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MARKET CHANNELS OF LABU SIAM *(Sechium edule* (Jacq.) Sw) IN SUKANALU VILLAGE KARO DISTRICT NORTH SUMATERA

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Abstract
The purpose of this study is to describe Labu Siam marketing channel in the study region. To investigate the marketing functions performed by producers to Labu Siam intermediate dealers in the research region. To examine marketing expenses, marketing margins, and farmers' share in labu siam marketing in the research region. To assess the effectiveness of labu siam marketing channels in the research region. The data obtained included both primary and secondary data. The data analysis approach is descriptive, with results summarized by kind. The results indicated that: 1) The labu siam marketing channel in Sukanalu Village is divided into three (three) channels. Channel I consists of farmers, village collecting traders, district wholesalers, MMTC wholesalers, Aksara retailers, and consumers. Channel II: Farmers - District Traders - Main Market Retailers - Consumers, District Traders - Simpang Kuala Retailers - Consumers. Channel III: Farmers, District Collecting Traders, MMTC Wholesalers, Fishing Rod Retailers, and Consumers. 2) The labu siam marketing channel in the research region is efficient, with efficiency values of 38% in channel I, 25.71% in channel II, and 19.59% in channel III.

Keywords: pumpkin, margin, share, efficiency.

1. Introduction

Labu Siam (Sechium edule Jacq. Sw.) is a horticulture item that is commonly consumed by Indonesians as a supplement to basic meals. It is readily available in both raw and processed form. Labu Siam mostly involves horticulture items, which require a significant amount of room for storage and transportation to end users (Dastagiri, 2013).

Labu Siam is a horticultural commodity, and the development of horticultural commodities (Mohammad Liwa Ilhmadi et al., 2022) is hampered by a poor distribution system in which there is a significant price difference between the selling price at the producer level and the purchase price at the consumer level (Wijaya et al., 2019). The findings of this study show that the distribution of products from farmers always involves middlemen before reaching the next link in the chain (Olabu et al., 2022). The distribution of products to intermediaries is predicated on farmers' lack of transportation infrastructure (Hutabarat et al., 2023), which forces farmers to be price takers, as farmers only know the selling price of their products after they are sold in the market (Ariwibowo, 2013)

The more distribution agencies involved in the marketing of a product, the higher the distribution costs, resulting in greater product price differences between producers and consumers (Bone et al., 2018). Karo Regency in North Sumatra Province is the largest producer of Labu Siam in Indonesia, with a fairly high yield of 6,181 quintals per hectare and is one of the centers of Labu Siam production in North Sumatra but in 2020, the harvest area in Karo Regency fell to 84 hectares (Karo, 2020).

North Sumatra is one of the labu siam producing regions in Indonesia, and Table 1 shows data on the planting area and production of labu siam per district in North Sumatra from 2019 to 2020.

Table 1. Shows the planting area and production of labu siam by district in North Sumatra from 2019 to 2020

No	District	Planted Area (ha/ha)		Production (kw/qu)	
		2019	2020	2019	2020
1	Nias				
2	Mandailing Natal	14	52	3.968	11.725
3	Tapanuli Selatan	28	35	5.292	10.368
4	Tapanuli Tengah				
5	Tapanuli Utara	18	56	3.706	12.352
6	Toba Samosir		3		95
7	Labuhan Batu				
8	Asahan				
9	Simalungun	16	9	4.638	8.226
10	Dairi	18	45	6.215	4.039
11	Karo	210	126	185.734	61.181
12	Deli Serdang				
13	Langkat				
14	Nias Selatan				
15	Humbang Hasundutan	10	10	2.810	1.728
16	Pakpak Barat	1		5	
17	Samosir				
18	Serdang Bedagai				
19	Batu Bara				
20	Padang Lawas Utara	3	35,6	186	112,9
21	Padang Lawas	8		300	120
22	Labuhan Batu Selatan				
23	Labuhan Batu Utara				
24	Nias Utara	1	6	2	12
25	Nias Barat				
26	Kota Sibolga				
27	Kota Tanjung Balai				
28	Kota Pematang Siantar				
29	Kota Tebing Tinggi		0,08		0,25
30	Kota Medan				
31	Kota Binjai				
32	Kota Padang Sidempuan	6	1	575	20
33	Kota Gunung Sitolu				0
	Total	333	379	212.431	109,979

