

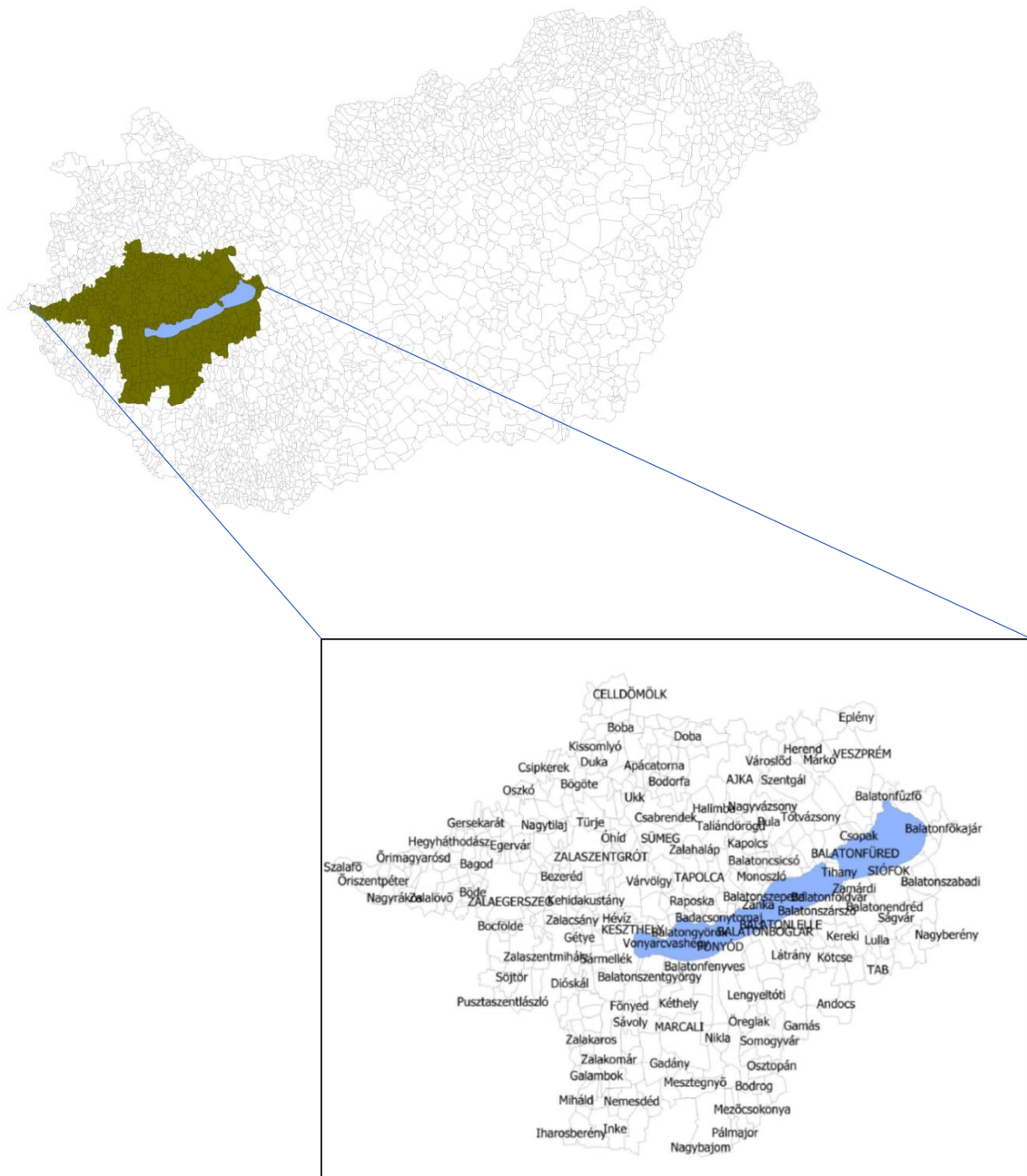
2019

Collection, cultivation and processing of medical plants, herbs and spices in the Balaton Ecomuseum



Pilot Action 4

Collection, cultivation and processing of medical plants, herbs and spices in the Balaton Ecomuseum



1. Introduction – the landscape-based and multi-layered structure of Balaton Ecomuseum

The ecomuseum will have a holistic approach, where the objectives of the ecomuseum embrace the cultural landscape of Lake Balaton as one unit with thematic routes in one system and shall not be restricted to one particular subject area or a part of local heritage. Therefore, all major components of the intangible cultural heritage shall be included according to the multi-layered structure and the wealth of the existing and potential touristic attractions:

- The cultural landscape as intangible heritage: aesthetic value
- The built heritage as carrier of intangible heritage in traditional trades and crafts
- Collection, cultivation and processing of medical plants, herbs and spices
- Traditional trades and crafts in connection with the agriculture of the area
- Gastronomy – the traditional local and regional cuisine and new trends
- Animal husbandry – breeding indigenous Hungarian domestic animals
- The culture of wine: ancient Hungarian grape varieties, wine routes, wine festivals
- The written heritage of the landscape – literature and science
- The heritage of folk music in the Balaton area
- Thermal bath culture as carrier of intangible heritage

An important goal is to achieve excellence in sustainable regional development and management of natural resources linked to conservation of cultural landscapes and their heritage. The main stakeholders directly participating in the management of the ecomuseum include public institutions, local and regional authorities, non-profit organizations and companies, private companies and sole traders, tourism organizations, trade associations, educative centres, universities, churches and owners of heritage sites of key importance. Thus, organization of the numerous stakeholders of sustainable regional development and use of ecosystem services into effectively and efficiently working governance structures requires this participatory approach.

Inventories are being carried out continuously, in order to produce a complete catalogue/database of natural resources: landscape sites, thermal waters, bath opportunities, mineral water springs, geodiversity and biodiversity (sites to visit and protected sites, not for tourists), particularly important plant species (including herbs and spices), wild animals, bird sanctuaries. Similarly, a well sorted inventory and database with specified categories of touristic products offered in the region and objects or special places suitable for touristic product development will be carried out. Another objective is the development of touristic products with interactive facilities to present the ICH linked to the natural resources, the built heritage and the local and regional history and setting up the management structure of the ecomuseum. Due to the complex structure of the ecomuseum, four synthetic Pilot Actions have been developed:

Pilot action 1. Creating databases from the inventories of Objective 1 and Objective 2. These continuously updateable databases will constitute the basis of the decision support systems and the monitoring facilities. This action includes the coordination of already existing databases available.

Pilot Action 2. Identifying the key areas of responsibilities and setting up the management structure and the legal form of the Balaton Ecomuseum based on the aforementioned strategies and the key stakeholders; assembling the steering board/board of trustees and formulating the founding charter of the organization. Taking into account the size of the ecomuseum and the corporate stakeholders therein, issues of corporate social responsibility (CSR) should be properly addressed.

