



# REFOREST

**Living Lab 3: Bulgaria**

***Bee farming in  
forest glades with  
Dimitar Stanchev***

*Strandzha*



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# Living Lab 3

**Dimitar Stanchev,  
Bee farm  
Strandzha**



*Indzhe Voyvoda village,  
Burgas region, Bulgaria*



## *The farm*

The farm is located in the south-eastern part of Bulgaria, in the low-mountain region of Strandzha, surrounded by deciduous forests. The average altitude is 297 m. The farm is a mixed farm with bees, livestock, horticulture, field crops and an orchard.



10 apiaries in forest glades with 700 beehives. The apiaries are located at least 2 km from each other to ensure sufficient pasture for the bees in each apiary.

700 hectares (ha) comprising of agricultural land, pastures, and forest.

700

10



A factory is used to extract honey from the honeycomb. The honey is processed in an automatic unsealing line and automatic centrifuges - all with no human contact.

There are 5 ha of vegetable gardens, 3 ha of perennial crops and orchards, and 8 ha of pasture.



A number of animals are kept on the farm, including larger animals such as horses, ponies, donkeys and calves, and smaller animals such as chickens, turkeys, rabbits, geese, quails, etc.



The bees are organic (fully certified).

The farm uses both a forest farming and silvopastoral system as its applied agroforestry.

Our main products are honey, grains, and vegetables.

# *The way to agroforestry*

We are motivated to use agroforestry practices because of the opportunity to produce clean, natural food. Our apiaries are located in the Strandzha mountain, far from industrial enterprises, reducing the potential pollutants in our honey. Other products produced are walnuts and hazelnut tahini and functional foods based on honey.

The preservation of biodiversity and soil fertility is another main motivation in our work. For example, we are working on preserving the donkey population with the aim of increasing the population over time.



# Agroforestry in practice

The main challenges ahead for our farm are the lack of manpower and climatic changes. We experience drought and uneven distribution of precipitation during the growing season.

Agroforestry practices allow the preservation of soil fertility and soil moisture, and to some extent mitigate against extreme climatic events.

We certainly have gaps in knowledge of agroforestry practices as the subject is new and there are therefore not yet that many farmers practicing it and limited information available to us. It would be useful to have more information about agroforestry as a business model and its benefits, and more literature available to plug some of the knowledge gaps we (and other farmers) are experiencing.



# What is ahead?

We plan to create an alley agroforestry system with fruit trees and expand the irrigation system when growing vegetables.

Together with specialists from *Trakia University*, we will investigate the possibility of introducing new honey plants into the farm and integrating technology to help overcome the lack of manpower by using a drone with multispectral cameras and portable sensors, allowing easier and quicker vegetation monitoring.





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