<td>Sheep and goats</td>
<td>Grazed orchard, ligniculture, high value harwood</td>
<td>Welfare, organic production, ↑ feeding capacity (leaf fodder and ↑ grass in light shade), undercover vegetation utilisation, synergies on environment</td>
<td>Protection of fruit trees against browsing and debarking, debarking in young ligniculture (depends on tree species) (Figs 7 and 8)</td>
</tr>
<tr>
<td>Cattle</td>
<td>Grazed tall orchard, ligniculture, high value harwood</td>
<td>Welfare, organic production, undercover vegetation utilisation</td>
<td>Young trees needs protection from displacement (rubbed), some impact on environment based on cattle densities</td>
</tr>
<tr>
<td>Red and fallow deer</td>
<td>Grazed tall orchard, ligniculture, high value harwood (Fig. 6)</td>
<td>↑ venison production in Europe, very extensive and modest species, undercover vegetation utilisation, synergies on environment</td>
<td>Protection of fruit trees against browsing and debarking (Fig. 8)</td>
</tr>
<tr>
<td>Horses</td>
<td>Ligniculture, high value harwood</td>
<td>Welfare, undercover vegetation utilisation, synergies on environment</td>
<td>Debarking may happen</td>
</tr>
</tbody>
</table>