(BPS Sumatera Utara, 2019)

Based on these data, Karo Regency is the first largest contributor to labu siam production in North Sumatra, as shown in table 1 with a harvest area of labu siam in Karo Regency in 2019, namely 210 ha with a production of 185,734 quintals, and in 2020, with a harvest area of 126 ha, the production was 61,181 quintals. Table of harvested area and production of labu siam per sub-district in Karo Regency for 2020.

Table 2. Shows the harvest area and production of labu siam per sub-district in Karo Regency in 2020

No	Sub-district	Siamese Pumpkin		
		Planted Area (Ha)	Harvested Area (Ha)	Production (Kuintal)
1	Mardinding	0	0	0
2	Laubaleng	0	0	0
3	Tiga Binanga	0	0	0

4	Juhar	0	0	0
5	Munte	5	6	835
6	Kuta Buluh	0	0	0
7	Payung	0	0	0
8	Tiganderket	0	0	0
9	Simpang Empat	71	120	16105
10	Naman Teran	0	8	3010
11	Merdeka	2	4	1580
12	Kaban Jahe	17	16	10610
13	Berastagi	0	2	875
14	Tiga Panah	6	12	6390
15	Dolat Rakyat	23	42	10760
16	Merek	0	5	675
17	Barus Jahe	2	22	10341
	Total	126	237	61.181

(Source: Karo Regency Statistics Agency, 2020)

Table 2 shows the production of labu siam by sub-district in Karo Regency, with a total production of 61,181 quintals and a harvest area of 237 hectares, while Barus Jahe sub-district ranked fourth with a production of 10,341 quintals and a harvest area of 22 hectares.

Marketing channels are channels that connect entities that distribute commodities from producers to customers. These distributors will aggressively seek to move goods not only physically, but also so that consumers can obtain them (Stanton, 2012). Sukanalu Village, Barus Jahe Subdistrict, is one of the labu siam producers, and the labu siam in this village is famous for producing sweet-tasting, high-quality labu siam. In this village, the price of labu siam from farmers sold to consumers is Rp2,500 to Rp3,500 per kg, while retailers sell labu siam to final consumers at Rp7,000 per kg. The marketing channel used by farmers there is selling labu siam to large collectors, then to traders, and finally to consumers. Researchers want to conduct research with the title "Marketing of Labu Siam" in Sukanalu Village, Barus Jahe District, Karo Regency, North Sumatra Province. Because the labu siam plant in the area is one of the large producers of labu siam.

2. Methods

The research location was chosen in Sukanalu Village, Barus Jahe District, Karo Regency, North Sumatra Province. Sukanalu Village is one of the producers of labu siam fruit in Karo Regency, therefore it was chosen as the research area. The population is farmers who cultivate / cultivate and traders who sell / market labu siam plants in Sukanalu Village, Barus Jahe District, Karo Regency, as well as the population of labu siam farmers in Sukanalu Village whose residents cultivate labu siam, namely 40 farmers, but researchers chose a purposive sample of 30 farmers.

Traders are responsible for distributing the labu siam produced to the end consumers. The snowball method was used to select a sample of traders (Lubis, 2020). The snowball sampling method is done by tracing the marketing movement of labu siam from farmers to traders. This is done by asking a number of people or groups to refer to other people or groups they know who have knowledge of the problem at hand. The second individual or group referred a third individual or group, and so on until the sample size increased (Istiqowati et al., 2018).

Based on the research results, there are three marketing channels for labu siam, namely: 1) Farmers - village collectors - district traders - MMTC traders – retailers and consumers. 2) Farmers - district traders - wholesale market traders – retailers and consumers.

