

Factors Connected with the Registration of “Sikali Vevis” as a Geographical Indication Protection (PGI) Product [†]

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Abstract: The rate of rye consumption is increasing due to its benefits for human health. “Sikali Vevis” is a cultivated traditional rye population of the Vevi area, Florina of Western Macedonia, Greece, which supports the local agricultural community. However, the identity of this traditional population is not yet protected. This work, funded under the Agricultural Development Program 2014–2020 (Measure 16), Sub-Measure 16.1–16.2 (project M16SYN2-00321), will present the parameters connected with the description of the unique identity of this product, its origin, its traceability, local agricultural practices, and specific characteristics that will contribute to the protection of this traditional population.

Keywords: rye; local landrace; PGI product; quality; agricultural development



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1. Introduction

Rye (*Secale cereale* L.) is a cereal crop recognized for its robust winter endurance, ability to withstand various environmental and biological challenges, and suitability for nutrient-depleted, sandy soils with low pH levels [1]. The majority of global rye production, exceeding 90%, is concentrated in Europe’s northern, eastern, and central regions [2], where it has been cultivated for its grains since the Bronze Age. Within the European Union, rye grains serve diverse purposes, with 41% allocated for human consumption, 32% allocated for animal feed, 12% used as a raw material for bioethanol production, 10% allocated for biogas generation, and 5% allocated for seed multiplication [3]. Rye stands out among the cereals due to its notably high dietary fiber content [4] and its rich assortment of bioactive compounds [5]. Beyond its dietary importance, rye has played a pivotal role in numerous breeding programs by serving as a source of disease resistance in wheat. This includes resistance against diseases like powdery mildew, stripe rust, and stem rust [6].

The European Union first adopted the system for the protection of geographical indications and the designations of origin of agricultural products and foodstuffs (regulations 2081/92 and 2082/92) to define rules on the certificates of specific characteristics for European agricultural products. “Sikali Vevis” is a traditional rye population (*Secale cereale* L.) cultivated in the Vevi area of Florina, Western Macedonia, that supports the local agricultural community. The rate of rye consumption has been increasing recently due to its benefits for human health, so there is an increasing interest in rye consumption as

a food. “Sikali Vevis” is cultivated in disadvantaged and remote areas, having particular characteristics and unique qualities; these unique characteristics have not yet been recorded systematically to promote and protect the name of this agricultural product in alignment with the EU and Greek regulations [7]. This will help secure the identity and bring added value to this unique rye product, achieving better market prices and improving the producers’ income [8]. PGI emphasizes the relationship between the specific geographic region and the product name, where a particular quality, reputation, or other characteristic is attributable to its geographical origin [9].

An essential target of the project M16SYN2-00321 is to record the agronomic and quality characteristics of this rye population, to investigate the parameters connected with its unique origin, and collect all the required information for this unique product to apply for registration under the scheme of Protected Geographical Indication. This work includes the initial results of this study.

2. Methodology

Extensive research and interviews with the local farmers were conducted to identify the traditional uses of the rye “Sikali Vevis” population; different samples were collected from the area’s farmers in cooperation with the Agricultural Cooperative of Florina. A pilot study using six representative samples of the cultivated local rye population “Sikali Vevis” originated from 6 producers located in Vevi, Florina, Western Macedonia, Greece, was established in the Farm of the Department of Agriculture of the University of Western Macedonia (Table 1). The seeds were sown according to the local producers’ standard agricultural practices, and seed productivity values and protein content were recorded during growth and agronomic parameters. The productivity and quality were estimated according to standard practices.

Table 1. An indicative range of the “Sikali Vevis” seeds’ agronomic and quality characteristics is expressed as mean yield.

“Sikali Vevis”	Seed Yield (kg/ha) ¹	Protein Content (%)
Population 1	1507	12.6
Population 2	1659	12.4
Population 3	1621	12.1
Population 4	1296	13.7
Population 5	1549	12.5
Population 6	1859	11.8

¹ The average yield derived from four different replications.

3. Results and Discussion

The name of the agricultural food product is “Sikali Vevis”, and the description of the agricultural product consists of the seeds produced by the local population of rye (*Secale cereale* L.) cultivated in the Vevi area since the 19th century. Vevi belongs to the Prefecture of Western Macedonia, the Municipality of Florina. It is located east of the city of Florina, about 20 km from it, in a southwestern mountain branch of the Voras mountain (Kaimaktsalan), which ends in the narrows of Kirli Derven, near the village of Kleidi, while the southeastern branch ends in the plain of Florina. The production process follows the traditional agricultural practices without any additional inputs; it is essential that, according to the locals, “Sikali Vevis” is cultivated in mountainous and disadvantaged areas and especially in fields of low-level fertility. It is characteristic that “Sikali Vevis” can grow very well in low-fertility-level soils and show good tolerance to frost in subzero environments. The average range of the recorded seed yield and protein content span from 1296 (kg/ha) to 1859 (kg/ha), and the protein content ranges from 11.8% to 13.7%.

The seeds and inflorescence are shown in Figure 1.



Figure 1. The seeds just before harvesting of “Sikali Vevis”.

4. Conclusions

This multifaceted approach of the project M16SYN2-00321 funded by the Greek Agricultural Development Program 2014–2020 (Measure 16) and, in particular, Sub-Measure 16.1–16.2, will enhance the safeguarding and subsequent utilization of this valuable resource through the following ways:

- Recognizing and identifying the traditional population through applying for registration on the National List. This ensures production protection across a broader geographical area by gathering the data necessary to submit a dossier as a PGI (Protected Geographical Indication) product.
- Developing improved genotypes suitable for organic environments.
- Establish and implement an innovative procedure for disseminating the best practices in conserving and producing seeds of the preserved variety within its region of origin. This process is tailored to the specific conditions, ensuring seed certification and an adequate purity level. With ELGO researchers’ support, the cooperative will lead this effort.
- Authentication of the morphological, qualitative characteristics, and DNA techniques.
- Providing valuable advisory services to farmers, which include field schools, e-learning opportunities, an online application system, and networking through an online platform.
- Documenting the reduction in product inputs, promoting sustainability and resource efficiency.

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