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THE ANALYSIS REVENUE OF PREMIUM MELON FRUIT FARMERS AT PUSAT PENGUMPULAN HASIL TANAMAN KEKAL PENGELUARAN MAKANAN PERADONG MALAYSIA

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Abstract

Malaysia is a country located on the equator that has a tropical climate with a high level of soil fertility that makes it possible to increase production in the agricultural sector. Where agriculture is the most substantial field in contributing to the gross domestic product of Malaysia. Peradong Food Produce Collection Center is an agricultural institution managed by the Department of Agriculture of the State of Malaysia located in Peradong. Peradong is one of the Districts in Kuala Terengganu, Terengganu Province, Malaysia. This institution focuses on increasing innovation in agriculture, especially peremium melon plants by establishing 16 greenhouses for melon plant cultivation with 4 assisted farmers. The research location was carried out at the Peradong Food Expenditure Perennial Crops Collection Center with the sampling technique carried out by the census method. The analysis model used in solving this problem is using income analysis with the equation $\pi = TR - TC$. From the results of the analysis, it was found that the net income earned by assisted farmers from the cultivation of premium melon farming at the Peradong Food Expenditure Perishable Crops Collection Center was RM 16,058 / MT / farmer.

Keywords **:** ***Analysis, Revenue, Farmers, Melon, Peradong***

1. INTRODUCTION

Malaysia's economic growth has been designed since 62 years ago, with agriculture being the most substantial sector in contributing to the country**'s** Gross Domestic Product (GDP) (Istikoma et al., 2015)**.** Malaysia is a country with abundant natural resources, especially in the agricultural industry sector which is an important point in the development of the country in Malaysia where at this time the agricultural sector is able to contribute 16% in employment. (Mumuh et al., 2021). The agricultural sector in Malaysia is one of the sectors contributing to the country's revenue of RM 50 billion where there was a drastic increase in the fruit commodity of RM 4.3 billion in 2015 and in 2019 it rose to RM 9.8 billion (Ministry of Agriculture and Food Industries, 2021). (Muhammad et al., 2015) About 85.2% of stone melons and 96.2% of watermelons have been cultivated by Malaysian farmers. The majority of farmers in Malaysia are male with an average age between 35 -48 years. Globally, melons are among the top 10 economic contributors to crops in Iran, Turkey, Spain, India, China, and other countries in Central Asia and the states of the Soviet Union (Schaffer & Paris, 2016). In Malaysia, melon is one of the most valuable crops through several policies for melon farmers from the Malaysian government (Masdek & Muhammad, 2016). Along with the increase in demand for melons in the global market, melon producing countries have increased melon production, in order to compete in the global market (Thakur et al., 2019).

Melon fruit is a very popular fruit in the community, where the benefits of consuming melon fruit can increase endurance and prevent various diseases, such as cancer heart attacks. In addition, melon is also able to maintain eye health (Simanungkalit et al., 2013). In the era of globalization and global market openness, global market competition is getting tougher. Increased consumer demand for fruits spurs agricultural product producing countries to improve quality and production in order to compete in the global market. Melon is one of the agricultural commodities that has a high value in the global market, where the demand for melons in the global market is increasing every day. Apart from the global market, the demand for melons in the domestic market

is also quite promising and this is a great opportunity for melon farmers to increase their income (Kubo et al., 2021).

(Erwandri et al., 2021) in his research stated that the production costs incurred for cultivating melon farming in Sungai Buluh Muara Bulian District, Batang Hari District amounted to Rp. 7,718,848 with an efficiency value of 8.09 and the profit received by melon farmers in Sungai Buluh Muara Bulian District, Batang Hari District amounted to Rp. 62,500,000. (Mardhiah et al., 2020) In the results of his research, it was found that as for the business feasibility analysis and income analysis of melon farming profits in Neuheun Village, Masjid Raya Sub-District, which amounted to Rp. 9,987,151 / MT with an R / C ratio of 4.82. (Nafisah et al., 2019) Melon farming in Banjar Baru City in one growing season period is for four months. The profit earned by melon farmers in Banjar Baru City is Rp. 23,129,951 with production costs incurred amounting to Rp. 11,807,549, with an R / C ratio of 2.96, so melon farming is feasible. The costs incurred in melon farming in Wonosari Village, Ngombol Sub-District, Purworejo District are Rp. 22,728,534 / MT with a total income of Rp. 66,262,132 / MT. while factors that significantly affect melon production are the number of seeds, the amount of land area and the amount of labor. (Andrianto et al., 2018).