3) Farmers - district traders - MMTC traders - retailers, and consumers.

The data for this study included primary and secondary data. Primary data were collected through direct interviews with farmers and traders, using questionnaires. Secondary data were collected from relevant authorities or institutions, including the Karo Regency Statistics Agency and the Barus Jahe District Office, North Sumatra. The data was tabulated based on the study objectives and used for the following calculations.

Data was collected according to the study objectives and used for the following calculations : **For the first objective**, it was to examine descriptively by monitoring and identifying the flow of products from one product to the next institution. **For the Second objective**: analyzed by means of simple tabulation using the calculation of marketing efficiency where the price spread is obtained by grouping the costs of marketing costs according to the same component (Soekartawi, 2002) :

$$\text{Formula} = Ep = \frac{Marketing\ costs}{value\ of\ marketed\ products} \text{ x}100\% \quad (1)$$

Where:
Ep = Marketing will be more efficient if the value of marketing efficiency is getting smaller with the criteria:
Ep ≤ 50% is said to be efficient
Ep> 50% is said to be inefficient (Sumantri et al., 2022).

3. Results and Discussion

3.1 Marketing Channel

Based on the results of the study, it is known that the marketing of labu siam produced by Sukanalu Village involves several intermediary traders, including village collectors, sub-district traders, district traders, wholesalers and retailers. This resulted in the absence of direct marketing from farmers directly to consumers and there were 3 patterns of labu siam marketing channels in Sukanalu Village involving intermediary traders. The types of labu siam marketing channels in the research area can be explained as follows.

a) Marketing Channel I

- Farmers → Trader Village Collector (Sukanalu village) → District wholesaler (Barus Jahe sub-district).
- Consumers ← Retailer (Aksara market) ← MMTC Wholesaler (Medan Metropolitan Trade Center).

In February 2021, 9 sample farmers in the study area established the first commercial channel for labu siam, selling it to village intermediaries with a total sales volume of 3,390 kg at a price of IDR 2,500 per kg. The number of active labu siam traders in this channel is one, and the traders collect directly from where the farmers collect the labu siam harvest.

Furthermore, village collectors sell the labu siam to sub-district collectors, and there is only one sub-district collector in Barus Jahe sub-district. The sub-district trader received 3,390 kg of production directly from the village collectors at a price of IDR 4,300/kg.

MMTC market traders then deliver the labu siam production to the district wholesalers at a price of IDR 5,200 per kg, totaling 3,390 kg. After the pick-up, MMTC market traders move the labu siam harvest to the MMTC market. Retailers will directly purchase 3,390 kg of labu siam from the MMTC market at IDR 6,300/kg and sell it to customers at IDR 7,000.

b) Marketing Channel II

- Farmers → District Trader (karo district) → Retailers (Main Market) → Consumers.
- Farmers → District Trader (karo district) → Wholesalers (Main Market) → Retailers (Morning Market)

Marketing channel II of labu siam in the study area was conducted by 12 sample farmers who sold labu siam to district traders with a total sales volume of 16,405 kg at a price of IDR 3,500/kg. The district trader involved in channel II amounted to one person, and the district trader collected labu siam production directly from farmers, then the district trader sold directly to two wholesale market traders with a total sales volume of 16,405 kg at a price of IDR 5,200/kg. The volume of labu siam for each trader is 9,000 kg for wholesalers and 7,405 kg for wholesale traders. The labu siam is purchased by wholesale market traders at a price of IDR 5,200 per kg. Main market retailers sell to consumers for IDR 6,500 per kilogram, while main market wholesalers sell to morning market traders for IDR 6,500. Furthermore, in the morning market, traders offer labu siam to consumers at IDR 7,000 per kilogram.

c) Marketing Channel III

- Farmers → Sub-district Collecting Traders (Barus Jahe sub-district) → MMTC Market Wholesalers → Retailers (Sukarame market) → consumers

Marketing channel III of labu siam in the study area was carried out by 9 sample farmers who sold labu siam to sub-district collector traders with a total volume of 9,120 kg of labu siam at a price of Rp. 3,500 per kg, where the sub-district collector traders directly collected labu siam from farmers, where the sub-district collector traders in this channel amounted to one person.

