



COST Action 866:

Green Care in Agriculture

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What is Green care?

- The **health sector** and **social services** need alternatives to traditional medical treatment, therapy, rehabilitation, and work training.
- **'Green care'** is the utilization of **agricultural farms** as a base for promoting human mental and physical health.
- **Animals, plants, gardens, forests,** and the **landscape** are used in recreational or work-related activities for:
- **Psychiatric patients, mentally disabled** persons, people with **learning disabilities, burnout problems,** or a **drug history,** including **youth and elderly people,** and **social service clients.**

Animal-assisted therapy: Physical contact with animals is thought to be particularly rewarding

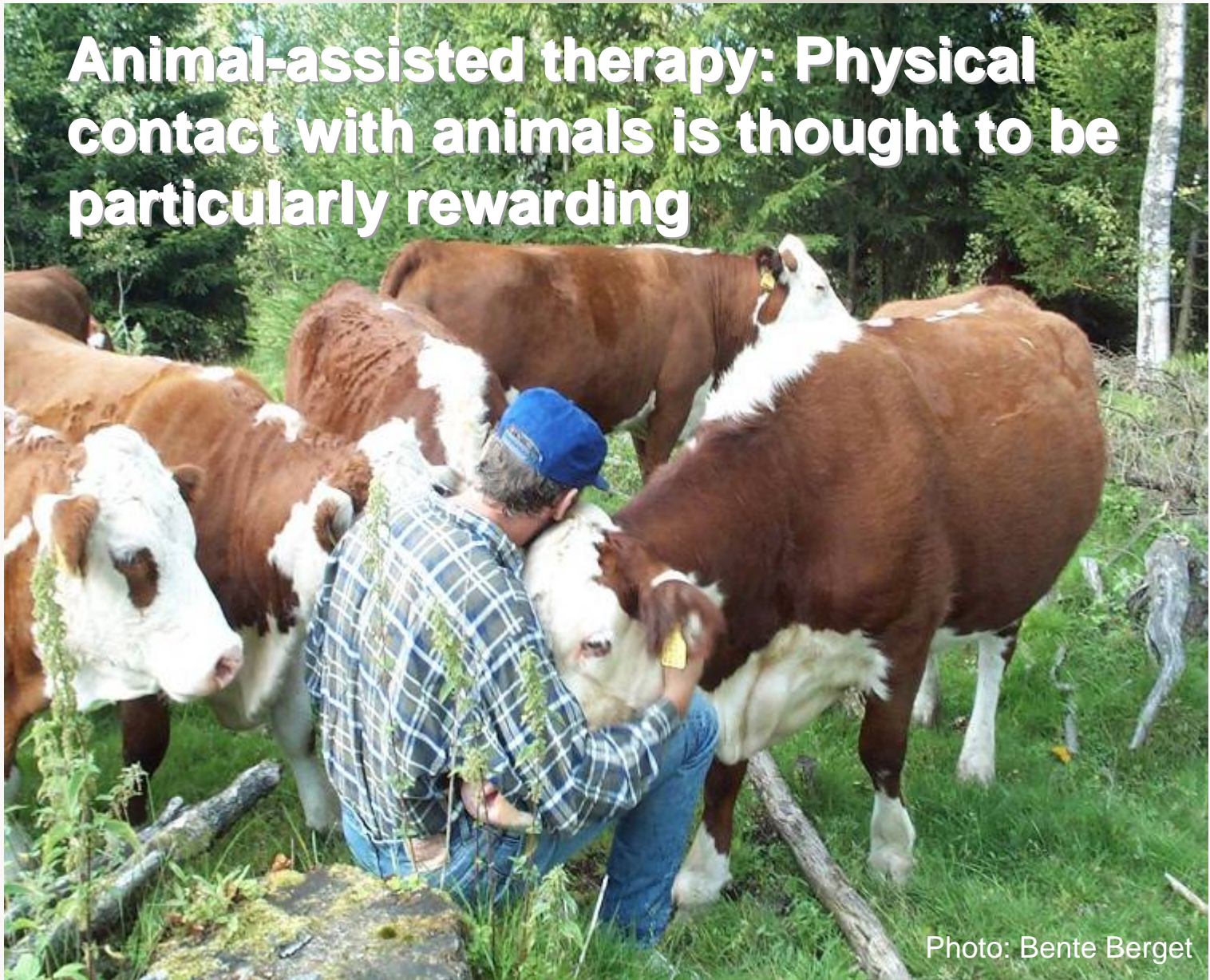


Photo: Bente Berget

Horticultural therapy and landscape



Photo: Eva Vike

Working in the garden
creates growth and beauty



People feel better
in a preferred
landscape

(from a PhD course)

Background

- There is **much practical experience** in utilization of farms, farm animals, plants, gardens and the landscape for rehabilitation and therapy, but:
- There is until recently **not much scientific research** documenting the effects on the various target groups; for farm animals research is almost non-existent.
- For “green services” to be **generally recognized**, particularly by the medical professions, positive effects on clients and optimal ways of implementation **must be scientifically documented**.
- *Among European scientists, there is a **growing interest** in starting or extending such research. This **multidisciplinary effort** should be **coordinated** through a **scientific network** to improve efficiency, ensure optimal methods, and increase the scientifically validated output. **Methodological** and **theoretical challenges** are predominating. This is a major reason for the proposal of this COST Action.*

Relevance for agriculture and this TC

- **Multifunctionality** is regarded as one of the future goals of European agriculture that could be an alternative to further reduction of the number of farms.
- Such multi-functions can be to **combine** the **production** of cash crops or animal production with **social functions**, like providing space for recreation, care for disabled people, or care for landscapes.
- **Farmers** need a **scientific basis** for green services, and they need development of **health policies** and **economical systems** that make such services a **predictable income**.
- **We believe this TC** is the **closest** to realising the innovative potential of this effort.

Objectives of the Action