The Golden Melon supply chain in Cilegon City consists of Gathering Traders Retailers and Final Consumers. The flow of the supply chain from producers to end consumers runs well. This is indicated by the existence of mutual communication between Golden Melon supply chain actors, and the openness and trust between retailers and consumers (Sulaeni & Suherman, 2022). (Sembiring et al., 2021) in the results of his research stated that the supply chain in the melon fruit commodity in Pantai Labu Sub-District consists of farmers, penegumpul traders, large traders, retailers and end consumers. Peradong is one of the districts in Kuala Terengganu, Terengganu Province, Malaysia. Peradong Food Produce Collection Center is one of the government agencies under the Malaysian Ministry of Agriculture, which currently has developed various programs to increase agricultural yields, especially in melon fruit crops. Peradong Food Produce Collection Center in Peradong Sub-District has created a mentoring program for melon farmers with premium quality through the concept of greenhouses in improving the quality and quantity of melon production in Peradong Sub-District. The Peradong Peradong Food Produce Collection Center has an area of 4,019 Ha with a greenhouse building area of 3.2 Ha. The development costs that have been incurred by the Food Collection Center Agricultural institution in making greenhouse facilities are RM. 3.35 million. The greenhouses built are intended for farmers assisted by the Peradong Peradong Food Expenditure Peradong Peradong Peradong Peradong per assisted farmer gets 4 greenhouse units / farmer. Greenhouses are given to farmers in the form of rent. All damage and repairs to the greenhouses are the full responsibility of the Peradong Food Produce Collection Center. The purpose of this research is to analyze how much income is obtained by premium quality melon farmers under the guidance of the Peradong Food Expenditure Perennial Crops Collection Center.

2.IMPLEMENTATION METHOD

The location of the research was conducted at the Peradong Food Expenditure Perpetual Crops Collection Center where this government agency has fostered farmers with the best melon commodity in the Kuala Terengganu District of Terengganu Province, Malaysia. The sampling technique was carried out by the census method, where the entire population of melon farmers under the Peradong Food Expenditure Perpetual Crops Collection Center was sampled. As for the number of samples of melon farmers with premium quality under the Peradong Food Expenditure Perishable Crops Collection Center is as many as 4 melon farmers with a total of 16 greenhouses. The model used in this study is to use an income analysis model using the following equation:

$\pi = TR - TC$

Where:

π = Income

TR=Total revenue (RM)
TC =Total Cost (RM)

Where:

TR = P.Q
TC =FC + VC

Description:

P = Price (RM)
Q = Product (Kg)
TC = Total cost (RM)
FC = Fixed cost (RM)
VC = Variable cost (RM)

3. RESULTS AND DISCUSSION

The Peradong Grocery Perennial Crops Collection Center is a government agency under the Third State Ministry of Agriculture to promote the implementation of large, periodic, commercial and high-tech agricultural projects by the assisted community and also includes the private sector. The construction of the Food Expenditure Perishable Crops Collection Center involves cooperation between Royal Institutions, Government Agencies and entrepreneurs. The implementation of the activities set out in the cooperation agreement of the Food Produce Collection Center was signed by the Minister of Agriculture with the Menteri Besar and Chief Ministers of all regions in Malaysia.

Peradong Food Produce Collection Center is located in Peradong District Kuala Terengganu Province Terengganu Malaysia, where the focus of the activities carried out by the Peradong Food Produce Collection Center is on the premium quality melon commodity. Premium quality melon cultivation activities at the Peradong Food Expenditure Perpetual Plant Products Collection Center involve fostered farmers with a cultivation system in a greenhouse that has been built by the Peradong Food Expenditure Perpetual Plant Products Collection Center. The land area owned by the Peradong Food Expenditure Perishable Plant Products Collection Center is 4,019 Ha, where the area built to make greenhouses to be used as a place for premium quality melon cultivation is 3.2 Ha with a total of 16 greenhouse units, which are managed by 4 assisted farmers. Each fostered farmer gets 4 greenhouse units for the cultivation of premium quality melon plants. The entire greenhouse and other infrastructure facilities are made by the Peradong Food Expenditure Perennial Crops Collection Center.

