

CULTIVATION OF HYDROPONIC PAKCOY VEGETABLE PLANTS FOR STUDENTS & TEACHERS OF RIYADHUSSHOLIHIN ISLAMIC SCHOOL

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ABSTRACT

This community service activity was carried out in collaboration with partners at the Riyadhushsholihin Islamic Boarding School in Cimanuk, Pandegelang. In order to prepare Independent Entrepreneurs for teachers and students at Islamic Boarding Schools, they were given training and direct practice in making Hydroponic Pakcoy Vegetable Plants. The community service team provide assistance until the product is ready to be marketed. Initially the products are used personally and sold around the business center at the Riyadhushsholihin Islamic Boarding School. The next target will be to sell it to people outside the Riyadhushsholihin Islamic Boarding School area. The results of this activity are in the form of increased teacher welfare obtained from the sale of Sayur Pakcoy products. Apart from that, students after graduating can become entrepreneurs in making these products, both students who continue their studies and those who do not continue their studies can still be independent entrepreneurs.

Keywords : Hydroponic Pakcoy Vegetable, Improvement Welfare, Entrepreneur.

1. INTRODUCTION

Almost all people in Indonesia and throughout the world consume vegetables. Vegetables are a healthy complement to daily food. Vegetables contain nutrients, vitamins and minerals that are needed for the health of the human body. According to data from the Central Statistics Agency (2017), almost the entire population of Indonesia (97.29%) consumes vegetables. Among the various types of vegetables, Pakcoy is popular with Indonesian people from the lower and middle classes to society high class. The average consumption of pakchoy per person per week was 0.040 kg in 2015. Meanwhile, the estimated total national consumption of pakcoy plants per year was 532.37 kg per person in 2015 and increased in 2016 to 539.80 kg per person. Meanwhile, looking at the average production in Indonesia, this vegetable is still quite low, namely 20 tonnes/ha, compared to other countries such as China 40 tonnes/ha, the Philippines 25 tonnes/ha, Taiwan 30 ton/ha (Badan Pusat Statistik, 2017).

Pakcoy (*Brassica rapa L.*) is a plant belonging to the Brassicaceae family. Pakcoy can grow in lowland to highland areas. This plant is rarely consumed in raw form, but is commonly used as an ingredient in soups and garnishes. From an economic and business perspective, pakchoy is worth cultivating to meet high consumer demand and the international market opportunity is quite large, because the selling price of pak choy is more expensive than other types of mustard greens (Vivonda, 2016).

Pakcoy plants are very easy to live with, and have a very short life cycle, the harvest time for pakchoy is 40-50 days after planting. The Pakcoy plant is also a plant that is resistant to various types of weather conditions and types of pests (Wahyuningsih, 2016)

In traditional markets, the price of pak choy can vary depending on the harvest season and supply availability. The estimated price of pak choy in traditional markets is between IDR 8,000 – IDR 10,000 (per kilogram) in the rainy season and IDR 5,000 – IDR 7,000 in the dry season. In the modern market, the price of pak choy also varies depending on supply availability. However, usually the price of pak choy in modern markets is more stable than in traditional markets. Estimated prices for Pakcoy in modern markets: Supermarkets: IDR 6,000 – IDR 8,000 per kilogram, minimarkets: IDR 8,000 – IDR 10,000 per kilogram, and online shops: IDR 8,000 – IDR 12,000 per kilogram (Yusuf, 2011).

This is the background for the author to introduce and help cultivate pakcoy vegetables to teachers and students at the Riyadhushsholihin Islamic Boarding School.

2. METHOD

Previously, the community service team has conducted mapping of existing problems. These problems can be recapped in the table below.

Table 1. Existing Problems

No.	Problem	Description
1.	No understanding and knowledge in technology for Cultivation Plant Hydroponics of Pakcoy Vegetables.	The Riyadhussholihiiin Islamic Boarding School has the potential and ability to develop cultivation plant hydroponics of pakcoy vegetables.
2.	Limited knowledge about market opportunity for consumer needs for pakcoy vegetables	The vegetables business still show extensive opportunities. Reported by Detik.com , in “small-scale business”, approx a month profit from 4 harvests reached IDR 8 million rupiah. Unfortunately, market demand is still not yet capable filled with business people hydroponics. Well, here it is opportunity business for those of you who want harvest profit in this Covid-19 situation. Even before pandemic here too, vegetables This Lots his request.
3.	There are no entrepreneurship courses or training for high school students.	The curriculum at Riyadhussholihiiin Islamic Boarding High School does not have Entrepreneurship Subjects yet. Currently entrepreneurship is quite important for students to prepare themselves when they graduate so they can become entrepreneurs.
4.	Limited knowledge to improve additional income for teachers	It is important to provide alternative additional income for teachers considering that the teachers who serve at the Riyadhussholihiiin Islamic Boarding School are people who are relatively sincere and of course their income is not far above the standard.