Pilot Action 3. Constructing the plans of a landscape observatory in order to provide monitoring, and decision support system for the whole landscape unit, even outside the ecomuseum, due to increasing tourist pressure and regional infrastructural development programmes. Good practice: The Landscape Observatory of Catalonia, Spain and the country-wide Landscape Observatory of Finland. Possibilities to establish cross-border landscape observatories.

Pilot Action 4. Collection, cultivation and processing of medical plants, herbs and spices in the Balaton Ecomuseum coordinated by **Zánka Herb Valley Visitor and Training Centre** and ecocentre in the outskirts of the village of Zánka.

In this study we describe the system of collection, cultivation and processing of herbs and spices within the area of the planned Balaton Ecomuseum led by the Zánka Herb Valley Visitor and Training Centre. Herbs and spices have a traditional history of use, with strong roles in cultural heritage, and in the different national gastronomies and their links to health. Herbs and spices often contain physiologically active compounds, raw material for pharmaceutical agents, which are small-molecular-weight organic compounds consumed in a purified and concentrated form. Cultural aspects: The place of herbs and spices in the diet needs to be considered in reviewing health benefits, including definitions of the food category and the way in which benefits might be viewed, and therefore researched. Research may focus on identifying bioactive substances in herbs and spices, or on their properties as a whole food, and/or be set in the context of a dietary cuisine. The antioxidant properties of herbs and spices are of particular interest in view of the impact of oxidative modification of low-density lipoprotein cholesterol in the development of atherosclerosis. For example, it is a scientifically proven fact, that consuming a half to one clove of garlic (or equivalent) daily may have a cholesterol-lowering effect of up to 9% and, according to in-vivo studies, 7.2 g of aged garlic extract has been associated with anticlotting as well as modest reductions in blood pressure (an approximate 5.5% decrease in systolic blood pressure). A range of bioactive compounds in herbs and spices have been studied for anticarcinogenic properties in animals, but the challenge lies in integrating this knowledge to ascertain whether any effects can be observed in humans, and within defined cuisines. Research on the effects of herbs and spices on mental health should distinguish between cognitive decline associated with ageing and the acute effects of psychological and cognitive function.

2. The Zánka Herb Valley and its partners – their herbs and spices network

The pilot action will be managed and coordinated by Zánka Herbal Valley, which will be the centre of the whole herb and spice network in the 8500 km² large ecomuseum. The site at the gate of the Káli Basin is located on the western border of Zánka, in front of the Hegyestű Geological Interpretive Site. The area was partially occupied by its owners to allow access from the highway through a parking lot. The building site was created by combining two adjacent properties, some of which had to be leased to widen the road. The main goal of Herb Valley Ecotourism Training and Visitor Centre is to develop ecotourism and to introduce the typical herb culture of the Balaton Uplands. Designing an educational and visitor centre for visitors to the Kali Basin, where guests can not only learn about herbal varieties and their uses, but also learn about their processing and effects. In accordance with the development concept of the Balaton Specialized Resort Area, the project promoter has set a general goal to increase awareness of the tourism market in Balaton and the Balaton Uplands, increase the number of visitors and the number of guest nights. The overall aim of the establishment of the Herbal Centre is to provide tourists and visitors visiting Zánka with a quality offer that, in addition to their satisfaction, will increase tourism revenues in both municipal and entrepreneurial areas, thereby stimulating the employment of regional tourism enterprises.

The uniquely diverse flora of the Balaton Uplands can be explored interactively and in an adventurous way at the Zánka Herb Valley Visitor and Training Centre (Fig 1. and 2.). Depending on the season, they have close contact with the care, collection, processing, utilization and cultivation of over 500 species of herbs through various interactive programs. Annual, biennial and perennial plants, trees bushes, shrubs, as well as various spices, edible herbs, swamp plants, interesting shape and leaf, a multitude of species welcome visitors. Located next to the National Park and the Eastern Gate of the Kali Basin, the 7,000 square meter ecotourism centre offers active recreation for everyone. Visitors can obtain theoretical and practical knowledge of the use of the plants, their folk and scientific backgrounds, and other curiosities in the seasonal programs. The caretakers of the park encourage everyone not only to see, but to touch the plants, learn the process of propagation, collection and processing, then taste the herbal teas made from them. Visitors from spring can monitor plant life until the end of autumn. Even in winter, life does not stop, as winter herbs can be collected, and the annual crop can be processed. The eco-centre offers adventurous knowledge and relaxation for tourists, sustainable farming, and naturalists and holistic healers. The centre also engages in practical training in cooperation with universities, and places great emphasis on scientific research, preservation of protected plants and gene bank activities.

Herbal tours organized around the Herb Valley they start all year round. The hiking destination is varied, from the nearby Káli Basin to the wonders of the Balaton Uplands and the Bakony. Depending on the season, we will get to know the roots, bark, shoots, flowers and fruits of the herbs, depending on the season. Herbal tours are held not only at pre-announced times, but also at pre-arranged times for professional, tourist and school groups.



Figure 1. Zánka Herb Valley visitor and training centre – ecological buildings with renewable energy (photovoltaic panels)



Figure 2. The well-structured garden

Target groups and services

Examining the target groups of the Herb Valley and its network, the typical seasonal tourists of Lake Balaton will be characterized only by the high season. However, the visitor centre is closely linked to health tourism, so you can expect a large number of visitors from such providers in the near and far regions (Hévíz, Alsópáhok, Zalakaros, Sárvár, Bük) during the rest of the year. The size of the European health tourism market was primarily based on data from the European Spa Association (ESPA). Unfortunately, due to the widely differing measurement methods and willingness to provide data in the various member countries of the Federation, the information obtained is difficult to standardize and compare. Of all European travel (270 million) in 2003, 30 million were for health tourism. Of this, 30% was specifically classified as a health trip and 70% as a wellness trip. Guests spend an average of 6 nights at the places they visit, which is estimated by the ESPA to amount to 120 million guest nights per year. Compared to previous years, these figures are already increasing and are expected to increase in the next few years too.

According to domestic economic and tourism experts, health tourism will play an even more prominent role in the domestic economy in the coming decades and in the next fifteen to twenty years, domestic health tourism and the health and wellness industry based on the utilization of thermal and medicinal water should be developed into the flagship of the Hungarian economy, becoming one of the most sought after health tourism destinations in Europe.

When examining the consumer behaviour of the health-conscious target group, it is less characteristic that they travel only during the high season. They are motivated to acquire new knowledge and therefore willing to travel on weekends, but less often on weekdays. This target group interested in various health related trainings, educational programs so the seasonality is not as high as that of leisure tourists. The closer catchment area for this group is approximately within 100 – 150 km or within a 90-minute drive.

