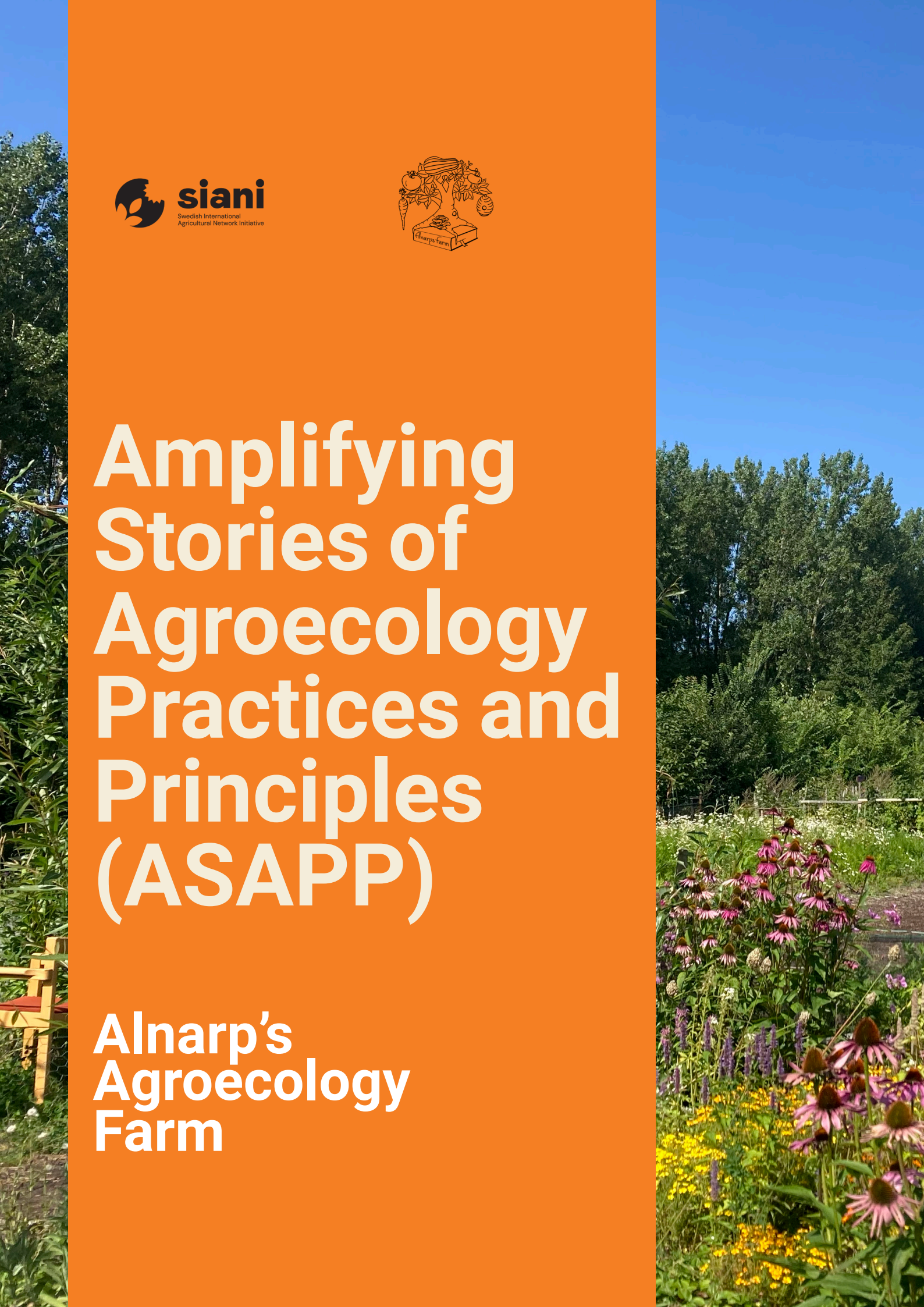





# Amplifying Stories of Agroecology Practices and Principles (ASAPP)

Alnarp's  
Agroecology  
Farm





This leaflet has been collaboratively produced by the following contributors:

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Alnarp's Agroecology farm, Ebba Ragnartz and Aziliz Le Rouzo.

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***The Swedish International Agricultural Network Initiative – SIANI – is a global, open and inclusive network that supports and promotes multisector dialogue and action around our vision of sustainable, rights-based and inclusive food systems.***



# Foreword

Welcome to our project, where we strive to bring the 13 Principles of Agroecology to life for farmers and policymakers alike. Given that accessible information on this topic is limited, we are excited to present visually engaging leaflets which speak directly to you. Through captivating visuals and real-world examples, we aim to illustrate how these principles can be practically applied in various agricultural settings.

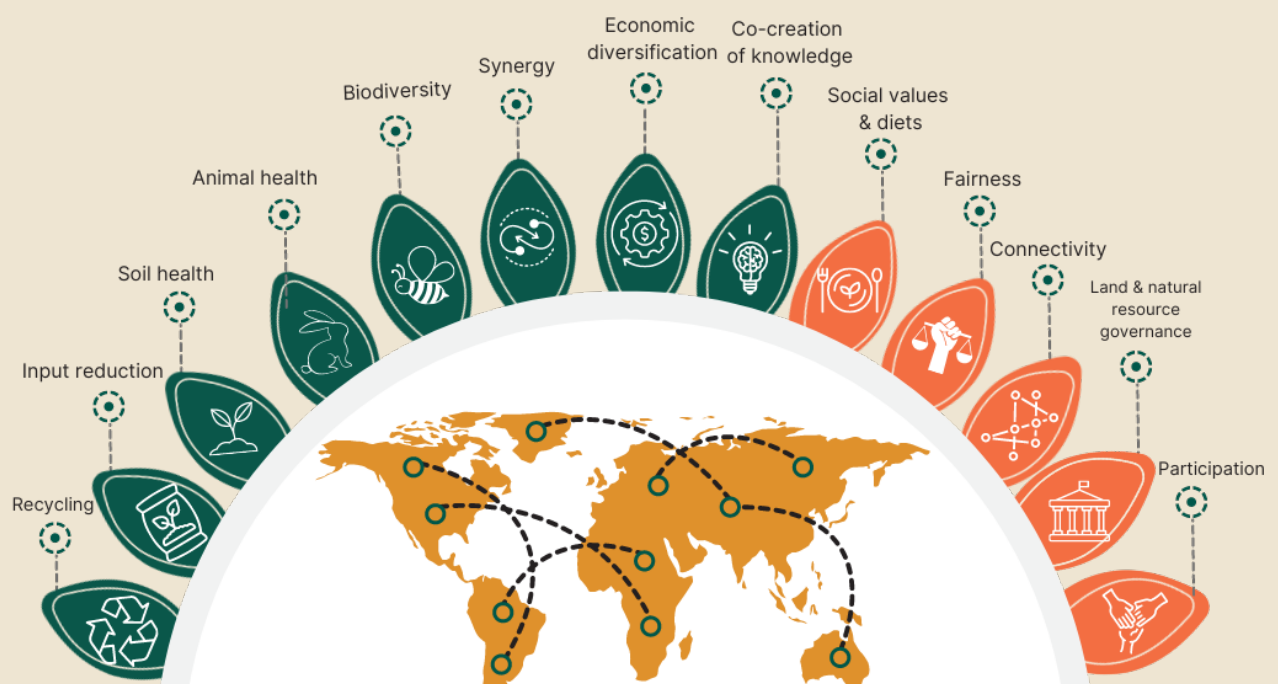
We have interviewed farmers who are already implementing these principles, and we are eager to share their stories with you. Our goal is to build an informative and inspirational case study repository that not only raises awareness but also fosters a deeper understanding of agroecology.