Furthermore, the sub-district collector traders will transport up to 9,120 kg of labu siam harvest obtained from farmers directly to MMTC market traders at a price of IDR 5,000 per kg. MMTC market traders will sell 9,120 kg of labu siam to retail traders at IDR 6,300 per kg, with one MMTC market trader in this channel.

Retail traders will buy 9,120 kg of labu siam from the MMTC market at a price of IDR 6,300/kg and sell it to consumers at a price of IDR 7,000/kg, with one retail trader in this channel.

3.2 Analysis of the Marketing Margin, Marketing Margin Distribution and Selling Price Share in Channel I.

3.2.1 Marketing Margin Analysis, Marketing Margin for Profit and Cost in Sukanalu Village Channel I.

Table 3 shows a study of marketing margins for earnings and costs, as well as selling price shares in each marketing channel.

Table 3. Analysis of the Cost Components of Siamese Pumpkin Marketing in Channel I in Sukanalu Village, Barus Jahe District

No	Marketing Organization	Price (Rp)	Margin Distribution		*Share(%)*
			Skj	Sbij	
1	Farmers				
	A. Selling Price	2.500			35,71
	B. Marketing Costs				
2	Village Trader				
	A. Purchase Price	2.500			
	B. Marketing Costs	731,64		16,26	
	C. Selling Price	4.300			61,43

	D. Profit	1.068,36	23,74		
	E. Margin	1.800			
3	Sub-district Wholesaler				
	A. Purchase Price	4.300			
	B. Marketing Costs	517,51		11,50	
	C. Selling Price	5.200			74,29
	D. Profit	382,49	8,50		
	E. Margin	900			
4	MMTC Market Wholesaler				
	A. Purchase Price	5.200			
	B. Marketing Costs	978,52		21,74	
	C. Selling Price	6.300			90
	D. Profit	121,48	2,70		
	E. Margin	1.100			
5	Aksara Market Retailers				
	A. Purchase Price	6.300			
	B. Marketing Costs	432,08		9,60	
	C. Selling Price	7.000			100
	D. Profit	267,92	5,95		
	E. Margin	700			
6	Consumers				
	A. Purchase Price	7.000			
	Amount				
	Marketing Costs	2.659,75		59,11	
	Marketing Margin	4.500			
	Profit	1.840,25	40,89		
	MP = Pr – Pf	4.500			

Source: Primary Data Analysis 2021

Table 3 shows that the marketing margin obtained was Rp. 4,500 per kilogram. The largest profit margin was found in the village intermediary traders, which amounted to Rp. 1,068.36/kg (23.74%). This was due to the price difference between the selling price of farmers and the buying price of intermediary traders, resulting in a margin that exceeded marketing costs and a relatively large profit.

Furthermore, wholesalers in the MMTC market had the largest marketing margin of IDR 978.52/kg (21.74%). This is due to the high shipping costs incurred by MMTC market traders. The marketing margin distribution for the lowest cost was at the Aksara retailer level, which amounted to IDR 432.08/kg (9.6%). Retailers experienced lower marketing expenditures compared to other traders.

The largest selling price share was at the retailer level (100%), while the lowest selling price share was at the farm level (35.71%). This is due to the large difference between producer selling prices and consumer buying prices.