The holistic healing circle of customers is not characterized by Balaton seasonality. This group travels to the Visitor and Training Centre mainly because of the use of educational programs or the completion of compulsory university practice. In these cases, the summer months are considered a school holiday. They come for 2-day and 4/5-day programs to attend various themed lectures or specially tailored education programmes.

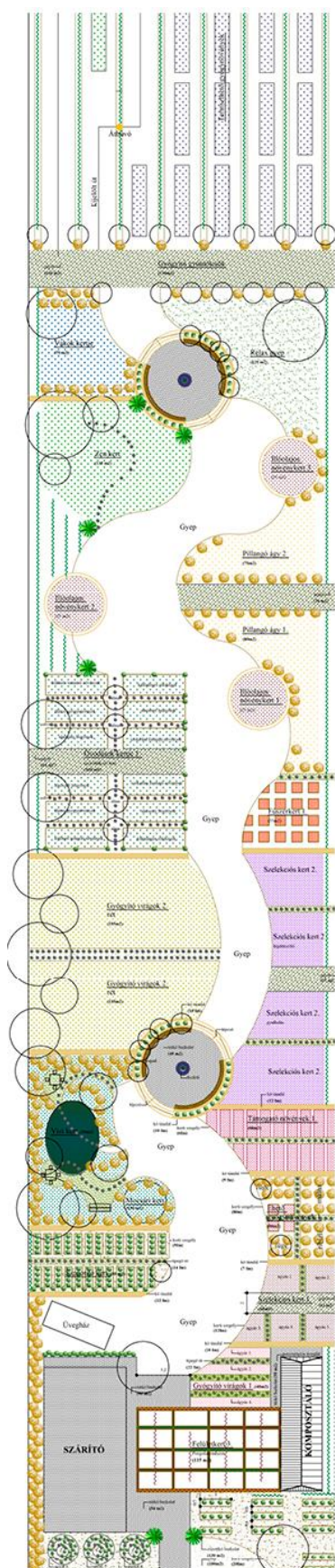
The ecotourism target group also has a different seasonality than the leisure tourists of Lake Balaton. Although the main season for hikers is spring and autumn, the number of cycling tourists is strong especially during the summer months. The Lake Balaton region has 2 concentration circles: inner and outer ring. The inner circle has always been characterized by more developed infrastructure, better employment and income conditions than the background settlements. The Zánka Herb Valley is situated alongside the main road 71 and the bicycle road, inside the bloodstream and contributes to the further development of this circle. The hiking trails lead to the outer ring on the nature trails of the Kali Basin. The technical development of these routes, the expansion of the route network and the increase in the number of visitors will require the involvement of additional tour guides who will also increase the employment of the inhabitants of the background settlements.



Figure 3. The main goal of the Herb Valley Ecotourism Training and Visitor Centre is to develop ecotourism and to introduce the typical herb culture of the Balaton Uplands.



Figure 4. The guests can not only learn about herbal varieties and their uses, but also learn about their processing and effects. Here: the store room of dried herbs.



Park and garden elements:

1. The Garden of the Blind
2. Butterfly bed
3. Herb garden
4. Relax the lawn
5. Garden of edible herbs
6. Healing Fruits: Bushes, trees
7. Healing Flowers: Ornamental Plants
8. Kindergarten garden (amazing garden)
9. Special Vegetables, Unusual Plants, Fragrant Herbs, Special Fruit Plants, Low Berries (e.g. Strawberries, Raspberries, Hedgehogs), Falling Fruits
10. Reproduction garden (interactive, home-made in pots | environmental education) Cuttings, Scattering, Seeding, Germination
11. two composting silos (Active, Demonstration (interactive))
12. Wetland herb garden
13. Aquatic Herb Garden
14. Drought Resistant Garden: Rocks Herbs, Desert Winners
15. Garden of cultivated / edible herbs Perennial herbs, Biennial herbs, Perennial herbs
16. Habitats: Herbs of the Ruderal Area, Herbs of Meadows, Shade-tolerant, Herbs of Pasture, Stinging Herbs
17. Essential oil garden
18. Collected gardens, by use: Medicinal leaves, Medicinal flowers, Medicinal fruits, Medicinal roots. Large Family Collection (15/20 gardens, taxonomy class, 15/20 family species collection garden)
19. Garden of Species (1 species, thousand variants - species diversity) Mint, Sage, Thyme, etc. (Version 20)
20. Surface Gardens: Spiral, Raised Bed, Hill Bed, Creepers, City Gardens / Balcony Gardens / Guerrilla Gardens
21. Practical Elements (outdoors and indoors) Composting, Crumbling, Tear, Mail, Chopping, Chopping, Dryer, Duplicator
22. Supporting plants (fungicide, pesticide, growth promoter)
23. Selection gardens / paths (for major diseases)
24. Landscape friendly cultivation - combined horticulture (vine and herb culture)

Figure 5. Map of the garden

The information system of the demonstration park is organically connected to the thematic nature trail system, and the electronic knowledge base of local information boards (with QR barcodes) demonstrates the effects, conservation status and uses of the herbs mapped on the popular hiking trails of the Balaton Uplands. The information collection available on smartphones supports self-paced guided tours and is one of the most advanced technical solutions available.

Family-friendly services:

- indoor children's playroom
- outdoor playground (sandbox, play equipment?)
- baby changing room
- Children's chairs in the tea-room

Cycling-friendly Services:

- 150 bicycle parking
- cycling information service: hiking trails, catalogue of attractions and mobile applications
- bicycle service (cooperation agreement with Zánka service company)

High priority is given to environmental aspects already during planning, preparation and implementation. On the one hand, the area of the Herb Valley is adjacent to the Balaton Uplands National Park, so it is essential to protect it in the course of construction and renovation, and on the other hand, the presentation of herbs requires special care and attention. In terms of adaptation, the visitor centre is prepared for the increased number of visitors on days when, due to heat or possible heat alarms, exhibition halls and museums are full. The relaxation garden is equipped with sunshades, the reception area offers special hot / cold herbal teas on these days. In addition to communicating climate awareness locally and online, the stimulating role of the local economy is emphasized: the product range features specialties made with local products (grass wines, chocolates, cheeses, etc.). On the website, under the Accessibility menu, you can use public transportation solutions with route planner and timetable information is also provided.

Technical conditions of operation

The following technical services have been developed for the necessary basic infrastructure ensuring the technical operation and the service provisions for the visitors.

