



Empowerment of Farmer Women Groups Through Optimization of the Yard Through the SFHA System

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<http://dx.doi.org/10.18415/ijmmu.v7i6.1805>

Abstract

Potential land area in Indonesia covers 10.3 million hectares while in Indramayu District especially Lelea District the land area reaches 610.21 hectares (BPS Data, 2018). With this SFHA model, there is hope that national food security and independence can be created starting at the household level. This study aims to analyze the empowerment of women farmer groups and factors related to the empowerment of women farmer groups through optimization of the plot of land with the SFHA system and formulate an appropriate strategy for planning the empowerment of women farmer groups through optimization of the plot of land through the SFHA system. The study was conducted in Lelea District, Indramayu Regency, West Java Province. in March to June 2020. The research sample is 63 farmer women who are members of the farmer women's group who have implemented the SFHA program. The sample is determined using quota sampling based on the activeness of group members. The research variables consisted of the characteristics of farmers, environment, government support, the role of extension workers, facilities and infrastructure. Primary data collection using instruments in the form of questionnaires. Data were processed using descriptive statistical analysis techniques and Spearman's Rank correlation and Kendall'W analysis. The results of research on the empowerment of farmer women groups through optimization of the yard through the SFHA system are in the medium category with a percentage of 68.3%. Factors related to the empowerment of farm women groups through the optimization of the yard through the SFHA environment system. Government support, facilities and infrastructure, and the role of extension workers. The strategy used in the empowerment of farm women groups by increasing the skills of women farmers in choosing cropping patterns and commodities in the yard.

Keywords: *Yard; Empowerment; Agricultural Extension*

Introduction

Background of the Study

The Acceleration of Diversity in Food Consumption (P2KP) is an effort to implement the Presidential Regulation Number 22 of 2009 concerning the Policy for the Acceleration of Diversification of Local Resource-based Food Consumption, which is followed up by Minister of Agriculture Regulation Number 43 of 2009 concerning the Movement for the Acceleration of Diversification of Local Resource-Based Food Consumption. The regulation is a reference to encourage efforts to diversify food

consumption quickly through the base of local wisdom and integrated cooperation between the government, regional governments and the community (Guidelines for 2016 P2KP implementation). For the continuation of the Local Resource-based Diversified Food Consumption Diversification Movement (P2KP) that began in 2010, since 2014 the program has been implemented or realized through 3 major activities that are expected to improve the quality of public food consumption to establish good food consumption patterns. Of the three existing program activities, only the Sustainable Food Home Area program is carried out through efforts to empower women. Therefore, community empowerment in improving community welfare in the regions is the most important part of the various policy strategies implemented by the regions. So, in that case, researchers are interested in researching the activity program. The program is regulated in Minister of Agriculture Regulation Number: 15 / Permentan / OT.140 / 2/2013 concerning Improvement of Diversification and Food Security along with Guidelines for the Implementation of P2KP and General Guidelines for SFHA 2019.

The Ministry of Agriculture initiated the optimization of the use of the yard through the concept of Sustainable Food Houses (SFH). Sustainable Food House (SFH) is a house for residents who seek intensive yard to be used wisely with a variety of local resources that guarantee the continuity of supply of quality and diverse household food. If SFH is developed on a large scale, based on hamlets (villages), villages, or other possible regions, the application of the principle of Sustainable Food Houses (SFH) is called the Sustainable Food Home Area (SFHA).

The potential of yard area in Indonesia reaches 10.3 million hectares while in Indramayu Regency especially Lelea District the yard area reaches 610.21 hectares (BPS Data, 2018). With this SFHA model, there is hope that national food security and independence can be created starting at the household level.

