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Organic agriculture has excellent opportunities to create strong links between the environment it operates in, the people who live there and local nature and landscape. The Dutch organic sector aspires to strengthen these links and it is already well on its way. Together with researchers and stakeholders new concepts are being developed and put into practice.

Nowadays, many consumers have no idea where their food comes from. Rural and urban life seem to have drifted apart. Nature and landscape management are not even intrinsic elements of farm life anymore. Research shows that organic agriculture may well be capable of bridging the gap between consumers, farm and nature. Many organic farmers derive their motivation not only from primary production. They also want to restore the ties between urban and rural life, and between agriculture and nature. This way they contribute to what is considered 'social sustainability'.

People

What exactly is social sustainability and what role can organic agriculture play in it? To answer this question researcher Marieke Meeusen refers to the definition of sustainability given in the Brundtland report 'Our common future'. Within the framework of the three P's (people, planet and profit), social sustainability focuses on the P of People. This means that a socially sustainable farming business, for example, does not exploit people. To be more precise: its business practices do not involve child labour or excessive physical labour, and they do not negatively impact the labourers' mental well-being. The P of People also implies that people work together to increase environmental awareness. This is exactly what organic agriculture does through the large number of linkages it creates with its environment. Meeusen: "This way, people become more aware of what good food really is. If you want to judge organic agriculture on its social sustainability, you have to look at aspects like labour conditions, the physical burden on labourers and the links to society created by the sector."

Linking farmer and general public

Agriculture often takes the connection between producer and consumer (citizen) for granted. In the past this connection was mostly based on geographic proximity. In a globalised society the principle mainly represents a close emotional relationship between producer and consumer. For such a relationship to develop, the identity of the producer has to be apparent to the consumer. There are various ways for producers to connect with their social environment. The Dutch organic



Andries Visser

"Organic agriculture creates linkages between farmers and the general public"

Andries Visser

Labour conditions on organic farms

One aspect of social sustainability concerns labour conditions. How does organic agriculture perform compared to conventional agriculture? The physical workload has been studied in a number of sectors. The results vary. Labour conditions on organic arable farms and field vegetable farms are worse than those on conventional farms. This is mainly due to the large number of hours spent weeding by hand. These activities put much strain on the back. Also, monotonous work during planting, weeding, harvesting, and preparation for auction may cause Repetitive Strain Injury.

Organic poultry farms perform better than their conventional counterparts, as far as labour conditions are concerned. Organic poultry farmers keep fewer animals, which results in fewer hours spent in the poultry house. Organic pig farmers, on the other hand, have more physical work thanks to filling, cleaning and mucking out the pens, and because of the way the animals are fed. This leads to more physical strain (in particular on the lower back) than on conventional farms. Little more information is available about labour conditions in organic enterprises. Nothing is known about absence due to

sickness and accidents. Research into the work satisfaction of organic farmers has only just started. Existing literature shows that ‘going organic’ brings the joy back into farming for many farmers. Interviews were held with ‘care farmers’; farmers who allow people with a mental or physical disability to work on their farms on a therapeutic basis. These interviews showed that having such activities on the farm improves the farmer’s quality of life.



sector aims to strengthen these connections. Research has already looked at the types of services organic farmers offer the general public and how these services help (re)connect the urban and rural worlds. It would be interesting to find out which linkages best suit the needs of the public. Research on this topic has recently started.

Organic farmers can contribute to these linkages through on-farm nature and landscape conservation. Organic farmers inspire scientists through their nature and landscape management – not only by providing space for nature and landscape on their farms, but also by explicitly thinking about ways to turn nature and landscape into inseparable parts of organic farm management. A second way to contribute to a closer connection is through what the Dutch call ‘experience farming’. This basically means locating agricultural activities within a city or near urban agglomerations. The short distance between farmer and city-dweller is a distinctive characteristic: many people visit the farm, they see the farmer at work, they come to pick their own apples or to play with the goats. Because of the direct contact these people have with agricultural activities, farming systems in which no chemicals are used are preferred. The project ‘Tomorrow’s taste’ is currently testing which cultivation systems might be suitable for this form of agriculture.

