NATIONAL PARKS
LET'S MAKE SINGAPORE OUR CITY IN NATURE

Community in Bloom

A GUIDE TO
DESIGNING AND IMPLEMENTING ALLOTMENT GARDENS

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This guide is intended to assist grassroots organisations, Residents' Committees, Residents' Networks and Town Councils in designing and implementing allotment gardens for their communities. In this guide, you will learn about the key design and site considerations, as well as management practices to keep in mind when setting up allotment gardens in housing estates.

1 OVERVIEW

Allotment Gardeners sharing gardening tips with one another at Jurong Spring Zone A RC Community Garden

As Singapore transforms into a City in Nature, NParks is launching new initiatives to bring nature closer to all Singaporeans. One such initiative is 'Gardening with Edibles', which has enabled more members of the community to grow their own edibles and experience the benefits to health and well-being that come from gardening. To support this growing interest in edible gardening, by 2030, NParks aims to increase the number of community gardens island-wide to 3,000 and the number of allotment plots in parks to 3,000 under its flagship gardening programme, Community in Bloom.

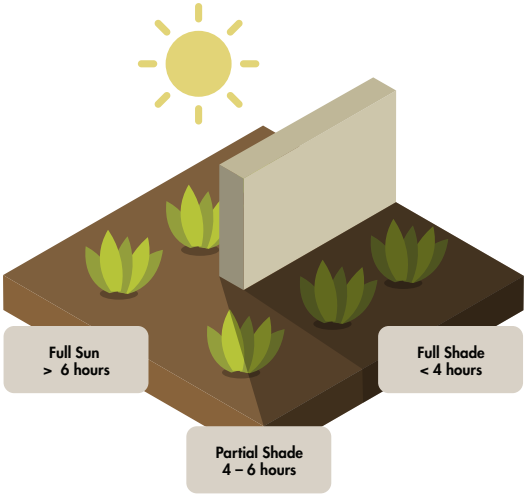
Today, more than 1,000 allotment garden plots have been successfully leased under NParks' Allotment Gardening Scheme in our parks across the island. The scheme has enabled individuals to lease gardening plots in our parks to hone their gardening skills and enjoy growing their own plants. As we have received interest from grassroots organisations (GROs), Residents' Committees (RCs), Residents' Networks (RNs) and Town Councils (TCs) to implement similar allotment gardens in housing estates, we have prepared this guide to facilitate the set-up of allotment gardens in the heartlands for the benefit of residents.

To make it easy for the public to grow edibles, NParks has also created a vast range of online resources on gardening. Whether you are new to growing edibles or a seasoned gardener looking for ideas on what to grow, you can find brochures and videos about growing your own edibles on NParks' website.

2 DESIGNING AN ALLOTMENT GARDEN

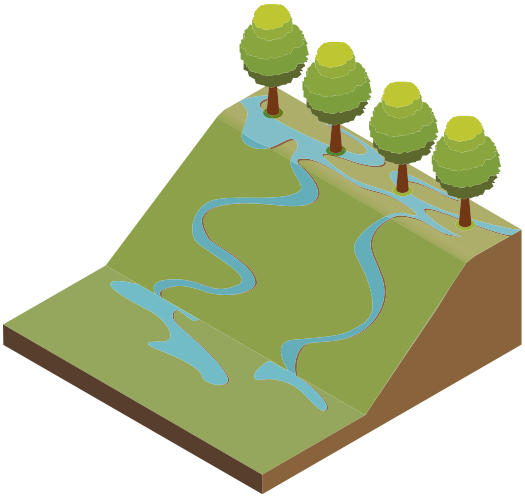
ASSESSING THE SITE

The first step to planning an allotment garden is to observe the conditions of the site, including how much sun it receives throughout the day, its topology, on-site drainage and any existing amenities which may complement usability of the garden by residents. Some modifications may be necessary to prepare the site for the new garden.



Sunlight

The selected site should receive minimally 6 to 8 hours of sunlight daily. Observe the site in the morning, at noon and in the late afternoon to determine the sun's path across the site. Note that buildings and trees may cast shadows at different times of the day and reduce the amount of sunlight available for edibles and other plants to grow well.

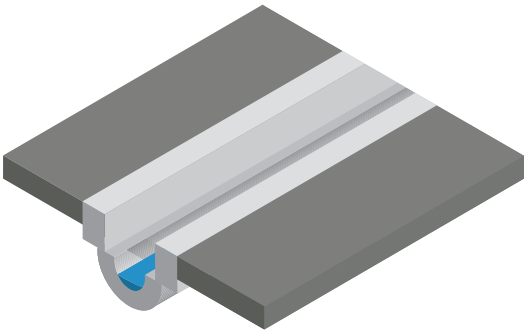


Topology and Water-related Issues

Ensure that the selected site has a relatively gentle gradient, or flat ground. Avoid steep, undulating terrain that may add to the cost when preparing the site. Observe and note any water-related issues such as ponding and surface run-off.

*Refer to **Annex 1** for a checklist of design considerations for a new allotment garden.*

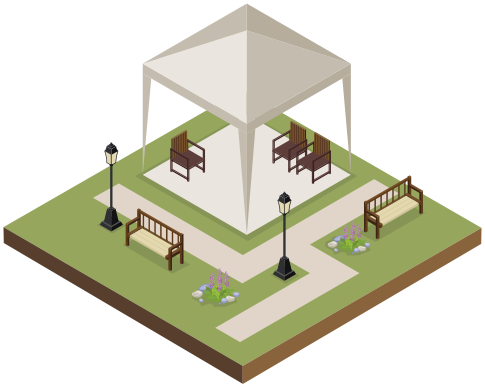
2. DESIGNING AN ALLOTMENT GARDEN



Drainage

Ensure that the selected site has adequate drainage provisions such as existing concrete drains and/or sumps. Observe and assess if these provide adequate drainage for your allotment garden; if not, you may consider installing naturalised drainage.

*Refer to **Annex 2** for examples of naturalised drainage.*



Existing Amenities and Services

Note the location of existing toilets, shelters and footpaths as these can complement your design. Also note water pipelines so that you can avoid impacting them during the installation of your allotment garden.

DESIGN CONSIDERATIONS

Key considerations when designing your allotment garden include maximising accessibility and ensuring safety through the appropriate placement of footpaths and inclusion of lighting if possible. The plot layout and location of water points should aim to facilitate usability by gardeners, while community spaces will encourage bonding in the garden. Practical considerations for the planting areas include the design of planter beds, appropriate soil to use and inclusion of storage spaces. Some gardeners may wish to use standing structures such as trellises, which will also be covered in this chapter.

Footpaths and Safety

As a rule of thumb, plots should be separated by at least 1.5 m to ensure adequate space for the gardeners to work. Planter beds should also have rounded corners to prevent injury.

All footpaths must be easily accessible to users. Main footpaths should be a minimum width of 0.9 m and secondary footpaths should be a minimum width of 0.4 m. For wheelchair-accessible areas, a minimum width of 1.2 to 1.5 m is recommended.

All footpaths should be level with a gentle gradient towards the edge to allow water to drain off. The material selected for the footpaths should be easy to maintain.

