

CHAPTER 13

FARMING FOR HEALTH IN THE NETHERLANDS

MARJOLEIN ELINGS AND JAN HASSINK

*Wageningen UR, Plant Research International, P.O. Box 16, 6700 AA Wageningen,
The Netherlands*

Abstract. Farming for Health is a growing phenomenon in The Netherlands. The most significant exponent is the Green Care farm. The number of Green Care farms has increased from 75 in 1998 to 430 in 2004. Different target groups make use of Green Care farms: clients with a mental disability, with psychiatric problems, elderly (with dementia), clients with an addiction history, people with burn-out, children and long-term unemployed persons.

In urban areas the health-promoting qualities of city farms, community and allotment gardens and healing gardens is getting more attention. The experiences of different target groups on Green Care farms and on urban green locations are positive. The farm or green environment can improve physical, social and psychic health. The Green Care sector consists of an extensive network, including a national support centre and association of Green Care farmers.

Different research projects have started. They focus on the effects of Green Care farms and nature on the well-being of clients and citizens and the health-promoting aspects of the green environment. Several educational initiatives have started.

Main challenges are:

- to bridge urban and rural networks
- to develop sustainable financing structures for Farming for Health
- to develop scientific evidence for the positive effects of Green Care farms and nature on health and well-being, and to determine the health-promoting aspects for different target groups
- to use farms and nature not only in a curative way but also for prevention, and
- to develop new systems that combine agriculture, care, recreation and education.

Keywords: green care farm; target groups; gardens; city farms; horticultural therapy

INTRODUCTION

Farming for Health (FH) is a growing phenomenon in The Netherlands. The most significant exponents are Green Care farms. The number of Green Care farms is increasing rapidly. The combination of agriculture and care started as a bottom-up process, initiated by motivated farmers. The increase in the number of Green Care farms can be seen as an example of growing interest in the relationships between nature and health. This interest was stimulated by a recent report of the Health Council and the Dutch Advisory Council for Research on Spatial Planning, Nature and the Environment on the effect of nature on well-being. Special attention was

Jan Hassink and Majken van Dijk (eds.), Farming for Health, 163-179.

© 2006 Springer. Printed in the Netherlands

given to the significance of green areas for health and well being of the urban population. Urban green areas such as community gardens, allotment gardens and city farms can contribute to the health of urban citizens. Other elements of FH are horticultural therapy and healing gardens. They are not very well known in The Netherlands.

The development of Green Care farms is described in this chapter, followed by other examples of Farming for Health in the urban areas. Some interesting projects and the main challenges are discussed.

HISTORY AND DEVELOPMENT OF AGRICULTURE AND CARE IN THE NETHERLANDS IN THE 20TH CENTURY

Agriculture

Agriculture has changed rapidly in The Netherlands during the last century. Around 1900 most farms consisted of the farmer's family and maids and servants all working on the farm. With the industrial revolution the maids and servants went to the cities to work in factories; they left the countryside. By 1950 most farms were run by the farmer's family only (Bieleman 1992). After World War II, when food production in The Netherlands was insufficient, the agricultural policy was focused on increasing production, intensification, increase in efficiency and specialization. An exponent of this policy was the former Dutch minister of Agriculture Sicco Mansholt, who presented his European Mansholt plan for agriculture in 1968. This successful growing model resulted in enormous surpluses. Further intensification and industrialization of agriculture have been under discussion in recent decades. Society demands farming systems that respect animal welfare and that are ecologically, economically and socially sustainable (Commisie Wijffels 2001). An increasing number of farmers see no future in further intensification and opt for new activities such as landscape and nature conservation, energy production and recreation. They try to meet the changing needs of society and consumers and to restore old, and build new, links between rural and urban areas. In 2002 40% of the farmers already had other activities besides food production (Van der Ploeg 2002).

Care

The number of psychiatric and mental disabled increased in the middle of the 19th century. The increase of the population in general, industrialization and decreasing tolerance towards abnormal behaviour were the cause of this increase (Van Schaik 1997). The government set up institutions to keep the 'lunatics' in order and peace. The institutions had the function of nursing home, shelter for the homeless, as well as prison. The institutions were located in the woods and rural areas of the country. Medicalization and scientification of care made people see psychiatric and mental disabled as ill persons who need to be cured (Schnabel 1995).

The opposition against the large institutions resulted in investigations of the possibilities of community care. The first Dutch experiment to combine institutional care with community care was started in 1922 in a rural area of The Netherlands.

Between 1920 and 1940 labour was considered a healing instrument in psychiatric institutions. At that time most institutions had their own farm. Labour was not yet considered a tool for integration into society. However, in the 1950s and '60s labour disappeared from psychiatric institutions. It was considered to be repressing and not therapeutic. The days of clients were filled with new creative therapies with therapeutic goals. The institutions were still hierarchical organizations. Around 1970 the antipsychiatric movement demanded a more client-centred approach and a more equal relationship between patients and health-institution staff (Kramer 1990). Individual autonomy and self-development became popular terms.

