

KNOWLEDGE SHARING

METHOD OF PLANTING INDOOR PLANTS



MAKMAL PENYELIDIKAN SENIBINA
BAHAGIAN INOVASI, PENYELIDIKAN DAN PEMBANGUNAN KEJURUTERAAN
PUSAT KECEMERLANGAN KEJURUTERAAN DAN TEKNOLOGI JKR (CREaTE)

INTRODUCTION : Definitions

Indoor (adj.)

- » situated, conducted, or used within a building or under cover. (google.com)
- » of or relating to the interior of a building; living, located, or carried on within a building (https://www.merriam-webster.com/dictionary/indoor)

Plant (noun)

- » a young tree, vine, shrub, or herb planted or suitable for planting; any of a kingdom (Plantae) of multicellular eukaryotic mostly photosynthetic organisms typically lacking locomotive movement or obvious nervous or sensory organs and possessing cellulose cell walls (https://www.merriam-webster.com/dictionary/plant)

Houseplant (noun)

- » a plant that is grown indoors in places such as residences and offices (https://en.wikipedia.org/wiki/Houseplant)

What is indoor plants?

Plants that are located and grown indoor within a building such as residences and offices, or under a covered structure such as covered patio, balcony or shed. Also known as houseplants.



REQUIREMENTS FOR INDOOR PLANTS

All plants need these to grow:

- » Moisture
- » Light
- » Soil
- » Temperature
- » Humidity
- » Fertilizer



BENEFITS OF INDOOR PLANTS

Plants are placed indoors and become indoor plants for some of these benefits:

- » Decorative purposes
- » Positive psychological effects
- » Cleanse indoor air and help with indoor air purification
- » Reduce indoor air pollution by absorbing volatile organic compounds (VOC)



METHOD TO GROW INDOOR PLANTS

Indoor plants can be grown as:

- » Potted Plants
- » Subirrigation
- » Hydroponics
- » *Kokedama*
- » *Bonsai*
- » *Marimo* (moss ball)
- » Air plants (plants with no soil)
- » Terrarium (bottled mini garden)



INDOOR PLANTS : POTTED PLANTS

- » Most plants can be planted in nice pots made from of all kinds of materials, and comes in all kinds of sizes, shapes and design.
- » Pots for plants can be from soil or other material such as water, hydroball or leca ball, which is compacted soil and other similar materials.
- » Potted plants needs to be watered regularly according to the plant type and location of the plants.
- » Some of the recommended plants are *aglaonema*, peace lily, english ivy, *philodendron*, *zamioculcas zamiifolia* (zz plant), *sansevieria* (snake plant) and *ficus*.



INDOOR PLANTS : SUBIRRIGATION

- » Subirrigation is a method of watering potted plants with seepage irrigation placed near the plants' roots where water is delivered to the plant root zone.
- » Most plants can use this method with addition of water tank and automatic timer for timed plant watering.
- » Most 'green wall' or 'vertical greenery system' on building uses subirrigation to ensure plants are watered daily.



INDOOR PLANT : HYDROPONICS

- » Hydroponics is a form of gardening that uses no soil, but instead grow plants in a solution of water and nutrients.
- » A hydroponic system can grow plants faster and sustainable.
- » Plants grown this way usually yield more, require less space, and conserve soil and water.
- » Usually vegetables are planted using hydroponics as they can grow faster and grow all year round.



INDOOR PLANT : *KOKEDAMA*

- » *Kokedama*, translates literally "moss ball", is a ball of soil, covered with moss, on which an ornamental plant grows.
- » The idea of *kokedama* originated from Japan where this garden art is centuries old and is tied into the practice of *bonsai*, but it has grown into its own art form.
- » Today, *kokedama* are displayed as the center of attention, typically affixed to a piece of driftwood or bark, suspended from a string, or placed in a flat container.



INDOOR PLANT : *BONSAI*

- » *Bonsai* is a Japanese term which, literally translated, means “planted in a container”.
- » This art form is derived from an ancient Chinese horticultural practice, part of which was then redeveloped under the influence of Japanese Zen Buddhism.
- » Bonsai styling is about pruning, wiring, defoliation, dead wood, surface root and trunk of the plant.
- » Some of the plants that is recommended for *bonsai* are *figus*, Japanese maple, juniper, cypress, *carmona*, pines and *azalea*.



INDOOR PLANTS : *MARIMO*

- » *Marimo* (or also known as Cladophora ball, moss ball, or lake ball) is a rare growth form of *Aegagropila linnaei* (a species of filamentous green algae) in which the algae grow into large green balls with a velvety appearance.
- » The species can be found in a number of lakes and rivers in Japan and Northern Europe.
- » However, now moss balls now can be bought from stores and grown in aquarium with fishes.



INDOOR PLANTS : TERRARIUM

- » Terrarium is planting indoor plants in a clear container like aquarium, made of glass or perspex, but for plants instead of fish.
- » The container can be either sealable container containing soil and plants, and can be opened for maintenance to access the plants inside, or it can be open to the atmosphere.
- » Closed terrarium create a unique environment for plant growth, as the transparent walls allow for both heat and light to enter the terrarium.
- » Terrarium is an art of planting indoor plants to look like a miniature garden or forest enclosed in its own little world.



INDOOR PLANTS : AIR PLANTS

- » Air plants are plants from the plants for *tillandsia*.
- » The reason why they are nicknamed "air plants" is because they get the majority of their nutrients from the air around them.
- » Some of the air plants are *xerographica*, *tectorum*, *bulbosa*, *tectorum*, *ionantha rubra*, *velutina*.
- » They simply can be placed on any flat or hanging container and need the most minimum care.



CONCLUSION

- » The addition of indoor plants inside rooms or spaces always compliment and enliven rooms and spaces for the benefit and comfort of the people.
- » However, elements that affect growth of indoor plants might differ slightly than that of outdoor plants. The maintenance of each plant also differs according to the type of plants chosen for the indoor space or room.
- » Indoor plants should always be easily maintainable because some indoor rooms and spaces are not always occupied by people.
- » For sustainability of these indoor plants, each person is encouraged to adopt a plant and foresee its growth overtime.



Narrated Anas bin Malik:

Allah's Messenger (ﷺ) said, "There is none amongst the Muslims who plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, but is regarded as a charitable gift for him."

(Source : Hadith Sahih Al-Bukhari # 2195)



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حَدَّثَنَا قُتَيْبَةُ بْنُ سَعِيدٍ، حَدَّثَنَا أَبُو عَوَانَةَ، ح
وَحَدَّثَنِي عَبْدُ الرَّحْمَنِ بْنُ الْمُبَارَكِ، حَدَّثَنَا أَبُو
عَوَانَةَ، عَنْ قَتَادَةَ، عَنْ أَنَسٍ - رَضِيَ اللَّهُ عَنْهُ
- قَالَ قَالَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ "
مَا مِنْ مُسْلِمٍ يَغْرِسُ غَرْسًا، أَوْ يَزْرَعُ زَرْعًا،
فَيَأْكُلُ مِنْهُ طَيْرٌ أَوْ إِنْسَانٌ أَوْ بَهِيمَةٌ، إِلَّا كَانَ
. وَقَالَ لَنَا مُسْلِمٌ حَدَّثَنَا أَبَانُ، لَهُ بِهِ صَدَقَةٌ "
حَدَّثَنَا قَتَادَةُ، حَدَّثَنَا أَنَسٌ، عَنِ النَّبِيِّ صَلَّى اللَّهُ
عَلَيْهِ وَسَلَّمَ.