Multi-functional organic farms

It turns out that organic farms do indeed play a linking role, more so than conventional farms. Organic farms serve a wide range of functions, including recreation, health services, nature conservation and education. An analysis of these side-activities of Dutch organic farms shows that, proportionally, organic farms offer over three times more activities than conventional farms. On-farm sales are offered five times more often on organic farms than on conventional farms, recreational activities six times more often, and healthcare activities seventeen times more often. Compared to conventional farms, the linkages in organic farms seem to be more related to emotional values like dedication, passion and conviction (see Table 1).

Table 1. Types of linkages and underlying consumer values

Type of linkage	Emotional value	Schwartz’s values *
Product		
Regional/brand product	Interest	Novelty and curiosity
Quality label	Conviction	Equality and responsibility
Service		
On-farm sales	Diversion	Novelty and pleasure
Farmers’ market	Interest	Curiosity and social harmony
Farm shop	Conviction	Safety and social harmony
Subscription	Dedication	Sense of connectedness and obedience
Experience		
Day recreation	Amusement	Curiosity and pleasure
Overnight recreation	Diversion	Freedom and curiosity
Education	Interest	Curiosity and justice
Child care	Interest	Social harmony and responsibility
Care farm	Passion	Safety and connectedness
Participation in discussions and labour activities	Conviction	Helpfulness and equality
Participation in decision making	Dedication	Responsibility and tolerance

* Schwartz’s values are common values that act as ‘guiding principles for one’s life’. The ‘Schwartz Value Inventory’ (1992) was a wide survey of over 60,000 people in which Schwartz identified ten ‘value types’ that gather multiple values into a single category.



Anton Stortelder

“Nature should not only be tolerated on a farm, but integrated actively”

Anton Stortelder

Agromere, agriculture in a new suburb

Research into urban farming in the Netherlands evolves around the projects 'Agromere' and 'Tomorrow's taste'. In Agromere scientists are attempting, together with stakeholders, to develop concepts for urban farming to be implemented in future urban extensions of the city of Almere. Many stakeholders in Almere are enthusiastic about urban farming. Together, scientists, farmers, landscape architects, project developers and town and country planners are preparing the conditions and requirements for urban agriculture. The issues encountered by the stakeholders of the Agromere project are serving as input for the 'Tomorrow's taste' project. Urban farming should focus on growing crops that give city dwellers something 'extra'. Examples are colourful crops like tulips, or crops people may taste or pick themselves, such as strawberries. One of the issues that are yet to be resolved, is how farmers can make the landscape attractive to the general public. In a pilot project, scientists designed a 'Mondriaan field' with crops of different colours and shapes. GPS-techniques were used to enable easy sowing and harvesting of these fields.



The crops in a Mondriaan field are a colourful and graphic addition to the landscape

Values such as equality, responsibility, safety, social harmony, helpfulness and tolerance are typical of these relations. The linkages created by conventional agriculture, with innovation, pleasure, freedom and curiosity as their main values, are less engaging. Organic farmers often view their farms in a holistic way, which explains the different values of the connections they create. They often pass this message of wholeness on to visitors and consumers. Because the different farm activities are often interwoven, organic farmers are able to emphasize the link with food production and natural cycles.

Research only gives a first indication of the extent of the linkages. The framework for assessment of these linkages needs further substantiation. Further surveys among consumers and the general public are also required. Whether the theoretically formulated values for the various activities are indeed valid, is one of many questions that still need to be answered. "Even though this research is still in its early stages, it shows the clear distinction between organic and conventional agriculture. This gives the sector new arguments with which to communicate to society the added value of 'organic' production", says Andries Visser, leader of the 'Multifunctional' research programme. "Pergola farms or Community Supported Agriculture (CSA), where local citizens have a say in farm management, are the most far-reaching form of linkage between a farmer and the general public."