The care policy of mentally challenged people has gone through the same development as that of psychiatric patients, with the difference that the educational approach and work were more important in the treatment of mentally challenged people. Since the 1960s there was a growing interest in the capabilities of the client instead of his or her limitations.

Also in the care for the elderly, and especially for elderly with Alzheimer's disease, the focus is shifting from a medical model to a model with emphasis on daily life and long-term care. This opens more and more possibilities for Green Care farms to host elderly in need of long-term care. In these cases working on the farm has no therapeutic or rehabilitation purpose but is used as a meaningful daily occupation.

Nowadays integration of clients into society, providing meaningful work that leads to greater independence and social status, and taking the potentials of clients instead of their limitations as starting point, are central elements in the desired renewal of the health care and rehabilitation sector.

Agriculture and care

The combination of agricultural production and social care is not really new in The Netherlands. Some farmers and health institutions have always experienced the benefits of combining agriculture and care, and continued to combine both functions irrespective of the opposing developments in agriculture and health care. These pioneers were strongly motivated and were often inspired by anthroposophic philosophy. Nowadays the combination of agriculture and social care is seen as a promising combination of functions. The combination of agriculture and social care contributes to the diversification of agricultural production, provides new sources of income and employment for farmers and the rural area, reintegrates agriculture into society and has a positive impact on the image of agriculture (Driest 1997; Van Schaik 1997; Hassink 2001). In addition, these sheltered farms provide concrete examples of the desired renewal of the health-care and rehabilitation sectors.

NUMBER AND DIVERSITY OF GREEN CARE FARMS

The National Support Centre for Agriculture and Care has a database of all farms in The Netherlands that combine agricultural activities with some type of care. This means that different types of Green Care farms are included in this database, like regular farms where mentally challenged people work but also children's zoos with day activity for psychiatric patients (Ketelaars et al. 2002).

Number of Green Care farms

Between 1998 and 2004 the number of Green Care farms increased dramatically from 75 to 432 (Table 1). A considerable number of farmers are interested to adapt their farm and in combining agriculture with social care (Table 1). According to research of the Reinoud Adviesgroep, the number of Green Care farms can increase to 1100 (Kramer and Claessens 2002).

Table 1. *Number of Green Care farms and interested farmers*

	1998	2000	2001	2003	2004
Actual number of Green Care farms	75	214	323	372	432
Number of farmers who have made a project plan for Green Care	13	49	55	53	28
Number of farmers interested in starting Green Care	0	114	110	141	119

Green Care farms are not evenly spread over the country. There is a concentration of Green Care farms in the central and eastern parts of The Netherlands. Especially the province of Gelderland has a large number of Green Care farms. This is probably due to the fact that these areas originally have more care institutions than other parts of The Netherlands and that these farms are more suited for Green Care as they are relatively small and less specialized (Elings et al. 2003).

Diversity in target groups

In the 1990s the main target groups were mentally challenged people and people with psychiatric problems. The last couple of years there is a growing number of other target groups, like elderly, people with an addiction, people with burn-out, long-term unemployed, children, people in isolation, homeless people and clients in a social or work integration project. A new phenomenon is the use of the farm in a preventive way instead of a curative way. One farmer, e.g., offers inspiration courses for managers on his farm and the surrounding land.

A large number of Green Care farms combine different target groups. This has two advantages, financing of clients is possible from different kinds of sources, and people with different disabilities can help each other in their activities and handicaps. Table 2 shows how many Green Care farms opt to receive a specific target group. This does not mean that these target groups are actually working on this farm. It is possible that a Green Care farm is open to people with a mental handicap as well as clients with a psychiatric background but that in fact only mentally challenged people are working on a particular farm (Ketelaars et al. 2002).

The number of clients at Green Care farms varies and may range from one to forty or even fifty clients who are working each week. Especially Green Care farms that are part of a care institute have a large number of people who are working or who are following a day-activity programme on the farm. At the moment the total number of clients who are working or living on a Green Care farm in The Netherlands is about 8,000.

Table 2. Number of Green Care farms and the target groups that are welcome

	2001	2003	2004
Mentally challenged	238	271	301
Psychiatric demand	103	118	156
(Ex) prisoners	33	30	28
(Ex) addicts	43	40	48
Psychically handicapped	43	55	75
Nursery	12	13	18
Young people	42	42	62
Elderly with dementia	31	39	42
Elderly	-	-	32
Long unemployed	28	32	63
Burn-out	27	35	68
Autistic persons	-	11	61
Persons seeking political asylum	7	6	7
Special education for people with learning difficulties	-	-	42
Non innate brain injury	-	-	21

Diversity in activities and goals

In the 1990s most of the farms that combine agriculture and care were organic farms. In recent years the percentage of conventional farms is increasing. Different agricultural activities are performed by the clients. Poultry, cattle and small livestock are the most common animals on Green Care farms. Most Green Care farms also include horticultural activities. Other functions like recreation, nature and forest conservation are performed by a minority of Green Care farms (Table 3).