Exhibition Park and Training Gardens:

- Garden area
- Irrigation system, water supply
- Ensuring proper soil composition
- Gardening contractor
- Purchase of plants
- WIFI service in the area (minimum local)

Demonstration and Training Room:

- Purchase of tools
- Purchase of presentation materials
- Water supply
- Current
- Internet connection (public events, open days for live webcam broadcast)

Visitor Centre:

- Power supply
- Display shelves, sales counter
- Furniture
- Prepared tutorials, films and multimedia tools for presentation
- WIFI access for guests
- Sending online postcards from the site

Online reservation system and virtual nature trails:

- Server hosting service with sufficient bandwidth
- Software and loaded databases

Technology:

Tool for reading QR codes, determining GPS coordinates (for expanding and maintaining databases)

The choices were made mainly from the Internet, so the guest information elements have been equipped with modern technical solutions. Visitors will find QR-coded tables for each herb in the show garden so they can get deeper information while on a scientific walk. Those who do not have a smart phone will have access to this information at the online terminals located in the lounge.

Strategic Partnerships

1. Balaton Uplands National Park Directorate

National parks, as autonomous and self-governing authorities, have a public mission to provide public nature conservation and exercise statutory public authority activities. The directorates carry out the tasks of declaring the areas protected or Natura 2000 areas, nature conservation and asset management and continuously monitor the state of the natural values and habitats in their area of operation. They participate in, among other things, the process of district forest planning and represent nature conservation interests. Nature conservation education and awareness-raising activities are carried out by maintaining and operating facilities of nature conservation demonstration, education and ecotourism. They contribute to the protection of wildlife (non-protected species, huntable and fishable species), to the preservation of the ancient Hungarian domestic animal species and their breeds. They are also involved in preserving the natural and semi-natural state of the landscapes, protecting the natural values, systems and aesthetic qualities that characterize the landscape. They shall prepare a plan for the assessment and management of caves requiring special protection and those which are directly threatened by environmental damage. The directorates supervise and assist the municipal nature

conservation service, assist local governments in their nature conservation duties, organize and manage the nature conservation service within their organization, and issue, record, and withdraw authority certificates for nature conservation officers. They determine and record the unique landscape values and comment on the nature conservation management plan for the protected natural areas of local importance when the municipal notary or chief notary is contacted. The directors of the national parks are appointed, dismissed and exercised by the Minister for Rural Development for an indefinite period. The directors shall report to the Minister on the operation and management of the parks as required but at least once a year.

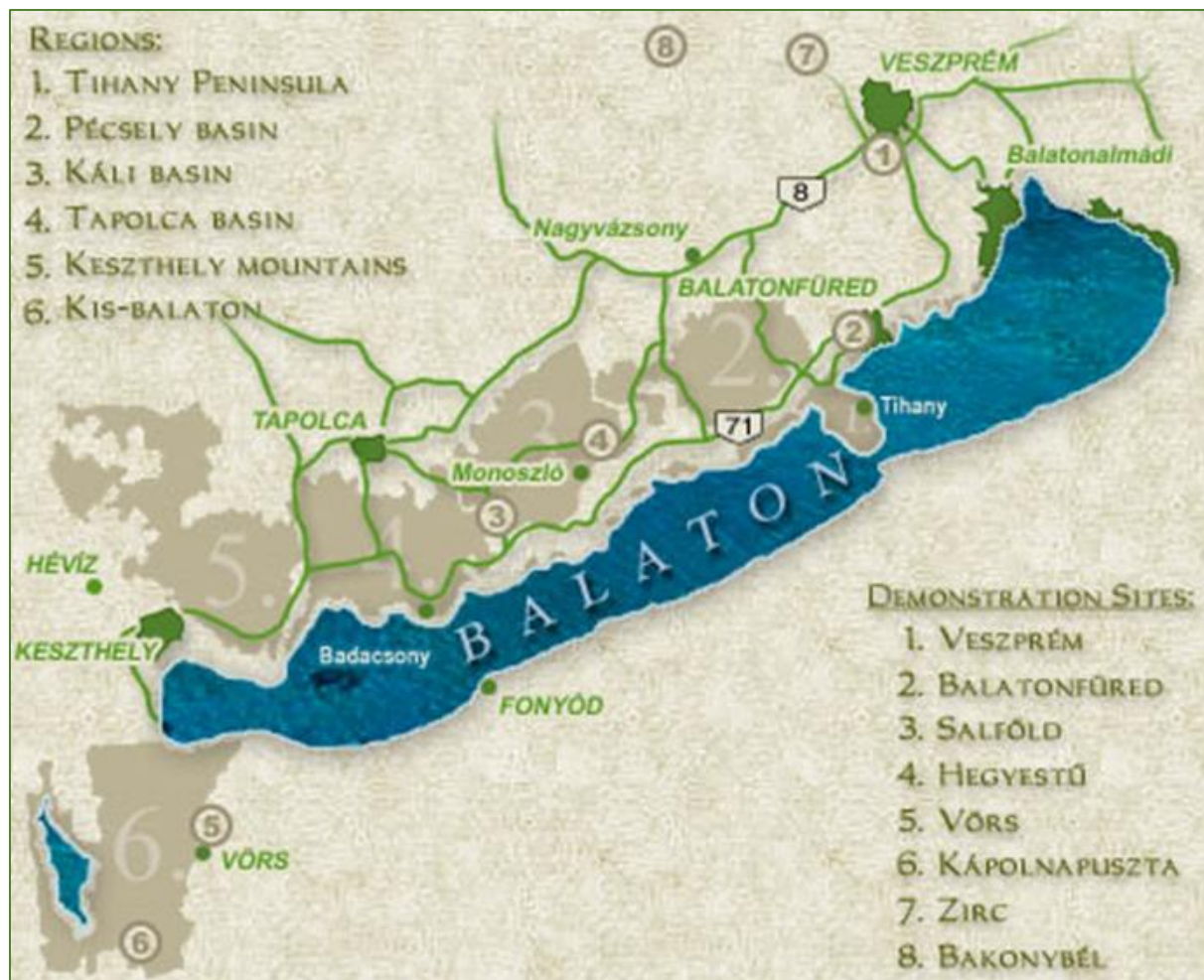


Figure 6. Map of Balaton Uplands National Park.

Source: <https://waterfire.fas.is/Hungary/NationalParksOfHungary.php>

The Balaton Uplands National Park, established in 1997 (56,997 hectares), consists of six former landscape protection areas whereby the old dream of Hungarian nature conservation was realized: by linking protected areas separated for a long time, a protected ecological system covering the contiguous area of the Balaton Uplands has been created. A particularly important collaborative partner both in promotion of mutual programs and services and scientific help in mapping the herbal species on popular hiking trails in the area of the Balaton Uplands National Park and make them freely available on the Internet (with photos, descriptions, GPS coordinates) in the form of virtual nature trails. The Herb Valley provides herbal trainings and

presentations to the participants of the geo-tour guide training and organizes herbal tours for groups of forest schoolgirls, as well as sessions on the use of herbs. They provide professional advice and assistance in developing herb gardens (e.g. in the area of Salföld Grange) and herb farms in the field of the National Park. Joint ticket systems are being developed which will be valid for the Balaton Upland National Park areas (including the Tihany Lavender House) and the Zánka Herbal Valley Visitor Centre.