Lighting

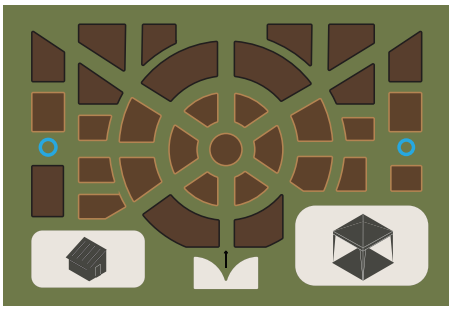
Consider incorporating lighting along the main footpaths to enable allotment gardeners to garden at night. Space out lamp posts and other types of lighting to ensure that all areas of the allotment garden can be illuminated in low light conditions.

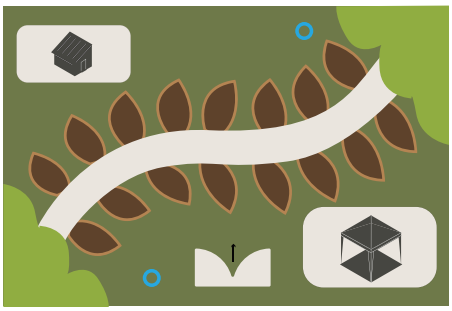
2. DESIGNING AN ALLOTMENT GARDEN

Plot Layout

Laying the plots out in organic shapes will make the allotment garden more aesthetically pleasing to users and residents living in adjacent residential blocks. Here are some suggested layouts.

For more layout options, please scan the QR code or visit ***go.gov.sg/gardenplan***





LEGEND

WATER POINT | SHED

ENTRANCE | SHELTER

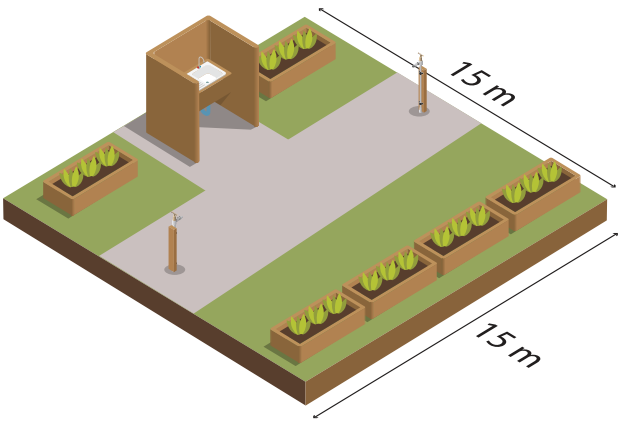
Water Points

Shared water points should be available for use in the allotment garden. If possible, space out the water points to ensure all areas in the allotment garden have easy access to water. Each water point should have a serving radius of about 7.5 m.

Including wash basins will allow the gardeners to wash up after working on their plots.

You may also wish to install an irrigation system to facilitate watering within the allotment garden.

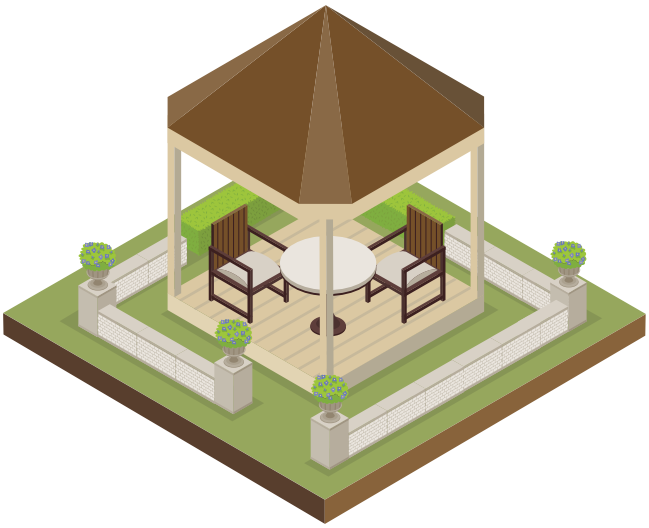
Refer to ***Annex 3*** *for examples of irrigation systems.*



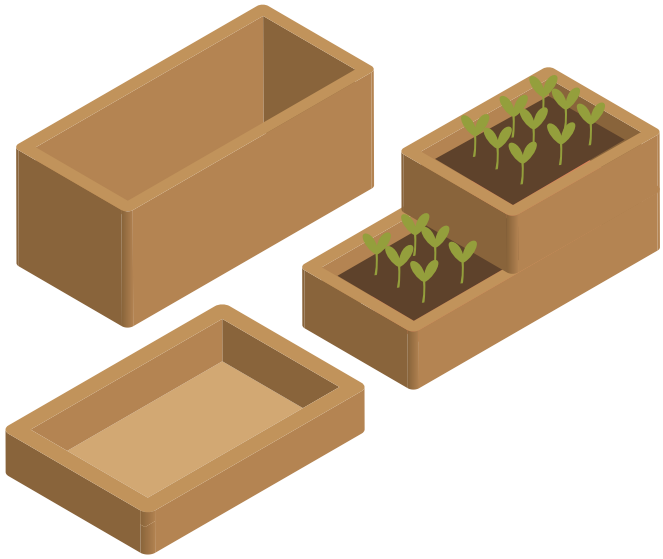
Community Bonding Space

For allotment gardens with an area above 100 m^2, allocate 10% of the area for the community to bond and interact. The allocated space should be sheltered if possible.

If this is not possible, ensure that there is a community space located within walking distance of the allotment garden. Convenient existing community spaces might include void decks with seating, senior citizen corners and RC or RN centres.



2. DESIGNING AN ALLOTMENT GARDEN



Planter Beds

Design planter beds with different heights to allow people of various ages and abilities to garden. Allotment garden plots can include ankle-, knee- and waist-height planter beds.

Raised planter beds are becoming popular as they are inclusive and can cater to seniors, as well as those who may be physically challenged. They should be included where possible. The recommended minimum planting area for raised planter beds is 1.5 m^2.

Brighten up the sides of the planter beds with art to make the garden livelier and more welcoming!

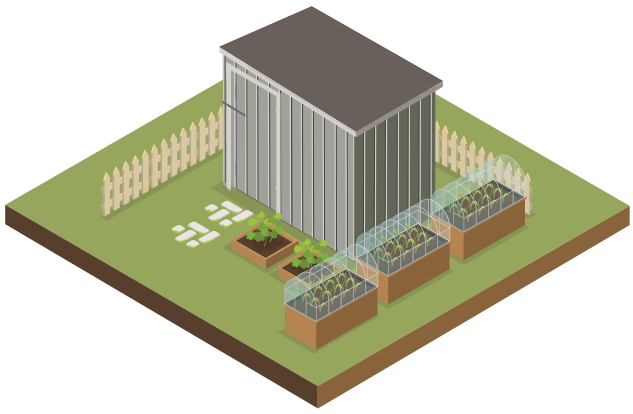
*Refer to **Annex 2** for examples of planter beds.*

Soil

Plants need good soil to grow well. This is especially true for edible plants. Soil that contains debris and clayey soil should be avoided.

NParks generally recommends an Approved Soil Mix (ASM) consisting of 3 parts loamy soil, 2 parts mature compost and 1 part sand. However, the composition may need to be altered depending on the site conditions and the plants selected.

If the existing soil is compacted or waterlogged, sand or compost can be added to improve its condition.