Table 3. Activities offered by Green Care farms

	2003	2004
Pigs	133	109
Cows	185	199
Poultry	195	205
Sheep	154	173
Goat	144	158
Small livestock	205	196
Farming	90	92
Horticulture	174	195
Fruit growing	72	80
Nature conservation	66	69
Campsite	34	36
Forest conservation	49	50
Recreation	-	18

In most cases care consists of providing people with a worthwhile daytime occupation (90%), work training and/or a sheltered place to work (30%). There are also farms that offer participants a place to live (20%). Gradually all participants will make up their own plans and discover their own qualities. After a while each participant will have his or her own detailed aims, which may be having a useful daytime occupation or more personal such as to settle down, reflection, building resistance or experience nature.

Different connections of Green Care farms with health institutions and different financing structures

There are different constructions in which Green Care farms operate. A relatively small minority is part of a health institution (Table 4). Approximately one third of the Green Care farms have a formal cooperation with a care institution. The health institution pays the farmer for the care activities. In this case the farmer has to negotiate financing with the health institution. Approximately 25% of the farms receive clients with a personal budget (PGB). This personal budget can be used by the client or the client's representatives to buy supportive or stimulating day activities on the farm. The client with a personal budget has a direct contract with a Green Care farm, without interference of a health institution. The PGB was introduced to diversify the supply of care and to shorten waiting lists. A growing number of Green Care farms have an 'AWBZ' accreditation. The AWBZ is the general insurance for special medical costs. It was created to ensure that all inhabitants of The Netherlands have insurance cover against serious medical risks. It is compulsory for all Dutch inhabitants and covers costs of nursing homes, care for the handicapped, home care and care for the mentally ill. A Green Care farm with an AWBZ accreditation has the formal status of a health institution. There is a great variation in the level of payment for care activities. It depends on the target group,

negotiation capacities of the farmer and level of the client. In general, the income is €50-75 per client per day. But still, there are also Green Care farms that receive no income for the care activities.

Table 4. Different connections of Green Care farms with health institutions and different financing structures

	1998	2000	2001	2003	2004
Green Care farms as part of a care institution or day-activity centre	24	64	77	82	86
Green Care farms with an AWBZ accreditation	12	15	16	18	21
Green Care farms in cooperation with a care institution	14	72	145	146	145
Independent Green Care farms with compensation through PGB	12	48	45	67	103
No compensation	?	?	26	30	24
Different	?	?	13	31	15

The ministry of Health, Welfare and Sports is preparing the Social Support law. Under this law, supportive and stimulating day activities are no longer covered by the general insurance for medical costs AWBZ. Only the costs of chronic and severe disease and elderly with dementia will remain part of the AWBZ. The municipalities will be responsible for the supportive and stimulating activities on Green Care farms. When this law becomes effective, Green Care farmers have to conclude contracts with municipalities.

HEALTH-PROMOTING ASPECTS OF GREEN CARE FARMS

The general experience is that working and living on a Green Care farm is healthy for a diversity of groups (Van Schaik 1997; Hassink et al. 1999; Ketelaars et al. 2001). Green Care farmers and clients mention the necessity of activities with a high appeal. The farm provides structure, space and variation in activities. According to clients and farmers, working with animals and plants has a special quality because they are living creatures. Clients also mention that they appreciate Green Care farms because the atmosphere differs from a health institution's. A Green Care farm provides a working environment and is part of society. Clients express that they are co-workers and part of a social working community instead of a client with limitations.

Based on a review of psychological, pedagogic and rehabilitation theories, Hassink and Ketelaars (2003) conclude that health can only be stimulated under the condition that a person experiences sufficient safety, sufficient challenges and

sufficient involvement with the activities and social environment. Safety is a basic need and a starting point to become active. There is an inherent need to develop, to experience challenges and to remove boundaries. Involvement makes it worthwhile to devote one's energy to something and to experience meaning. The environment of a Green Care farm offers many possibilities for clients to experience sufficient safety as well as sufficient challenges and involvement. The presence of a farmer and the work with plants and animals are key elements in this (Hassink and Ketelaars 2003).

QUALITY SYSTEM AND HALLMARK

The National Support Centre of Green Care farms has started a process of quality security for Green Care farms. This process is supported by the majority of the Green Care farmers, the association of Green Care farmers, ministries and client organizations. A quality system for Green Care farms has been developed. A Green Care farmer that has met the standards of this quality system can be registered by the National Support Centre. In a next phase, the quality of the Green Care farm can be judged by an independent person. This reviewer checks whether the quality system is effective. A hallmark is provided after a positive review. The first hallmarks have been awarded in November 2004.