- The main objective of the Action is to increase the scientific knowledge on how to implement Green care in agriculture most efficiently in order to improve mental and physical health, as well as quality of life, of humans.

This objective requires the following:

- Establishing a well-functioning **multidisciplinary scientific network** of scientists working on topics of relevance to Green care.
- Establishing three **working groups** of scientists working on more specialized scientific topics of relevance to Green care.
- Development of an **international research program within Green care**, to be offered to EU and national research councils.
- Improving the **relevance, efficiency, and quality of ongoing and new research** within Green care in Europe.

Organisation of the Action

- **MC and three WGs**

- **WG1: Health effects of Green care**

Coordinate research and develop new research in biological, medical and health sciences. Conceptual and theoretical discussions and developments. Research methodologies.

- **WG2: Economics of Green care**

Coordinate research and develop new research on economics and management of Green care farming. Cost-benefit effectiveness of Green care on micro, mezzo and macro levels, marketability.

- **WG3: Policies related to Green care**

Discuss how Green care fits into current and future national health and social care systems. Organisation of the Green care system and the networks. How rural development is affected.

How to work and Time plan

- **Plenary seminars and meetings**
- **WG workshops**
- **Short-term scientific missions (STSM)** financed by COST will be sought to enable exchange of young researchers. Aim: to exchange five young researchers (PhDs, postdocs) within the frame of the COST Action, each for a few weeks.
- **Website** with documents and a discussion forum
- **Time plan (2006-2010)**
 - Each of four years: A plenary meeting and WG workshops
 - Last year also: A dissemination seminar could be held if funding is obtained.

Why is COST the proper programme?

- The **flexible, informal organisation** of COST Actions is an excellent platform for extending and strengthening our multidisciplinary scientific network on Green care across Europe.
- The funding of network building by national research councils, under the COST umbrella that funds the coordination of it, is **the most feasible method**, in comparison with EU and EUREKA programmes.
- Our work covers most of the **main addresses of COST Actions:**
International topic, beneficial to most countries, of particular interest to **the society** that is concerned about mental health services, and involves cooperation on a **newly emerging** and **multidisciplinary** scientific topic.