By focusing on easy-to-digest visuals and practical insights, we hope to make learning about and adopting agroecological practices both enjoyable and impactful for everyone involved in agriculture.

This leaflet was developed in collaboration with Alnarp's Agroecology Farm.

## The 13 Principles of Agroecology

Overview of the High-Level Panel of Experts' (HLPE) 13 Principles of Agroecology.



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# Alnarp's farm



**Alnarp's Agroecology Farm is a small-scale, non-profit farm that provides fresh, agroecologically grown vegetables - cultivated entirely by hand and without chemicals. The farm brings the local community together and serves as a hub for agricultural and social research, promoting fairness and resilience in food systems.**

6	Utilised agricultural area in hectares	0.7
	Occupational status	Part-time positions: 3 field working days and 1 office day.
	Number of people working on the farm	8 board members. Four paid employees. Volunteer groups of 5 to 20.
	Agricultural certifications	The land is organic certified and has been organically managed for the last 40 years. The farm itself is not certified due to the high costs associated with certification.
	Farming activities	Horticulture, open air or in greenhouse.
	Type of crops	A mix of annuals and perennials is cultivated, including 40 cultivars each season: lettuce, chilis, herbs (basil, thyme, sage), tomatoes, celery, onions, garlic, carrots, beetroot, radishes, turnips, pumpkins, beans, kale. The farm also has an apple orchard and berry bushes.

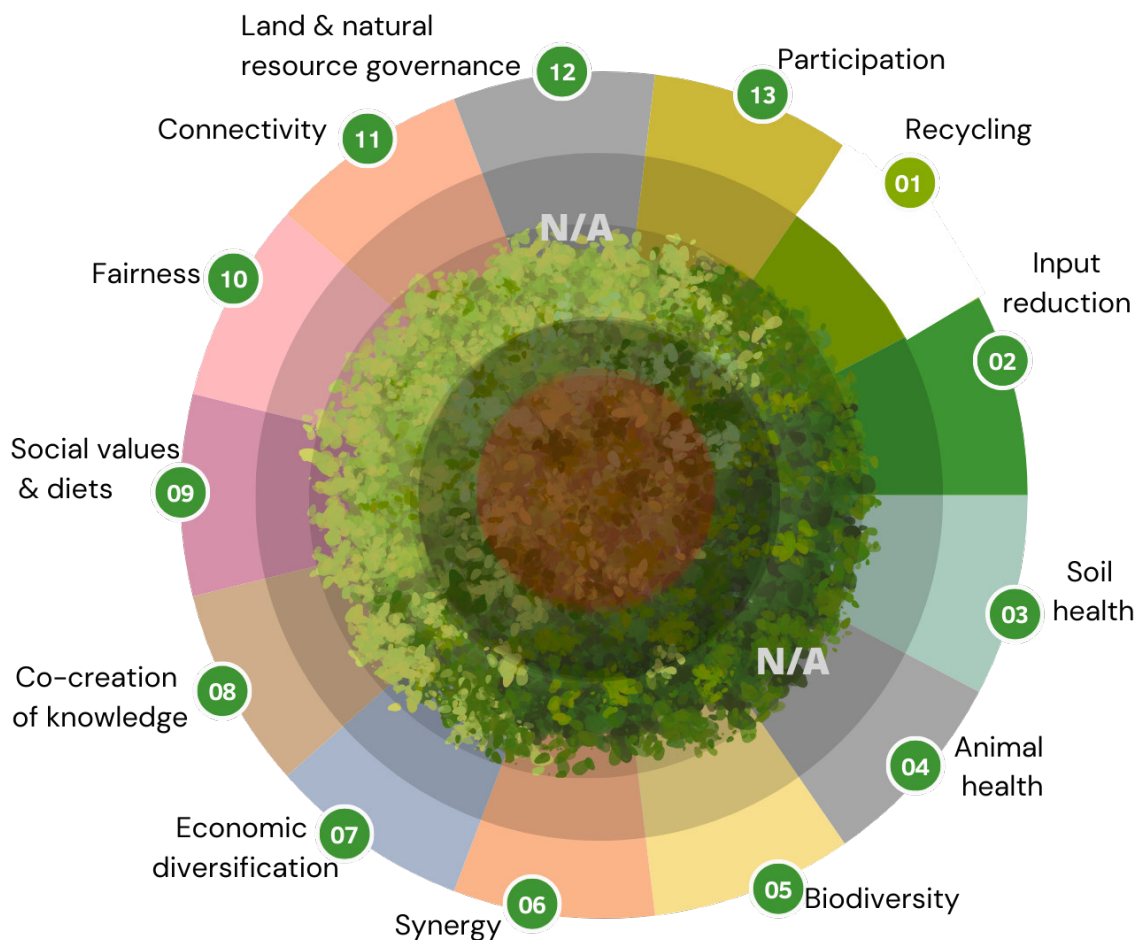
# Agroecological integration

Agroecological integration corresponds to the degree of alignment of a farm with each of the 13 Principles of Agroecology, based on the Agroecology Assessment Framework. It can be understood as the boundaries within which agroecological farming operates, with a minimum of four core principles to be met: co-creation of knowledge, social values and diets, fairness, and participation.

The agroecology principles encompass ecological, socio-cultural, technological, economic and political dimensions, aiming to ensure that agricultural activities do not degrade natural

resources, disrupt ecosystems, or compromise food security and community wellbeing. By operating within these limits, agroecology aims to create a harmonious balance between farming, people and nature.

In this case study, agroecological integration is based on farmers' self-assessment of how well their practices align with the 13 Principles of Agroecology. Each principle is rated on a scale from 1 to 5, with 1 indicating no alignment and 5 indicating a strong alignment. Note that some principles might not be applicable.