ORGANIZATIONS IN THE FIELD OF AGRICULTURE AND CARE

In The Netherlands there are lots of organizations and people involved with FH. It is not only farmers, sociotherapists and clients that are working in this field but also local government, organizations for well-being, policymakers and insurers are involved. The most important organizations and people working in the field of FH are shown in Figure 7.

Green Care farms

Individual farmers often have contacts with local organizations and less contact with national organizations. One can think of clients, their families or local agencies that are looking for a place to work or for day-activity possibilities for their clients. Farmers have most contacts with a division of the Dutch Organization for Agriculture and Horticulture where they can get support in starting a Green Care farm. Some farmers have direct contacts with care financiers. About 80 Green Care farms are members of the Association of Green Care Farmers. An unknown number are members of one of the regional groups of Green Care farmers.

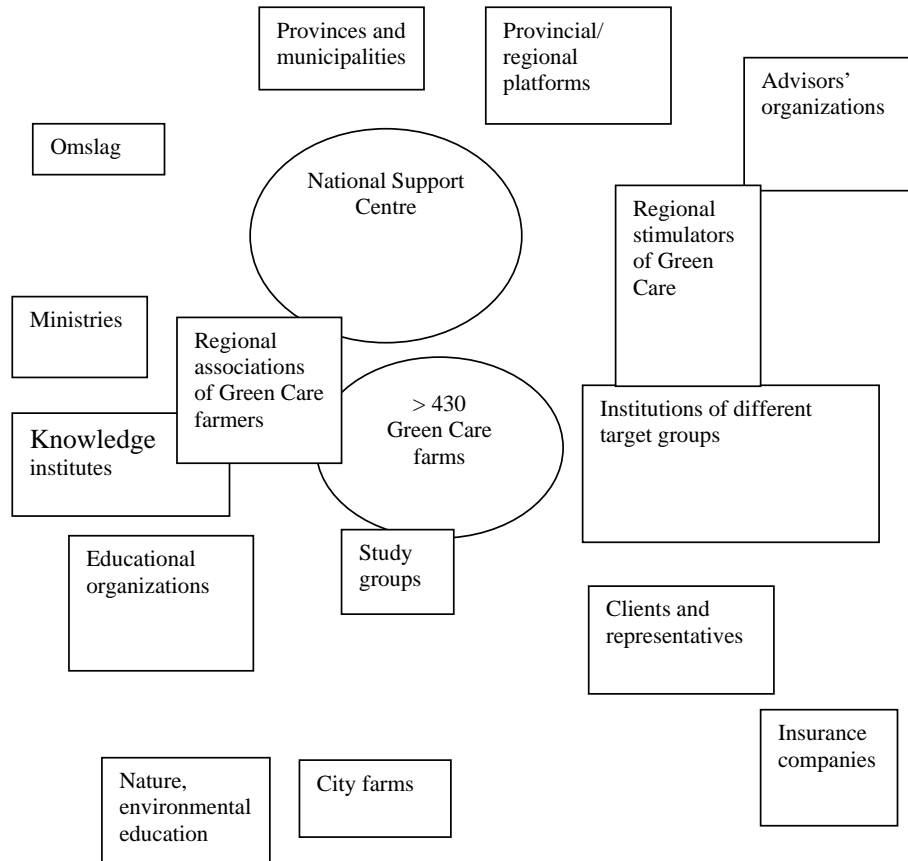


Figure 7. Organizations involved in Farming for Health

Regional groups and associations of Green Care farmers

In almost every province there are groups of Green Care farmers that organize meetings. In this way they can learn from each other. Often these groups are supported by an external advisor. Nowadays there are groups of farmers that just started a Green Care farm and groups that are more experienced.

In some regions Green Care farmers have formed regional associations of Green Care farmers. The aim of these regional associations is to match supply and demand, to introduce the quality system, to provide information about Green Care, and to negotiate with health institutions and insurance companies to get a reasonable price for the care activities.

National Support Centre

The National Support Centre is a non-profit organization that aims at all the Green Care farms in The Netherlands. Founded in 1999, the National Support Centre has existed for more than five years now and aims to stimulate, support and promote Green Care farms and initiatives on FH. The Centre gets subsidies from the ministries of Agriculture and of Welfare and Health. The Centre is a focal point for government, client organizations, clients and social workers who are looking for a place on a Green Care farm. The Centre is also the place for farmers who are considering Green Care farming. More information can be found at <http://www.landbouwzorg.nl>.

Association of Green Care Farmers

The Association of Green Care Farmers was founded in 1999 and aims to protect the interests of Green Care farmers in The Netherlands. The association has about 80 members; members need to combine farming and health on a regular farm. The association is a part of LTO (the Dutch Organization for Agriculture and Horticulture). More information can be found at <http://www.zorgboeren.nl>.

