The local community perception of agrobiodiversity as cultural heritage. The case of *Ceratonia siliqua* L. as an identity resource of the rural landscape of Modica and Rosolini (Sicily-Italy).

Abbate Rosaria, Maria Elena Menconi\*, David Grohmann

\* Department of Agricultural, Food and Environmental Sciences, University of Perugia, mariaelena.menconi@unipg.it, +390755856024.

rosaria.abbate@outlook.it, david.grohmann@unipg.it

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**Abstract**

The improvement of agrobiodiversity is a pivotal ecosystem service provided to human beings. Thanks to the complexity of the relationships it hosts, it can influence agricultural production and enhance resilience, well-being, quality of life, and rural landscape. This paper develops a proposal to valorize the Ceratonia siliqua L. (carob) in two Sicilian municipalities (Rosolini and Modica, Italy). The carob tree in this area is a crucial resource to understand the identity of the rural local landscape since the first descriptions of the island's flora (Tornabene, 1887). Furthermore, it has a significative productive value, representing the municipalities with the highest carobs plants of the Free Municipal Consortiums of Ragusa and Syracuse that cover the 98% of Italian production (ISTAT, 2020). Italy's carobs production follows only the production of Portugal at the international level, covering 14.36% of world production (FAOSTAT, 2020). At the same time, the carob trees often are located in marginal agricultural areas, and the local communities do not recognize their value. To protect the carob tree from extremely selective agriculture, from the overbuilding and neglect that local populations reserve for it, a system of enhancing the relationships that the carob develops is needed. For this reason, the method uses a multi-stakeholder approach to involve the elderly living in the municipalities, the farmers producing the carobs, and the local product storage and processing companies. The method develops a network to activate cooperation between stakeholders producing a collaborative GIS map dedicated to the carob, as the main result. This map highlighted the rural dimension of Modica and Rosolini and allowed sharing of memories, practices, recipes, and moments between local communities and companies. Furthermore, the map can be used for touristic promotion of carob plants by sharing it online using common devices (smartphones, tablets). The paper also develops two tourist paths dedicated to Ceratonia siliqua L., its products, its traditional and actual uses, and the rural landscape.

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