Figure 7. *Hepatica nobilis*



Figure 8. *Orobanche minor*



Figure 9. *Dioscorea communis*

Several botanical rarities live in the extreme climatic and geological conditions of the basalt mountains. A unique acidophilic ash-beech forest occurs on the rocky escarpments of the Badacsony hill; in its beech forests we find cyclamen, while in the hornbeam-oak groves, hepatica (*Hepatica nobilis*, Fig. 7), black bryony (*Dioscorea communis*) and broomrape grow (*Orobanche minor* Fig. 8). Hepatica is named from its leaves, which, like the human liver (Greek hepar), have three lobes. It was used as a medicinal herb thought to be an effective treatment for liver disorders. Although poisonous in large doses, the leaves and flowers may be used as an astringent, as a demulcent for slow-healing injuries, and as a diuretic. Black Bryony (Ladies Seal, *Dioscorea communis* Fig. 9) is a climbing herbaceous plant that grows about 2–4m tall. The plant is normally found growing in forest understory, usually in dense woods, but it can also be found in meadows and hedges. On the sunny rocks of the Szentgyörgy Hill a small population of *Cheilanthes marantae* (unique in Hungary) blooms, with catarrack and Lumnitzer carnation. Several local subspecies of sorbtrees find habitat in the unavailable rock cracks. The flower stock of Csobánc is enriched by *Pulsatilla grandis*, *Saxifraga* and lilac. On the top of the Tóti Hill a picturesque flower field is situated: *Orlaya grandiflora* mixed with iris, Pulsatillas and *Caryophyllaceae*. In the cracks of the basalt columns the small scrubs of *Cotoneaster matrensis* line up. At the eastern edge of the area on Permian red sandstone the *Calluna vulgaris* provides a red flower carpet at the end of summer; in the cracks of the rock juniper and yellow hawkweed species bloom. On the plains, remains of ancient marshes contain several botanical rarities. At Raposka we find marsh gladiolus and orchids; next to Káptalan-tóti there is a habitat of the 1 m tall and odorous large rose gentian (*Sabatia angularis* that occurs less and less), accompanied with the blue flowered marsh gentian (*Gentiana pneumonanthe*).

The Káli Basin one of the most valuable gems of the Balaton Uplands National Park. This area is calm in the winter, quiet, waking in the spring, bustling in the summer, but really alive in the autumn when we observe the order of nature. Giant rocky cliffs in bizarre, astonishing shapes, between rocky sinks, movable rocks, wind and water-eroded and boulders, shrubs clinging to cracks, gnarled trees and rooftops of church towers evoke the intimate idyll of ancient times. Each village has some special features and attractions worth visiting. Many who, because of the beauty and tranquility of the landscape, have already moved here from the noise of the big cities, think that it is Hungary's Tuscany. The Káli Basin, with its unique natural geography and wildlife, has inspired many Hungarian artists and attracts returning visitors and opinion-forming social circles. Alternating between the artistic world of the 1980s, it is now a popular destination for health-conscious tourists who love traditional natural values. This region is also the scene of successful "local producers' market" initiatives, which partly convey the spirit of the Kapolcs Valley Festival, targeting the crowds of visitors from the capital and foreign tourists. The area around Korny Lake is a must-see program - the Black Mountain, Kékkút, Szentbékáll, Köveskál and in fact the whole micro-region. Hiking trails in the Káli Basin, as a tourist infrastructure, attract many visitors through the activities of the Balaton Uplands National Park and partly as part of the social responsibility of local large-scale water extraction companies. The biodiversity of plant species is outstanding. For example: in the Balaton Uplands National Park there are at least 150 – 200 herbs in a 2-hour tour, while in the Great Plains National Parks, for example, only during a 4 hours tour can be found this variety of plants. 30-40 species of herbs can be identified.

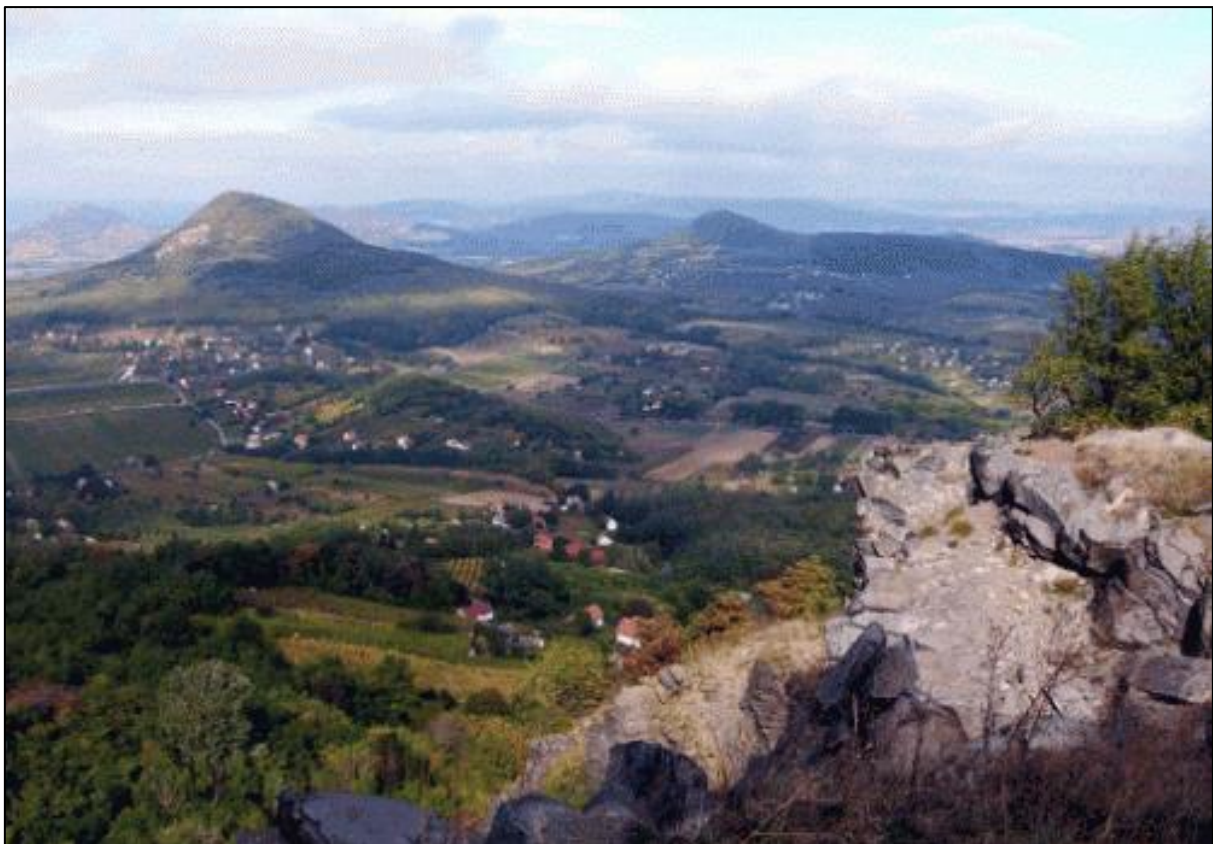


Figure 10. View over the Káli Basin. <https://www.programturizmus.hu/ajanlat-tura-balaton-kali-medence-info.html>



Figure 11. The location of the typical herb-collection areas in the Káli basin.

