

1st Nordic Organic Conference

Towards increased sustainability in the food supply chain

Workshop 10

Organic gardening for sustainable development

The workshop will address the role and potential of domestic gardening, community gardening and community agricultural schemes to ensure food security and delivering towards a range of environmental, sustainability, health and well being objectives.



Workshop 10, Wednesday 20 May; 12:15–15:15

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Program

- 12:15-12:20 Welcome and introduction to the workshop
Dr. Birgitta Rämert, Swedish University of Agricultural Sciences (SLU)
- 12:20-12:35 Gardening for a sustainable development
Dr. Margareta Lennartsson, Garden Organic
- 12:40-13:00 Environmental benefits of organic gardening
Dr. Gareth Davies, Garden Organic
- 13:05-13:25 The impact of gardening on peoples' health and well being
Director Else Mikkelsen, The Danish Garden Society
- 13:30-13:50 Gardening in urban areas - potential for the future?
Professor Per Berg, SLU
- 14:00–15:15 Discussion

Facilitators *Margareta Lennartsson and Birgitta Rämert*

Brief introductions by the Nordic Horticultural Societies

- Haveselskapet Denmark – *Director Else Mikkelsen*
- FritidsOdlingens Riksorganisation (FOR) Sweden – *Chairman Göran Svanfeldt*
- Nyttoväxtföreningen Finland – *Director Anu Ranta*
- Bioforsk Organic Food and Farming Division, Norway – *Adviser Kirsty McKinnon*

Gardening for sustainable development

Margareta Lennartsson, Director of Policy, Garden Organic Ryton, Coventry, CV8 3LG, UK
Birgitta Rämert, Associate professor, Department of Plant Protection Biology, Swedish University of Agricultural Sciences, P.O. Box 102, 230 53 Alnarp

Gardening has always been a popular activity in both the UK and Sweden, and still we are at present experiencing a surge in interest that is greater than ever. It is the interest in growing food that is particularly strong with the gardening retail sector reporting record sales of vegetable seeds and 'grow your own' products becoming the biggest opportunity for decades. In tandem with this, the demand for allotments has increased with waiting lists becoming longer and even being closed in some areas in the UK.

Our outdoor growing space, be it the garden, the allotment, the school or community garden or just a small growing space nearby is now not only valued as place for relaxation and where people can recharge both spiritually and physically, but it is also recognised as an important space for learning, for reconnecting with nature and the food we eat, and a place where people can take practical actions to adopt sustainable lifestyles.

Access to land and also to knowledge and skills are important keys for encouraging and supporting people to engage at a practical level. The current interest and willingness among people to get involved combined with the fact that 82% of UK and 67% of Swedish households have a garden or access to outdoor growing space clearly offer a unique opportunity. Now is the time for the benefits of gardening to be realised and for public engagement in growing to take its role in delivering towards a range of national objectives; environmental and social objectives as well as objectives related to health and well-being.

Environmental benefits

A range of environmental benefits can be achieved through gardening. The green garden corridors have been shown to have a vital role for maintaining biodiversity in our urban areas, providing habitats for birds and other wildlife. Domestic gardens are also recognised for their role in conserving genetic resources through in situ conservation of many plant species, including food crops. Gardening, including home composting and home food production, will help to address climate change issues offering ways of reducing the carbon footprint of the households. In terms of land management the use of organic growing methods will help to improve the health of the soil and protect the stores of carbon within it. Using gar-

dens for diverse plantings will ensure that the land provides areas for infiltration of rainwater and thus helps to prevent flooding in urban areas.

Health and well-being

Gardens, as well as the activity of gardening, have been shown to have a positive impact on peoples' health and well-being; the result of both the physical activity and the use of the garden as a space for mental relaxation and stimulation. Growing fruit and vegetables is also likely to provide nutritional benefits to health by raising people's awareness of healthy eating and by providing increased access to fresh fruit and vegetables, which in turn should influence peoples' diets. The impact of practical involvement in growing on children's diets is subject to a number of ongoing studies.

Food security

Access to high quality fruit and vegetables, the superior taste and flavour in particular, is for many the main reason for growing food in their garden. Access to produce that has not been sprayed with pesticides is another common reason. At a strategic level, home production of fruit and vegetables has an important role in contributing towards food security, providing access and availability to fruit and vegetables at an affordable price and thus a 'safety net' within the food supply system. Clearly in most households, the produce from the garden is likely to be only a small proportion of the requirement, though case studies have shown that producing 50% of the fruit and vegetable requirement is both achievable and realistic for many. It is however, important to recognise that public engagement in home food production, even at a very small scale, will be beneficial in terms of raising peoples' awareness and reconnecting them with the food supply system. It is a way of increasing both 'food democracy' and levels of 'food literacy'.