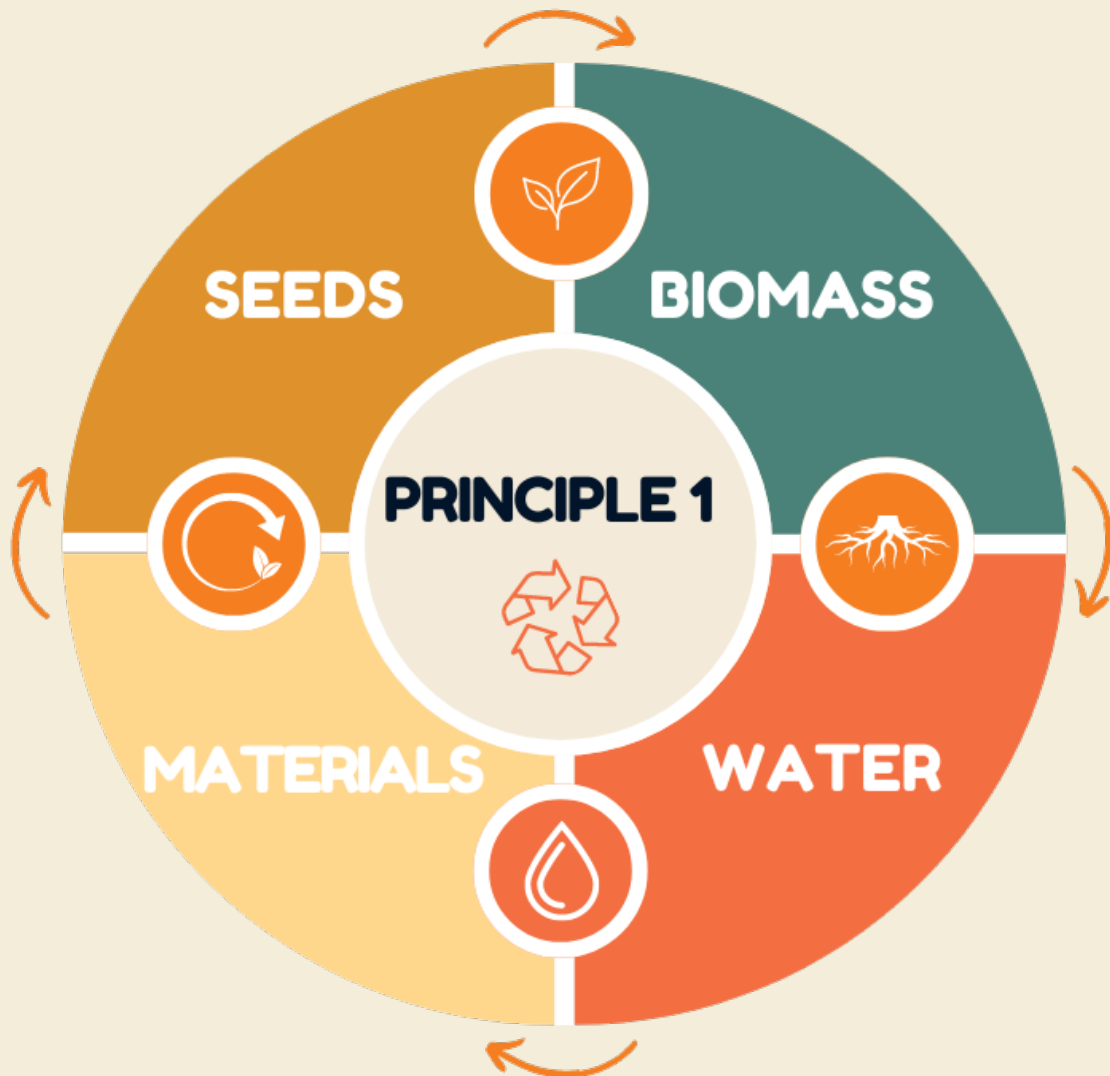
## Principles

2024

# Principle 1 – Recycling

Preferentially use local renewable resources and close as far as possible resource cycles of nutrients and biomass.

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A circular approach and mindset are applied across all activities, following the “reduce before recycle” principle. Future goals to improve recycling processes include

harvesting rainwater, saving seeds and working with more local cultivars, and implementing humanure composting.





On-farm compost production.

**Water.** Water from the washing station, where the vegetables are washed for consumption, is recirculated/collected to water trees.

Water harvesting from the roof of the washing station will be put in place this year to increase the farm's self-sufficiency.



Reused barrels.

**Biomass.** Compost is produced on the farm using organic waste such as vegetable scraps, crop remnants and grass clippings. On-site compost production cannot currently cover the farm's needs.

Biofertiliser is produced using nettle or tomato leaves. Nettle tea can be made by soaking the leaves for at least two weeks to a month.



Washing station made of recycled materials.

**Seed.** Seed saving is not as reliable for commercial purposes due to the lack of consistency in germination rates. However, it can easily be practiced for non-commercial cultivars, such as flowers.

**Materials.** Reusing, repurposing, and upcycling materials is a top priority. Woodchips, a by-product from the wood industry, are used as a plastic free alternative to landscape fabric. Their benefits are twofold: they prevent weed growth while also serving as a growing medium for mushrooms.



Wood chip.

## Principles

2024

# Principle 2 – Input reduction

Reduce or eliminate dependency on purchased inputs and increase self-sufficiency.



### Reduce before recycle

Dependency on purchased inputs is minimised by actively seeking out resources that can be recirculated. Choosing a community supported agriculture (CSA) model further helps reduce inputs at the source. Consumers buy a share of the

year's harvest in advance allowing a perfect match between demand and supply. Closer proximity with consumers means that they can be sensitised to input reduction as well, bringing their own bags for food pick-up and returning their rubber bands.



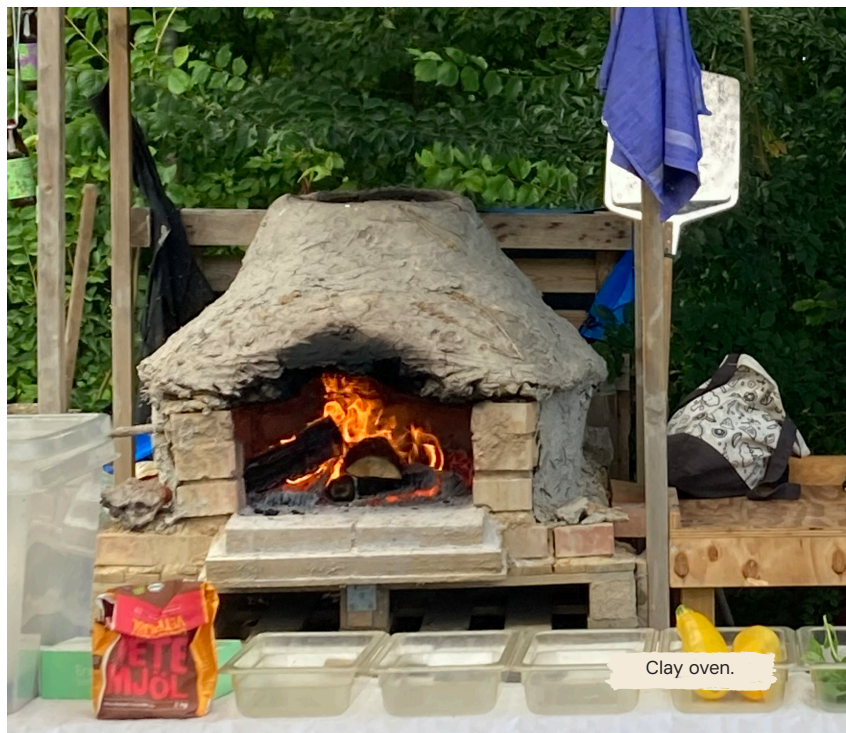
Leeks watered by drip irrigation.