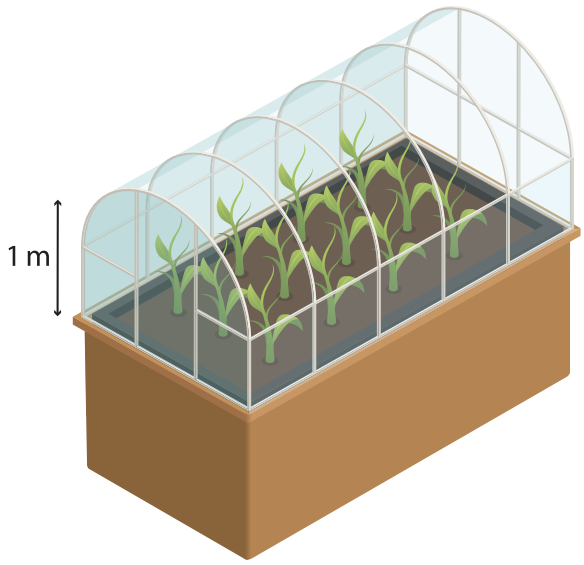


Storage Spaces

Consider integrating storage spaces or boxes near the planter beds where possible. Alternatively, a separate storage shed with a lock could be considered. Each allotment garden unit should have access to a minimum of 0.15 m^3 of storage space for small gardening tools.

*Refer to **Annex 4** for examples of storage facilities.*

2. DESIGNING AN ALLOTMENT GARDEN



Garden Structures

If an allotment gardener would like to incorporate standing structures into their garden plots, they should be required to inform the governing stakeholder (the GRO, RC, RN, TC or the landowner) before any structures are added.

Standing structures must be stabilised, for example with deep-set poles or weights.

Structures should not exceed 1m in height.

Some of the suggested materials for trellises include wood, gardening poles (obtainable from nurseries) or PVC pipes. Avoid using bamboo poles in outdoor gardens as they easily become unstable and unsightly due to weathering.

Here are some examples of well-built standing structures.

DEMARCATION OF THE GARDEN

Keeping your allotment garden open and visible to the community will encourage more residents to get involved. Some options to demarcate the garden in a friendly way include the use of hedges and espaliers, while signage will help to encourage and welcome visitors.

Hedges and Border Plantings

Low hedges, flowering shrubs and border plantings can be used around the allotment garden to demarcate the area and soften hardscape elements.

Alternatively, if fences are installed, climbing plants can be grown on the fencing or small fruiting trees can be cultivated as espaliers to soften the structures.

Espalier

Espalier is the art of growing fruit trees or ornamental shrubs flat against a support structure such as a fence, often in formal, symmetrical patterns.

Signage

A sign indicating the opening hours of the garden and contact information will encourage people to visit. NParks will provide a 'Welcome to Our Community Garden' sign for gardening groups who sign up under our Community in Bloom programme.

To encourage social responsibility among visitors to the allotment garden, signs on visitor etiquette can also be included.

3 ADMINISTRATION OF ALLOTMENT GARDEN PLOTS

REGISTRATION AND ALLOCATION

Plot allocation and registration are key aspects to consider when administering your allotment garden plots.

NParks recommends enabling registration for allotment garden plots to be done online or via hardcopy. Prior to opening for registration, it is a good idea to publicise the plots in order to interest residents. To ensure that plot allocation is neutral, it may be useful to conduct a ballot after registration is closed.

Here is an example of how promotion could be done.

4 TENURE AND RENTAL MANAGEMENT OF ALLOTMENT GARDEN PLOTS

HOUSEKEEPING AND MANAGEMENT

Housekeeping and management considerations include tenure, reallocation and maintenance of the allotment garden plots. NParks recommends the following best practices for housekeeping and management.

Tenure

As the growing of plants takes time, the recommended duration of the rental tenure for any allotment plot should be between 2 to 3 years. For reference, the NParks allotment gardens have a tenure of 3 years with a rental charge of $57 per year (excluding GST).

*Refer to **Annex 5** for an example of a tenure agreement.*

Termination of Tenure

In the event that an allotment gardener decides to terminate their lease before the tenure expires, they should be required to notify the governing stakeholder (GRO, RC, RN, TC or the landowner). For the NParks allotment garden plots, refunds are not usually given for the remaining unutilised lease period.

Returning the Plot After the End of Tenure and Reallocation

At the end of the tenure, the allotment gardener should be required to return the plot in its original condition. This includes the removal of any additional structures, plants and flower pots. Should the allotment gardener wish to continue gardening after the tenure expires, they should be required to make a fresh application to the governing stakeholder.

Housekeeping of an Allotment Garden Plot

Allotment gardeners should maintain their gardening plots by:

- regularly pruning their plants to keep the plot tidy
- removing weeds, dead and diseased plants
- clearing leaf litter and any debris from their plot and surrounding area
- storing all gardening tools away properly
- maintaining their shade and trellis structures and nettings in good order
- checking for water ponding to prevent mosquito breeding

For guidelines on gardening practices to prevent mosquito breeding, please scan the QR code or visit ***go.gov.sg/gardening-etiquette***

In the event that the allotment gardener is unable to maintain their plot for extended periods of time, the gardener should be required to inform the governing stakeholder. If any plot is left unattended for more than 2 months, resulting in dis-amenity, poor plant health, invasion of weeds, or general untidiness, the governing stakeholder or landowner should inform the allotment gardener in writing that the lease to the plot may be terminated. In this scenario, the governing stakeholder may opt to reallocate the plot to another resident on the waitlist for the remaining lease period.

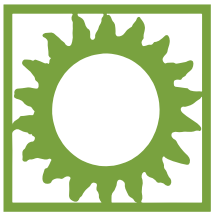
5 PLANTING UP YOUR ALLOTMENT GARDEN

SUGGESTED PLANTS

In this section, we share suggestions for edible plants that your allotment gardeners may wish to grow in their plots.

The allotment gardeners should choose their plants based on the needs of the plants, such as sunlight and water requirements, as well as the conditions of their particular plot. For easy maintenance, it is recommended that plants should not exceed 1 m in height from the top of the planter bed when fully grown.

To learn more about growing plants, integrated pest management and other gardening tips, scan the QR code or visit ***go.gov.sg/gardening-resources.***



Prefers full sun

> 6 hours of sunlight

Requires a lot of water

Prefers semi-shade

4 – 6 hours of sunlight

Requires a moderate amount of water

Prefers full shade

< 4 hours of sunlight

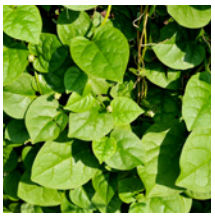
Requires little water

Leafy Edibles

These edibles are generally the leaves of food crops. There are numerous varieties of leafy edibles that can be grown in Singapore and they are widely grown in allotment gardens. Here are some commonly cultivated leafy edibles.

Cai Xin
Brassica rapa cv. (Parachinensis Group)
Well-draining Soil

Kale
Brassica oleracea (Acephala Group)
Well-draining Soil



Ceylon Spinach
Basella alba
Well-draining Soil

Kangkong
Ipomoea aquatica
Well-draining Soil

Chinese Mustard
Brassica juncea
Well-draining Soil

Lettuce
Lactuca sativa
Well-draining Soil

Bayam
Amaranthus tricolor
Well-draining Soil

Sweet Potato
Ipomoea batatas
Well-draining Soil

Kailan
Brassica oleracea (Alboglabra Group)
Well-draining Soil

Xiao Bai Cai
Brassica rapa (Chinensis Group)
Well-draining Soil

5. PLANTING UP YOUR ALLOTMENT GARDEN

Fruiting Edibles

These edibles are generally the fruits of food crops that are eaten as vegetables. Here are some commonly cultivated fruiting edibles which can be grown in Singapore.