Omslag

Omslag is a foundation that promotes the encounter of agriculture, care and craft. Omslag supports socially innovative projects and is stimulating the public debate about work and recovery. Over recent years Omslag organized different conferences and initiated various research projects on FH. More information can be found at <http://www.omslag.org>.

LOCAL, REGIONAL AND NATIONAL POLICIES AFFECTING GREEN CARE FARMS

At the moment there is no national policy regarding FH, but Green Care farms fit the policy of different national departments. For instance, the policy of the ministry of Welfare and Health is to enlarge the opportunities for people who need care. There is a shift from the medical care model to the sociological care model, where the goal for quality of care is broadened to quality of life (Schols 2004). The Green Care farm is a new and additional option for different target groups that need care. The ministry of Welfare and Health also wishes care to be more embedded in society. Farms are part of society where participants have contact with people outside the medical context.

FH also fits the policy of the ministry of Agriculture, Nature and Food Quality. This ministry opts for increased contacts between society and agriculture as well as new financial opportunities for farmers. Green Care farms are good examples of such policies.

At the regional level, provinces develop general policies affecting farmers who combine farming with care – e.g., health care – and agricultural and spatial planning

policies. Most provinces also have specific stimulation policies for Green Care farming. An inventory clearly showed that not all provinces started Green Care farming policies at the same time. Also the contents and implementation of policies differ per province (Elings et al. 2003), resulting in more advanced health-care policies in some provinces than in others.

POLICY DEVELOPMENT

Initially, regional policies are in particular directed towards increasing the number of Green Care farms by subsidizing investments in canteens, sanitary facilities or adaptations to the farm. Often provinces also supported a Point of Support for farmers. After this stage, provinces concentrate more on quality than on the number of Green Care farms. This means that the sector needs professionalization, for instance by working with the quality system for Green Care farms developed by the National Support Centre. In this case provinces make it possible for farmers to get coaching to obtain this quality certificate.

Currently, most provinces are in the stage of pushing the sector towards emancipation and self-support. Yet, provinces do not know precisely how to realize this. They recognize that continued structural financing of the sector is not possible but also that it is at the moment too early to stop subsidies. In some provinces regional associations of Green Care farmers are being set up.

The current general trend in policy is decentralization. This means that in the future more policies will move from provinces to municipalities. The WMO (the law on social support) is one example with consequences for Green Care farmers. Another trend is the reduction of collective costs and the increase of market mechanisms and personal responsibility in health care (Schols 2004).

CITY FARMS

Over the last 50 years The Netherlands has changed into a very urbanized country. Today, 90% of the Dutch population lives in towns and cities. The pressure for economic progress in the past and the overcrowding of the cities left no place for nature as people had known before. During the 1970s, the first city farms were started, mainly because concerned parents and teachers wanted to provide children with a healthy and stimulating place to play and learn about their environment.

Nowadays, the 350 city farms in The Netherlands, ranging from small fields to large complexes, have up to 15 million visitors a year. The farms bring visitors into contact with animals, plants, their environment and each other. Recently, scientists from Wageningen University and Research Centre (Wageningen UR) interviewed visitors in Rotterdam about their reasons for visiting the farms. People like the city farm because it is a safe place, free to visit, often in the neighbourhood, and attractive to everybody. Elderly people like to watch the children play and to get their exercise. It is a safe working place for people with psychiatric problems or a mental or physical disability. Dutch and foreign citizens integrate and meet. For visitors, especially for children, it is also a place where they can learn about

sustainable development, agriculture, food chains and their own place in the natural system (Bosman and Vos 2004). City farms wish their visitors to experience that there is a close bond between people, animals and the wider environment: "We are part of the earth and the earth is part of us" (<http://www.cityfarms.org>).

In The Netherlands, 25% of the city farms belong to a health institute. Most city farms are paid by the local government. Many farms struggle with a lack of money and bureaucracy due to agricultural legislation. But there are also many opportunities. City farms change more and more from a 'playground for children' into multifunctional green centres for the whole city population. There is a slow move from an incrowd organizational structure into an outward-looking professional sector. Cooperation with green (care) projects in and outside the cities is necessary for a healthy future of the Dutch city farm.

HEALING GARDENS AND HORTICULTURAL THERAPY

Horticultural therapy has been a specialism in The Netherlands since the early 1970s. It is a specialization of creative therapy. Horticultural therapy has never become a major trend in creative therapy in The Netherlands. At the moment horticultural therapy is no longer a specific study direction. Courses in horticultural therapy can still be followed at Utrecht Polytechnic. Horticultural therapists are working in health institutions with different clients, mainly people with psychiatric problems, children, people with mental disabilities and elderly people. The main difference between horticultural therapy and Green Care farms is that horticultural therapy uses plants as a therapeutic medium. Its aim is to reach therapeutic goals; agricultural production is not important. On a Green Care farm, working with plants is a commercial activity. Crop quality and quantity are important; clients take part in the production process.