Community service activity is carried out in the Riyadhussholihiiin Islamic Boarding School environment-Rocek-Cimanuk-Pandegelang Banten Province which is located approximately 118 km from the Universitas Mercu Buana campus. The implementation of continuing activities covers the November 2022 period to June 2023.

The target of community service is the teachers and students of the High School of the Riyadhussholihiiin Islamic Boarding School in Rocek, Cimanuk, Pandegelang, located approximately 118 km from the Mercu Buana University campus. The reason for choosing the Riyadhussholihiiin Islamic Boarding School is because it is a potential population of business in the community that becomes relatively more surviving in various economic conditions, after the Pandemic Covid 19.

Community service activities in the form of socialization and technology training to teachers and students of Riyadhussholihiiin Islamic Boarding High School.

The technical activities are carried out thru several steps as follows:

1. Conduct a preliminary survey to Riyadussholihiiin Islamic Boarding High School in Cimanuk, Pandeglang to obtain data on participants who will take part in the training, as well as to find out the problems that occur.
2. Coordinate with Riyadussholihiiin Islamic Boarding High School about criteria participants who will take part in the training.
3. Make criteria and limits on the number of participants taking part training.
4. Give invitations to participants to attend on a predetermined or mutually agreed day.
5. Provide Training
6. Symbolically giving a charter cooperation training.
7. Providing training certificates to training participants

In implementing the activities, there are several success criteria for measuring the achievement as follows:

1. Participants follow series of training and outreach events
2. Participants can understand technology for Cultivating Hydroponic Plant of Pakcoy Vegetables.
3. Participants intend apply his knowledge
4. Evaluation Sheet training

3. RESULTS AND DISCUSSION

Results

This community service activity with the topic Cultivation of Pakcoy Vegetable Hydroponic Plants In order to prepare independent entrepreneurs for high school students of Riyadhushsholihin Islamic Boarding School in Cimanuk, Pandegelang. This event was held through a zoom meeting interestingly and communicatively. The event starts at 07.30 WIB and until 15.00 WIB.

The number of participants was 80 students. This shows the high interest of the participants to gain knowledge about Cultivation of Pakcoy Vegetable Hydroponic Plants. With the method of delivering the material presented by the resource persons, participants can clearly understand the material because the material is delivered in a structured, well-systematic manner so that it is very easy to understand. From the results of the implementation of this training activity, it can be concluded that it follows the expectations and needs of the participants. So the majority of participants considered this event very good and satisfying. The next step after presentation, the participant must get involved in implementing Cultivation of Pakcoy Vegetable Hydroponic Plants.

Delivery of Training Materials

First, the team conducted a feasibility survey with management of Riyadhushsholihin Islamic Boarding High School in Cimanuk , Pandegelang , licensing coordination for the implementation of activities, and a good response from locals for the implementation of activities at the start of the implementation of community service activities . The goal of this first step is to provide convenience in terms of exposure to the target audience and surroundings and implementation stage, as well as technical assistance if necessary. This activity was done to give an overview before the team discussed the desired exposure and supporting technical material required to ensure that everything ran smoothly and that the knowledge-sharing process was well received by the community.

Discussion

The socialization process continued with active interaction with participants in the form of questions and answers and discussions where this interaction was important to build a focused professional attitude of the community, which could later be used to describe the importance of Cultivation of Pakcoy Vegetable Hydroponic Plants. The team paid attention to the differences in people's education levels and tried to explain them in simple language while at the same time trying to create emotional intimacy so that the process of delivering material was conveyed. This condition must be anticipated by providing a kind of counseling with a higher percentage of practice by showing a harmonious implementation during lectures. The teachers and students must do participate in implementing Cultivation of Pakcoy Vegetable Hydroponic Plants.

4. CONCLUSION

Conclusion

The community service program which was carried out in high school students of Riyadhushsholihin Islamic Boarding High School in Cimanuk , Pandegelang . on 24 March 2023, has been carried out well and successfully. This event was attended by 80 participants. The event was interesting and communicative. According to the participants, this program was very useful because the resource persons could convey the material in simple sentences so that it was easy to understand. The material discussed by the Riyadhushsholihin Islamic Boarding High School in Cimanuk , Pandegelang gave competitive advantage and added value, hence participants can be pro-actively implementing Cultivation of Pakcoy Vegetable Hydroponic Plants.

Recommendations

Continuous training activities and implementations are needed so that mentoring can run more optimally. Assistance activities are needed for participants who can take advantage of the routine schedule of community activities in Riyadhushsholihin Islamic Boarding High School.



Figure 1. Activities Documentation



Figure 2. Activities Documentation

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