

## Encouraging organic cultivation practices in Swiss allotment gardens

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### Abstract

Allotment gardens are usually managed by associations, with small allotment plots rented to individual tenant gardeners. Many garden associations have rules for organic production but the rules are neither followed nor policed. To find ways to motivate gardeners to manage their plots organically, we investigate the attitudes of Swiss gardeners towards organic gardening, and which motivations can be used to encourage and promote organic garden management. Interviews with 32 gardeners and other key informants from three Swiss target cities were analysed using content analysis. We found that organic practices are more likely when knowledge is held and that the social environment has a strong influence on behaviour, so potential exists for encouraging a culture where organic cultivation is the norm. Education strategies should therefore be developed in consultation with integration and education specialists to enhance their effectiveness by reaching their target groups in a way that encourages the cultural change.

### Introduction

In this paper, we investigate the attitudes held by Swiss allotment gardeners towards organic gardening and which motivations can be used to encourage organic garden management. In particular, we investigate whether the availability of information, the understanding of the concept of organic production, and the social environment can combine to form a behavioural intention (Ajzen 1991). However, even in areas with regulations that demand organic management of plots, rules are not always followed, and the associations are reluctant to police them. Motivation strategies for gardeners to garden organically may be more effective than regulation to encourage organic management of allotment gardens. Once such motivations are identified, strategies can be developed to reach this group of producers and consumers. Allotment gardens are under existential threat, which may contribute to a motivation by gardeners to demonstrate sustainability in their practices.

### Material and methods

Respondent gardeners were sourced from three Swiss target cities: Basel, Lucerne, and St. Gallen. Data was collected by means of semi-structured interviews with key informants from city administrations, gardening associations, and gardeners in the three cities. The 32 interviews were conducted during the summer of 2013 and analysed using a qualitative content analysis approach (Mayring 2002). The interpretation of the interviews was conducted in conjunction with a review of relevant literature on the topic of allotment gardens in other contexts.

### Results

#### *Scope of the problem*

In Switzerland, there are 640 hectares of allotments with 25,000 active gardeners. During the last 20 years, there can be seen both, a revival of interest in allotment gardens by urban residents; especially in large cities, and simultaneous competition from other kinds of land use as populations grow. Allotment gardens are usually found on areas of land owned by cities, or in some cases individuals, with smaller individual allotment plots rented to tenant gardeners. The areas are typically governed by an association or club, and the rules and regulations for managing the individual plots vary greatly from area to area. In some cases the city requires the associations to enforce strict regulations, while in others, the cities simply rent the area to the association to manage under the association's own rules. In some cases there are strict rules that plots should be managed using organic gardening practices, while in others, the gardeners have few restrictions in the management of their plots. In any case, policing is almost always left to the associations themselves.

Allotment gardeners produce food and thus have knowledge about food production, and also represent a large and informed group of consumers. An average garden produces 23 kg fruit and 53 kg of vegetables

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per year, and the gardeners purchase the same amount of fruit and 1.5 times that amount of vegetables each year (IFUA 2001). In addition, allotment gardeners play an important role in terms of nature conservation and environmental protection in cities (BMVBS and BBR 2008). In the same study, 50 % of respondents reported that they produce their fruit and vegetables 'organically': although it was not defined what was meant with the term 'organic', while 48 % of respondents use synthetic fertilizers and 22 % use chemical pesticides (BMVBS and BBR 2008). In cases where gardeners follow the rules and garden 'organically', studies in Swiss allotment gardens have shown that the concept of organic gardening is often simply understood as being only the absence of synthetic fertilizers and pesticides (Kern 2005, Christl et al. 2004). In summary, allotment gardens have a significant role to play in the production of organic food, and in the sensitisation to the concept of organic production, but this potential is not being fully realised.

#### *Characteristics of gardening in allotment gardens*

To be involved in allotment gardening is to be involved in an association with rights and obligations. Examples of obligations are to observe building codes, to work in common tasks (e.g. separating hedges), to keep an orderly garden that appears managed, and to regularly take action to prevent excessive spreading of weeds. The rules are established by the municipality and/or the association. Despite the obligations, the demand for allotments exceeds the offer and is increasing in all of the case study cities. The new demand is often from young women or families and the association representatives welcome the interest expressed by younger newcomers as they are seen as bringing new dynamism to allotment garden areas. On the other hand, they are also regarded with some suspicion and doubts are expressed by the older established gardeners about the long term commitment of the newcomers: believing that the younger newcomers often underestimate the workload. The majority of allotment gardeners tend to be older with many in retirement age. Allotment garden areas are often under existential threat as there is development pressure in cities with increasing urbanization. Many garden areas have had to give way to construction projects, such as residential housing or public recreation areas in the cities. A demonstrated interest in allotment gardens has been put forward as an argument for maintenance of the allotment garden areas in their present form.

