

# ALMOND AND HAZELNUT CORE COLLECTIONS AS A TOOL FOR IMPROVING GENETIC RESOURCES UTILIZATION: THE EUROPEAN SAFENUT PROJECT

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The general interest for genetic resources is based on the opportunities offered by their utilization. Genetic resources not only provide the required raw material for sustainable genetic improvement of crops, but offer a unique gene combination, as naturally occurring co-adapted gene background, to ensure adaptability and productivity. Therefore, their conservation is of paramount importance to achieve sustainable production and food security for future generations. This is reflected in the objectives of the Convention on Biological Biodiversity (CDB) and the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA). Moreover the conservation of agro-diversity is of critical importance, because of the direct benefits to humanity that can rise from its exploitation in improving agricultural and horticultural crops as well as the potential for developing new medicinal and other products. Up to now, the management of genetic resources is based on conservation, evaluation, utilization with the conservation function played by *ex situ* and *in situ* collections. For a few years now, this concept has evolved. The farmer becomes one of the actors of the creation and maintenance of the present diversity. The problem of continuously expanding the number of accessions in gene banks introduces the concept of 'core collection': a selected and smaller collection representative of species' diversity. Designing of core collections involves an appropriate use of diversity, offering breeders an opportunity to work with a number of accessions quite manageable. Within the Council Regulation (EC) N. 870/2004 AGRI GEN RES, which established a Community programme on the conservation, characterisation and utilization of genetic resources in agriculture, the project 'SAFENUT': '*Safeguard of almond and hazelnut genetic resources from traditional uses to modern agroindustrial opportunities*' represents an example of a resourceful strategy for well-organizing the use of genetic resources through the fulfilment of the core collections and gene banks. The present work summarizes the main objectives and the expected results of the SAFENUT project discussing also its potential impact on marginal areas and local sustainable agricultural system. Moreover, the economic importance of the predicted results will be related to the requirements of developing Countries of Africa, Asia and South America considering this project a starting-point for a wider collaboration, enhancing the sharing of genetic resources.