Healing gardens are specifically designed to stimulate senses, to experience rest and beauty, and to activate people. They are usually part of a hospital or a health institution. There are only a few healing gardens The Netherlands and they are not very well known. The target groups are elderly people with Alzheimer, people with visual handicaps, children with mental of psychiatric problems and people with burn-out.

NATURE AND HEALTH

There is a growing interest in the effects of a green environment and nature on the social, psychic and physical well-being of people. Green Care farms, city farms, healing gardens and horticultural therapy are regarded as practical examples of the relationships between nature and health. Nature policy recognizes the increasing demand for 'nature for people', particularly in and around towns and cities. Recently, the Health Council of The Netherlands and the Dutch Advisory Council for Research on Spatial Planning, Nature and the Environment (RMNO) analysed all scientific knowledge on the beneficial influence of nature on health and well-being (Gezondheidsraad 2004). It was concluded that there is a limited amount of direct

evidence. A connection between health and nature can, however, be established indirectly by looking how nature influences actions or mechanisms which in turn influence health. The Health Council and RMNO identified five mechanisms: 1) recovery from stress and attention fatigue, 2) encouragement of exercise, 3) facilitation of social contact, 4) stimulation of development in children, and 5) stimulation of personal development and a sense of purpose. These mechanisms can occur in work settings (e.g. Green Care farms), recreational settings (e.g. community gardens) and therapeutic settings (e.g. horticultural therapy).

The programme 'Agriculture and Nature for a Healthy Society' of the National Initiative of Sustainable Development linked green spaces in the city, such as community and allotment gardens and city farms, with green spaces around the city such as Green Care farms and nature areas where volunteers and different client groups can perform activities. The aim was to underpin the relevance of activities in these green areas for the well-being of urban residents (Hassink and Ketelaars 2003). It was concluded that the mechanisms indicated by the Health Council and RMNO occurred at all green areas where people are working together (Kieft and Hassink 2004; Hassink and Oomen 2004). Organizations of Green Care farms, city farms, nature, community and allotment gardens have recognized that they are all part of the emerging movement of 'nature and health'. They agreed to continue their collaboration.

RESEARCH

Several research projects focusing on the relationships between nature and health and on the significance and development of Green Care farms were started in the last decade. The most active researchers in this field have decided to combine their efforts in a centre of expertise 'Agriculture, Nature and Health'. Researchers from Wageningen UR collaborate with researchers from the Trimbos Institute (Netherlands Institute of Mental Health and Addiction), Louis Bolk Institute (Institute for Biological Agriculture, Food and Health) and the universities of Utrecht (psychology) and Tilburg (chronic care).

A new development is the transformation of a classic research farm of Wageningen UR into a Green Care farm, which will be the national centre of research and practice on Green Care (<http://www.dehogeborn.nl>). It is a collaboration between Wageningen UR and two health institutions. In previous years, several research reports on Green Care have been published, of which the most relevant are summarized below.

Research on therapeutic communities for people with psychiatric problems (Ketelaars et al. 2001)

This research was initiated by Omslag and describes the working methods of three anthroposophical therapeutic communities with farm activities. Clients experience different ways of recovery. They experience physical and mental rest; they develop new skills especially in psychic and social emotional functioning, and they learn

how to cope with their vulnerable sides. Clients experience a real change, feel more authentic and have more contact with their own feelings.

The value of farm animals for clients on a Green Care or a city farm

Hassink (2002) and Van Dijk and Hassink (2002) interviewed Green Care farmers to explore the value of farm animals for the development of clients with a mental or psychiatric disability. This study showed that animals have a strong appeal to clients. They can provide safety (they can offer warmth, they have no hidden agenda) and appeal to caring; they can offer challenges (they can be huge and can do unexpected things), it is easy to get a bond with them (they behave like human beings) and make elements of life visible (birth and death, order in the group). It became also clear that cows, goats, chickens, pigs and horses have very different characteristics. A cow is a large, calm and warm animal; a goat is smaller, less predictable; a pig is a cheerful, roguish animal, focussed on food; a horse is a large versatile animal that can form a close bond with a client and a chicken is part of a group and keeps distance to the clients.

Agriculture unites! Agriculture an answer for trouble? (Cool 2002)

This study is an evaluation of a three-year project of clients with an addiction history on Green Care farms. This study showed that a Green Care farm can be a healthy working environment for this target group. The physical work on the farm brings clients back to themselves, they feel their own body and get into contact with their direct environment. The clients learn to work with other participants and produce a quality product that will be used by others. It was observed that working with animals can be helpful to learn to build up relationships with other persons.

The value of a farm with real agricultural production

In this study, Elings (2004) looked at the specific value of working on a Green Care farm with true agricultural production in comparison with working on a Green Care farm that produces agricultural products more or less as a hobby or for the mentally challenged participants on the farm. This study shows that the presence of a farmer is very important for the participants. The farmer is a role model; he is the boss, he is not a therapist or social worker. The farmer is the expert in farming and has a strong bond with his farm, which gives participants safety and clarity. They can always count on the knowledge and expertise of the farmer. A farmer is also an entrepreneur; this attitude is helpful in finding creative adaptations in the work process for the participants. The farmer makes the participant use the farming environment as a challenge for development.