It **strengthens urban-rural relationships** by giving new values to agriculture (multifunctional agriculture, Green care as amenity goods) and provides a perspective for farmers searching for new ways of maintaining a farm that otherwise might be closed.

Dissemination plan

- Target audiences of output from the Action:
 - **scientists** and **professionals** working with various aspects of Green care including farmers,
 - **EU scientific committees** and **national research council** committees working on development of research programs, and
 - international and national **health** and **social authorities**.
- Such external users may be invited to a final ***dissemination seminar***, also to give input that could be used for the final report and research programs.
- **Website:** Information and results of the Action work will be presented on a public website. This will include **reports** of seminars, **minutes** of meetings, **publications** from participants, **contributions** to other conferences, **links** to relevant information from other sources, and the **final report** that will include a **proposal for research programs** on Green care. Proposal of research programs will also actively be sent to relevant research funding bodies.

Multidisciplinary work

■ Sciences involved in the Action:

Animal science, ethology, horticulture, forestry, landscape architecture, landscape ecology, agricultural economics, psychiatry, psychology, nursing, ergo therapy, sociology, and social economics.

■ Others involved:

Farmers, social workers, policy makers, client organisations

■ Experience from exploratory workshops:

The feasibility of this multidisciplinary work is demonstrated. The persons are open-minded, enthusiastic and eagerly looking forward to this Action. Common concepts and terms must be defined across disciplines and across countries.

Conclusions

- Green Care in Agriculture: much practical experience, but limited scientific documentation is available.
- Multidisciplinary scientific effort is essential to develop green services as part of a multifunctional agriculture.
- A network of enthusiastic experts is established, but needs funding for further development and work, in order to coordinate ongoing research, develop concepts and terms, theories, research methods, and a research programme.

Benefits of the Action

- **Improved mental and physical health and quality of life** of humans with particular problems, by low-cost therapy and rehabilitation forms. This is the most important benefit.
- **Scientific knowledge** acquired in the Action that could be included in **teaching** of health personnel – psychiatrists, psychologists, psychiatric nurses, social service personnel, etc. – as well as in teaching of farmers. (MSc programme in Norway)
- **Improved efficiency in future research**, ensuring optimal value for money given to research projects.
- **Additional source of income for farmers**; improved efficiency in the process of adapting to the changes in European agricultural structure.
- **Increased rural-urban interactions** and social cohesion.
- Increased human-animal contact on farms may **enhance animal welfare** by reducing the fear of humans – an important aspect of animal welfare. In addition, the clients may gain increased respect for animals and their nature, which may be of advantage to other animals that later encounter these persons.

Countries involved in proposal (2005)

<u>Country</u>	<u>No. of experts</u>	
Austria	2	
Belgium	2	
Denmark	2	<u>In total:</u>
Finland	3	14 countries
France	1	54 experts
Germany	5	
Italy	6	
Netherlands	10	<i>Greece and</i>
Norway	8	<i>Poland now</i>
Slovenia	5	<i>joins the</i>
Sweden	3	<i>action</i>
Switzerland	1	
United Kingdom	5	
U.S.A.	1	

Examples of ongoing and planned research-I

- Measuring the effects of green care farms for clients with psychiatric problems and addiction history (NL) 2005-2008
- Developing a model describing and explaining the health promoting qualities of green care farms (NL) 2005-2006
- Effects of green care farms on food consumption of clients (NL) 2006-2008
- Working with plants on quality of life and well being of clients (NL) 2006-2009
- Interaction between clients' wellbeing and health and farm values at green care farms with emphasis on client-animal interactions (NL) 2005-2009
- Interactions between client-wellbeing and health and farm values at green care farms with special emphasis on plant-human interactions (NL) 2005 - 2009
- Study into the effects of working at a green care farm: increase in life satisfaction, skills, and quality of life of mentally handicapped people (planned) (NL) 2005-2008
- Green care with farm animals for persons with mental diseases (NO) 2003-2006
- Assessing the evidence for landscape-based positive and negative health effects (NO, ES) 2004-2006
- Human landscape experience in production landscapes. Impact of landscape structure on human aesthetic appreciation (NO) 2004-2008
- Visulands 5th Framework EU Shared Cost project to develop visualisation tools to support public involvement in the assessment of landscape change (NO) 2003-2005