Based on Programa Lelea sub-district that the application of SFHA in Lelea sub-district is still 20%, it is based on the awareness of KWT members who still lack understanding of the SFHA and the benefits of the SFHA. Based on the above formula, the writer raises the title Empowerment of Women Farmers Groups in Optimizing Yard Lands Through the SFHA Program. This study aims (1) to describe the plot of land optimization activities with the SFHA program by members (2) Analyze the factors related to empowering KWT members in optimizing the plot of land (3) Planning a strategy for empowering KWT members in optimizing the plot of land with the SFHA Program.

Research Methods

Time and Place

The final assignment study is carried out for four months, starting from March 2020 until June 2020. Furthermore, the final assignment study will be held in Pangauban Village, Lelea Village and Langgengsari Village, Lelea District, Indramayu Regency, West Java Province.

Population and Sample

The population in this study is a group of farmer women in Pangauban Village, Lelea Village, and Langgengsari Village, Lelea District, Indramayu Regency, West Java Province who have received a yard optimization program. In this study, the population is a group of Rose Flower farmer women in Langgengsari Village, 20 people, Putri Melati farmer women group in Pangauban Village, 21 people, and Aster Farmer women's group in Lelea Village, 22 people so that the population is 54 people.

Validity

This research was conducted by testing the instrument in the form of a closed questionnaire with the same format and content to other farmers outside the main respondent with the same farmer characteristics. Validity testing whether the thing asked is valid or not has been measured using the Statistical Package for the Social Sciences (SPSS) program version 2.1.

$$r_{xy} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

Notes:

- r_{xy} : Correlation coefficient
 x : Score of each question
 y : Total score of questions
 N : Number of subjects / number of respondents

Validity test is done by looking at the correlation between the scores of each item in the questionnaire with the total score you want to measure. If $r_{count} > r_{table}$ is obtained, the measurement can be said to be valid, but if $r_{count} < r_{table}$, then the measurement is invalid.

Reliability

According to Ghozali (2005), reliability is a tool to measure a questionnaire which is an indicator of a variable or construct. A questionnaire can be said to be reliable if a person's answer to a question is consistent or stable from time to time.

Alpha formula is one way to test the reliability of the questionnaire in this study are as follows:

$$r_i = \left(\frac{n}{n-1} \right) \left(1 - \frac{\sum s_i^2}{\sum s_t^2} \right)$$

Notes:

- r_i : Instrument reliability
 n : Number of questions
 s_i^2 : Question item variance
 s_t^2 : Total variance of question items

Data Collection Technique

The data collection techniques that will be carried out in the assessment activities use the following methods:

1. Observation
2. Questionnaire
3. Interview

Data Analysis Technique

Analysis of the data used aims to answer the assessment objectives, including:

1. To describe the yard optimization activities by KWT members in Lelea Subdistrict divided into three categories namely low, medium and high, then the interval score for each category is presented.
Minimum score : total score x 1 (score scale: 1 to 4)
Maximum score : total score x 1 (score scale: 1 to 4)
Interval : (Minimum score – Maximum score) /3
2. To see the factors related to empowerment are tested using Spearman Rank correlation analysis. Testing using SPSS 20 with the following formula:

$$rs = 1 - \frac{[6\sum_i^n = di^2]}{n \cdot [n^2 - 1]}$$

Notes:

rs : Spearman Rank correlation coefficient

n : Number of respondents or samples studied

d : Absolute difference between variable X and Y (X1-Y1)

Furthermore, the interpretation of correlation values according to Sugiyono (2012) is as follows:

Table 1. Correlation coefficients

Correlation Interval	Relationship Level
0,00-0,199	Very low
0,20-0,399	Low
0,40-0,599	Medium
0,60-0,799	Strong
0,80-1,000	Very strong

Source: Sugiyono (2015)

3. To develop an empowerment strategy can be done with Kendall's W analysis by looking at the lowest score of the empowerment parameter indicators. Once the low score is known, it will be a design to develop a KWT member empowerment strategy in optimizing the plot of land.