**Water.** Water use is minimised by using drip irrigation which applies the water directly to plant roots, where it is most needed. Plants are irrigated early in the morning and in the evening to reduce evaporation.

**Pesticides.** Glasses filled with beer are buried near the crops to control slugs without using chemical pesticides. Drawn to the beer, the slugs fall in and drown.

**Energy.** Manual labour keeps energy use at its minimum, although the use of a car and some power tools cannot fully be avoided.

- Commuting to the farm is mostly done by bike but a car is used to support operations.
- Small hand power tools can be needed to perform demanding tasks (e.g., use of a trencher for fencing).
- Firewood is donated by the Swedish Agriculture University (SLU) for the pizza oven.
- Envisioned initiatives include installing solar panels and using an electric car.



Clay oven.



Carrot bundle.

**Plastic.** While plastic cannot be fully eliminated, many tricks can help cut back on its use:

- Using straw as mulch instead of plastic tarps.
- Making carrot bundles with the green tops of the carrots instead of rubber bands.
- Buying second hand plastic items, like barrels.



Round bale.

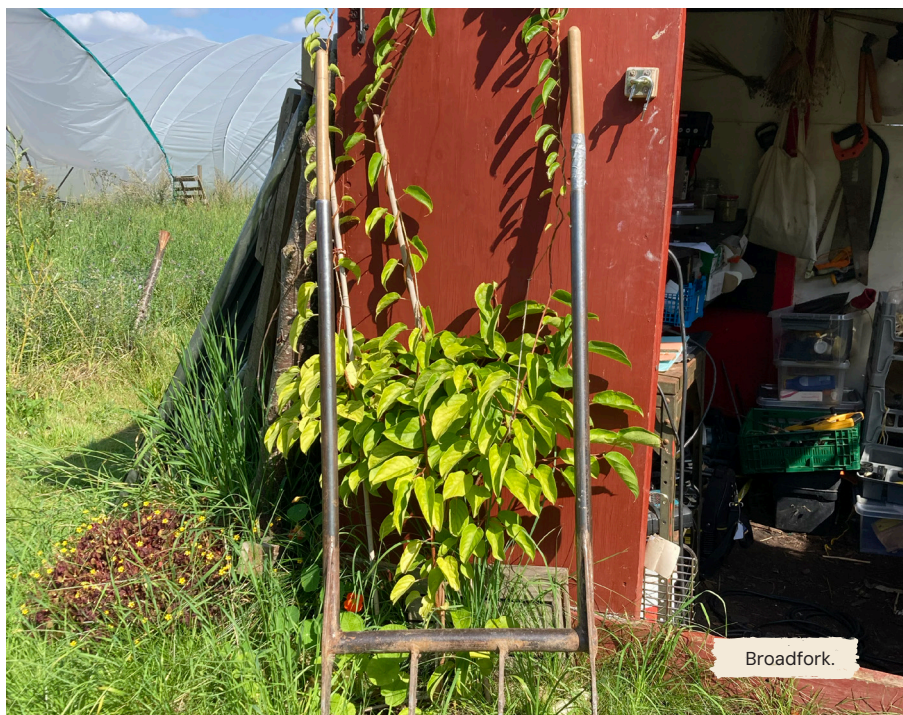
# Principle 3 – Soil health

Secure and enhance soil health and functioning for improved plant growth, particularly by managing organic matter and enhancing soil biological activity.



Healthy soil is a vital component of agroecological farming and is structural to the farm's overall functionality. Multiple

complementary practices are used to enhance soil health beyond simple carbon sequestration.



**Holistic approach.** Soil disturbance is minimised by using a 'no-till' approach, allowing soil mechanisms to flourish. Microbial diversity is optimised through crop rotation and diversified crops. Legumes are used to fixate nitrogen, while cover crops improve soil structure over time; planting certain crops in autumn and mowing them to act as mulch during winter further protects the soil.

**Aeration.**

- Tool: U-bar (40cm deep)
- Method: A broad fork is used in permanent beds during spring to open the soil and improve air circulation without disturbing the microorganisms. This practice also helps to loosen the soil, allowing roots to grow more easily.



**Monotoring.** Microbial activity is used as an indicator to monitor soil health. A master's thesis project conducted this year found that soil health on that farm was higher than in conventional farming and unmanaged land.

**Agroforestry.** The willow trees provide multiple benefits, including acting as a windbreak, preventing soil erosion, enhancing water retention, and improving drainage.

## Principles

2024

# Principle 4 – Animal health

### Ensure animal health and welfare.

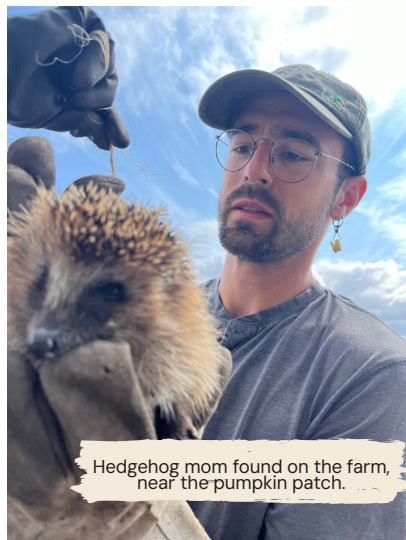
The high responsibility and cost associated with farm animals is a barrier to their integration, despite the many benefits they provide. For now, visiting dogs are the only domesticated animals on the farm. They scare away rabbits with their scent and their fur is used by birds for nesting.

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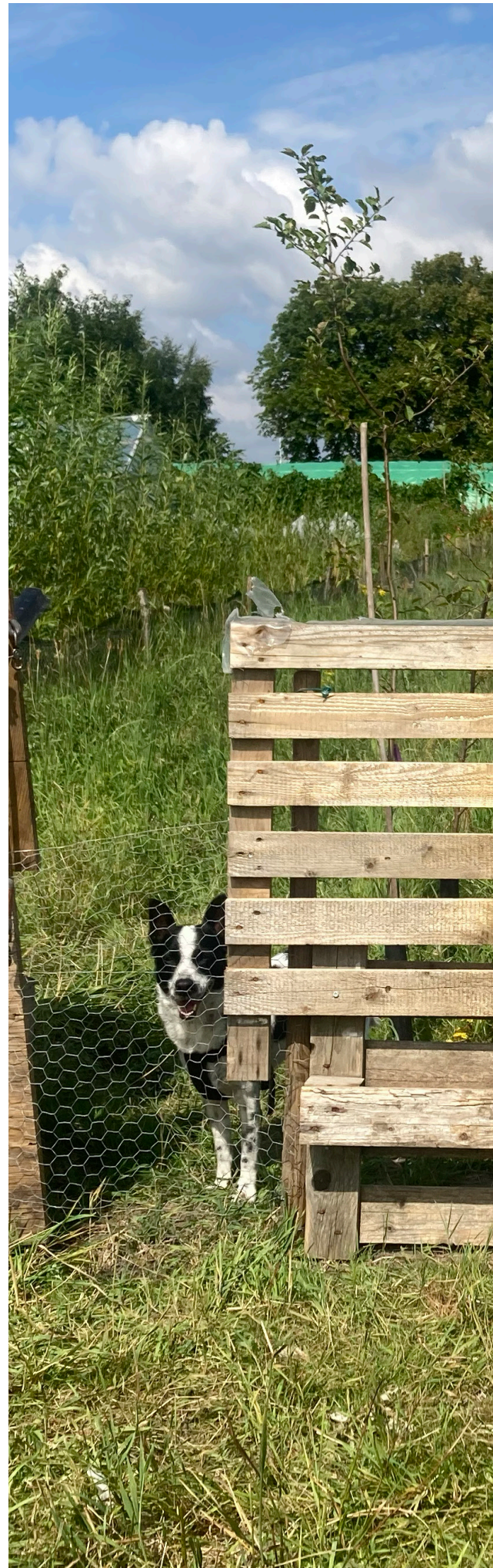
Hedgehogs have recently been spotted on the farm and are expected to play a beneficial role in managing the slug population. Shelters have been constructed to provide them with protection and encourage their presence.