Melon Farmer Income Analysis

The fixed costs incurred by melon farmers in the Mak anan Peradong Crops Collection Center in this study only include the depreciation value of the equipment, which consists of:

Table 1. Fixed costs in premium quality melon farming activities

No.	Tool Type	Total	Cost (RM)
1	Greenhouse Rental	1	1.560
2	Machete	1	24
3	Cangkol	1	40
	Total		1.624

Data Source: Primary Data Processed 2023

From the table above it can be explained that, the fixed costs incurred in the farming activities of premium quality melons amounted to RM. 1,624, where fixed costs in this activity include greenhouse rental, procurement of machetes and cangkol. The economic value in fixed costs is only up to 6 times the growing season, so the depreciation cost incurred is RM. 270.6. In strengthening the results of this study, in line with the results of research (Andrianto et al., 2018)

which states that, the costs incurred for melon cultivation in Wonosari Village, Ngombol Sub-District, Purworejo District are Rp. 893,895 including the cost of hoes, water pumps, sickles, hansprayer, liquid fertilizer tools and paralon. Fixed costs incurred by melon farmers in Neuheun Village, Masjid Raya Sub-District of Aceh Besar amounted to Rp. 151,242 consisting of hanspayer, hoe, machete, scissors, mulch, water pump, tie wire, and other equipment (Mardhiah et al., 2020).

Variable costs incurred in cultivation activities are directly proportional to production results, where, the greater the variable costs used, the higher the production produced (Bakari, 2019). The variable costs incurred by premium quality melon farmers in the Peradong Food Expenditure Perennial Crops Collection Center are as follows:

Table 2: Results of Average Value of Variable Costs of Premium Quality Melon

No.	Description	Total	Unit	Unit Price (RM)	Total Cost (RM)
1	Fertilizers and Pesticides				
	Land	9000	Kg	0,05	450
	Organic Fertilizer	84	Kg	500	42.000
	Insect Pesticides	3	Ltr	166,6	500
	Leaf Pesticide	3	Ltr	166,6	500
	Folia	3	Ltr	166,6	500
2	Labor in the Planting Season				
	Part-time Labor	7	OH	54	378
	Permanent Labor	90	OH	48	4.320
3	Seeds	16	Pcs	150	2.400
4	Polybag	1400	Lbr	2	2.800
	Total Variable Cost				53.847

Data Source: Primary Data Processed 2023

From the table above it is explained that, the amount of costs incurred in the purchase of soil fertilizer amounted to RM 450, organic fertilizer amounted to RM 42,000, insect pesticides amounted to RM 500, leaf pesticides amounted to RM 500 and Folisa amounted to RM 500. The use of labor in melon farming in the Peradong Food Expenditure Perennial Crops Collection Center consists of 2 types of labor use, namely, part-time labor and permanent labor. The cost incurred for the use of part-time labor is RM 378 and the cost incurred for permanent labor is RM 4,320. The costs incurred for the purchase of seeds amounted to RM 2,400 and the purchase of planting media (polybags) amounted to RM 2,800. To strengthen the results of this study in line with the results of research (Pradana et al., 2017) which states that the amount of variable costs incurred by melon farmers in Karanganyar District is Rp. 68,739,741 which consists of procurement of production facilities, labor costs, depreciation costs of tools, other costs and costs of internal labor costs. In the research results (Mujianingsih et al., 2017) about the analysis of melon farming income in Central Lombok District, the variable costs incurred by melon farmers are Rp 12,546,796 including land processing, bed formation, mulch installation, planting, installing stakes, watering, fertilizing, spraying, spraying when small, spraying when large, spraying when branches and harvesting.

