

# Care Farming in Singapore: Case Study of Onesimus Garden

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In the previous issue of CITYGREEN, we introduced the concept of care farming, a healing approach where clients receive therapeutic care through active participation in working on a farm. This concept is based on the provision of non-institutionalized care in a real-life environment, which offers a variety of diverse activities that are carried out under the supervision and leadership of a farmer. Its informal, yet structured approach, designed and planned in collaboration with medical professionals, helps clients with a range of physical, psychological, and social issues and provides the possibility of vocational training that can be used outside of the care farming facility.

Care farming has gained importance in a number of developed countries, especially in Western Europe. Care farms have mostly been initiated by agricultural farmers who wanted to provide new services on their farms. In countries such as the Netherlands, Belgium, and Norway, care farming has been formally recognized as a therapeutic method and is part of their healthcare and social systems. As such, care farmers receive funding from formal sources both at national and municipal levels, including public health insurance.

While care farming is mostly found in European countries, we find facilities that provide similar services in other countries as well, including Singapore. In this article, we introduce a local horticultural farm that uses a number of care farming principles and discuss how the European concept can be adjusted to fit the local context of Singapore.

1. Young people with Autism spectrum disorder going through vocational training.

### Onesimus Garden

**Origin** Onesimus Garden is situated along Neo Tiew Road in the North-West outskirts of Singapore. The total area of the farmland covers 3.2 hectares. It was established by Salem Chapel Ltd in April 2013, as an expanded community outreach that uses farming as a restorative therapy to help five under-represented groups in Singapore - those with special needs, the elderly, ex-offenders, migrants, and people going through a crisis and in need of help, such as homeless people.

Onesimus Garden is now a joint venture, managed by Grace Mission Hydroponics (GM Hydroponics), a commercial entity run by Pastor Andrew and Grace Choo, and Salem Community Services Ltd, a non-profit organization that leases the land. As we focus on running the farm, we will refer to the activities of GM Hydroponics, as they are in charge of the daily management at Onesimus Garden.

Andrew and Grace came on board Onesimus Garden as resident pastors. This work resumed the couple's vision of the last 20 years, which is to serve people with special needs on a farmland.

**Building the farm** During the preparation phase, when the whole project and business plan were developed, Andrew drew inspiration from his earlier work on disadvantaged youths and decided to focus on young people with autism spectrum disorder. Thus, in 2013, GM Hydroponics started a therapeutic farm at Onesimus, first using conventional farming methods.



However, it was clear from the beginning that in order to ensure the viability of the project, the farm had to contain a commercial element that would support the provision of therapeutic services through commercial activities. As a result, a full-sized commercial hydroponic farm was built in 2015-16 to support its therapeutic activities. Most of the building process was conducted in phases, during which clients and team members were included in the construction and worked closely with professional contractors. This inclusive approach followed the practices that Andrew designed and advocates, which ensure the integration of both the commercial and social aspects of the project.

As of today, Onesimus Garden consists of five sections:

1. Administration and professional occupational therapist's offices
2. Show and sales room and a multipurpose hall
3. Restorative garden
4. Full scale commercial therapeutic farm
5. Fully commercial hydroponic farm

In preparation for the lease expiry of the farm, the team will be looking out for new location opportunities, and will consider closer proximity to the city to enable better and more intense engagement with general urban public.

**Therapeutic services** The project aims to help Singaporeans with special needs and those who may be under-represented through an alternative rehabilitation and restorative therapy. GM Hydroponics also provides vocational training that could potentially enable the employment of clients outside of Onesimus Garden. In this model, the farm provides the settings of a working agricultural farm that includes the target audience into its daily activities and offers structured programs and activities that are restorative in nature.

The farm provides three types of services outputs:

- therapeutic services
- vocational training
- commercial horticultural production





The three stages of the therapeutic program

The therapeutic services consist of a structured nature restorative program that helps to improve mental and physical wellbeing of young people with autism through learning about horticulture and working with hydroponic systems. This therapeutic program consists of three stages.

Firstly, each client is individually assessed by a team comprising Andrew, an occupational therapist and the farm manager to identify his or her needs and to develop a personalized therapeutic plan based on these needs. This assessment also includes a plan of a possible vocational training that the client may receive as well as an estimated time plan for the whole individual program. Depending on the diagnosis and the overall assessment, such personal plan may take up to two years.

When the assessment is completed, the client begins with the nature restorative program. In this program, clients first go through a series of tasks such as replanting bonsais, taking care of unhealthy plants and interacting with fish in the farm tanks. Through these activities, they learn to not be afraid of changes, to deal with wounds, and also learn to make a personal connection with other living things. Then, the occupational therapy begins, during which clients learn the basics of horticulture and various hydroponic systems, and use this knowledge in practice at the farm. In the last stage of the therapeutic program, caregivers of GM Hydroponics prepare a care management plan for the clients and train people who will support the client in their future employment.

**Vocational training** Vocational training provided by GM Hydroponics is incorporated within the therapeutic programs and conducted at the commercial hydroponic farm. During this training, clients are taught about the whole farming process from germination to packing and selling produce. They gain knowledge about plants and horticultural processes in general, with a special emphasis on diverse hydroponic systems and how they function. The knowledge of hydroponic systems is crucial in Singapore, where agricultural land is scarce and

hydroponic systems are widely used to intensify production.

During the vocational training, caregivers focus specially on the clients' understanding the natural processes in horticulture and hydroponic production, and aim to avoid mechanical following of instructions. This deeper understanding is an important feature, as it provides clients with better chances to adapt to different environments when employed outside of Onesimus Garden in the future.