Bitter Gourd
Momordica charantia
Well-draining Soil

Lady's-Finger
Abelmoschus esculentus
Well-draining Soil

Brinjal
Solanum melongena
Well-draining Soil

Long Bean
Vigna unguiculata
Well-draining Soil

Chilli
Capsicum annuum
Well-draining Soil

Pumpkin
Cucurbita moschata
Well-draining Soil

Corn
Zea mays
Well-draining Soil

Tomato
Solanum lycopersicum
Sandy Clay Loam Soil

Cucumber
Cucumis sativus
Well-draining Soil

Winter Melon
Benincasa hispida
Well-draining Soil

5. PLANTING UP YOUR ALLOTMENT GARDEN

Recommended Planting Distance for Edible Plants

Planting edibles too close together can cause overcrowding, which generally results in stunted and unhealthy plants. Space out your plants adequately to encourage them to grow to full size.

To learn more on best practices for edible gardening, please scan the QR code or visit ***go.gov.sg/hortguideforedibles***

Type of Edible Plant	Recommended Planting Distance
Bayam, Caixin, Xiao Bai Cai, Kailan, Lettuce, Mustard and Kangkong	**10 – 20 cm** ***(optimally 20 cm)***
Lady's-Finger, Brinjal and Corn	**15 – 30 cm** ***(optimally 30 cm)***
Climbers such as Bitter Gourd, Winter Melon, Long Bean, Cherry Tomato and Ceylon Spinach	**30 cm – 100 cm**

5. PLANTING UP YOUR ALLOTMENT GARDEN

Herbs & Spices

These edibles are usually aromatic and are commonly used to flavour our local dishes or make drinks. They are commonly planted in community gardens.

Chives
Allium tuberosum
Well-draining Soil

Lemongrass
Cymbopogon citratus
Moist and Well-draining Soil

Cincau
Platostoma palustre
Moist and Well-draining Soil

Pandan
Pandanus amaryllifolius
Moist Soil

English Mint
Mentha spicata
Moist Soil

Saw Tooth Coriander
Eryngium foetidum
Sandy, Well-draining Soil

Indian Borage
Coleus amboinicus
Sandy Soil

Thai Basil
Ocimum basilicum
Well-draining Soil

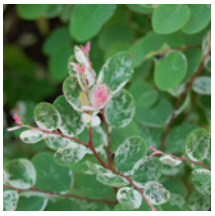
Laksa
Persicaria odorata
Well-draining Soil

Turmeric
Curcuma longa
Well-draining Soil

Ornamentals

Most ornamentals require full sun, lots of water and frequent fertilising. Here are some commonly cultivated ornamental plants in Singapore.

Coleus
Coleus scutellarioides
Well-draining Soil



Red-Leaf Breynia
Breynia disticha 'Roseo-picta'
Well-draining Soil

Chinese Perfume Plant
Aglaia odorata
Moist and Well-draining Soil

Spathoglottis Orchid
Spathoglottis plicata
Moist and Well-draining Soil

False Heather
Cuphea hyssopifolia
Well-draining Soil

Sendudok
Melastoma malabathricum
Moist Soil

Mexican Petunia
Ruellia simplex
Moist Soil

Summer Snapdragon
Angelonia angustifolia
Moist and Well-draining Soil

Portulaca
Portulaca oleracea
Well-draining Soil

Shower of Gold
Galphimia glauca
Well-draining Soil

Plants to Avoid Growing

Due to the limited size of an allotment garden plot, some fruit trees and large shrubs are undesirable as they may damage the plot with their roots or block sunlight from neighbouring plots. Some plants may shed a lot of leaves, which require regular clearing from paths. Thorny plants may make walking between plots difficult, and plants that tend to collect water such as cocoyams would require constant maintenance to prevent mosquito breeding.

Here are some plants to avoid growing within your allotment garden. Note that this list is not exhaustive.

Thorny plants

Bouganvillea
Bougainvillea cultivars

Lime
Citrus × *aurantiifolia*

Fruit trees

Moringa
Moringa oleifera

Mulberry
Morus alba

Plants which have a messy growth form

Papaya
Carica papaya

Banana
Musa acuminata (AAA Group)
'Dwarf Cavendish'

Pineapple
Ananas species and cultivars

Sugar Cane
Saccharum officinarum

SOIL

In this section, we provide a guide for allotment gardeners to amend their soil depending on the types of plants that they would like to grow.

Different plants need different soil requirements to optimise their growth. For example, plants that need less water will do better in a well-draining soil. The allotment gardener may choose to use a commercial soil mix or make their own using different materials. Organic fertiliser can be added to boost the growth of the plants; check the manufacturer's instructions for the recommended application rate and frequency.

Topsoil refers to the uppermost layer of soil in the ground. It drains fairly well and has some nutrients.

Compost refers to decayed organic matter that improves and conditions the soil when added.

Grit refers to inorganic materials like coarse sand, pumice and LECA that can be added to soil to improve drainage. The recommended particle size is 1 – 4 mm in diameter.

SOIL MIX	COMPONENTS			BEST FOR
	Topsoil or loamy soil	Organic material (e.g., compost)	Grit	
Standard 3:2:1				Most ornamentals
Moist mix 1:3			None	Plants that need more water, such as Pandan
Mix for edibles 1:1			None	Most edibles

Clayey soil is not ideal for growing edibles as it tends to create waterlogged conditions. If the existing soil has a high amount of clay, it can be improved by adding organic matter and grit until it achieves the following 1:1:1 ratio.

Clayey soil	Organic material (e.g., compost)	Grit
		

PLANT HEALTH AND ENVIRONMENTAL MANAGEMENT

Chemical pesticides, herbicides and fungicides are discouraged in allotment gardens as they may kill beneficial insects, such as bees, which play important ecological roles as pollinators. Instead, consider practising integrated pest management, which is a strategy that focuses on the long-term prevention of pests through a combination of techniques such as biological control, changes in cultural practices and/or mechanical control.

Biological Control

Biological control is the use of natural chemicals and existing predators in the garden to control pest populations.

This includes:

- Using DIY non-chemical pesticides such as chilli, garlic and onion sprays
- Encouraging natural predation by insects like ladybirds, lacewings and praying mantises

Cultural Control

Cultural control involves altering the environment, condition of the host plant, or behaviour of the pest to prevent or suppress an infestation or infection.

This includes:

- Checking for and removing pests regularly
- Growing plants in clean soil
- Providing optimal amounts of water and sunlight for plants
- Applying fertilisers appropriately
- Ensuring good air circulation around plants (spacing out plants appropriately and pruning frequently to thin out foliage)
- Removing infected plant parts promptly and properly by containing them in bags and disposing of them away from the garden

Mechanical Control

Mechanical control is the use of traps, screens, barriers, fences and nets to prevent pest activity or to remove pests from an area.