Chickens and ducks could all play an important role on the farm in the future, as listed below:

- Chickens: soil management and eggs.
- Ducks: organic pest control.



Hedgehog mom found on the farm,  
near the pumpkin patch.

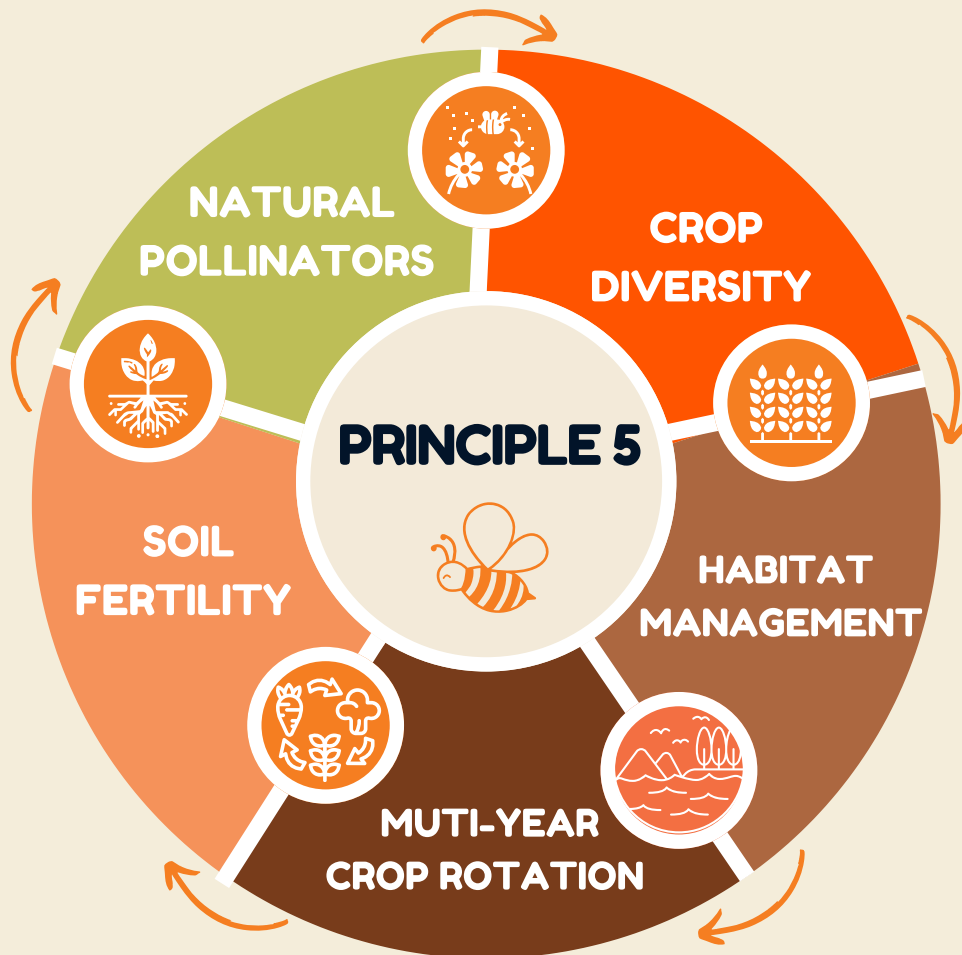




Apolo and Jari in the dog area, located inside the apple orchard.

# Principle 5 – Biodiversity

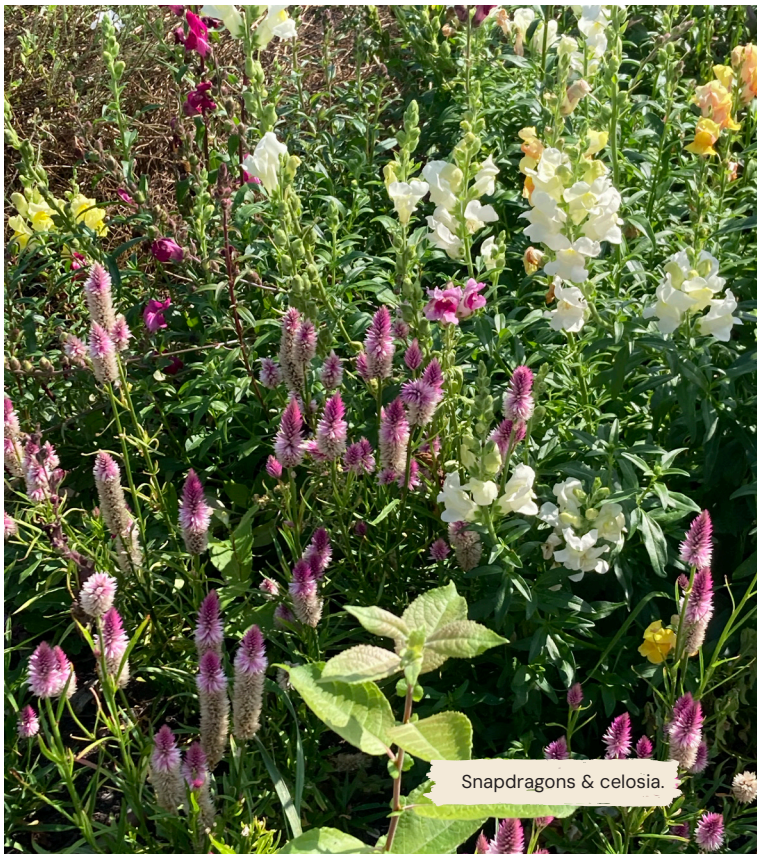
Maintain and enhance diversity of species, functional diversity and genetic resources and thereby maintain overall agroecosystem biodiversity in time and space at field, farm and landscape scales.



Enhancing the overall agroecosystem biodiversity is used as a guiding principle on the farm. This is done at multiple levels,

going from the choice of crops to how habitats are managed and preserved.





**Crop diversity.** A high crop diversity helps attract pollinators and beneficial insects. Around 40 different cultivars are planted every season, focusing on locally adapted seeds. This year, 700 trees were planted in the orchard, with different apple cultivars. The hedges comprise an additional 1300 trees.