2. Bakonyerdő Zrt.

The Hungarian Product Grand Prix winner Bakonyerdő Zrt is the manager of the forests of the Balaton Uplands and the High Bakony region, and manages 62,254 hectares of state-owned forest 76% of the Company's forest area is in Veszprém county and besides forest management, wood processing and game management there is a forest school (located above Zánka-Monoszló). In previous years the Zánka Herb Valley have started cooperation with mutual consultancy and professional lectures. This relationship has now been intensified at company level and the details of the planned cooperation between the Visitors Centres have begun.

A key collaborative partner. Promotion of mutual programs and services. Herbal trainings and presentations are organized for the participants of the tour guide training. Herbal tours for groups of forest school pupils, as well as sessions on the use of herbs. The centre provides professional advice and help in setting up herbal farms. In the field of ecotourism, mutual project consultancy and advice services are in practice.

3. Zánka New Generation Center Nonprofit Ltd.

The former Zánka Children's and Youth Centre covers an area of about 209 hectares, surrounded by picturesque surroundings of the Balaton Uplands, rich in natural and historical values, such as the Káli Basin, the Valley of Arts, Tihany and Badacsony. The Zánka New Generation Centre has a long history, its main purpose is to provide recreation for children and adolescents (by embracing the holiday of disadvantaged children), and it also undertakes a number of public benefit and tourism tasks. In 2008, the Company provided accommodation

services to 37,232 guests, resulting in 111,704 overnight stays. The target group of school-age ecotourists be accommodated, among other things. The long-term cooperation between the Foundation and the New Generation Centre is very important, whereby a new educational area, herbal knowledge is added to the school children, so that they can complete the annual camps for each elementary and secondary school with this offer. Collaboration: promoting a mutual program and service. Creating herb garden and herbal study path in the area of ÚNK Ltd, which in time can be part of a national herbal garden network and shows herbal occurrences (GPS coordinates) on the virtual study path to be created on the Internet. There is a herbal professional activity and presentation for primary and secondary school students, based on the needs of the school.

4. Pál Bozzay Elementary School, Zánka

The German minority language school attracts more and more pupils from more and more villages every year. The various central measurements (monitor tests, subject and competence tests, central entrance examinations) prove that the school is far ahead of the village and small-town schools, at the average level of county seats and schools in Budapest. Collaboration: We organize herbal tours and demonstrations on related programs of the school. We organize herbal tours for school groups, as well as workshops introducing herbs. The role of herbs and the possibilities of their use in the preparation of everyday meals, according to the needs of the school, we hold an activity and a presentation. All in all, the Zánka Herbal Visitor and Training Centre takes over most of the environmental practice classes.

5. Tihany Tourist Kft.

Tihany Tourist Travel Agency's history dates back to 1991, offering the most complete range of services on the peninsula from the very first moment. He also participates in the operation of a forest school, a nature education camp, a family park and the newly created Lavender House. Collaboration: promoting a mutual program and service. For the participants of the programs of Tihany Tourist Ltd. the Herb Valley organizes herbal tours and presentations on an optional basis.

6. Káli Guesthouse (Szentbékállá)

The guest house is located in a small village of 250 people in the heart of the Balaton Uplands National Park, 10 km from Lake Balaton in the Káli Basin. Both the surrounding landscape and the selection of programs developed by the doctor couple operating the guest house make the house a sought-after wellness and recreation tourist destination. Collaboration: Promoting a mutual program and service. For the guests of Káli Vendégház, we organize herbal tours, presentations and basic training. Guesthouse for participants of spa and healing programs, buying from program-based products made or marketed by Medicinal Plants Tours Ltd.

7. The Zánka - Nivegy Valley Wine Route

The Wine Route Association connects the areas of Zánka, Tagyon, Szentantalfa, Balatoncsicsó, Szentjakabfa, Óbudavár and Balázs Hill, as a popular wine tourist destination, with members of the organic wine growing and family wine cellars (Fig. 12). The settlements in the valley are mentioned for the first time in the documents from the 12th century, but they also state that the

Romans had a favourite place of establishment, and they even produced grapes. An interesting feature of the valley settlements is the many temples. In each village, the visitor can find two or three. Centuries-old buildings praise the memory of former glorious times. According to legend, the Nivegy Valley became a residence already during the Hungarian conquest. Buda warrior settled on the slopes of the northern side. The settlement is still called Óbudavár. The annually arranged Pentecostal Wine Festival attracts many visitors. Collaboration with the Zánka Herb Valley is the promotion of mutually developed programs and services. Medicinal wine is available in the visitor centre for consumption and as a gift.

