

LIFE POLYFARMING project: Demonstration of a new agro-silvo-pastoral land use to improve farm profitability in mountain areas*

Marc Gràcia, Maria José Broncano¹, Javier Retana²

KEY WORDS: multi-functional management, pilot farm, livestock



polyfarming

■ Aims

The objective of the LIFE POLYFARMING project is to **demonstrate the interest of a new integrated multi-functional agro-silvo-pastoral management system (Figure 1) as a cost-effective management alternative to combat the problem of abandonment of agriculture** in Mediterranean mountain areas and the **environmental consequences** (degradation of the soil, vulnerability to climate change, loss of biodiversity) and socio-economic (territorial imbalances, loss of productive capacity of the territory) that this abandonment is producing. of the garden, among others.

■ Methodology & Discussion

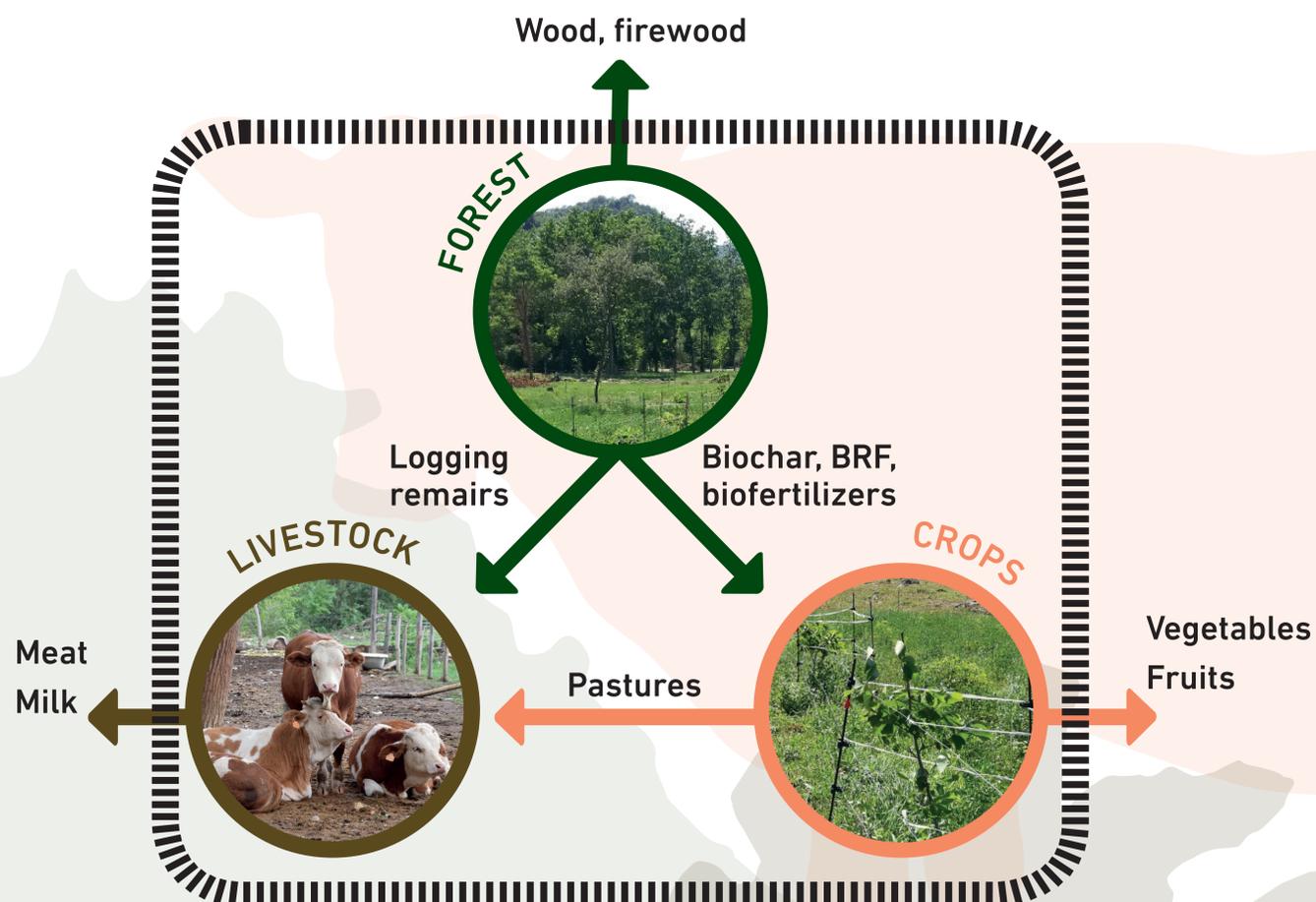


Figure 1. Polyfarming system scheme. Credit: Lucas Wainer.

Table 1. Use of livestock as a management tool in other components of the system.

Components of Polyfarming	Livestock as management tool
FOREST	The presence of cows in the forest facilitates the decomposition and incorporation of the felling remains into the soil, improving the fertility of the soil . Cows consume cutting remains and help maintain the understory, reducing vulnerability to fires .
PASTURES	Movement of cows, chickens, and rabbits in pasture areas helps maintaining pastures and improves soil structure and fertility and, therefore, productivity .
FRUIT TREES	Cows are a tool for managing the environment of fruit trees, which avoids treatments to eliminate weeds . The droppings released by cows help improve soil fertility, which fruit trees also benefit from.
ORCHARD	In the periods when the orchard is not cultivated or when the crops are at a height that is not affected by animals, the presence of chickens helps to eliminate harmful insects and pests and reduces the presence of weeds.

■ Results

The performance of the farm is improved when an integrated agro-silvo-pastoral management is carried out. On the Planeses farm **there are cows, chickens and rabbits**. We manage these animals for different objectives in the farm (Table 1). Thus, **livestock becomes an important tool for the project management**: the movement of cows, chickens, and rabbits in pasture areas helps maintain pastures and **improves soil structure and fertility**, and therefore productivity. But it also helps in the management of other activities on the farm: cleaning the undergrowth, managing fruit trees with pastures, improving the fertility.

Your suggestions for research and support policies to develop further organic animal husbandry.

¹ CREAM, Cerdanyola del Vallès, Barcelona E08193

² Univ Autònoma Barcelona, Campus UAB, Cerdanyola del Vallès, Barcelona E08193

* The project POLYFARMING have been co-funded by the LIFE program of the European Commission.