As a result, one can notice the increased swallow activity above the farm, compared to neighbouring fields.

**Habitat management.** There are three biodiversity patches on the farm, each playing an important role in maintaining ecological balance.

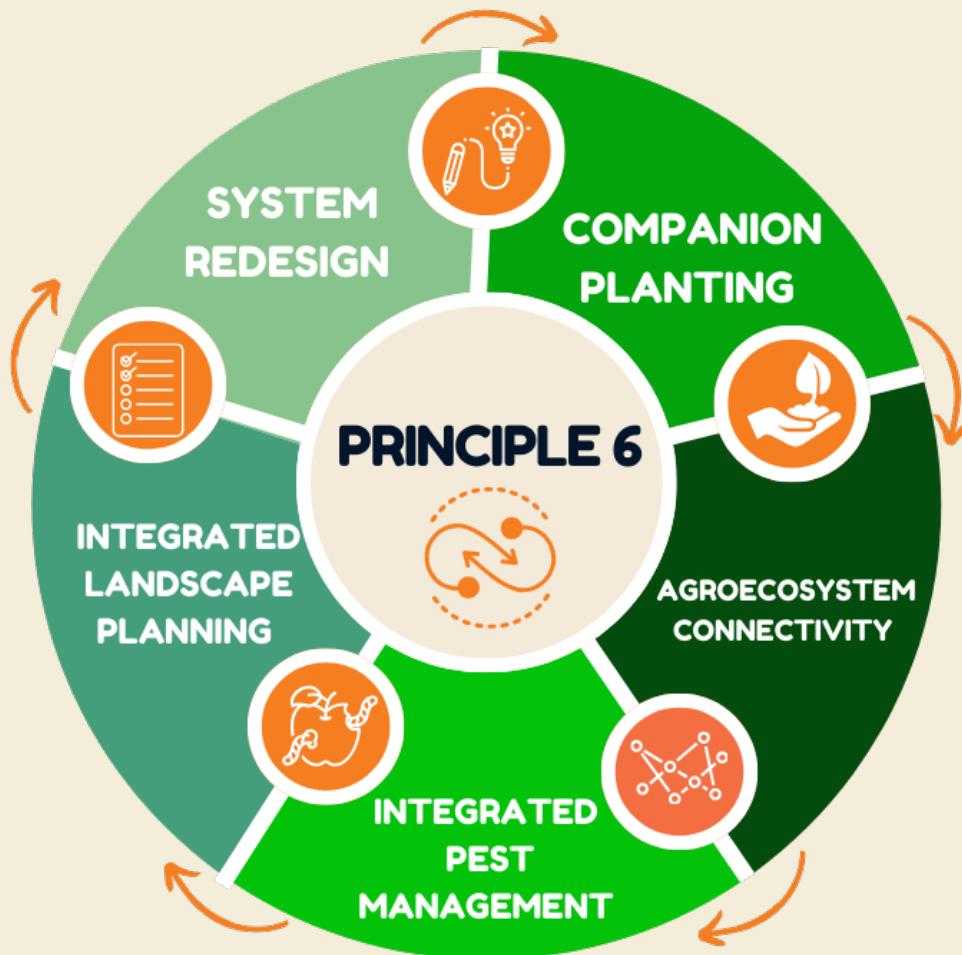
- Flower patches: spread out across the farm, they attract pollinators, increase habitat diversity and contribute to pest control.
- Hedgerows: planted alongside the farm boundaries, these rows of shrubs and trees provide a habitat for multiple wildlife species.
- Dead hedge: made from dead branches, Benje's hedge offers an ideal habitat for insects.



Caterpillar.

# Principle 6 – Synergy

Enhance positive ecological interaction, synergy, integration and complementarity among the elements of agroecosystems (animals, crops, trees, soil and water).



Synergies are at the core of agroecological farming, considering all elements as one. Interconnections between elements of

agroecosystems are used to support system redesign in innovative ways.



Three sisters practice.

**Companion planting.** The indigenous practice of the “three sisters”, originally from Central and North America, builds on synergies between pumpkins, beans and corn. The pumpkins act as a cover crop, avoiding weeds from growing and keeping the moisture of the soil, the beans fixate the nitrogen in the soil and the corn act as a structure for the beans to climb.

Another example of companion planting on the farm is the association of basil and tomatoes. Basil acts as a pest repellent, such as aphids.



Black cherry tomato and cinnamon basil growing together.



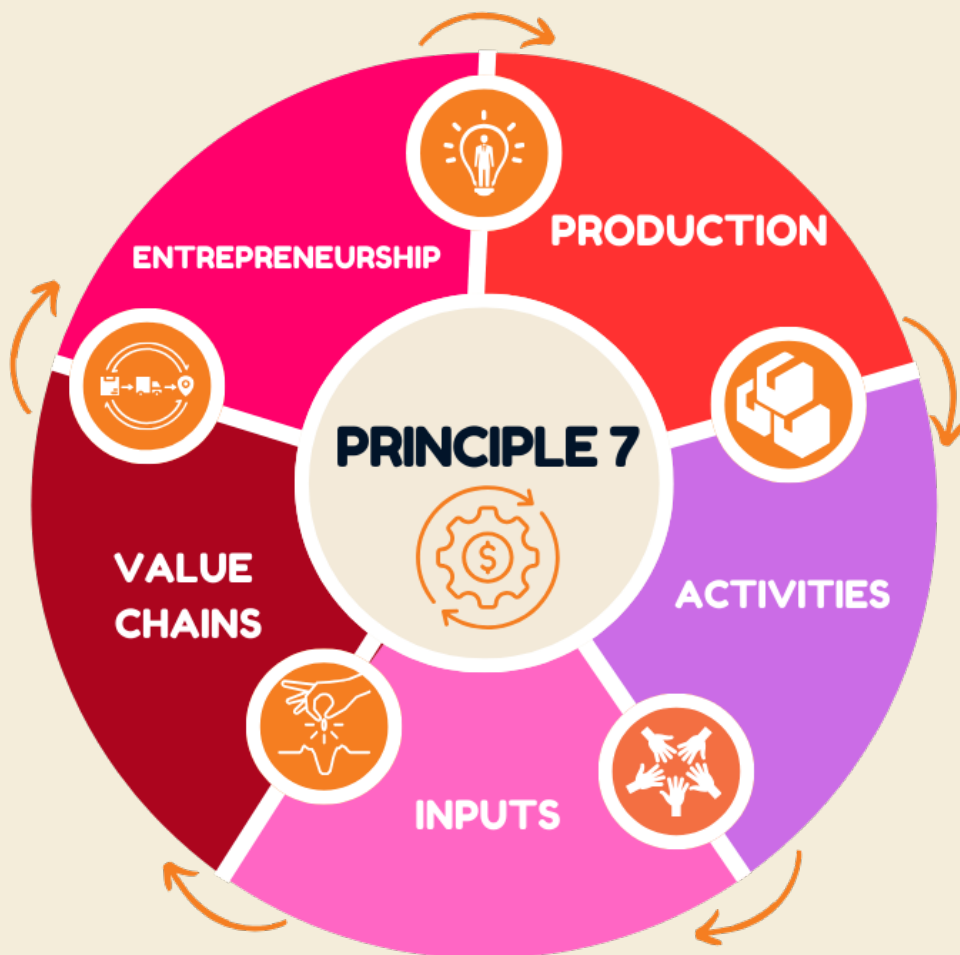
Wine cap mushrooms growing in woodchips.