Knowledge about farming and agriculture seems to be an important condition in supporting participants on the farm. Social workers on farms without real agricultural production often do not have this knowledge. These social workers could follow agricultural training. Based on the results of this study care institutions

are recommended not to build their own social care farm but to cooperate with existing farmers.

Future research

In 2005 three long-term research projects will be started to determine the effects of Green Care farms for elderly people, people with burn-out or with psychiatric disabilities and clients with an addiction history. In addition, the specific role of farm animals and plants will be investigated.

The effect of allotment gardens and green spaces in the living area on the well-being of urban inhabitants will be determined in another project.

EDUCATION

The fast growth of Green Care farms in The Netherlands was supported by different courses for farmers in the late 1990s. The Expertise Centre for Agriculture and Care in Dronten has developed a curriculum that was approved by the government. In September 2004 the first education course for Green Care farm managers started.

Clients of Green Care farms were also found to have educational demands. The first professional education for clients of Green Care farms started in Dronten in September 2004. The enthusiasm of the pupils is great. In addition to these education programmes, a module 'agriculture and care' was developed as part of the rural-development study.

CHALLENGES FOR FARMING FOR HEALTH IN THE NETHERLANDS

Although the number of Green Care farms has increased rapidly over the last decade and the positive effect of nature on health is generally accepted, FH in The Netherlands faces many challenges. The main challenges are to:

- bridge the gap between rural and urban areas;
- extend networks of FH;
- develop sustainable financing structures for FH;
- develop scientific evidence for the positive effects of Green Care farms and nature on health and well-being, and determine the health-promoting aspects for different target groups;
- use farms and nature not only curatively, but also for prevention;
- develop new systems that combine agriculture, care, recreation and education.

The general expectation is that the number of Green Care farms will increase. Most Green Care farms are located in the rural parts of the country. The new target groups that may benefit from the green environment, such as clients with an addiction, long-term unemployed and people with burn-out are concentrated in urban areas. The challenge is to build links between those urban clients and farmers around the cities. It is clear that for many urban clients the distance to farm life is much larger than for clients from the countryside. This means that more effort will be needed to bridge the gap.

Another challenge is to connect the green spaces in urban areas (city farms, community and allotment gardens) and the green areas around cities (Green Care farms and nature areas) where clients can find a suitable day activity or place to live. The first experiences of different target groups working in community gardens and on city farms are positive. These urban farming-for-health locations can be a first step for urban clients to discover the Green Care farms around the city.

In the near future, the sector needs to prove the effect that working on a farm or in nature has on different kinds of people. Some farmers think that there is enough practical information to prove the effect but it is generally accepted now that more scientific evidence is essential. This is crucial to become a generally accepted provision in health care and to develop sustainable financing structures. Evaluations and research on the satisfaction of clients could give more inside information about the significance of different elements of working on the farm for clients and their quality of life.

The development of FH is part of a greater development of renewing the countryside and keeping cities healthy. Within this framework, the countryside will move from a production function towards a more recreational function. Combinations of regional food production, care, nature and landscape conservation, recreation and education can be building stones of new sustainable farming systems. A specific point of concern is the preservation of the specific quality of a real farm as this is important for the development of clients. In the cities the challenge is to combine different functions in the scarce green areas. Combining education, recreation and care, and increased commitment of the neighbourhood and businesses can help to strengthen the green areas in the urban environment.

REFERENCES

- Bieleman, J., 1992. *Geschiedenis van de landbouw in Nederland, 1500-1950: veranderingen en verscheidenheid*. Boom, Meppel.
- Bosman, M. and Vos, M., 2004. *De waarde van kinderboerderijen in Rotterdam*. HAS Den Bosch.
- Commissie Wijffels, 2001. *Toekomst voor de veehouderij: agenda voor een herontwerp van de sector*. Ministerie van LNV, Den Haag. [<http://www.akk.nl/pdf/wijffels.pdf>]
- Cool, W. (ed.) 2002. *Landbouw verbindt! Landbouw & zorg als antwoord op overlast: verslag van een pilotproject*. Omslag, Stichting ter Bevordering van de Ontmoeting tussen Landbouw, Ambacht en Gezondheidszorg, Vorden.
- Driest, P.F., 1997. *Zorgboerderijen: een introductie*. Nederlands Instituut voor Zorg en Welzijn (NIZW), Utrecht.
- Elings, M., Hassink, J. and Ketelaars, D., 2003. *Landbouw en zorg in de provincie: inventarisatie van provinciaal beleid landbouw en zorg*. Plant Research International, Wageningen. Rapport / Plant Research International no. 63.
- Elings, M., Hassink, J., Spies, H., et al., 2004. *Boer, zorg dat je boer blijft: een onderzoek naar de specifieke waarden van een bedrijfsmatige zorgboerderij*. Wetenschapswinkel Wageningen UR, Wageningen. Rapport Wetenschapswinkel Wageningen UR no. 194B. [<http://www.wur.nl/wewi/pdf/194b.pdf>]
- Gezondheidsraad, 2004. *Natuur en gezondheid: invloed van natuur op sociaal, psychisch en lichamelijk welbevinden (Deel 1 van een tweeluik: verkenning van de stand der wetenschap)*. Gezondheidsraad, Den Haag. GR no. 2004/09. [<http://www.gr.nl/pdf.php?ID=1018>]
- Hassink, J., 2001. *Duurzame landbouw en duurzaam landgebruik in Nederland en de impact van landen in het Zuiden*. Discussiepaper ten behoeve van de consultatiebijeenkomsten op 27 en 28 juni 2001. Plant Research International, Wageningen.