This includes:

- Setting up sticky traps to trap flying insect pests
- Setting up pheromone traps
- Wrapping fruits with paper or plastic to prevent insects from laying eggs
- Placing nets or netted structures over planter beds or plants to physically prevent the pests from coming into contact with the plants
- Removing larger pests such as beetles, caterpillars and snails by hand

Be careful to prevent the collection of water or ponding which may result in mosquito breeding. Gardeners should check their plots frequently for stagnant water. They should also consider the following suggestions to reduce mosquito breeding:

- Keep all unused containers upturned or in storage, including gardening tools and equipment
- Regularly maintain and prune all plants, clear horticulture waste such as leaves and branches, and other forms of litter from the allotment garden

6 SUSTAINING INTEREST, TRAINING AND BONDING

Governing stakeholders like the GRO, RC, RN, TC or the landowner can organise a variety of activities such as annual harvest parties, garden potlucks and other community bonding activities to engage their allotment gardeners. Sharing excess harvests with nearby charitable organisations, senior care centres, disadvantaged communities and preschool groups can help to build a sense of ownership and camaraderie amongst allotment gardeners.

The governing stakeholder can also consider organised workshops and talks by veteran gardeners to teach novice gardeners, residents or schools in the vicinity about gardening. In addition, the allotment gardening group could arrange for group visits to other community gardens in the estate and beyond to establish networks and get inspiration.

NParks has many programmes and outreach events like the Community in Bloom Awards, Gardeners' Day Out, Community Garden Festival and the Singapore Garden Festival to encourage gardeners to continue learning and improving their horticultural skills.

For more information, please visit ***www.nparks.gov.sg/activities/events-and-workshops****.*

ANNEX 1
ALLOTMENT GARDEN DESIGN CHECKLIST

Here is a checklist that NParks provides for new allotment gardens which are registered through our Community in Bloom (CIB) programme. We have included it here as a reference for anyone interested in designing an allotment garden, whether through CIB or otherwise.

COMMUNITY IN BLOOM
Allotment Garden Design Checklist

Please send the completed form and/or related enquiries to ***communityinbloom@nparks.gov.sg***.
All proposed infrastructure must comply with the current requirements from relevant authorities.

Date of Assessment: _____

Name of GRO/RC/RN/TC: _____

Location of Allotment Garden: _____

Please put a tick in the box if the design fulfils the description. Otherwise, please provide an explanation under the remarks section.

DESIGN CONSIDERATIONS	Tick (√)	Remarks
1) Sunlight Ensure that the selected site receives adequate sunlight. Ideally, the selected site should receive 6 – 8 hours of sunlight daily. Observe the site in the morning, at noon and in the late afternoon to determine the sun's path and assess any potential obstructions from existing trees and buildings.		
2) Drainage Adequate drainage and sumps should be provided to avoid water ponding and/or stagnant water. These drains and sumps can be naturalised such as in vegetated swales, rock swales, etc. See **Annex 2** for examples of naturalised drains.		
3) Footpaths and Access All footpaths must be easily accessible and safe. Main footpaths should have a minimum width of 0.9 m and secondary footpaths should have a minimum width of 0.4 m. A minimum width of 1.2 – 1.5 m is needed for wheelchair accessible areas. All footpaths should be level with a gentle gradient towards the edge to allow water to drain off. Footpath material selected should be easy to maintain.		
4) Water Points Shared water points should be available for use within the allotment garden. Space out the water points to ensure all areas in the allotment garden have access to water. Each water point should have a serving radius of 7.5 m.		

ANNEX 1: ALLOTMENT GARDEN DESIGN CHECKLIST

5) Community Bonding Space For allotment gardens with an area above 100 m^2, allocate 10% of the area for the community to bond and interact. The allocated space should be sheltered with electrical access points provided. If this is not possible, a community space should be located within close proximity of the allotment garden. A separate utility meter may be installed if required.		
6) Planter Beds Planter beds should have a minimum height of 0.25 m and a maximum height of 0.95 m. The planter beds should also have a minimum width of 0.1 – 0.2 m. See **Annex 2** for typical planter bed dimensions. Allow access to all sides of the planter beds where possible. For better drainage, it is highly recommended that water in the planter beds drains directly into the ground ("true ground construction"). The planter bed material selected should be easy to maintain and environmentally safe.		
7) Soil All planter beds should be backfilled with the Approved Soil Mixture (ASM). Ensure soil mix is free from debris such as concrete, rocks and rubbish.		
8) Storage Provide storage spaces within the proximity of the allotment garden. These storage spaces must be able to store small gardening tools such as hand spades and rakes when not in use. Integrate the storage space within the planter beds where possible. Alternatively, a separate storage space such as a storage shed can be considered. The number of storage units should correspond to the number of allotment garden planter bed units. Each allotment garden unit should have access to a minimum of 0.15 m^3 of storage space for small gardening tools.		
9) Periphery Planting The allotment garden should be designed to maintain visual openness to ensure the safety of the community. Peripheral plantings are encouraged to create an inviting atmosphere for both gardeners and residents. Hedges and/or espaliers can be considered to soften the perimeter of the allotment garden where possible.		

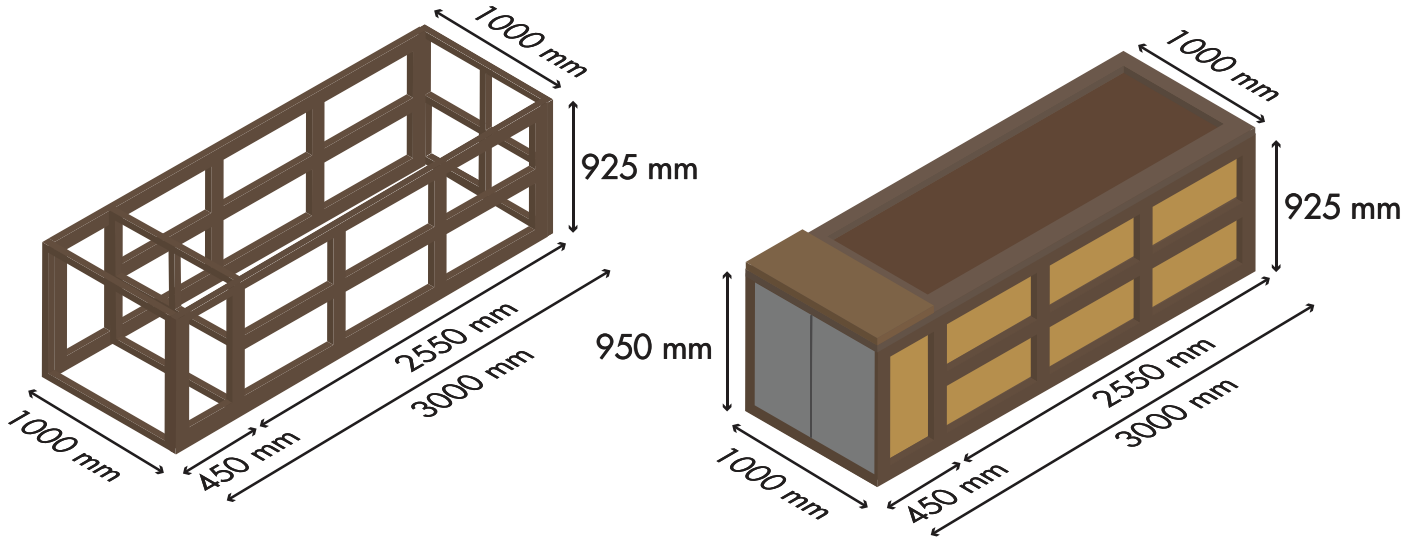
Acknowledgment by GRO/RC/RN/TC and Stamp: _____