Apart from these technical skills, clients are also taught practical skills necessary in daily life, such as to follow a daily schedule and routine. Together with the understanding of horticultural and hydroponic production, these skills support their inclusion in daily life and employability.

**Commercial production of vegetables** GM Hydroponics produce 650 kg of mixed leafy vegetables each week, such as spinach, bayam, kang kong, Chinese cabbage, kailan and several kinds of lettuce. These vegetables are commonly consumed in Singapore, which ensures a relatively steady demand. Given that the vegetables are pesticide-free and grown with the use of effective microorganism technologies, they are of higher value, typically by 20-50%, than those grown conventionally.

The farm generates income through four main channels.

- An adoption scheme, whereby donors support clients who cannot afford to pay for the therapeutic program;
- Direct sales of fresh produce to families and friends of the Autism Spectrum Disorder community;
- Direct sales of fresh produce to donors and other stakeholders i.e. churches and corporate sponsors;
- Drop-in sales of fresh produce at a farmers' market.

In addition, the farm also offers educational farming tours, professional consultancy on hydroponic farming, and specialized programs and activities designed for schools and other institutions.

2. Seniors exploring and enjoying the farm.

3. Sensory garden for clients.



One of the most successful specialized programs and activities organized at Onesimus Garden includes the elderly group. This inter-generational program involves seniors and young people in need. These two groups grow vegetables together, and based on our observations, the two groups complement each other very well. The older people show a great deal of patience with the young ones, while the latter can help with the manual labor that might be too strenuous for the seniors.

**Lessons Learned** Location As a community-based therapy farm, the location of the farm is to be taken into consideration. As much as the natural setting is important, easy and close proximity to the target community or client group is just as crucial. The location of Onesimus Garden in the outskirts of the city has made it more difficult for clients to reach the facility and made it virtually impossible to provide additional services that would support the farm, such as running a café or having a shop at the farm for direct sales. Thus, easy and convenient access to clients and prospective customers may outweigh the need of strictly natural environment. Therefore, it appears better to set such farm in a less natural and even smaller location, and use creativity to incorporate as much natural elements as possible for the sake of better access.

Staff issues and quality consistency Care farming combines medical therapy and farming. These are two very different areas that require specialised skill sets. It is often difficult to find staff members who would have both and this implies the need of more staff members. In addition, experienced professionals, such as occupational therapists, are rather expensive

for a facility that operates on a shoestring budget. Such professionals are thus either hired externally or work for the facility as volunteers.

Staff members must be deeply committed to provide a consistent quality of therapeutic services and also to produce good quality vegetables. Fresh produce from the farm is sold at a premium, so its quality needs to be consistently good in order to retain the customers.

Ensuring consistent amount of produce Careful consideration needs to be given to the size of the productive/commercial part of the facility relative to the therapeutic part in order to be able to maintain a stable amount of good quality produce. As the commercial part supports the therapeutic part, it must be carefully planned so that they complement not only spatially but also financially. As of today, GM Hydroponics produce up to 650kg of fresh vegetables each week. About 75% of this amount is produced by the commercial farm and the rest by the therapeutic farm. Financial planning needs to be carried out with extra care to avoid cash flow problems.

### Personal story of one client W. H. Ng., male, 23 years

At the age of 3, W.H. was diagnosed with autism which prevented him from admission to any mainstream nursery or kindergarten. He later attended Grace Orchard School until the age of 17. After graduating, he was accepted into Delta Senior School where he studied horticulture. At the same time, he underwent a therapeutic program and vocational training at Onesimus Garden, where he gradually adapted to a comprehensive

4. Educational program where kids try to be farmer for a day.

5. View of Onesimus Garden.

6. Map of Onesimus Garden.



and structured work routine. His horticultural and farming experience deepened and his condition and sensory issues improved as well.

After his completion of the Job and Work Experience Program, he was employed by Trunk and Petal, a landscape contractor based in Singapore. As of today, W.H. has been working for Trunk and Petal in the compound of the Brunei High Commission in Singapore for two years, and he has been confirmed as a permanent staff member.

He enjoys his job, as it follows a fixed routine, just as he learned during his vocational training. His progress develops consistently, despite some persisting sensory issues.

*"W.H. has a good nature and does get his job done independently. We are aware of his sensory issue for the love of splashing water on himself. We have to remind occasionally as advised. He is able to work with the team."*

*We have since confirmed him as permanent staff and are happy to support him."*  
Mr Win, Trunk and Petal.

**Differences from European care farms** Singapore provides a very specific context for the care farming concept. The lack of traditional farms and rural areas means that care farming facilities need to be built from scratch in urban or peri-urban areas. However, available land is especially limited in this island state. Extra creativity thus needs to be used when looking for possible spaces for care farms.

Flat roofs come to mind as a possible alternative of open spaces that are often under-utilized. However, roofs require technical parameters that allow users to put a relatively large, heavy amounts of soil on top, and also provide sufficient technical infrastructure such as adequate water supply.

The limited space might be partly mitigated by the use of hydroponic growing systems that intensify yields in small areas. They also do not require large amounts of soil, which makes them potentially more suitable for rooftops. However, the elaborate technical equipment of hydroponic systems necessitates a relatively high initial capital investment. In order to ensure recovery of such investment, the space needs to be secured for a longer period, which may be difficult in Singapore, where urban development and building activities take a very rapid course.

Financing opportunities for care farming activities in Singapore also differ from the European countries where care farming has been established. In European contexts, care farming has been recognized by the social and healthcare authorities and can be financed through social systems or health insurance schemes. The lack of formal recognition in Singapore leaves care farming dependent on alternative funding schemes, such as donations and other activities conducted at the facility that subsidize therapeutic provision. This puts an additional burden on care farming facilities and their financial planning. 