#### *Motivation for gardening in allotment gardens*

A variety of reasons for maintaining an allotment garden were offered. The opportunity to engage in purposeful physical activity, and finding a counterbalance to work, were often cited as reasons among the younger gardeners. For older gardeners, the garden provides a meaningful occupation that gives structure to their days along with a strong social component. Allotment gardens initially served a role in contributing to food security, or at least an affordable supply of fresh food. This role has gradually evolved and the recreational use, such as meeting friends and barbecuing, in the gardens has increased in recent years. The cultivation of vegetables and flowers is however universally required in allotment gardens in the target cities. In addition, a motivation that was frequently expressed is to experience actually producing, rather than purchasing, food: especially young gardeners and families with children stated an interest in experiencing the cultivation of fruit and vegetables. The conscious handling of food and appreciation of food are other reasons which are especially important for younger allotment gardeners.

#### *Approaches to organic gardening*

Many gardeners consider the avoidance of synthetic pesticides or artificial fertilizers to be equivalent to organic gardening. The term 'organic' is perceived by some gardeners: especially older gardeners, to have a negative connotation, and is seen as synonymous with 'neglectful', although the term is perceived positively by others. There are the gardeners who consider themselves to be organic gardeners, but use synthetic pesticides and fertilizers when they feel it is necessary. Other gardeners concede that they use synthetic inputs and so often call themselves "natural gardeners" rather than organic gardeners. Most association representatives, and also the gardeners, claim that much less synthetic pesticides and fertilizers are used today than in the past: due to a general awareness through the media and in some cases due to regulations and policies by the associations: sometimes on behalf of the cities, that encourage or demand natural or organic garden practices. Reasons given for the use of pesticides were also varied. While some gardeners have a very pragmatic approach to gardening, with the use of synthetic means against snails or on flowers considered to be acceptable, but the use of pesticides on vegetables to be avoided. Mulching, or the use of organic seeds, is often not considered to be an issue related to organic gardening. However many gardeners are knowledgeable about composting and implement it in practice: often passing on their knowledge to their neighbours.

### *Knowledge transfer in allotment gardens*

Many of the gardeners learned their gardening skills from their parents and grandparents, and update their knowledge with books and brochures, such as the monthly magazine of the Swiss allotment gardeners confederation. This information, however, is distributed in German and French, so is not readily accessible for immigrants, who make up a significant proportion of the gardeners. The Internet serves as an important source of information for young gardeners. Courses and consultancy appear to be of minor importance, and in many cases are not even offered by either the cities or the associations. Other gardeners: usually direct neighbours, are a very important source of horticultural information, although tips and tricks are best accepted when asked for, rather than when offered.

### *Social controls*

The gardens are generally closely situated, and there is a high degree of observation about what the neighbours do. This also creates a certain pressure to keep the garden "in order" and to abide by the rules. It is also interpreted as being restrictive, and some gardeners: particularly new gardeners, are reluctant to engage in organic gardening practices for fear of being perceived to be neglectful. Some older established gardeners claim that organic gardening is not possible on the small allotment plots. The primary social restriction however is disapproval of the expansion of use of the plots from food production to an increased recreation component. Established neighbours tend to resist change.

## **Discussion**

The decision of whether to garden organically is a result of the attitude held by the gardener, which is more important than regulations, which are anyway not policed. Results show that the ecological awareness of gardeners has increased over time and especially young gardeners often aim to garden organically. The knowledge of organic gardening practice has an influence, with synthetic agents more likely to be used when knowledge of alternatives is lacking. Many established gardeners do not access the available information and tools for organic garden management. Furthermore, immigrant gardeners may not have the communication skills to access this information. The understanding of the term 'organic' is varied and the social environment has an influence on the form of gardening. There is potential for creating a culture where organic cultivation is the norm. The existential pressure on the gardens is an opportunity to start the necessary cultural change that would otherwise be resisted.

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