Stronger communities

Community and domestic gardening, home food production and the celebration of the produce grown are all activities that can help to build stronger communities, encouraging social inclusion as well as supporting people to gain skills necessary for independence. Garden Organic believes that gardeners and home food production should feed into local food networks thus connecting individual gardeners in the wider community network. Local food networks enhance feelings of security and increase contacts between community members in a locality. In short, they build social capital from engagement and practical activities on the ground, which in turn leads to community development in its widest sense.

The ecological benefits of organic gardening

Gareth Davies, Head of Knowledge Development, Garden Organic Ryton Coventry CV8 3LG UK

Organic gardening, allotment production and smallholding are increasing in popularity in the UK as ecological problems associated with long food supply chains are becoming more apparent. Producing at least part of the food you eat and/or sourcing it close to home are seen as important in making a positive contribution to ecological sustainability both locally and globally. Recently, local food production and sourcing have also been seen to be potentially equally important in increasing food security, as the consequences of resource depletion, especially of oil and key agricultural nutrients like phosphate fertilisers, becomes apparent. Evidence about the positive impacts of organic gardening has been steadily accumulating, mirroring the increased research on organic farming and markets. Generally organic gardening methods are seen as making important contributions to ecological sustainability, improving food quality and personal well-being. In this paper we focus on the first of these and discuss the ecological benefits of gardening organically and put this in the context of the overall ecological footprint of organic gardening in the UK.

Organic gardening has positive environmental benefits in three principle areas:

Biodiversity: organic gardening places an emphasis on diversity and the ecological principle that biodiverse systems are also resilient. Organic gardeners should use a diverse array of plant species and varieties as food crops, as cover and green manure crops, and as attractants for beneficial insects. Many organic gardeners cultivate a range of varieties and there is increasing interest in the UK in growing 'heritage varieties' which help conserve genetic diversity (especially of food crops) Organic gardeners are also encouraged to set aside areas for wildlife (e.g. wood piles, small ponds) and these help promote biodiversity and compost bins have been shown to be good for garden wildlife. Organic gardeners should not use broad spectrum pesticides that are also very damaging to flora and fauna. Gardens also provide wildlife corridors through urban areas and connect rural and urban brown field sites which, in the UK, are becoming increasingly important as wildlife refuges.

Eco-services: in an urban setting gardens provide various eco-services. The most obvious service is flood prevention and, in recognition of this, it has recently become a requirement in the UK to apply for planning permission to pave over front gardens for car parking. Collecting rain water and using it also reduces the

use of treated fresh water which also has an environmental resource cost. Other areas in which gardens can provide services are in waste reduction and minimisation. Composting organic matter from the home significantly reduces waste transport costs and helps to close the nutrient cycle in food systems. Gardeners are also encouraged to be resourceful and often recycle a large amount of material that would otherwise enter waste streams adding to environmental costs.

Reduced resource use: gardening is generally regarded as a low environmental impact activity and research at Garden Organic bears this out. Organic gardening has a reduced environmental footprint as compared to buying the same type of food in a supermarket. This is because home food production reduces the distance food has to travel from plot to plate thus reducing the 'food miles' associated with modern food supply chains, and also because organic gardeners use as many home produced inputs as possible. The Garden Organic Guidelines reflect this and encourage gardeners to move towards gardening with as many locally sourced products as possible, as opposed to sourcing manufactured products through long supply chains. In addition to this it seems that organic gardeners adopt lifestyles with an overall reduced footprint so bring reduced resource use into other aspects of their lifestyles, which will in the long run reduce resource use at a community level.

The talk and discussion will focus on discussing the positive environmental benefits of organic gardening in the context of our study on the ecological footprint of organic gardening.



Foto: Elise Mikkelsen

The impact of gardening on peoples' health and well being

*Else Mikkelsen, Director of The Danish Garden Society
Jægersborgvej 47, DK-2800 Kgs. Lyngby*

All over the world there is an increasing interest in research results showing the impact of the physical environment on people's health and wellbeing. An expression of design and health in landscape architecture is to be found in the movement around healing gardens, i.e. gardens that in different ways may influence the visitor in a positive way.

Research about the impact of gardens on people's health and wellbeing was formerly carried on in isolation by different research disciplines, such as medicine, environmental psychology, and in recent years, landscape architecture. Today a change can be noticed. Collaboration transcending professions and research boundaries take place.