Acknowledgment by NParks CIB Manager and Stamp: _____

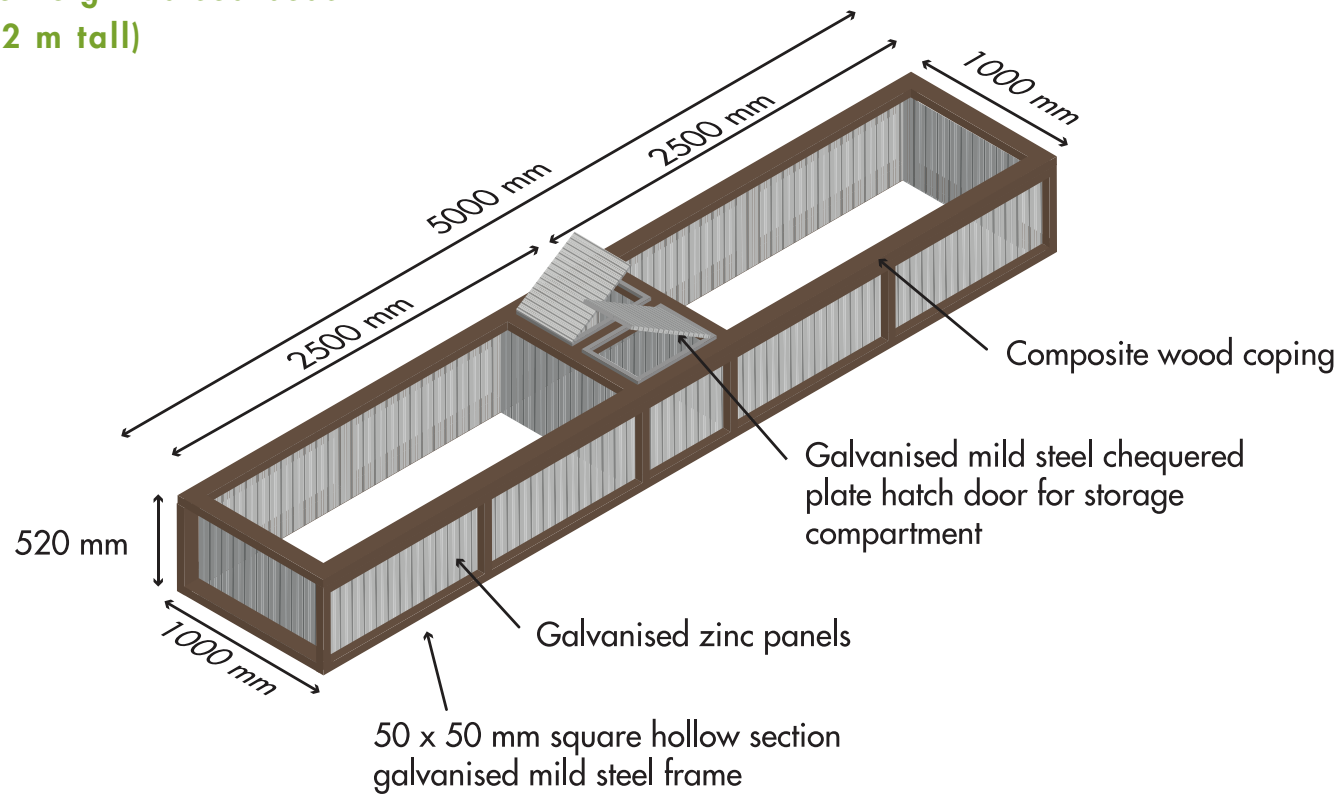
ANNEX 2
EXAMPLES OF PLANTER BEDS AND NATURALISED DRAINS

1. GALVANISED STEEL PLANTER BEDS

Waist-height raised beds (0.95 m tall)

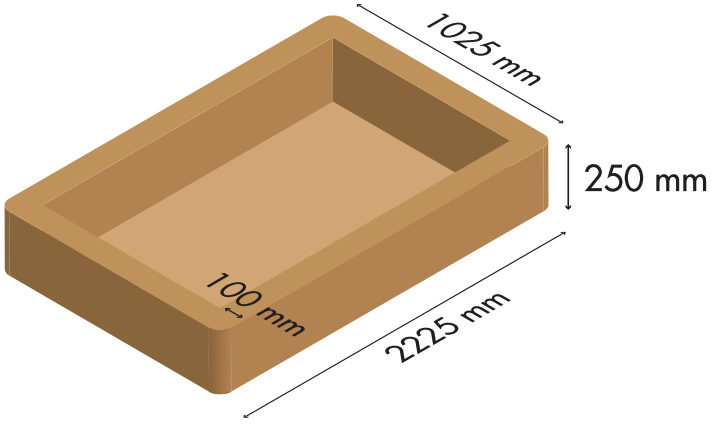


Knee-height raised beds (0.52 m tall)

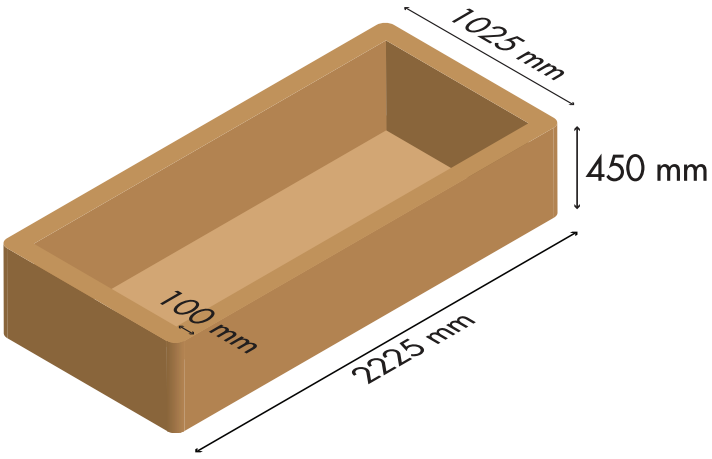


2. CONCRETE PLANTER BEDS

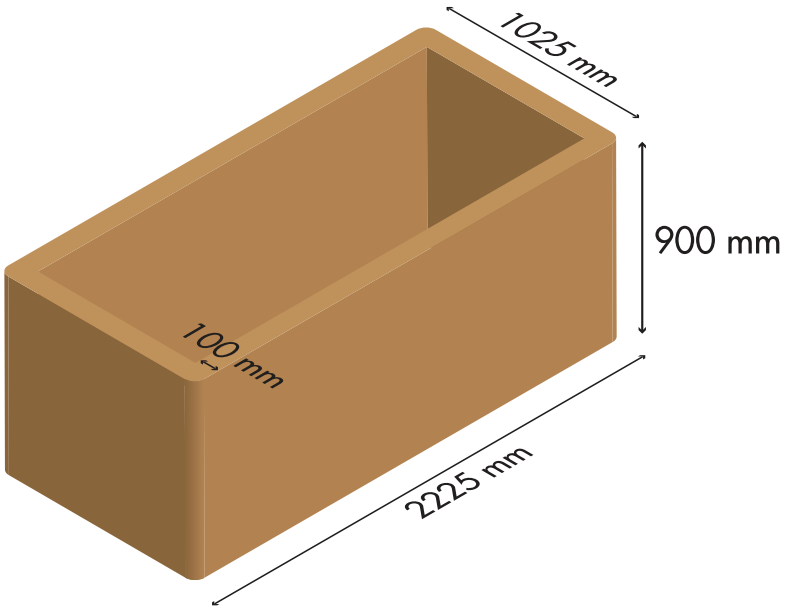
Ankle-height raised beds (0.25 m tall)



Knee-height raised beds (0.45 m tall)



Waist-height raised beds (0.9 m tall)



ANNEX 2: EXAMPLES OF PLANTER BEDS AND NATURALISED DRAINS

Here are some examples of planter beds in allotment gardens. In addition to galvanised steel and concrete planter beds, Prefabricated Extensive Green (PEG) tray systems may be utilised with the agreement of the landowner. These may be existing on green rooftops of some of the Housing and Development Board (HDB) multi-storey carparks.