Examples of ongoing and planned research-II

- The human being and the good earth (I) 2006
- Social enterprise incubators (I) 2005-2007
- The disabled in agricultural families (I) 2004-2005
- SoFar (social farming). (I) 2005-2008
- Movements and institutions of social development courses of rural communities and of social farming (I) 2005-2006
- Feasibility study and modelling the employment of and/or care for mentally handicapped persons as supplementary on-farm activity (SI) 2002-2005
- Modelling and testing a methodology of inclusion of the farms into a system of community care for people with special needs (SI) 2005-2008
- Network of care farms for the mentally disabled in the municipality of Ljubljana (SI) 2005-2007
- Effects of contact with assistance dogs on immediate physiological responses and later behaviour of humans with Downs' syndrome and on welfare of animal as measured by physiological and behavioural responses. Might be extended to farm animals. (UK) 2005-2009

WG 1: Health effects of Green care

Main aim: to coordinate research and develop new research in biological, medical and health sciences for the purpose of gaining new insight into the effects of various types of Green care on various aspects of physical and mental health and quality of life of clients. The work must include conceptual and theoretical discussions and developments, as well as discussions on research methodologies.

Milestones

1. Develop a **conceptual framework** and **theoretical models** for the health promoting mechanisms of Green care.
2. Comparison and **discussion of ongoing research projects** related to health effects on clients.
3. Establishment of a set of **good research methodologies**.
4. **Joint research project** between participating countries.
5. Development of a **research program** – health effects for clients of Green care.

WG 2: Economics of Green care

Main aim: to coordinate research and develop new research on economics and management of Green care farming. This includes the cost-benefit effectiveness of Green care on the micro, mezzo and macro levels within the framework of multifunctional agriculture, market based versus governmental based economics, marketability of public goods and positive agricultural externalities, as well as measurements of the positive externalities of Animal Assisted Therapy and Horticultural Therapy.

Milestones

1. Development of a **methodology** to determine the economic benefits of Green care services for farmers, for other parts of the agricultural sector and for the health and social care sectors, and also the social returns of such services.
2. Development of **systems to support Green care** regionally and nationally.
3. Development of a **research program** – economics of Green care.

WG 3: Policies related to Green care

Main aim: to discuss how Green care fits into current and future national health and social care systems. This includes the organisation of the Green care system and the building up of the network behind the health and social care systems. A further aim is to discuss how rural development is affected; creation of new jobs and strengthening of the economic viability of rural communities, those of less-favoured and remote rural areas in particular.

Milestones

1. **Definition of terms and concepts** for the different services of Green care.
2. Evaluate the contribution of Green care to **rural and agricultural policies**, but also policies in health care and social care.
3. Development of a **research program** – policies of Green care.

Deliverables

During the action's lifetime, the following deliverables will be made:

- Well-functioning multidisciplinary scientific networks at two levels, a complete multidisciplinary network and three working group networks.
- At least one multidisciplinary research program on Green care in agriculture, being offered to EU and to national research councils.

The following are more difficult to quantify, and dependent on funding:

- Producing three scientific peer-reviewed papers based on joint work established early in the work of the Action, two of which are conceptually or theoretically based.
- Developing five international joint research projects based on work of the Action,
- Exchanging five young researchers (PhD students or postdocs), each for a few weeks.
- Further effects of new projects financed by the proposed research programme will come after the end of the Action.