2ND EDITION

E-EXTENDED
ABSTRACT

INTERNATIONAL AGROTECHNOLOGY INNOVATION SYMPOSIUM (i-AIS)

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ABOUT FACULTY OF PLANTATION AND AGROTECHNOLOGY

The Faculty of Plantation and Agrotechnology was established in 2010 at Universiti Teknologi MARA (UiTM). The mission of the faculty is to play the vital role of producing well-trained professionals in all areas of plantation and agriculture-related industries at national and international levels.

Bachelor of Science (Hons) Plantation Technology and Management is a three-year program that strongly emphasizes the various aspects of Production Technology, Management, and Information Technology highly sought after by the agricultural and plantation sectors. Students in this program will be fully trained to serve as professionals in the plantation sector and related industries. They will have ample opportunities to fulfill important positions in the plantation industry such as plantation executives. This program provides a strong balance of technology and management courses essential for the plantation industry such as management of plantation crops, soil fertility, plantation management operation, plantation crop mechanization, and agricultural precision. As an integral part of the program, students will be required to undergo industrial attachment to gain managerial skills in the plantation industry.

The faculty is highly committed to disseminating, imparting, and fostering intellectual development and research to meet the changing needs of the plantation and agriculture sectors. With this regard, numerous undergraduate and postgraduate programs have been offered by the government's intention to produce professionals and entrepreneurs who are knowledgeable and highly skilled in the plantation, agriculture, and agrotechnology sectors.

PREFACE

International Agrotechnology Innovation Symposium (i-AIS) is a platform to be formed for students/lecturers/ staff to share creativity in applying the knowledge that is related to the world of Agrotechnology in the form of posters. This virtual poster competition takes place on the 1st of December 2022 and ends on the 8th of January 2023. This competition is an assessment of students in determining the level of understanding, creativity, and group work for the subject related to agrotechnology and being able to apply it to the field of Agrotechnology. The i-AIS 2022 program takes place from December 1, 2022, to January 8, 2023. The program was officiated by the Dean of the Faculty of Plantation and Agrotechnology, namely Prof. Madya Ts. Dr. Azma Yusuf. The program involves students from faculties of the Faculty of Plantation and Agrotechnology (FPA)and HEP participating in i-AIS 2022, namely, the Faculty of Education and Pre-Higher Education. This program involves the UiTM student and some of the non-UiTM students which come from the international university and the local university. Two categories are contested, namely UiTM and non-UiTM. To date, students from these programs have shown remarkable achievements in academic performance and participation in national as well as international competitions.

This competition is an open door for the students and lecturers to exhibit creative minds stemming from curiosity. Several e-content projects have been evaluated by esteemed judges and that has led to the birth of this E-Poster Book. Ideas and novelties are celebrated, and participants are applauded for displaying ingenious minds in their ideas.

It is hoped that such an effort continues to breed so that there is always an outlet for these creative minds to grow.

Thank you.

Dean
On behalf of the Organizing Committee
Conference Chair
Universiti Teknologi MARA
Faculty of Plantation and Agrotechnology
http://fpa.uitm.edu.my

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PORTABLE FLOWER POT

Muhammad Wafiy Bin Amran[1], Muhamad Hafis Bin Muhamad Yusof [1], Muhammad Hakim Bin Abdul Razak[1]

[1]*Faculty of Plantation and Agrotechnology, University Teknologi MARA, Malaysia*

Corresponding author e-mail: 2021393597@student.uitm.edu.my

ABSTRACT - Home gardening start to become a trend in the 20 century. A lot of individual will release their stress through gardening at home but they faced some limitations such as space, water management and nutrient uptake of the plant to grow. To overcome these limitations an invention has been proposed which is a Portable Flower Pot. The Portable Flower Pot comes with recycled material in order to make it easy to be built by different age and different backgrounds of gardening. The Portable Flower Pot process can be done easily by preparing water storage to maintain the soil moisture and coconut husk act as soil amendment, nutrient source or mulching practice. Portable Flower Pot will help many users in many aspects such as time consumption, and monitoring activity could be decreased. By having this product it been hoped that the number of home gardeners in an urban area could be increased.

Keywords: PFP, space, soil, nutrient, water, coconut

INTRODUCTION

Currently, the large number of individuals enjoy home gardening but lacking of sufficient space to grow the plant. The water source will be limited for apartment-dwelling gardeners compared to those who cultivate their gardens on the ground. This is due to the difficulty in establishing a watering system. In addition, soil deficiency restricts the availability of nutrients. Additionally, we added coconut husk as a soil supplement to improve the quality of the soil. Regarding all of the issues mentioned, we came up with the idea to build a new invention known as Portable Flower Pot (PFP). Our products are designed for apartment-dwelling individuals and those with careers. This product could aid to alleviate their concerns regarding space, nutrition uptake, and watering schedule of the plant growth at home.

MATERIAL AND METHOD

Portable Flower Pot consists bottle as the replacement for the flower pot and the medium to enhance our soil media is coconut husk considered as waste. For water management, we use another bottle as a water container. Therefore, to supply water from the water container to the flowers, we decided to use patchwork as a connector.

Flower Pot

1. the water bottle will be split into 2
2. The top of bottle will selected as flower pot.
3. After that make hole at the bottle cap
4. Turn down the top bottle and fill with soil and after that the flower.
5. On the soil surface, add coconut husk

Water Container

1. Take another bottle and cut into 2
2. Take the bottom part
3. Place water in it
4. Connect patch work at bottle cap that already has hole with water container.

DISCUSSION

Our Portable Flower Pot (PFP) comes with simple usage and simple equipment but has many functions. It will help many users in many aspects such as time consumption, and monitoring activity could be decreased. PFP will help to reduce the burden or the stereotype of gardening which requires many things. Portable Flower Pot came up with a few recycled materials in order to reduce the cost and make it more eco-friendly. By using coconut husk as a soil amendment it helps to supply nutrients to the plant due to high organic content. All of these features indirectly will increase the number home gardening especially in urban area or limited area.

CONCLUSION

In Conclusion, the Portable Flower Pot comes with a simple objective but the impact of the invention could help change the home gardening world to a lot much easier and brighter. In order to see more details about the PFP future study should be carried out and to be tested in multiple situations.

REFERENCES

[1] Urban Gardening | US EPA. (2014, March 13). US EPA. https://www.epa.gov/foia/urban- gardening

[2] Hageman, B. (2022, June 13). Benefits of Using Coco Coir in the Garden. Grow Organic; Grow Organic. https://www.groworganic.com/blogs/articles/benefits-of-using-coco-coir-in- the-garden

[3] Torillo, J., & Mihara, M. (2012). Nitrogen and Phosphorus Released from Coconut Husk during Retting Treatment. In IJERD -International Journal of Environmental and Rural Development (pp. 3–5). https://iserd.net/ijerd32/32094.pdf\

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Fakulti Perladangan dan Agroteknologi

ais2023.fpa@gmail.com