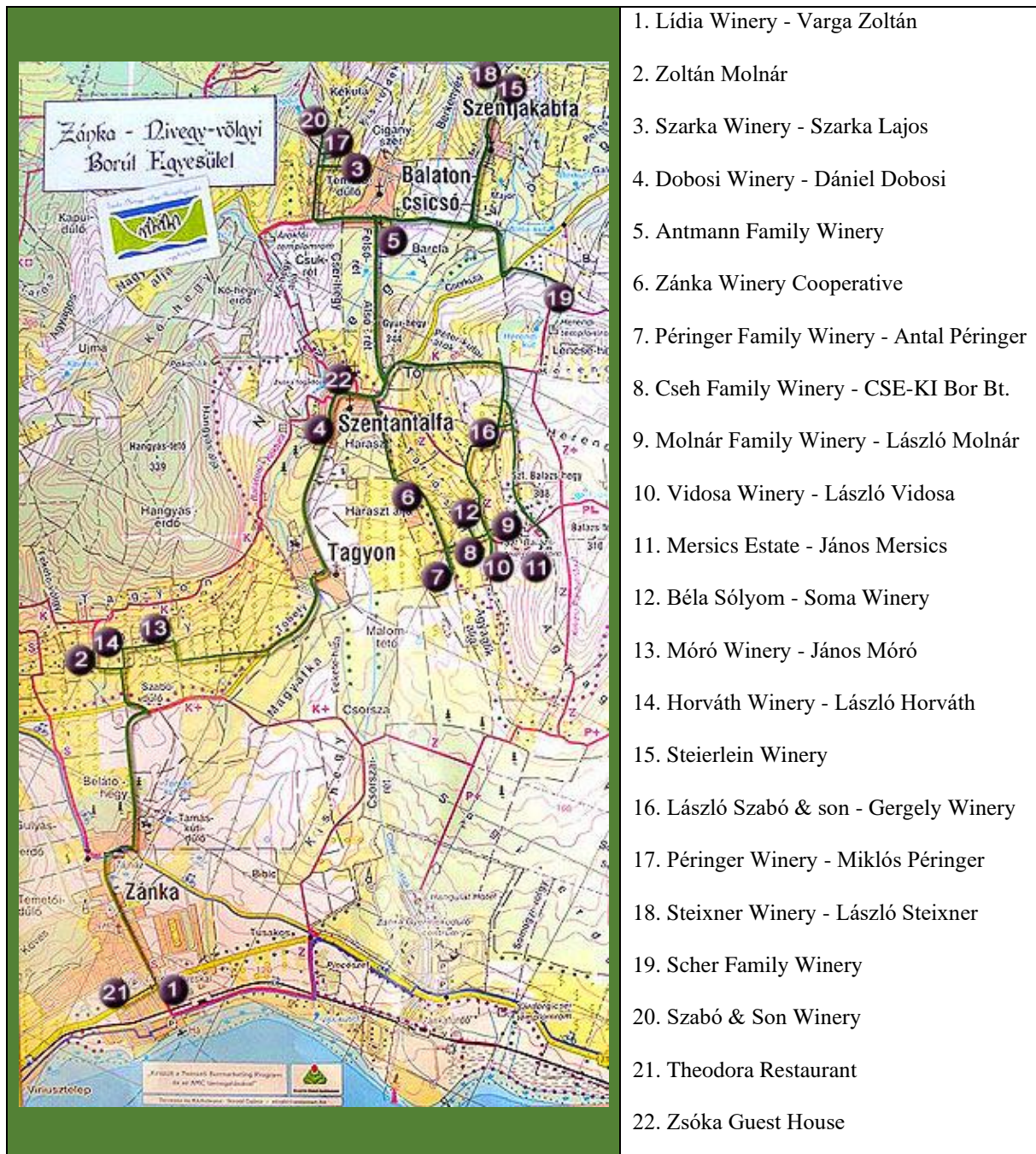


Figure 12. The Zánka – Nivegy Valley Wine route.

8. Tomajvin Ltd.

The small family winery produces its typical Balaton Uplands wines in Lesencetomaj, on a 7.5 ha plantation area with a total wine cellar capacity of 500 hl. It was founded by winemaker György Aklan. By soaking specially selected herbal blends and reviving the tradition of herbal wine making, our forgotten culinary and herbal wines are made with our herbalist Ferenc Takács. Cooperation: Promotion of mutual programs and service, especially joint promotion of herbal wine. They offer herbal tours and presentations in the visitor centre on an optional basis to the guests of the Wine House.

9. Molnár Family Winery

The Molnár Family Cellar has been operating organic farming since 2000, the production processes, technology and storage are controlled by BIOKONTROLL Kht. The Molnár Family Cellar is located in the picturesque surroundings of the Vineyard of Szentantalfa in the middle of the Nivegy Valley, with a great view of Lake Balaton and the surrounding villages. The cellar is capable of catering for 40 people, it is equipped for this, and considering the fact that it is situated among the vineyards, it is possible to present the work of the vineyard, the processing of the vineyards and the storage. For the quality of the wines and the wonderful natural environment it is worth visiting the Molnár cellar. The company promotes a range of mutual programs and services with Zánka Herb Valley. The Herb Valley offers optional herbal tours and presentations to the visitors of the cellar on request. They jointly develop herbal products.

10. Marianna Tourist

The Marianna Tourist Travel and Real Estate Agency has been successfully operating as a tourism provider in the Zánka region for several years. They have been organizing natural medicine courses for the last 6 years as an educational institution with the permission of the Institute of Health Education (ETI) and the Regional Labour Centre. The Zánka Herb Valley provides practical placement for the students of naturopathic training and there is also a visitor mediation agreement between the office and the visitor centre.

3. Links of herbal tourism points to other touristic products in Hungary

The market of tourism products nowadays contains herbal tourism on its own, but there are several interfaces with other products. There has been a connection with religious tourism in Pannonhalma since 2011, where medicinal herbs have always been present in the Abbey for centuries. Herbal tourism appears in Pannonhalma and Bakonybél as complementary elements to religious tourism. Hobby and village tourism are related to the destination "Healing plants and minerals in Zemplén". Connections with ecotourism products can also be observed during botanical tours organized in each landscape area. Herbal tourism appears as a motivational element in cultural tourism, where the tourist wants to learn about the values of another culture and where folk medicine elements also utilizing herbs. There are several examples of this in Transylvania, where the collection of herbs is of special importance even today. In practice, there is also a link with gastronomic tourism, as several herbs are particularly important as spices (eg garlic, thyme), but in this relation the reference to the healing effect is not primary. There are still few examples of the emergence of herbal tourism as part of health tourism. In

health tourism programs, it is usually possible to use (professional) advice on the use of herbs, i.e. phytotherapy. In such cases, the guest will receive various suggestions on herbal teas, tea blends, or other herbal supplements under the heading of health promotion. In Zánka's case, however, the most important connecting point is leisure tourism because of its location in the Balaton region. There is a significant number of visitors to the Kali Basin as an open environment for eco-tourism and natural healing.



Fig. 13. The herb garden in the village of Halimba

4. Halimba - Halimbarium

Many people may remember the name Halimbarium, and Dr. Miklós Szalai, the herbal dean, who has been healing hundreds of people for many years. On October 23, 1902, Miklós Szalai was born in Békés (Békés county) as the child of a merchant family with many children. He completed his elementary school in his home-town and spent his high school years (1913-1921) in Liptov (today: Ružomberok, Slovak Republic) and Piarist High Schools in Budapest. With the help of a teacher of natural science at one of the high schools, he became acquainted with herbs and, thanks to this mentor, devoted much of his life (about 40 years) to healing with herbs. He was ordained a priest in 1926 and then worked for a year at the Pázmány Péter University, Faculty of Theology, after which he received his doctorate. He then taught theology there for 3 years. He later served in several villages. In 1947, he asked the Bishopric of Veszprém to move from

