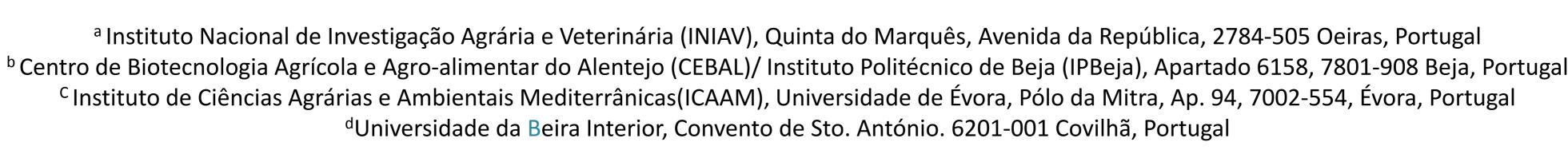
Natural dyeing - Use of natural dyes in natural fibers Operational Group



<u>Carmo Serrano</u>^a, José Passarinho^a, Pedro Reis^a and Inocêncio Seita Coelho^a (INIAV) M. C. Fernandes^{b,c} and Prazeres, A.R^{b,c} (CEBAL, ICAAM) Nuno Belino^d, Jesus Rodilla^d and José Lucas^d (UBI)







Aim

The main goal Natural dyeing - Use of natural dyes in natural fibers Operational Group (OG) is the dye plants production for the extraction of natural dyes and application in the dyeing of "Campaniça" sheep wool, in order to develop innovative products with added value that are eco-sustainable and promote the development of local and national economy.

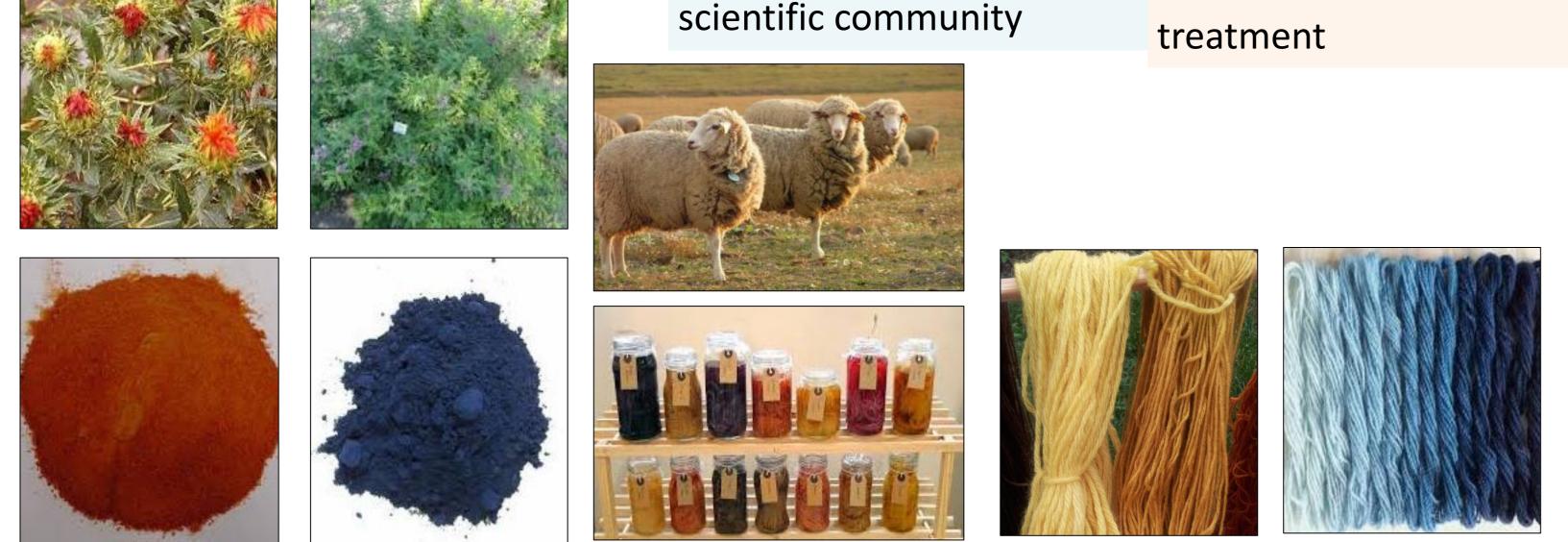
Specific Objectives

- * Implement the plants dye production and selection the species that present the best cultivation and extraction results for to apply in extensive cultivation;
- * Promote the agricultural diversification of MAP producers by the incorporation of dyeing species for economic valorization;
- Develop eco-extraction process, concentration and preservation of the natural dyes and the pre-formulations for industrial application, to obtain a • set of dyes properly characterized.
- Promote the eco-sustainable certification of national textiles, with particular emphasis on Portuguese wool and, more specifically, "Campanica" wool, and consequently their incorporation into new market niches.
- * Encourage reduction of the pollutant load due to the use of natural dyes and dyeing processes in accordance with "Global Organic Textile Standard";





4.1 Compilation of information and	Task 3 – Dyeing tests on woolen yarns			
dissemination of results 4.2. Implementation of	3.1 Textile structures and processes	Task 2 – Processing of	the coloring matter	
public participation actions for training of stakeholders in the sector	3.3 Quality control of	2.1 Separation, drying and grinding of parts of plants	Task 1 – Plant production	n
4.3 Dissemination of the project results in the scientific community	dyeing woolen yarns 3.4 Generated effluents characterization &	used as dye 2.2. Optimization of the extraction of colorants	1.1 Transnational cooperationvisit to CRITT Horticole1.2 Implementation and	



constituents & chemical characterization 2.3 Dyes purification & chemical characterization 2.3. Dyes production – scale up to textile application 2.4 Economic analysis of the dyes plants cultivation and industrial dyes production

optimization of the culture conditions of the dye plants 1.3 Yield of selected plants 1.4 Extensive cultivation of dye plants and elaboration of the technical cultural sheets 1-5 Benchmarking Analysis

Expected outcomes

The Operational Group initiative bridges the gap between research and market with the commercialization of natural dyes and the cultivation of dyes plants. It helps good ideas for innovative products, services and process that protect the environment by recycling of the solvents used in the eco-extraction process and obtained carbon credits by spread the plant residues on the fields. The implementation of the various planned measures and dissemination actions will contribute to the transmission of this knowledge to main interest groups, allowing economic growth and deployment of rural communities.