Galvanised Steel Planter Beds

Knee-height planter beds implemented by NParks in Jurong Lake Gardens

Concrete Planter Beds

Waist-height planter beds implemented by Tampines Town Council

Waist-height planter beds implemented by Jurong-Clementi Town Council

Ankle-height planter beds implemented by Bukit Panjang Town Council

PEG Tray system at HDB Multi-storey Carpark

PEG tray system implemented by HDB

3. NATURALISED DRAINS – EXAMPLES OF BIOSWALES

Natural drainage features such as vegetated swales can be included to slow down, detain or retain storm water run-off while simultaneously cleansing it. They are cost-effective and environmentally friendly.

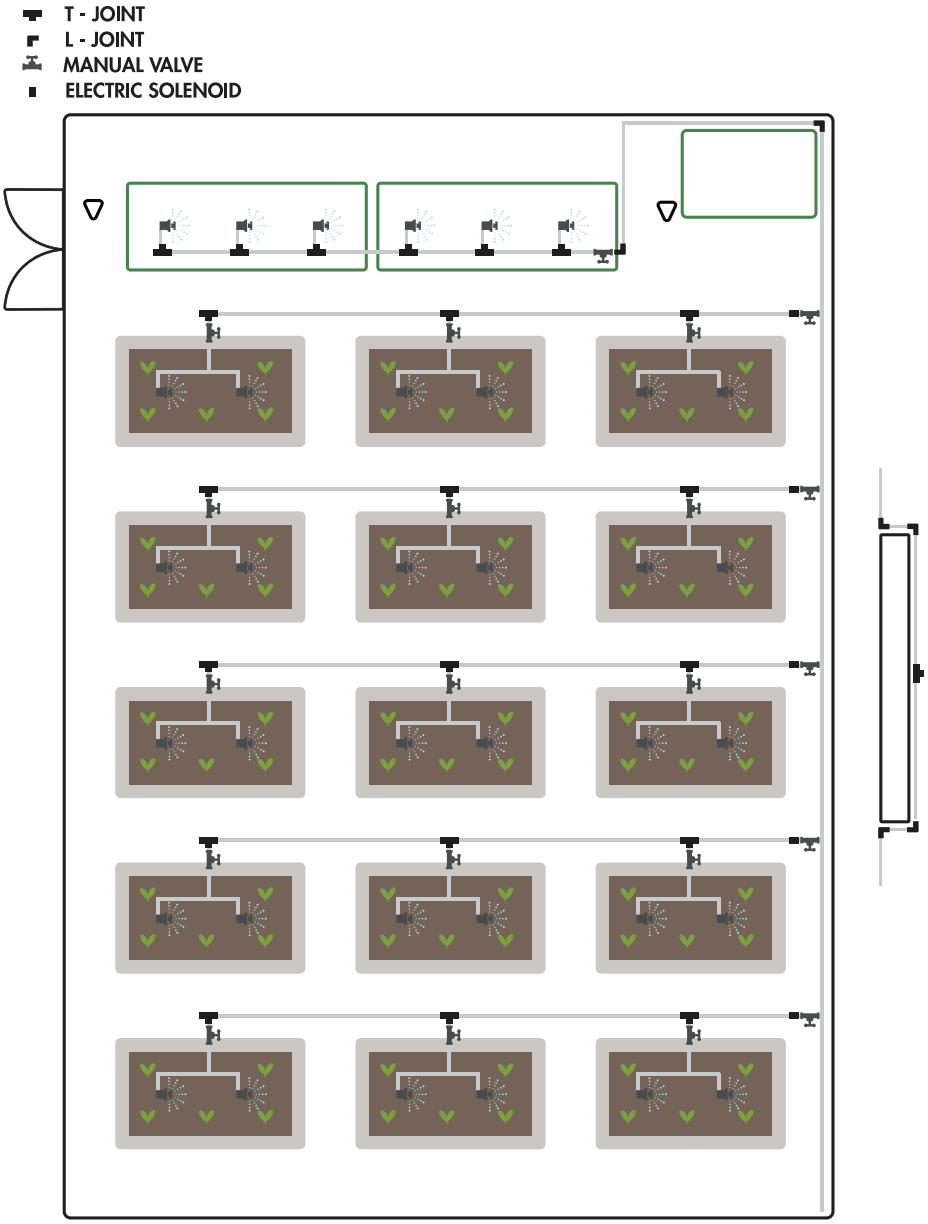
*Refer to PUB's ABC Water Design Guidelines at **www.pub.gov.sg/abcwaters/designguidelines** for more details.*

Naturalised drain at Sembawang Hot Spring Park

Naturalised drain with vegetation along the edges to help slow down run-off, and a gravel bed to allow water infiltration into the ground

ANNEX 3
EXAMPLES OF IRRIGATION SYSTEMS

An irrigation system can be set up within the allotment garden. The system can consist of drip irrigation or sprinklers connecting to the solenoids that help to regulate the flow of the water. Manual valves can be added to enable each gardener to control irrigation within their plot.



Overview of irrigation layout in Fengshan Aspen RN Community Garden

ANNEX 3: EXAMPLES OF IRRIGATION SYSTEMS

A sprinkler system is one type of irrigation system that can be incorporated in the community garden. There are various types of sprinkler systems (e.g., fixed spray, stream rotor or geared rotor systems), and they can be operated by hand or set up for automatic irrigation. Here are some examples of sprinkler systems that have been implemented in community gardens.

Above ground type of sprinkler system at Bukit Batok Zone 2 RC (Arts & Culture Community Garden)

Overhead type of sprinkler system at Teck Ghee Jubilee RN

Overhead type of sprinkler system at Jurong Central Zone D RC (Sky Garden)

Overhead type of sprinkler system at Longvale RC – Our Kampong Farm

ANNEX 4
EXAMPLES OF STORAGE FACILITIES

NParks recommends that each allotment garden unit has access to a minimum of 0.15 m^3 of storage space. If possible, this can be in the form of a facility like a storage box or shed. Here are some examples of storage sheds in community gardens.

Storage shed implemented by East Coast-Fengshan Town Council

Storage shed implemented by Jurong-Clementi Town Council

ANNEX 5
EXAMPLE OF TENURE AGREEMENT

Here is an example of a tenure agreement between a Residents' Committee/Residents' Network and Allotment Gardeners which could be used for your allotment garden. It can also be adapted to a GRO/TC or landowner as the governing body as necessary.