**Soil-plant management system.**

Inoculating wood chips with mushrooms brings multiple benefits, far beyond mushroom production. Soil health is improved through the breakdown of organic compounds by fungi resulting in enhanced nutrient cycling. Fungi’s mycelium improves the soil structure, helping aeration, water infiltration and retention. Fungal activity creates a thriving environment for microorganisms, contributing to greater disease resistance and reducing the need for pesticides.

# Principle 7 – Economic diversification

Diversify on-farm incomes by ensuring that small-scale farmers have greater financial independence and value addition opportunities while enabling them to respond to demand from consumers.



Economic diversification is a key component to ensure the farm's economic sustainability. By engaging in a diversity of activities, the

farm increases its independence while extending its impact across food system actors.



Blueberries.



Market.

**Production.** The farm primarily produces vegetables and some berries, while apples will be available in a couple of years. The long-term plan is to expand production to include honey, eggs and potatoes.

**Activities.** Educational workshops bring the local community together, contribute to knowledge exchange and provide an additional income. The workshops cover multiple topics, including flower pressing, fermentation, cooking with seasonal ingredients, clay oven construction, mushroom inoculation, garden management, crafts and arts.



CSA veggie box.

**Value chains.**

- A local mill and bakery supplies flour for making nutrient-rich pizzas at events and in return buys flower bouquets from the farm.
- The farm works with local restaurants, providing them seasonally adapted ingredients.
- The collaboration with the nearby SLU facilitates the sale of seedlings, primarily tomatoes and peppers, during on campus events.



Niall, the farm chef, hosting Pizza Saturdays.



Fermentation workshop.

## Principles

2024

# Principle 8 – Co-creation of knowledge

Enhance co-creation and horizontal sharing of knowledge including local and scientific innovation, especially through farmer-to-farmer exchange.

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Knowledge sharing and co-creation is central to the farm's initiatives and is done through volunteering activities, field schools, farm visits, exchanges with other

farmers, collaborations with researchers and connections with the local community. In the future, there is a wish to involve kids and support educational initiatives in schools.



**Knowledge exchange.** Internships, farm tours and master thesis projects provide valuable opportunities for knowledge exchange.

- During the growing season, the farm offers both academic and independent internships, allowing interns to gain hands-on experience in gardening, CSA management, and market sales.
- Farm tours welcome visitors from international universities where students get the opportunity to learn agroecological practices.
- The farm is used as a case study in a number of master's thesis projects.

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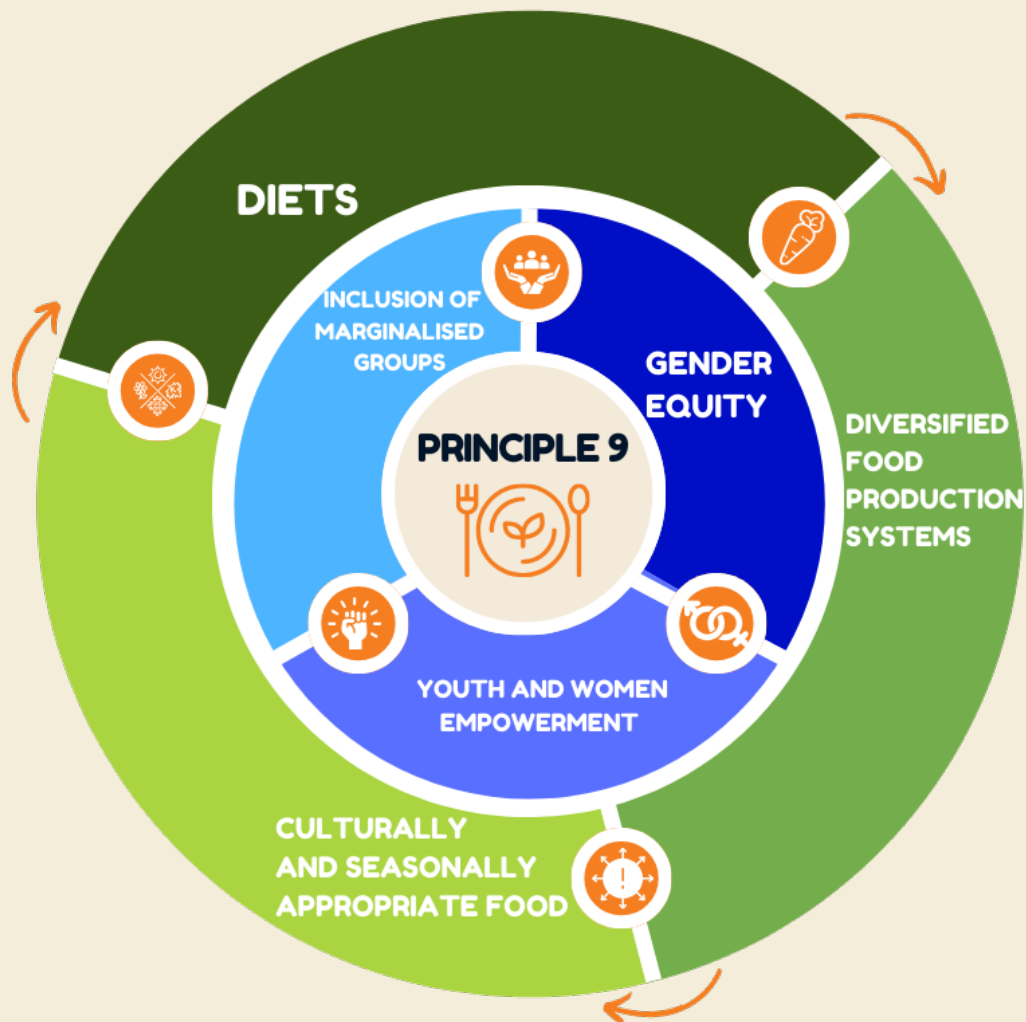
**Community engagement.** Community engagement is at the heart of CSA, fostering a closer relationship with consumers that enables knowledge exchange. Consumers connect with how their food is grown, learn about seasonal cooking, and some of them decide to become volunteers.

**Revitalising traditional and indigenous knowledge.** Inspiration is drawn from traditional and indigenous knowledge for specific practices, such as the three sisters, but the greatest influence is philosophical, rooted in a deep harmony with the land.



# Principle 9 – Social values & diets

Build food systems based on the culture, identity, tradition, social and gender equity of local communities that provide healthy, diversified, seasonally and culturally appropriate diets.



All activities are designed to challenge power dynamics and promote gender equity, in a

supportive and inclusive way.





Building project carried out by a women-only team.