Table 4. Analysis of the Cost Components of Siamese Pumpkin Marketing in Channel II in Sukanalu Village, Barus Jahe District

No	Marketing Organization	Price (Rp)	Margin Distribution		*Share(%)*
			Skj	Sbij	
1	Farmers				
	A. Selling Price	3.500			50,00
	B. Marketing Costs				
2	District Collecting Traders				
	A. Purchase Price	3.500			

	B. Marketing Costs	500,33		14,30	
	C. Selling Price	5.200			74,29
	D. Profit	1.199,67	34,28		
	E. Margin	1.700			
3	Main Market Retailers				
	A. Purchase Price	5.200			
	B. Marketing Costs	419,17		11,98	
	C. Selling Price	6.500			92,86
	D. Profit	880,83	25,17		
	E. Margin	1.300			
3	Main Market Wholesalers				
	A. Purchase Price	5.200			
	B. Marketing Costs	467,36		13,35	
	C. Selling Price	6.500			100
	D. Profit	832,64	23,79		
	E. Margin	1.300			
4	Morning market retailers				
	A. Purchase Price	6.500			
	B. Marketing Costs	412,64		11,79	
	C. Selling Price	7.000			100
	D. Profit	87,36	2,50		
	E. Margin	500			
5	Consumers				
	A. Purchase Price	7.000			
	Amount				
	Marketing Costs	1.799,5		51,41	
	Marketing Margin	4.800			
	Profit	3.000,5	85,73		
	MP = Pr – Pf	3.500			

Source: Primary Data Analysis 2021

Table 4 shows that the marketing margin obtained was Rp. 4,800/kg. District traders had the largest profit margin of Rp. 1,199.67/kg (34.28%). This was due to the price difference between farmers' selling prices and district traders' buying prices, resulting in margins that were greater than marketing costs and relatively significant profits.

Furthermore, district traders have the largest marketing margin at IDR 500.33/kg (14.30%). This is due to the high shipping costs incurred by the Main Market traders. The marketing margin distribution for the lowest cost was at the morning market trader level, which amounted to IDR 412.64/kg (11.79%). Retailers experienced lower marketing expenses compared to other traders.

The largest selling price share was at the morning market and wholesale market traders (100%), while the lowest selling price share was at the farm level (50%). This is due to the high difference between producer selling prices and consumer buying prices.

Table 5. Analysis of the Cost Components of Siamese Pumpkin Marketing in Channel III in Sukanalu Village, Barus Jahe District

No	Marketing Organization	Price (Rp)	Margin Distribution		*Share(%)*
			Skj	Sbij	
1	Farmers				
	A. Selling Price	3500			50,00
	B. Marketing Costs				
2	Sub-district Collecting Traders				
	A. Purchase Price	3500			
	B. Marketing Costs	529,23		15,12	
	C. Selling Price	5000			71,43
	D. Profit	970,77	27,74		
	E. Margin	1500			
3	MMTC Market Wholesalers				
	A. Purchase Price	5000			
	B. Marketing Costs	367,77		10,51	
	C. Selling Price	6500			92,86
	D. Profit	1132,23	32,35		
	E. Margin	1500			
4	Sukarame Market Retailers				
	A. Purchase Price	6300			
	B. Marketing Costs	474,23		13,55	
	C. Selling Price	7000			100
	D. Profit	225,77	6,45		
	E. Margin	700			
5	Consumers				
	A. Purchase Price	7000			
	Amount				
	Marketing Costs	1371,23		39,18	
	Marketing Margin	3700			
	Profit	2328,77	66,54		
	MP = Pr – Pf	3500			

Source: Primary Data Analysis 2021

Table 5 shows that the marketing margin obtained was Rp. 3,700/kg. Wholesalers in the MMTC market had the largest profit margin of Rp. 1,132.23/kg (32.35%). This is due to the price difference between the selling price of farmers and the buying price of sub-district traders, resulting in a margin that is greater than marketing costs and relatively significant profits.

Furthermore, the distribution of marketing margins for the highest costs was at the subdistrict collector trader level, which amounted to IDR 529.23/kg (15.12%). Then came the allocation of marketing margins for the lowest costs at the MMTC market wholesaler level, which amounted to Rp. 367.77 per kilogram (10.51%). This is due to the lower marketing costs incurred by MMTC market wholesalers compared to other traders. The largest selling price share was at the retailer level (100%), while the lowest selling price share was at the farmer level (50%). This is due to the significant difference between producer selling prices and consumer buying prices.

