



52 Profiles on Agroecology:
MagosVölgy Ecological Farm –
a startup agroecology initiative

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Introduction

MagosVölgy Ecological Farm is situated in North-Hungary, 85 km north to the capital of Budapest. MagosVölgy literally means Seeds Valley as well as Elevated Valley. Seed is the core symbol of life, representing the beginning and the end of life. The location of the farm, called Terény, is a tiny village with 380 inhabitants in the Cserhát mountain range. The climate of the region is continental. The average annual temperature is 8°C and the amount of precipitation received is approximately 600 mm/year.

In economic terms, North-Hungary is the least developed region of the country. The GDP is only 42% of the European Union average. Migration from the region has been significant in the last 20 years. Fewer and fewer young people decide to stay in their home area, especially those with higher education.



Figure 1. The farm team of MagosVölgy

MagosVölgy Ecological Farm was established in 2013 by Judit and Zoltán Dezsény, a young urban-to-rural migrant couple. They both have an MSc in Agronomy and Environmental Management. The initiators had extensive formal education in organic and sustainable agriculture and a good set of skills to search for and gain adequate information. Zoltán works part-time at an organic agriculture research institute which enables access to much information and professional organic-agriculture related networks. During his foreign studies, he specialised in agroecology and local food systems. The broad scale of theoretical understanding and observation of many farm sites, combined with socioeconomic research experience on peripheral rural areas in Transylvania (Romania), resulted in a firm appreciation of agricultural practices and their effect on people's life. One of the most remarkable hands-on experiences for the initiators of MagosVölgy Ecological Farm was to visit Singing Frogs Farm



in California, led by pioneers of sustainable agriculture. Since the Dezsénys did not have farm experience, the real-life learning through this project was an invaluable addition to their knowledge base of books, magazines, online sources and peer-to-peer learning.

The development of the farm was complicated by complex farm administration duties, a shortage of financial resources and previous entrepreneurship experience. Also, vegetable crops are at risk to get damage by deer since they are abundant in the area. A significant amount of resources was already spent on building fences among the garden to keep deer away but so far the problem could not be solved entirely.

Currently seven people work on the farm. Besides the initiator farm couple a 28 years old economist joined the farm as operations manager. The rest of the farm crew consist of local people. Volunteers and interns stay temporarily on the farm, and they are fall from the younger generation.

Description of the Agroecology system



Figure 2. Various tomato varieties grown under the polytunnel

At MagosVölgy the goal is to create a farm shaped by the principles of sustainability, an agriculturally oriented, small-scale, ethical enterprise which utilizes local resources, creates values and synergies, builds communities, feeds people, provides livelihood and perspective, and bridges the urban and rural world. In 2016 the farm grew vegetables under a 1000m² polytunnel and in a 3000m² open field. The hand labour and management intensive organic vegetable production is based on no-till, compost-mulch permanent bed techniques. In 2016 around 30

species and around 100 varieties were produced. This sort of diverse, hand labour intensive, market-oriented horticulture production has no history in the area.

Next year, the farm would like to double this as well as the size of the cropping area. Variety delights, and the farmers want to celebrate diversity. One of the farmers' favourite plants is tomato, over 30 different varieties were produced in 2016 with a range of different colours, shapes, sizes and tastes. Some of them are landrace or heirloom varieties. The different varieties of seeds are gained through national seed exchanges between small scale farmers, from online shops selling organic seeds or special/traditional varieties and from Hungarian seed producing companies. The farm also participates in multiple on-farm variety test programs:

- Hungarian heirloom tomato varieties were tested on the farm in 2015 and 2016, organized by the Hungarian Research Institute of Organic Agriculture. The seeds of these traditional varieties were sourced from the Centre for Plant Diversity, a major gene bank in Hungary.
- Testing of colourful cross breeds of cocktail tomato varieties organized by Arche Noah, an Austrian association promoting agro-biodiversity.

Since 2016 there is a small herd of the heritage breed of Brown Carpathian cattle on the farm. This breed is at the edge of extinction in its original territory. The farmers would like to save its genetic and cultural heritage by developing a stock and with other like-minded farmers organize a breeding association in Hungary.



The farm has some architectural elements of a typical small-holder traditional Hungarian peasant farm in the village, for instance the barn building which was built in 1834.