### Culturally and seasonally appropriate food.

While maintaining tradition via some local staples, such as the Swedish turnip, the farm draws inspiration from traditional and indigenous knowledge worldwide. Heirloom crops, traditional cultivars passed down through generations, are also used due to their multiple benefits.

**Social values.** The caring nature of agroecology attracts women, which is reflected in the fact that a significant portion of the farm's volunteers and team members are women. Activities organised by the farm also tend to appeal to women primarily but are open to all.

During on-farm festivals, an awareness team makes sure that the farm's values of equity and inclusion are communicated to all, making the events welcoming, open and respectful.



Fennel.



Recipe sent by our CSA customer.

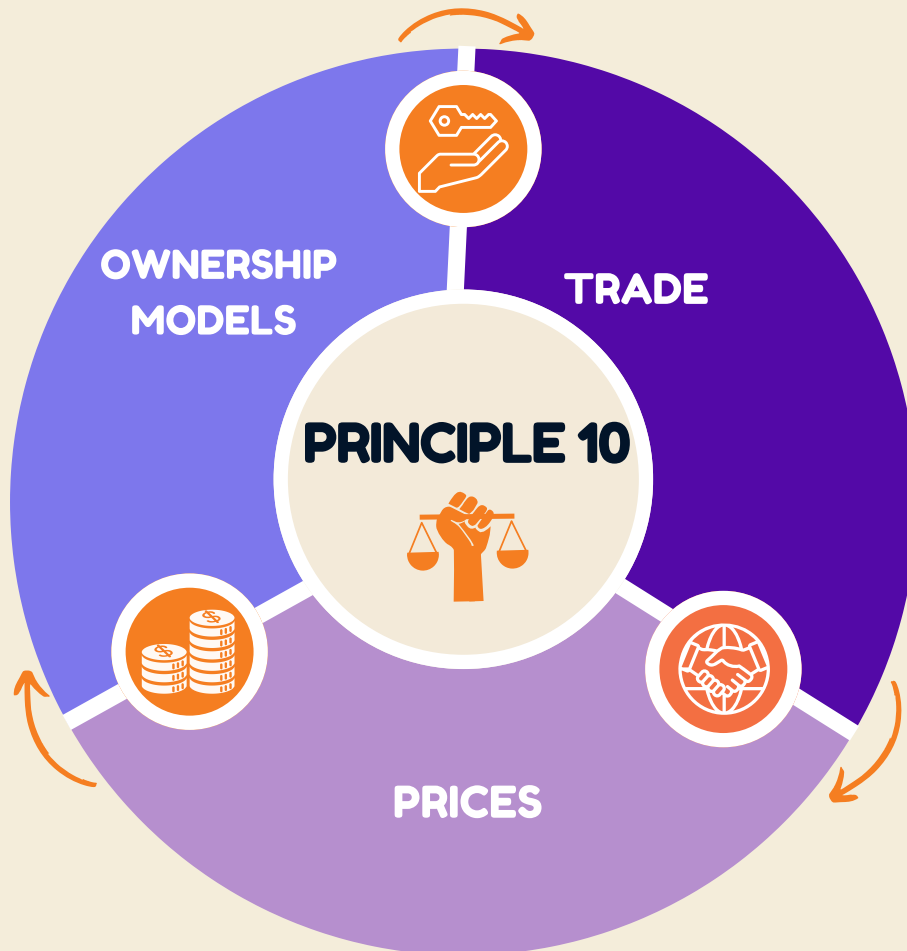
## Principles

2024

# Principle 10 – Fairness

Support dignified and robust livelihoods for all actors engaged in food systems, especially small-scale food producers, based on fair trade, fair employment and fair treatment of intellectual property rights.

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Fair and sustainable livelihoods cannot be maintained when market prices fail to reflect production practices. Until this year, the farm operated entirely on volunteer work. While

paid positions are now viable, they are kept to a minimum. Prices are set based on other local stores and are not reflective of the farm's social and environmental benefits.

**Ownership models.** The farm operates collectively, with members contributing through a membership fee. Members are involved in decision making processes through annual meetings and voting rights.



Interns.



Visitors buying entrance fee for Summer Fest 2024.

**CSA.** Solidarity schemes are key in ensuring fair pricing. This year, CSA customers have access to 10 low-income subscriptions and 7 solidarity shares. Solidarity shares offer the opportunity for higher income to support those who cannot afford sustainable vegetables by covering the price difference between the regular and low-income rates.

**Festivals.** A similar approach is applied to entrance fees at festivals. The farm's latest festival had three entrance fees: regular (50SEK), solidarity (150SEK) and supportive (1SEK). By sharing the cost burden amongst participants, the event remains open to all.



Polytunnel performance at the Summer Fest 2024.

## Principles

2024

# Principle 11 – Connectivity

Ensure proximity and confidence between producers and consumers through promotion of fair and short distribution networks and by re-embedding food systems into local economies.

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Close connections with the local community and consumers encourage an active participation on the farm through volunteering, workshops and events.

Currently, most volunteers are students, but a future goal is to welcome more families and people of all ages to join the farm.



Giving away for the Overshoot Festivalin Malmö.

**Consumer and producer connections.**

Selling directly to customers, through a CSA model, allows to establish trust and proximity. Weekly pick-ups help keep customers engaged with both the team and the farm itself. Although some customers pick up their shares in nearby cities rather than at the farm, the farm hosts a few visits during the summer to strengthen those relationships. This is an opportunity for them to learn about the farm, get to know the land and understand where their food comes from.

**Community restaurants and soup kitchens.**

Collaborations with “The People’s Kitchen”, a Lund-based collective that saves food and cooks for the community, have integrated food saving practices with community building. This summer, a new collaboration with Burlöv’s church has helped prevent food waste while providing agroecological vegetables to people who might not otherwise be able to afford them.



Cooking with the community.



Helen from Burlöv church pickin up leftover veggies.

**Seasonal and regional demand.**

Frequent personal contact with customers allows to raise awareness on the importance of seasonal and regional food production.

## Principles

2024

# Principle 13 – Participation

Encourage social organisation and greater participation in decision-making by food producers and consumers to support decentralised governance and local adaptive management of agricultural and food systems.



By choosing to stay agroecological, the farm adds another vital piece to the puzzle of shaping alternative food systems. While this approach can be perceived as more challenging, it is simply essential for producing sustainable and nutritious food.

Through community involvement, these principles and values are shared broadly, re-shaping social norms and expectation of how food is produced, processed, stored, transported and consumed.



Volunteers at the 2024 Tree Planting Session.

**Participatory landscape design.** SLU collaborated with the farm by offering apple trees in exchange for support with planting trees in their research space. With the help of volunteers, 500 apple trees were planted in the agroforestry orchard this year.



SLU agroecology students visiting the farm.

**Decentralised decision-making.** The farm is run by an 8-member board, with roles including Production Manager, Community Manager, Market & Sales Manager, Farm Chef, Secretary and Internship Coordinator, Agroforestry Manager, Educational Coordinator, and Treasurer. The board meets weekly to discuss upcoming events, collaborations, internal organisation, and other agenda items that members add throughout the week.



Board 2024.