Bakonyzombathely to Halimba, because he knew that Halimba and its surroundings, located at the meeting point of the Bakony, Little Plain and Balaton Uplands, had a very rich (medicinal) flora. After his appointment as a parish priest in Halimba and then as dean, he continued to work as a priest and healer until his retirement. Thereafter, from 1962 until his death in 1990, he devoted all his power to the herbs he loved so much and herbal medicine. He definitely wanted to pass on his knowledge of herbs to posterity. His book was first published in 1973 and later in 1991 (the latter was maintained by the Agricultural Publishing House and the Planétás Publishing House). The former with plant graphics, the latter without. In 2009, another edition was published, illustrated with drawings and photos. In this book, Dr. Miklós Szalai describes some 300 herbs, 53 of which he used to make several herbal blends. The herbs have been used or recommended, partly on their own or in combination with other herbs, in tea mixtures. With his tea blends, he was able to cure a variety of diseases. The most sought-after herbal teas were the kidney and gallbladder teas. The management of the Szilas Cooperative discovered the teas he experimented with and the benefits of their healing effects, and in 1982 bought the recipe for 16 teas. Seven of these were manufactured and marketed under the Halimbarium trademark in the second half of the 1980s for approximately ten years. The Halimbárium trademark was acquired in June 2012 by new owners whose primary goal is to produce high quality Hungarian herbal products, products worthy of the Halimbárium brand name. The distributor of the teas is the Bakony Reformed Food Ltd. of Halimba.

The visitors can enjoy a really warm welcome and a special experience if they visit Halimba, a small village in the South Bakony region. This area is one of Hungary's richest herb-growing regions. The visitors of the Memorial House of Dr. Miklós Szalai, can not only explore the story of the 'dean of Halimba', who was nationally acclaimed for his tea blends, but they can also get to know more about healing herbs and teas made from them. The name of dean Dr. Miklós Szalai is associated with the launch of the Halimbarium herbal tea line three decades ago. The former residence of the dean, where he lived and worked, now hosts the Miklós Szalai Herbal Garden, Demonstration and Educational Centre which is the true keeper of the heritage of the 'dean of Halimba' and promotes the revival, demonstration and propagation of herbal traditions linked with the village and the entire region. The herbal garden is probably the most beautiful in spring when you can see a 'sea' of aromatic plants here with their colourful flowers and heavenly scents. No wonder that there is a bee yard in the settlement, for, naturally, this amount of pollens will not leave these busy animals cold.



Figure 14. Herbs and honey in Halimba - source: <https://sokszinuvidek.24.hu/>

The former residence of the herbal dean, the house where he lived and worked, is home to the Miklós Szalai Herbal Garden Demonstration and Training Center with his garden. The house features an exhibition of the priest-scientist's life and work, and the garden includes a unique, large collection of live herbs. The Mayor of Halimba, János Tóbel, organized several training sessions on the subject, in which he participated. As a student of the courses, he has acquired new theoretical and practical knowledge of gardening: the specialty of his herbalist's business and herbivore is the herbarium, which is the herb produced and collected by himself. The leader of the village is also familiar with gastronomy, and his love of nature is the main consideration in his activity. He is most proud of the dishes for which he produces all the ingredients himself.



Figure 15. The former residence of Miklós Szalai is today the home of the famous Miklós Szalai Herbal Garden Demonstration and Training Centre. Source: <https://sokszinuvidek.24.hu/>

5. The Lavender House Visitor Centre on the Tihany Peninsula

The Lavender House Visitor Center on the shore of the Inner Lake of Tihany is the eastern gate of the Balaton Uplands National Park and the Bakony-Balaton Geopark. An interactive exhibition on the Tihany Peninsula and lavender cultivation, a spectacular short film, a lavender gift shop, a tea shop, a craft workshop and an adventure garden await guests at the prize-winning "Ecotourism Visitor Centre of the Year 2011". The Lavender House Visitor Centre presents the past and present of the Tihany Peninsula in a fun way for all ages: the once raging world of volcanoes, the harmony of the later tamed landscape; centuries of coexistence between the people of Tihany and nature, and its emblematic culture: lavender cultivation. You can enter the inside of a "working" volcano, experience the swamp, and enrich your knowledge of nature with the help of many playful, interactive elements. The Visitor Centre offers a seasonal themed program of handicraft workshops: for individual guests at pre-announced times and for groups by prior arrangement. In addition to making lavender ornaments, making lavender soap balls, and sewing lavender bags, visitors can test their skills by creating a variety of nature-related items. Lavender and its culture have become associated with the name of Tihany. The "Lavender Pick Yourself!" Action has become a tradition, whereby during the lavender bloom period, visitors to the peninsula can harvest lavender by hand. During the Tihany Lavender Festival and Lavender Weeks in June, many lavender and cultural programs await visitors, including lavender distillation shows, nature tours and playhouses.



Figure 16. The Lavender House Visitor Centre in Tihany.

Source: <https://www.bfnp.hu/hu/levendula-haz-latogatokozpont-tihany>



Figure 17. Lavender plantations in full bloom in the Tihany peninsula. Source:

<https://bouvet.cafeblog.hu/2015/05/30/lilaba-borul-tihany-ezek-a-szedd-magad-levendulafoldek/>

6. The Valley of Medicinal Herbs Organic Farm, Zalaszentlászló

The Valley of Medicinal Herbs came to life in the spring of 2013 to produce and promote healthy lifestyle products, foods, traditional folk remedies. The organic farm produces 100% non-additive fruit juices, herbal tea blends, special spice oils and essential oils, depending on the season and for sale in small quantities. Its mission is non-chemical and nature-based, experimental farming, of which the animals kept there are an integral part. Visitors to this Organic Farm can learn about the specifics of organic farming and observe plants and animals in their natural daily life. They can experience things that are familiar to rural people, but also special to urban people. They can meet local products directly, get an insight into the production process, and ultimately buy healthy local produce first-hand from the manufacturer. Visitors will enjoy a close-to-nature experience where they can mentally relax and recharge.

Products: Fresh fruit juice; tea blends; Spice oils; Dried fruits; Essential oils.

Constant supply: Accommodation; tasting and shopping; Animal petting and poultry yards; Herbal Presentation Retail, Organic Vegetables.

Occasional offer: Handicraft, herbal themed sessions; Educational presentation of the organic economy; Herbal Presentation; Education programs for schools; Food processing demonstration (seasonal); Essential oil distillation demonstration (seasonal); Team building trainings and activities in a farm environment.



Figure 18. The Valley of Medicinal Herbs Organic Farm is a family run enterprise
<http://nyitottportak.hu/nyitott-portak/gyogynovenyek-volge-okologiai-gazdasag.14/>

There are several other enterprises and small private growers who are cultivating and processing herbs and spices. The objective of this pilot action is to make a fully covering catalogue and database of herb and spice growers, producers and users in order to construct a network in this subject in the area of the Balaton Ecomuseum.

The project is financed from the Interreg Central Europe Program, with the support of the European Regional Development Fund, co-financed by the European Union and the Hungarian State.