Based on the information above, it can be concluded that each marketing institution conducts a combination of costs (price difference), marketing margin, marketing distribution for costs and profits, and selling price share.

Thus, Hypothesis 3 which states that marketing margins, price spreads, and margin shares differ according to labu siam marketing channels can be accepted.

3.2.2 Marketing Efficiency

Marketing efficiency is the last step in the marketing process. Marketing efficiency can be achieved if the marketing system used meets the needs of the marketing actors involved, such as farmers, marketing institutions, and final consumers (Ardian et al., 2024). To calculate the marketing efficiency value of each labu siam marketing channel in the study area, the following equation is used:

$$\text{Formula} = \text{Ep} = \frac{Marketing\ costs}{value\ of\ marketed\ products} \text{ x100\%} \quad (2)$$

Based on this formula, it can be interpreted that every additional marketing cost means that it causes inefficient marketing. Vice versa, if the smaller the value of the product sold means that there is also inefficient marketing (Pranatagama, 2015).

Tabel 6. Marketing Efficiency in Each Marketing Channel of Siamese Pumpkin in Sukanalu Village

NO	Channel	Total Marketing Cost (Rp)	Value of products marketed (Rp)	Marketing efficiency (%)
1	Channel I	2659,75	7000	38,00
2	Channel II	1799,5	7000	25,71
3	Channel III	1371,23	7000	19,59

Source: Primary Data Analysis 2021
Efficiency criteria:
Ep ≤ 50% : efficient
Ep > 50% : inefficient

Table 6 shows that the labu siam marketing channel in the research region achieved marketing efficiency values of 38%, 25.71%, and 19.59%. The research area's three labu siam marketing channels have a marketing efficiency rating of less than 50%, indicating their efficiency. Thus, the second objective which states that the labu siam marketing channel is efficient can be accepted.

4. Conclusion

Based on the results of research and discussion regarding labu siam marketing in Sukanalu Village, Barus Jahe District, Karo Regency, North Sumatra Province, including: Sukanalu Village has three marketing channels for labu siam, as shown below. Channel I: Farmers, Village Collecting Traders, District Collecting Traders, MMTC Market Wholesalers, Aksara Retailers, and Consumers. Channel II: Farmers, District Collecting Traders, Main Market Wholesalers, Morning Market Wholesalers, and Consumers. Channel III includes farmers, district collecting traders, MMTC wholesalers, Sukarame retailers, and consumers. The labu siam marketing channel in the study area is efficient, with an efficiency value of 38% in channel I, 25.71% in channel II, and 19.59% in channel III. Future research could concentrate on issues that affect marketing channel efficiency, such as transport costs, the role of intermediaries, profit margins, and post-harvest losses. By identifying these elements, researchers can make more specific recommendations to improve marketing

efficiency. As a research suggestion, consider researching 'Study of Factors Affecting the Efficiency of Siamese Pumpkin Marketing Channels with Case Studies in the Research Area', among other topics.

References

Ardian, L., Pertanian, D., & Sukabumi, K. (2024). *Efisiensi Pemasaran Buncis di Kelompok Tani Nanggerang Desa Pulosari Kecamatan Kalapanunggal Kabupaten Sukabumi*. *2*(1), 57–69.

Ariwibowo, A. (2013). Analisis Rantai Distribusi Komoditas Padi dan Beras di Kecamatan Pati Kabupaten Pati. *Economics Development Analysis Journal*, *2*(2), 1–9. http://journal.unnes.ac.id/sju/index.php/edaj

Bone, K., Bone, K., Suaib, T., Saleh, Y., Murtisari, A., Agribisnis, J., Pertanian, F., Gorontalo, U. N., Jend, J., No, S., Gorontalo, K., Pertanian, F., Gorontalo, U. N., Jend, J., No, S., Gorontalo, K., Bone, K., Bone, K., Mengetahui, B., … Bolango, B. (2018). * *Alamat Email : Sektor pertanian merupakan sektor yang perekonomian Indonesia . Hal ini bisa dilihat dari roda ekonomi Indonesia . Hasil perkebunan rakyat Berdasarkan catatan Badan Pusat Statistik (BPS), cengkeh 4 ton , Kabupaten Bone Bolango luas seba*.

