



HELSIENI

Helsieni Oy 2741436-9 Chris Holtslag: chris@helsieni.fi

INNOVAATIOKILPAILU STORM MUSHROOMS

FINAL REPORT

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Vantaa



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1. Contact details

Helsieni Oy, 2741436-9
Uutiskatu 2, 00240 Helsinki
Chris Holtslag, chris@helsieni.fi, +358404712738
www.helsieni.fi

2. Introduction

The city of Vantaa is looking for ways to improve the services for and the everyday life of its residents. In addition to this it wants to promote new solutions for urban food production. Helsieni is a small worker-owned enterprise that sells Do-It-Yourself mushroom growing products, mushroom growing workshops and commercially farms mushrooms for sale in the Helsinki Metropolitan area. Helsieni is interested in promoting and developing Finnish mushroom culture, both locally and internationally. With this project Helsieni wants to further advance and stimulate local food production and resilience. By inoculating woody material like branches, logs and stumps, that become available during the year, civil servants and active citizens can cultivate gourmet edible mushrooms in their own environment, be it in a private, common or public garden or park.

3. Background

The cultivation of lignicolous, or wood-decay, mushrooms, requires freshly cut wood from deciduous trees. Often this material becomes available after a storm event, when trees fall over or branches break off. It is a matter of chance what type of wood-decay mushroom will start to grow there, as there are many hundreds of species' spores floating around in the air. However, by employing some simple techniques and a small amount of inoculated mushroom spawn, humans can decide which mushroom to cultivate in the available material.

The most grown wood-decay mushrooms are the oyster mushroom (*pleurotus ostreatus*) and the shiitake (*lentinula edodes*). These gourmet mushrooms are highly prized for their taste and texture and have a high market value. Mushrooms have been a part of the Finnish diet for a long time, but the knowledge on foraging and identification is fading and needs to be kept alive by actively engaging with the natural world throughout the seasons.

4. Objectives of the project

New solutions for urban food production

This project aims to teach as many Vantaa residents and civil servants as possible the skills to cultivate mushrooms using locally available resources. Producing food near where people live reduces the carbon footprint of their meals by reducing food miles. The Finnish climate is very favorable for mushrooms. This means that growing mushrooms outdoors requires relatively little energy or labor. Oyster and shiitake mushrooms have a very 'meaty' texture and can replace meat in many recipes, so an additional benefit is that eating mushrooms contributes to a more plant-rich diet. Another benefit of involving people in their own food production is that it reconnects us with the natural world and helps people appreciate it more and take care of it better. Knowing where and how your food was grown is a very important component of community resilience.



Promoting circular economy

A secondary goal of the Storm Mushroom project is to give the participants a better sense of the materials they have all around them and how to use them to grow mushrooms. The workshops will show in a practical way how to assess the utility of the resources by explaining the types of wood material and how to best select the material needed to grow mushrooms, and different methods on how to do this. For example wood chips will be most suitable for a mushroom bed, whereas branches are suitable for shiitake logs, and stumps and larger diameter logs are suitable for mushroom totem cultivation (see picture on the right).



Process

The project will do some interviews with the parks management of Vantaa city, to map knowledge on the current processes for dealing with woody material. This knowledge will be published in the final report and made publicly available on the Helsieni website.

A series of workshops will be organized for operational staff and interested citizens to educate them about the basic biology and steps involved in lignicolous mushroom cultivation. During these workshops there will also be hands-on practical making of mushroom beds, totems and shiitake log inoculation, to gain practical experience on how the methods work. Initial target groups are:

- Staff within the Vantaa city organization
- Homeowners' associations (Omakotiyhdistykset)
- Community gardens (viljelypalstat)



Results

In this project we have:

- Contacted civil servants at Vantaa city, city park management staff and community garden board members in the Vantaa area, and informed them about the project and its goals.
- Producing and sourcing of the necessary materials to do the first round of inoculations during the workshops.
- Performed two workshops at the Rajatorpanaukeen community garden, reaching a total of 50 citizens.

Workshop 7.6.2023

The first workshop was organized at the **Rajatorpanaukeen** community garden (viljelypalsta). A short introduction was made to cultivating mushrooms and a demonstration of a mushroom bed was made.





Königstedt manor oak tree

In September 2023 windfall at the Königstedt manor, led to the becoming available of some branches and trunks of an oak tree. This tree type is still relatively rare in Finland and the attentive service coordinator of the manor, contacted Helsieni with the idea of using this material for shiitake inoculation. This was done within a week, and the wood is now incubating at the Helsieni premises. Given the long incubation time of 1-2 years before harvest, this material can be returned to the manor at a future date, for the harvest to be used in the kitchen of their events, if they so choose.

This event, although seemingly minor, demonstrates that if citizens have the knowledge, they can identify resources when they come available, and direct them to an alternative use: in this case food production, rather than incineration.

Workshop 2.9.2023

On the community garden party of 2nd of September there was a demonstration / workshop in making oyster mushroom totems, oyster mushroom beds and inoculating logs with shiitake mushrooms. The workshop was open for all gardeners and also other participants of the event. The wood material that we inoculate the mushrooms to came from the site of recently felled trees that were taken out because of shading to the vegetable plots.





Lessons and Recommendations

After the first workshop, we learned that building the relationship with the gardeners is very important, so it was decided to organize 3 consecutive workshops at the same location, and help people learn by doing and observing. For this the mushroom bed is an excellent teaching tool as it gives a harvest much sooner than mushroom log cultivation does. And this gives confidence to beginning gardeners as to how to be sure they are picking the cultivated mushrooms when they appear.

Around 40 people participated in the workshops and they have reached the other gardeners in the community garden, as the expressed interest for the season of 2024 was more than 40. It is hard to estimate the amount of people that were served a meal containing some of the mushroom harvest as an ingredient, but no doubt the reach was wider than just the 40 participants of the workshops, as the sense of pride shown by the participants first self-grown mushrooms makes them want to talk about it. One surprising aspect that came out of the workshops was the diversity of participants that showed interest. It was a mixed crowd of diverse ages and backgrounds.

Since the project's conclusion of the 2023 season, there has been interest from two other community gardens in Vantaa. This demonstrates that the physical workshop format, although time-intensive, has the potential to reach many more citizens in the 2024 season.

One civil servant from the city of Vantaa attended the workshops and became a champion, after seeing how easy it can be to grow mushrooms in the garden. We hope to be able to continue this work in 2024 in the municipality of Vantaa. This project was an important first step in validating the relevance of urban food production in Vantaa.