(NAME OF RESIDENTS' COMMITTEE/RESIDENTS' NETWORK) AGREEMENT FOR ALLOTMENT GARDEN

This Agreement is made on (date) _____

BETWEEN

NAME OF Residents' Committee/Residents' Network
(hereinafter referred to as the "(Name of RC/RN)"; _____

AND

_____ (hereinafter referred to as "Gardeners")

whose NRIC is _____ with registered address at

_____

ANNEX 5: EXAMPLE OF TENURE AGREEMENT

1 SUBJECT

1.1 This Agreement outlines the Terms and Conditions of the (Name of RC/RN) Allotment Garden, located at (Garden Location).

1.2 Priority will be given to (Name of RC/RN) (Blk x to x) residents who are Singaporean and Permanent Residents.

1.3 Each allotment gardening plot consists of raised planter bed(s) and/or planting area(s), and can be leased for (x) years at a non-refundable registration charge of $(x).

1.4 The opening hours for the Allotment Garden are restricted to (x) am to (x) pm daily.

2 EFFECTIVE DATE, DURATION, TRANSFERS AND TERMINATION

2.1 Gardeners will be required to sign a(n) (x) year Agreement with (Name of RC/RN) and comply with the Terms and Conditions set out in this Agreement. The Committee/Network reserves the right to amend the rules at any time at its own discretion without the need to inform the Gardeners in advance.

2.2 This Agreement will be deemed to be effective from (effective date) and shall continue in force until (end date). Thereafter this Agreement shall be automatically terminated.

2.3 (Name of RC/RN) reserves the right to award or reject any resident's application, to terminate, expel or debar any Gardeners or members of the public from the Allotment Garden who violate any of the rules and conditions set by (Name of RC/RN). (Name of RC/RN) reserves the right not to disclose the reasons for its actions.

2.4 (Name of RC/RN) and Authorities have the right to require Gardeners to vacate by giving (x) month(s) notice if the land is required by the Authorities.

2.5 (Name of RC/RN) reserves the right to terminate the contract immediately if any of the following issues arise:

- Subletting of plots
- Vandalism, removal or theft of plants within the Allotment Garden
- Untended plots for a period of more than (x) months, including overgrowth of weeds, or misuse of plots
- Disharmony with other Gardeners

2.6 No transfers of tenure are allowed. Gardeners can return their plot to the RC/RN at any time within the contract period but there will strictly be no refund. The plot will be relocated to other residents for the remaining period.

3 COST, RESPONSIBILITY AND LIABILITY

3.1 (Name of RC/RN) will not be responsible for any injuries, accidents and/or loss suffered by Gardeners or members of the public while in the Allotment Garden.

3.2 (Name of RC/RN) will not be responsible for the maintenance of, or growing of produce within, the respective allocated plot.

3.3 (Name of RC/RN) will retain full ownership of the Allotment Garden, and will appoint representatives to manage the Allotment Garden affairs.

3.4 All costs pertaining to, but not limited to, soils, fertilisers and seeds or seedlings required for allocated plots are to be borne by individual Gardeners.

3.5 Gardeners are to plant within their own allocated plot and return it in its original condition at their own cost to (Name of RC/RN) upon expiry of the Contract.

3.6 It is the Gardeners' responsibility to ensure their plots do not breed mosquitoes. Any penalty imposed by the Authorities will be borne by the individual registered Gardeners.

4 TYPE OF PLANTS

4.1 In general, no trees are permitted to be planted inside the Allotment Garden.

4.2 Gardeners must present the type of plants they intend to grow within their allocated plot to (Name of RC/RN).

4.3 The plants must not be more than 1 m in height (measured from soil level in the planter) when fully grown and approval must be sought from (Name of RC/RN) before erecting any structure.

4.4 (Name of RC/RN) has full discretion on what plants can be planted inside the Allotment Garden.

4.5 Gardeners may not grow:

- Plants that are prone to collecting stagnant water and therefore foster the breeding of mosquitoes, such as bamboos
- Plants that would retard growth of other plants, such as bananas
- Plants that are poisonous or toxic
- Plants that are deemed unsuitable by the Authorities or not permitted by law

5 STORAGE BOX

5.1 Every Gardener will be given the access code to their respective Allotment Garden storage box.

5.2 The storage box must be kept in good, clean, tidy and hygienic condition.

5.3 Only small gardening tools are allowed to be stored within the Allotment Garden. No personal items such as empty pots are allowed to be stored.

6 DISPUTE RESOLUTION & CODE OF CONDUCT

6.1 In the event of dispute between Gardeners, the Gardeners are required to attend a compulsory mediation session by the RC/RN before seeking other recourse.

6.2 Gardeners are required to attend scheduled meetings conducted by (Name of RC/RN) and/or Agencies regarding the sustenance of the Allotment Garden. (Name of RC/RN) may also arrange for residents and/or visitors to visit the Garden during opening hours.

6.3 No outsiders except approved Gardeners are allowed to work on the respective allocated plot. Family members/friends/visitors must be accompanied by the registered Gardener to work on the allocated plot. Random checks will be conducted to ensure Gardeners adhere to their allocated plot.

6.4 Gardeners must maintain a cohesive, harmonious and friendly relationship with the other Gardeners and the public, regardless of race, language, religion, age, garden experience level or nationality to promote neighbourliness, racial harmony and social cohesion. No Gardeners shall use violence, vulgar language or create disputes and disharmony among Gardeners or members of the public.

6.5 Gardeners must maintain their plot of land regularly. The common area should be kept in good, clean, tidy and hygienic condition.

6.6 Gardeners are encouraged to inform (Name of RC/RN) if they will be overseas for a period of time and/or request other Gardeners to assist during this period.

6.7 Gardeners are required to use the water prudently and avoid wastage. Use of water other than watering plants and cleaning the garden is strictly prohibited. Gardeners must not keep animals or bring food into the Allotment Garden.

6.8 Gardeners are encouraged to share their garden produce with fellow gardeners, residents and members of the public. Sale of produce is only allowed at farmer's markets held by the RC/RN.

6.9 Smoking, littering, pets, and consumption of alcoholic drinks are strictly not permitted within the vicinity of the Allotment Garden.

ANNEX 5: EXAMPLE OF TENURE AGREEMENT

I, _____ whose NRIC is _____ agree to the above Terms and Conditions of the Allotment Garden.

I agree that _____ (Name of RC/RN) has the full rights to implement and enforce the above rules and the right to amend any conditions at the RC/RN's own discretion without informing the Gardeners.

Signature _____

Date _____

For official use by staff / (Name of RC/RN)

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ABOUT COMMUNITY IN BLOOM

Community in Bloom (CIB) is a programme that was launched by the National Parks Board (NParks) in 2005. It aims to nurture a gardening culture among Singaporeans by encouraging and facilitating community gardening efforts. Through gardening, individuals can come together to build community bonds and strengthen social resilience in our City in Nature.

For more information on the CIB programme, visit our website at **www.nparks.gov.sg/cib** or email us at **CommunityInBloom@nparks.gov.sg**.

Visit NParks Flora & Fauna Web at **www.nparks.gov.sg/florafaunaweb** for more information on plants in Singapore.

For more gardening resources and tips, visit **go.gov.sg/gardening-resources**.

To learn more about our City in Nature, visit **www.nparks.gov.sg/CityInNature**

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