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MULTIPLE- CROPPING PATTERNS AND AGROFORESTRY SYSTEMS

CORRESPONDING
MODULE 2



Introduction

The study is about the production of feedstock for food and energy on the same land, through multiple-cropping patterns and agroforestry systems.

Multiple-cropping patterns is the practice of growing two or more two crops on the same field in a year. Multiple cropping involves the intensification of cropping in temporal and spatial dimensions. It is a philosophy of maximum crop production per land area with a minimum of soil health deterioration.

Some of the multiple-cropping benefits are:

- Minimization of the scope of soil erosion and degradation;
- Maximization the

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possible utilization of land, residual effects of manures, fertilizers, moisture, and management practices.

Agroforestry is the interaction of agriculture and trees, including the agricultural use of trees. This comprises trees on farms and in agricultural landscapes, farming in forests and along forest margins and tree-crop production. Interactions between trees and other components of agriculture may be important at a range of scales:

- in fields, where trees and crops are grown together;
- on farms, where trees may provide fodder for livestock, fuel,



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food, shelter or
income from
products including
timber.

- landscapes, where agricultural and forest land uses combine in determining the provision of ecosystem services.

Some of the Agroforestry
benefits are:

- long-term carbon absorption,
- soil enrichment,
- biodiversity conservation,
- air- and water-quality improvements.



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Description

General description of the CASE STUDY with information related to the questions already mentioned in section 3 of this document.

Background, types, basic information

Best practices

The Azienda Agricola Casaria is located in the municipality of Masi (PD), to the North and from the Adige river to the south, in a reclamation area managed by the Adige Euganeo Consortium. Its history is centuries old. It was founded in the early '900 by the Bari family. 2012 represents a turning point for the company's fortunes, which is entirely purchased by Lorenza Padovan, a physiotherapist looking for a more authentic lifestyle and in need of contact with nature, far from the hectic pace of a life dedicated to others. The primary objective was to breathe new life into a productive and rational cereal company of 54 hectares, enhancing not only its appearance, but also the production processes, in the sign of **environmentally sustainable** and **responsible innovation**. In 2017, another 40 hectares of New neighboring land were acquired, respecting the company philosophy, the conversion to the organic regime was immediately started.

The agroforestry system

The installation of a series of agroforestry systems was achieved, taking advantage of the advantages of certain agri-environmental measures provided for in the RDP 2007/2013. Kilometers of

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country hedges, buffer bands and an innovative agroforestry system with poplar and Oak along the scolines and the capofossi, typical of the reclamation areas, have returned a countryside deeply enriched with biodiversity and lush green, becoming home to very rare and protected animal species such as the sea Jay, with the typical electric blue color, and the gray heron. Finally, thanks to the creation of a Poplar Grove of 4 hectares in the floodplain close to the river Fratta and the planting of about thirty units between country maples and century-old mulberries, the property can boast the presence of about 4,000 native trees, not counting the numerous essences to adorn the company complex. All these initiatives have made Casaria the only Italian private company to enter the EU-funded agforardard (Agroforestr that that Advill advance Rural Development) Project, while becoming one of the founding companies and operational headquarters of AIAF (Italian agroforestry Association). In 2015, the conversion to organic began, an ethical choice motivated by respect for nature and people: a humble and sustainable agriculture, whose prerogative is to take care of the Earth and, thanks to its gifts, also of men and women. A real life choice, which will guarantee the entire production, starting from October 2017, the "BIO" certification of ICEA.

Main objective of the institution implementing the case study and main achievements.

Good to remember information, practical information, links to other





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CSs.....



Advantages and challenges

Agroforestry systems in **Casaria**



Silvoarable agroforestry

Tree species combined with herbaceous crop species



Silvopastures

Breeding combined with arboriculture



Linear Systems

Hedges windbreaks and buffer bands at the edges of the fields



Riparian Bands

Tree and shrub species planted on the banks of streams



Cultivation In The Forest

Cultivation of mushrooms, berries and non-woody products in general, in the forest.

Main data

Budget, main dates (investment, start of production, period of raise funding, etc.), location, module name and number, contact data when possible, institution

The modern agroforestry, or rather, the return to this abandoned agricultural practice, is not intended to replace today's modern agricultural practices, but rather to integrate them, improving productivity and economic benefit, with a view to **sustainable profit**.

The main and most obvious **benefits** of returning to this agricultural system, which as a company we have found, have certainly been increasing biodiversity and improving soil fertility.

Further Information

..... to be completed with links when possible

<https://aziendacasaria.it/>
<https://www.backtothefuture.it/#agroforestry>
<https://agriculturistmusa.com/multiple->



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The protection from erosion for the latter guaranteed by the root planting of the tree bands.

Increase in overall productivity

The increase in carbon stored in our soils. The marked improvement of the business landscape.

Casaria counts:

6000 essences planted on our farm grounds over the past seven years

13 different species, high, medium, and low stem, that enrich our ecosystem

12000 kg of Co2 extracted each year from the atmosphere thanks to our agroforestry systems

[cropping-systems/
http://
www.agroforestry.it/](http://www.agroforestry.it/cropping-systems/)



ANNEX – STRUCTURE OF MODULE CONTENT TO PREPARE SLIDES

Module Name: The name of the partner: Country:

The name of the module	
Target group involved	
Current information about the topic	
Principles of the specific module	
Basic terms/measures of the module/topic	
Training materials (tasks, case studies, exercises)	
Short description of the materials	
Link of the online resources (film or video resources)	
Specific images (to support the purpose of the resources)	
Duration	
Materials	
No of Learners/Representatives	
Individual or group work	
Step by step guide	