Analysis of melon income is done by looking at all the total production produced multiplied by the selling price of melon and reduced by all production costs incurred. For more details on how much profit is obtained in the premium quality melon farming business at the Peradong Food Expenditure Perennial Crops Collection Center can be seen in the table below:

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Table 3. Income Analysis of Premium Melon Farmers at Peradong Food Expenditure Perennial Crops Collection Center

No.	Description	Average value (RM)
1	Revenue (TR)= P.Q	
	a. Production (Q) (Kg/4 Greenhouse/Farmer)	5.040
	b. Production Price (P) (RM/Kg)	14
	Total Revenue (TR)	70.560
2	**A. Variable Cost (VC)**	
	Land	450
	Organic fertilizer	42.000
	Insect pesticides	500
	Foliar pesticides	500
	Folia	500
	Part-time labor	378
	permanent labor	4.320
	Seeds	2.400
	polybag	2.800
	Total Variable Cost (VC)	53.398
	B. Fixed Cost (FC)	
	Greenhouse rental	1.040
	Cangkol	40
	Machete	24
	Total Fixed Cost (FC)	1.104
3	Total Cost (TC)	
	a. Variable Cost (VC)	53.398
	b. Fixed Cost (FC)	1.040
	Revenue = TR-TC	**16.058**

Data Source: Primary Data Processed 2023

From the table above it can be explained that, the total net income received by melon farmers with premium quality in the Peradong Food Expenditure Perennial Crops Collection Center is RM 16,058 / MT / farmer. The price of premium quality melons every harvest season tends to be stable at RM 14/Kg/MT. to support the results of this study which is in line with the results of research conducted by (Mardhiah et al., 2020) it was found that the net profit received by melon farmers in Neuheun village, Masjid Raya Sub-District, Aceh Besar district was Rp. 9,987,151. (Mujianingsih et al., 2017) in the results of his research stated that, the income obtained by melon farmers in the central Lombok District was Rp. 63,594,628. the net income received by melon farmers in the Sungai Buluh Muara Bulian District, Muara Bulian Sub-District, Batang Hari District is Rp. 62,500,000.

4. CONCLUSION

The Peradong Food Expenditure Perennial Crops Collection Center is one of the government agencies under the Malaysian Ministry of Agriculture. This institution makes an innovation in agriculture by establishing a greenhouse for the cultivation of premium melons as many as 16 greenhouses managed by 4 fostered farmers, where each farmer is given the right to manage as many as 4 greenhouse units by the Peradong Food Expenditure Perennial Crops Collection Center. From the analysis of the income of premium melon farming at the Peradong Food Expenditure Perpetual Plant Products Collection Center, a net profit of RM 16,058 / MT / farmer was obtained, with a total revenue (TR) of RM 70,560 and a total cost (TC) of RM 54,438. It can be concluded that the assisted farmers of the Peradong Food Expenditure Perpetual Plant Products Collection Center who cultivate premium melons get maximum profit.

REFERENCES

Andrianto, R., Wicaksono, I. A., & Utami, D. P. (2018). ANALISIS USAHATANI MELON DI DESA WONOSARI KECAMATAN NGOMBOL KABUPATEN PURWOREJO. *SURYA AGRITAMA*, *7*(2), 94–106.

Bakari, Y. (2019). Analisis Karakeristik Biaya Dan Pendapatan Usahatani Padi Sawah. *Jurnal Sosial Ekonomi Pertanian*, *15*(3), 265. https://doi.org/10.20956/jsep.v15i3.7288

Erwandri, E., Uliya, U., Harimurti, S., & Rusnani, R. (2021). Analisis Pendapatan Usahatani Melon Agrowisata Sungai Buluh Kecamatan Muara Bulian Kabupaten Batanghari. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, *5*(2), 172–179.