Urban agriculture

The most important contributions made by farms in urban environments are the various linkages and experiences they provide for urban citizens. This form of agriculture can be found only sporadically in the Netherlands, but scientists believe it could be applied much more frequently in the extension of urban areas. The concept needs further elaboration, but it is already evident that organic agriculture is the most suitable form of urban farming. Agricultural activities that take place in the middle of housing developments should not involve the use of chemicals. Farms should also offer services and activities to people living in the neighbourhood. This not only legitimises the use of valuable land for urban agriculture (rather than for commercial or residential buildings), it is also the only way to run an economically viable farm.

Nature and landscape

Many organic farmers are convinced that nature and landscape elements are, or should be, an inextricable part of organic farms. Literature shows that organic farmers provide "green services" such as clean water, biodiversity, and attractive landscapes through their farming efforts and by refraining from the use of chemical pesticides and fertilizers. On average, organic farms provide more biodiversity and characteristic (regional) agricultural landscapes than conventional farms. Organic farmers are more inclined to grow traditional crops and varieties; there are more herbs and insects on organic fields; and the farms have more landscape elements that attract breeding birds and insects.

The above is not true for all organic farms. Conventional farms in old landscapes, such as the 'Friese Wouden' in the Netherlands, contain a higher than average biodiversity. On the other hand, biodiversity is lower than average on an efficiently organised organic arable farm with large fields in Groningen. Biodiversity is threatened by the trend towards scale enlargement and mechanisation, which also affects a number of organic farms.

Farmers and researchers discussing nature and landscape on organic farms



The organic nature farmer

The organic nature farmer provides a package of region-specific green services. This is the focus of his entire farming system. The following conditions also apply:

- Crops are regularly rotated on soils that are suitable for this purpose.
- At least 5 per cent of the farm area consists of landscape elements typical to the region.
- The farmer looks after these landscape elements.
- Clippings and other organic material resulting from the maintenance of these landscape elements are removed, composted and reintroduced into the mineral cycle of the farm,
- Meadow birds are not disturbed during the breeding season.
- The design of the farm yard receives additional attention: at least 40 per cent of the built-on and paved surfaces will be made more attractive by using landscape elements that are characteristic of farm yards in the region.
- The farm is open to visitors.



Quantifiable nature

To retain its pioneering position in landscape and nature management, the organic sector needs proper compensation for their tangible contributions to biodiversity. These contributions to nature and landscape must be substantial and should be integrated into the farm. "Nature should not only be tolerated on a farm, but actively integrated as part of total farm management. You have to be able to utilise your position as a farmer", explains researcher Anton Stortelder. Together with a number of farmers he has developed a concept for interweaving nature and landscape management on organic farms with quantifiable nature targets.

During workshops in three regions, organic farmers expressed their enthusiasm and willingness to provide a fixed package of region-specific nature and landscape contributions. In return they wanted a lasting, inflation-adjusted annual compensation (from financial investors). The possible shape of

such a package was investigated together with the farmers. This resulted in seven requirements (see box 'The organic Nature farmer') that were found acceptable by the farmers who participated in the project.

The most important requirement, according to Stortelder, is that farmers reintroduce clippings and other organic waste into their farms through composting. "This creates a link between the farmer, nature and the landscape. By taking nutrients away from the surrounding natural habitats, he creates opportunities for the development of valuable biodiversity. At the same time he works towards closing the mineral cycle of his farm." It is essential that the nature farmer works in a structured way by making a farm nature plan. This way his investors can confirm that nature management agreements are being met. According to Stortelder it would not be fair to judge a nature farmer's performance based on the number of plants or meadow birds counted on his fields. Spontaneous establishment of plants, for instance, is not only influenced by management but also by the natural potential of the farm environment.

The framework for this new farming concept has been made. The researchers will now present it to the same farmers who participated in the workshops. Follow-up research with two or three farms that will apply the concept will be next. This still requires a few preparations, such as drawing up a list of typical regional landscape elements (e.g. alder belts and reed borders in peat meadow areas) finding investors, and working out a realistic compensation scheme. Results are expected in 2012. A successful pilot project would enable the organic sector to extend the methodology to more organic farms.

Literature

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