From a theoretical design and landscape point of view it is important to show, that one benefits from being in a garden environment while also trying to find an answer to the question of how and why one may benefit. For thousands of years there have been ideas to the effect that man's health and wellbeing will be influenced in a positive way by spending time in natural surroundings, wild nature as well as closed gardens.

Beneficial properties are attributed to daylight, fresh air and greenery. The theories will shortly be presented primarily based on literature from Sweden.

Gardens surrounding residential homes in cities help to create a less stressful everyday environment. Results from a study made in Sweden, show that having access to a garden has a significant positive impact on stress. There is also a significant positive relationship between frequency of garden visits and stress prevention. The study also shows that the amount of verdancy in the garden is crucial to the restorative quality. The results indicate that verdant gardens in the city may play an important part in restorative environment, irrespective of the citizens' socio-economic background, gender or age.

Results from studies carried out in Sweden and Denmark will be presented.

Gardening in urban areas

– potential for the future?

*Per G Berg, Professor Department of Urban and Rural Development,
Swedish University of Agricultural Sciences, P.O. Box 7012, SE 750 07 Uppsala*

For half a century, gardening in cities has been phased out successively in OECD large towns and cities all over the world. One major reason is the current oil-driven primary production and globalisation of the food market that most of the cities in the industrialised world are dependent upon. Yet leisure time cultivation has remained a strong practice for a significant part of the population – particularly in the Northern European countries. For the former Soviet countries in the east – gardening in countryside plots, was even a part of an informal food security system, in times of economic recession and/or political change.

Today gardening inside and close to cities in OECD countries and former soviet states have declined to a level, where basic nourishment of the population may be seriously threatened if current oil-based primary production is challenged. And for large parts of modern cities this can be expected to be the case in our time, with a number of emerging resource crises lying directly before us. Peak oil, predicted shortage of phosphorous and other minerals, metals and water can be expected to profoundly displace the production-consumption flows - from a global system to more localised systems of food production.

Local food production systems can be defined within a range of scales – from macro-regional food systems (like the Mediterranean or Baltic Sea Regions) to small-scale cultivation and gardening systems inside cities. Gardening also belongs to the repertoire of recreation activities and a timeless contact with green and blue areas for health reasons. Gardening is, finally, a part of the organisational aspect of the city, potentially having important structuring roles in several scales of green and in particular at the boundary zones, between built and green structures in the city.

Urban gardening is suggested to become more important over the next decades, playing important roles in the housekeeping and recycling of physical resources (energy, food, water and organic waste) but also for the management of informal economic resources, for biodiversity development, for structuring the city, for promoting social encounters, for enhancing cultural expression and for providing synaesthetic (intersensory) experiences for inhabitants in different urban settings.

School gardens

– nurturing future food producers

Kirsty McKinnon, Adviser, Bioforsk Organic Food and Farming Division
Gunnars vei 6, N-6630 Tingvoll, Norway

Only a few decades ago, a considerable amount of Norway's horticultural produce was grown in small gardens by non-professionals. According to estimates based on the agricultural statistics of 1979, vegetables from small gardens counted for 22% of the total amount of vegetables consumed, potatoes counted for 38%, fruit 69%, strawberries 24%, raspberries 63%, and other berries counted for 89%. Much has changed since then. People have other interests, gardening for many means buying lawn by the metre. One might also assume that gardening skills in general and food producing skills in special have been declining. Fortunately we are now experiencing a revitalized interest in gardening from the public and lots of schools are planning to (re)establish school gardens. A school garden is a most extraordinary classroom and also the obvious one for training future food producers, gourmets and environmentalists.

The school garden movement experienced a thriving and widespread development from the beginning of 1900 and until around 1960-70. From then there was a decline and during the 1980ies most school gardens ceased to exist. The good arguments however, never died. New arguments have been added underlining the value of small garden production and education in school gardens. Environmental aspects that were not so obvious in the past century are now in front. Once again there is a need for special teacher training courses and perhaps a school garden association (which once existed). As Norway's largest and oldest school garden is celebrating its 100th anniversary in 2009, there is a positive wind blowing for the renaissance of school gardens all over the country. Several Norwegian organisations and institutes are now promoting the development of small scale (organic) food production and school gardens.

Engaged gardening organisations in the workshop



Garden Organic

Director of Policy *Margi Lennartsson* and Head of Knowledge Development *Gareth Davies*

Garden Organic is a national charity working to inspire, encourage and support individuals, community groups and schools to grow organically. Through research, demonstration gardens and educational activities the organisation aims to help people lead more sustainable lives. Garden Organic has been at the forefront of the organic horticulture movement for over 50 years and is a leading authority on organic growing. The organisation is dynamic, influential and committed and we are engaged in a range of activities designed to 'get people growing'.