- Hassink, J., 2002. *De betekenis van landbouwhuisdieren in de hulpverlening: resultaten van interviews met professionals op zorg- en kinderboerderijen*. Plant Research International, Wageningen. Rapport / Plant Research International no. 45. [http://library.wur.nl/wasp/bestanden/LUWPUBRD_00318765_A502_001.pdf]
- Hassink, J., Heymann, F. and Slokker, A., 1999. *Kwaliteit met zorg geproduceerd: een onderzoek naar de aspecten die de kwaliteit van landbouw en zorg beïnvloeden*. AB-DLO, Wageningen. Nota / Dienst Landbouwkundig Onderzoek, Instituut voor Agrobiologisch en Bodemvruchtbaarheidsonderzoek no.191.
- Hassink, J. and Ketelaars, D., 2003. De bodem onder de zorgboerderij: naar een onderbouwing van de heilzame eigenschappen van een zorgboerderij. In: *Handboek Dagbesteding*. A3116:1-25. [http://www.syscope.nl/upload/project_alinea_394.pdf]
- Hassink, J. and Oomen, E., 2004. Zorglandbouw heeft toekomst: toenemende erkenning voor de waarde van het werken met planten en dieren. *Ekoland*, 24 (7/8), 20-22. [<http://library.wur.nl/artik/ekoland/1727379.pdf>]
- Ketelaars, D., Baars, E. and Kroon, H., 2001. *Werkend herstellen: een onderzoek naar therapeutische (leef)werkgemeenschappen voor mensen met psychiatrisch problematiek*. Trimbos-instituut, Utrecht. Trimbos-reeks no. 2001-4.
- Ketelaars, D., Van Erp, N. and Hassink, J., 2002. *Landbouw en zorg in beeld: blik op heden en toekomst*. Plant Research International, Wageningen. Rapport / Plant Research International no. 50. [http://library.wur.nl/wasp/bestanden/LUWPUBRD_00318774_A502_001.pdf]
- Kieft, E. and Hassink, J., 2004. "Noem het maar gewoon 'medicijn'": de betekenis van wijktuinen voor het welbevinden van stadsbewoners in Amsterdam: NIDO programma 'Landbouw en groen voor een gezonde samenleving': verkennend onderzoek. Plant Research International, Wageningen. Rapport / Plant Research International no. 85. [<http://library.wur.nl/way/bestanden/clc/1739422.pdf>]
- Kramer, B. and Claessens, M., 2002. *Groeikansen voor zorgboerderijen: een onderzoek naar de vraag naar dagbesteding op zorgboerderijen*. Reinoud Adviesgroep, Arnhem.
- Kramer, F., 1990. *Geschiedenis van de zorg voor geesteszieken*. Elsevier Gezondheidszorg, Maarssen.
- Schnabel, P., 1995. *De weerbarstige geestesziekte: naar een nieuwe sociologie van de geestelijke gezondheidszorg*. SUN, Nijmegen.
- Schols, J.M.G.A., 2004. *De toekomst van de chronische zorg, ons een zorg? van oude structuren, de dingen, die voorbijgaan*. Dutch University Press, Amsterdam. [http://nvva.artsennet.nl/uri/?uri=AMGATE_6059_113_TICH_R149445364839106]
- Van der Ploeg, J.D. (ed.) 2002. *Kleurrijk platteland: zicht op een nieuwe land- en tuinbouw*. Koninklijke Van Gorcum, Assen.
- Van Dijk, M. and Hassink, J., 2002. *Inzet van landbouwhuisdieren op zorg- en kinderboerderijen: praktijkboek*. ID-Lelystad, Lelystad.
- Van Schaik, J. (ed.) 1997. *Ontmoeting landbouw & zorg: inventarisatie praktijkervaringen zorgboerderijen*. Omslag, Stichting ter Bevordering van de Ontmoeting tussen Landbouw, Ambacht en Gezondheidszorg, Vorden.