Practices applied

The farm uses a management and hand labour intensive system based on compost-mulch and minimal tillage. Vegetable varieties are grown in rotation on permanent beds, untouched by ploughs or other disruptive tillage equipment. Compost is spread in a 4-5 cm layer over the beds before sowing seeds or transplanting. This compost layer serves as resilient seed-bed, suppresses weeds, prevents soil water loss and creates a beneficial microclimate for plants and plant roots in temperature extremes. The bed size is standardized in order to ease planning, management and harvest of the cropping area. All beds are 80 cm long and 15 or 30 m long. A set of beds is subdivided into sections which are used to plan crop rotations. The beds are irrigated by micro-sprinklers and drip lines according to the requirements of the given vegetable crop.

The farm is recently established so there are no well-tested routines yet and the creation of the farming system is still ongoing. Until now, only a partial share of agroecology related plans were realized. The focus is on utilizing genetic heritage and fostering agrobiodiversity by incorporating old, heirloom, traditional varieties in the cropping system. The farmers constantly seek out and test the different varieties to find which are best adapted to the local conditions and produce results with excellent taste.

2/3 of the farm area (all together 3 ha) is grassland which developed on long- abandoned garden plots with slopes previously used for potato and corn production for home-consumption by locals. The soil of these slopes is heavily eroded. This area will be seeded with a clover-grass-herb mixture and disease resistant fruit trees will be planted forming an agro-pastoral system for the heritage breed cattle that are kept on the farm. The cows graze these pastures from spring-till winter, and during winter time, they are housed in an open barn. During this period their manure can be collected. After being composted, the manure is used on the vegetable beds. This way, the nutrient cycle is closed and the livestock is an integral part of the farm's nutrient management plan. Two ponds will be developed in the near future to serve as water reservoirs, wetland habitats hosting multiple beneficial animals and balance microclimate.



Figure 3. Figure 4. Traditional Carpathian-brown cattle breed at MagosVölgy

Political space

At present there is no policy in place to support the enhancement of small-scale, agroecological production. Available area-based subsidies favour bigger farms (e.g. the smallest area which could be supported is 0,3 ha and it must be utilized for a single crop). In mixed agroecological vegetable production systems the production units are much smaller than that, and intercropping and companion planting are typical methods which cannot be understood by the subsidy system.

The applied measures of the EU's Common Agricultural Policy in Hungary do not accommodate this type of small farm, because they cannot measure their services and roles as hubs for agrobiodiversity.



Also due to their size, there is no lobby power behind such farms, making it difficult to gain representation in the policy making process.

Outcomes of the practices



Figure 5. Vegetables at the pickup point in Budapest for CSA members

The farm's primary market outlet for vegetables is Community Supported Agriculture (CSA). It is a partnership based on trust, mutual commitment and direct personal connection. CSA members pay a monthly contribution fee and in return get a weekly standard share of the harvest throughout the season what they get at two pickup points in Budapest.

The farm is a very new initiative starting only its 4th year. For a farm as a system and community, this is a short timeframe, so at the moment, major experience cannot be concluded. Judit and Zoltán hope that the initiative will continue to develop successfully and that long-term financial sustainability will be reached as well. If so, such a farming system, in combination with marketing via CSA, could create higher income than other farming systems and could provide a livelihood for 3-4 people per hectare. The farm is 100 times more labour intensive than most common farming systems in Hungary and it provides a diverse diet for a great number of people. The

farm management believes in treating its co-workers as team members rather than day-labourers, providing them with an open, friendly atmosphere. The served CSA members get a much more realistic insight on food production compared to an average consumer and are able to consume highly diverse and better tasting products that would not traditionally be available from supermarkets.

It is the intention for the farm's operation to be highly transparent. It conveys much information about small scale sustainable food production for urban people, organizes regular events and open-days and plans are in place to start educational and agro-tourism related activities.

They believe that education, the farm-to-table approach has major importance and we want to reach kids and youngsters through different on-farm educational and adventure programs to convey information and enhance interest on sustainable food production.

Message from farmer to farmers

"Build your soil, build your community and plan your farm carefully".

— Message from Zoltán Dezsény, initiator of MagosVölgy Ecological Farm