Dastagiri, M. B. (2013). Indian Vegetables: Production Trends, Marketing Efficiency and Export Competitiveness. *American Journal of Agriculture and Forestry*, *1*(1), 1. https://doi.org/10.11648/j.ajaf.20130101.11

Hutabarat, S. L., Syahputri, S., & Amelia, R. (2023). Analisis Distribusi dan Efisiensi Pemasaran Nanas Dari Perspektif Ekonomi Syariah. *JUEB : Jurnal Ekonomi Dan Bisnis*, *2*(2), 66–71. https://doi.org/10.57218/jueb.v2i2.674

Istiqowati, E. S., Adi, R. K., & Kusnandar. (2018). Analisis Pemasaran Bawang Merah di Karanganyar (Marketing Analysis of Onion in Karanganyar Regency). *Jurnal Agrista*, *6*(4), 65–73.

Karo, B. P. S. K. K. (2020). *Statisika Luas Lahan dan Produktivitas Tanaman Hortukultura karo 2020*. Badan Pusat Statistika Karo Provinsi Sumatera Utara.

Lubis, A. S. N. (2020). Analisis Pemasaran Sayuran Hidroponik (Studi Kasus : KUTP Hidrotani Sejahtera Desa Suka Maju Kecamatan Sunggal Kabupaten Deli Serdang). *Skripsi Fakultas Pertanian Program Studi Agribisnis Universitas Medan Area*, 39–47.

Mohammad Liwa Ilhmadi, Zulkifli, Yulianida Tamala, Maydina Luqyana A, Dyna Ayu Mahandika, Miftahul Fajri, Muhamad Yusril R, Dwi Kurniawan RS, , Ade Irawan, Laila Sukniatunur, Siti Patimah Z, & Faatinah Alfiyah S. (2022). Pelatihan 4P (Pengolahan, Pelabelan, Pengemasan, Pemasaran) Kripik Pisang Dan Labu Siam Yang Inovatif Di Desa Timbanuh. *Jurnal Pengabdian Magister Pendidikan IPA*, *5*(2). https://doi.org/10.29303/jpmpi.v5i2.1532

Olabu, R., Bakari, Y., & Moonti, A. (2022). Analisis Saluran Pemasaran Komoditas Bawang Merah Di Provinsi Gorontalo. *AGRINESIA: Jurnal Ilmiah Agribisnis*, *6*(2), 112–117. https://doi.org/10.37046/agr.v6i2.15912

Pranatagama, M. F. (2015). Efisiensi dan Bauran Pemasaran Usaha Tani Kacang Tanah di Desa Darungan Kecamatan Tanggul Kabupaten Jember. *Skripsi*, Universitas Jember. Jawa Timur.

Soekartawi. (2002). *Prinsip Dasar Ekonomi Pertanian "Teori dan Aplikasi."* Raja-Grafindo Persada.

Stanton, W. . (2012). *Prinsip Pemasaran Edisi 7*. Erlangga.

Sumantri, S., Halik, H., & Nuryanti, D. (2022). Analisis Saluran Dan Efisiensi Pemasaran Sagu Basah Di Kelurahan Jaya Kecamatan Telluwanua Kota Palopo. *Jurnal Sosiologi Pertanian Dan Agribisnis*, *4*(2), 25–36. https://doi.org/10.55542/juspa.v4i2.339

Sumatera Utara, B. P. S. P. (2019). *Provinsi Sumatera Utara Dalam Angka 2019*. Badan Pusat Statistik Provinsi Sumatera Utara.

Wijaya, S., Santoso, S., & Roessali, W. (2019). Analisis Efisiensi Distribusi Labu Siam di Kabupaten Semarang. *Habitat*, *30*(3), 96–104. https://doi.org/10.21776/ub.habitat.2019.030.3.12