Istikoma, I., Ain, Q. U., & Dahlan, A. R. A. (2015). The Transformation of Agriculture Based Economy to an Industrial Sector through Crowd Sourcing In Malaysia. *International Journal of Computer Science and Information Technology Research*, *3*(1), 34–41. http://irep.iium.edu.my/40894/1/IJCSITR_Vol3Issue1_Jan2015_TransformationAgricultureBasedEconomy.pdf

Kubo, K., Pritchard, B., & Sandar, A. (2021). How Chinese demand for fresh fruit and vegetables is creating new landscapes of rural development and vulnerability in Southeast Asia: Insights from the Myanmar melon frontier. *Geoforum*, *122*(April), 32–40. https://doi.org/10.1016/j.geoforum.2021.03.008

Mardhiah, A., Khumaira, K., & Aida, N. (2020). Analisis Pendapatan Usahatani Melon Di Desa Neuheun Kecamatan Mesjid Raya Kabupaten Aceh Besar. *Al Agriflora*, *4*(2), 58–65.

Masdek, N. R. N. M., & Muhammad, R. mazwan. (2016). Overview of melon industry in Malaysia. Food and Fertilizer Technology Center for the Asian and Pacific Region. *FFTC*, *1*(1), 1–8.

Ministry of Agriculture and Food Industries. (2021). *The National Agrofood Policy 2021-2030 (NAP 2.0) is holistically formulated to continue the first National Agrofood Policy (NAP) with a focus on the modernisation and development of the agrofood sector as well as enhancing national food security* (Issue 1). Federal Government Administrative Center.

Muhammad, R. M., Nazmi, M. S., Zaffrie, M., Amin, M., & Ponari, Z. (2015). Kajian penandaarasan teknologi pengeluaran tembikai. *Malaysian Agricultural Research and Development Institute (MARDI)*, *1*(1), 1–14.

Mujianingsih, A., Hiadayati, A., & Taslim Sjah. (2017). Analisis Pendapatan dan Penyerapan Tenaga Kerja pada Usahatani Melon Dan Semangka di Kabupaten Lombok Tengah. *Agronomi Teknologi Dan Sosial*, *25*, 131–136. https://agroteksos.unram.ac.id/index.php/Agroteksos/article/view/53

Mumuh, M. Z., Herlina, N., Falah, M., Saringendyanti, E., Sofianto, K., & Zin, N. M. (2021). Impact of climate change on agriculture sector of Malaysia. *International Journal of Energy Economics and Policy*, *11*(6), 138–144. https://doi.org/10.32479/ijeep.10939

Nafisah, B. K., Abdurrahman, A., & Wilda, K. (2019). ANALISIS FINANSIAL USAHATANI MELON DI KOTA BANJARBARU. *Frontier Agribisnis*, *3*(4), 176–183.

Pradana, F. A., Rahayu, E. S., & Adi, K. (2017). Analisis Usaha Dan Efisiensi Pemasaran Melon (Cucumis melo L) di Kabupaten Karanganyar. *Agrista*, *5*(1), 36–45.

Schaffer, A. A., & Paris, H. S. (2016). Melons, Squashes, and Gourds. *Reference Module in Food Science*, *8020*(20), 1–9. https://doi.org/10.1016/b978-0-08-100596-5.03426-0

Sembiring, G. O., Tantawi, A. R., & Siregar, R. S. (2021). Analisis Saluran Pemasaran Melon Kuning di Kecamatan Pantai Labu Kabupaten Deli Serdang. *Jurnal Agriuma*, *3*(1), 20–30. https://doi.org/10.31289/agr.v3i1.5114

Simanungkalit, P., Ginting, J., & Simanungkalit, T. (2013). RESPONS PERTUMBUHAN DAN PRODUKSI TANAMAN MELON (Cucumis Melo L.) TERHADAP PEMBERIAN PUPUK NPK DAN PEMANGKASAN BUAH. *Jurnal Online Agroekoteknologi*, *1*(2), 238–248.

Sulaeni, S., & Suherman, S. (2022). Manajemen Rantai Pasok Agribisnis Golden Melon Apollo Di Kota Cilegon. *Jurnal Penyuluhan Dan Pemberdayaan Masyarakat*, *1*(3), 71–78. https://doi.org/10.59066/jppm.v1i3.132

Thakur, H., Sharma, S., & Thakur, M. (2019). Recent trends in muskmelon (Cucumis melo L .) research : an overview. *The Journal of Horticultural Science and Biotechnology*, *94*(1), 1–15. https://doi.org/10.1080/14620316.2018.1561214