Specialist areas include:

- Organic gardening advice, research and knowledge exchange with gardeners and growers to facilitate active learning.
- Schools network, consisting of almost 6000 schools, with a free educational programme which helps pupils learn about food and organic growing
- Conservation of genetic diversity through our Heritage Seed Library, which protects over 800 varieties of rare vegetable seeds from the threat of extinction.
- Home composting network with over 600 Master Composter volunteers working to promote and support home composting in different areas of England
- Educational demonstration gardens at Garden Organic Ryton near Coventry and the Walled Organic Kitchen Garden at Audley End in Essex.

For more details on these activities please see our website at <http://www.gardenorganic.org.uk>

Garden Organic is the working name of Henry Doubleday Research Association (Registered Charity 298104)



Haveselskabet Denmark - The Danish Garden Society

Director *Else Mikkelsen*

The Danish Garden Society is a countrywide, independent and non-profit society for about 45.000 garden owners. The purpose of the society is to give new knowledge and exciting inspiration to the members, and also to give the members the most joy from their gardens.

“Haven” – (The garden), the magazine for the members of the society, is published 11 times a year.

The Danish Garden Society consists of about 150 local member circles and branches. Local committees arrange thousands of local activities during winter and summer. “Open private garden” all over the country is a very popular activity.

Homepage for the The Danish Garden Society is: www.haven.dk.

FOR

FritidsOdlingens Riksorganisation FOR

The Swedish National Organisation of Leisure Gardening Societies

Secretary *Leif Thorin*

FOR is an umbrella organisation for amateur gardening societies having nationwide coverage. It was founded in 1989 by the three biggest gardening societies: The Swedish Horticultural Society, The Swedish Federation of Allotment and Leisure Gardeners and The Society of Gardening Amateurs. Today it has 16 member societies, now also such as Swedish Rose Society, The Swedish African Violet Society and The Swedish Herbal Society. Altogether, they have more than 70 000 members.

The purpose of FOR is

- to improve the co-operation between different national leisure gardening societies
- to represent the leisure gardeners in relations to e.g. the government and the University of agricultural sciences
- to increase the interest for and knowledge about gardening in Sweden.

FOR supports its member societies and organizes information and guidance on organic gardening to the public. FOR also supports advanced guidance and other activities by the University of agricultural sciences which are of vital interest for leisure gardening. Since 1992 FOR is arranger of the biggest gardening fair in Sweden – since 2002 together with Stockholm International Fairs (Stockholmsmässan). Every year, it has about 60 000 visitors. FOR is organizer of one of the exhibition halls, about 150 lectures for the public and 5–6 advanced seminars for professionals. Web-site: www.FOR.se



Svenska Trädgårdsförbundet Finland

Director *Nina Holmlund*

Svenska Trädgårdsförbundet rf (Finland, founded in year 1946) is a central organization for horticultural associations in the Swedish speaking areas of Finland. Among our member associations, which all are located in the coastal areas of the country, there is both such with professional producers as members and such with private gardeners as members. We publish the monthly magazine *Trädgårdsnytt*. For more information please visit our website www.tradgard.fi

As an organization Svenska Trädgårdsförbundet is also a member of the national Finnish central organisation for horticulture, Puutarhaliitto (www.puutarhaliitto.fi). Both the Finnish and the Swedish speaking organizations provide their members and the public with information about all the horticultural production sectors for professional growers and for hobby gardeners.



Hageselskapet

Det norske hageselskap Norway -The Norwegian Horticultural Society

Professor *Gustav Redalen*

The Norwegian Horticultural Society was founded in 1884. It is a member-led society, dedicated to promoting the knowledge, skill and practice of horticulture. The society has about 26 000 members and includes about 360 local societies organizing yearly about 3 000 meetings, tours etc.

The society is responsible for the magazine "Norsk Hagetidend", 10 issues per year, and has a website www.hageselskapet.no. We produce books, have an advisory service by e-mail, letters and telephone, and have established a network for designing gardens to a reasonable price for members.

The Norwegian Horticultural Society act as a consumer organization for horticulturists, regarding control of the germinating ability of seeds, testing of garden tools, reduction of the slug problem (*Arion lusitanicus*) etc.

In addition to amateur horticulturists, we work also for planning of good living areas, green lungs in the cities, green outdoor areas in schools, kindergardens, institutions and homes for the elderly.

The Norwegian Horticultural Society is an environmental friendly society, working for compost-making, reduction in the use of pesticides and fertilizers, and promoting organic growing. For a long time we have argued for the positive health effects of getting fresh air and physical activity in the garden. More recently we have started focusing on the positive effects of green surroundings on our health.