Results and Discussion

Characteristics of Respondents

Respondent characteristics are the basis of community response which is then used as a reference for conducting further research. The characteristics observed in this study include age, formal education, and yard area. The results of interviews obtained from 63 respondents of farmer women groups from Langgensari, Pengauban and Lelea villages are presented in table 2.

Table 2. Characteristics of Respondents

No	Characteristics	Category	Frequency (People)	Percentage (%)
1.	Age (years)	Not Productive yet (0 – 15)	-	-
		Productive (16 – 63)	63	100
		Not Productive (> 64)	-	-
		Total	63	63
2.	Formal Education	Elementary / equivalent	39	61,9
		Junior high / equivalent	13	20,6
		Senior High / equivalent	9	14,3
		College	2	3,2
		Total	63	100
3.	Area of the Yard	Narrow (<100 m ²)	63	100
		Medium (100-300 m ²)	-	-
		Wide (>300 m ²)	-	-
		Total	63	100

Source: Primary data processed by author (2020)

Based on the table above, all respondents were female because the respondents drawn were from female group members, taking respondents using census techniques so that all KWT members were respondents in this study, while the number of respondents used was 63 respondents.

Age of respondents by general category according to the Central Statistics Agency (BPS) is divided into categories. In this study the respondents taken were included in the productive age category that is the age range of 16 - 63 years.

Then formal education from respondents can be seen in the table that the majority of respondents have formal education at the elementary level / equivalent with a percentage of 61.9%. This is based on the lifestyle of indramayu people who assume that women will only take care of the household so that they do not need to have sufficiently high formal education.

The last respondent characteristic is the area of the plot of land. From table 12 that the area of land owned 100% is included in the narrow area category. This is based on the density of the population and the majority of people in Lelea sub-district who are active in rice cultivation.

Empowerment of Women Farmers Groups through the SFHA System

The categories of farmer empowerment observed in this study consisted of several variables, including: knowledge, attitudes and skills. Data on farmer behavior categories and distribution of farmer behavior categories are presented in Table 3. below.

Table 3. Results of Analysis of Empowerment of Women Farmers through the SFHA System

	Category	Score range	Frequency (People)	Percentage (%)
Empowerment	Low	31-62	-	
	Medium	>62-93	43	68,3
	High	>93-124	20	31,7
	Total		63	100

Source: Primary data processed by author (2020)

KWT empowerment through the SFHA system in Lelea District is mostly in the medium category with a percentage of 68.3%. More detailed analysis results can be seen in table 14.

Table 4. Distribution of Knowledge Analysis, Preparedness, Skills in Empowering Women Farmers Groups through the SFHA system

No	Indicator	Category	Score range	Frequency (People)	Percentage (%)
1.	Knowledge	Low	12-24	-	-
		Medium	>24-36	62	98,4
		High	>36-48	1	1,6
		Total		63	100
2.	Attitude	Low	14-28	17	27
		Medium	>28-42	21	33
		High	>42-56	25	40
		Total		63	100
3.	Skills	Low	5-10	9	14,3
		Medium	>10-15	54	85,7
		High	>15-20	-	-
		Total		63	100

Source: Primary data processed by author (2020)

Knowledge

In this study, empowerment is knowledge included in the medium category with a percentage value of 98.4%. In this study the indicators examined are regarding the benefits of yard, cropping patterns, and commodity selection.

Based on the results of the study that the knowledge of women farmers already know enough to use the yard, it is based on the results of an interview stating that the farmer woman knows the benefits of utilizing the plot which aims to increase the nutritional needs of the family and reduce expenses in the family to maintain family food security.

Then regarding cropping patterns, cropping patterns are planting efforts using arrangements in the arrangement of the layout and sequence of plants within a certain time period. The woman farmer knows the planting patterns that are commonly applied using polybags, beds, and pots, and utilizes used materials for household use in their media use.

Furthermore, for commodities in the SFHA, farmer women know the types of commodities they normally grow include vegetables such as mustard greens, tomatoes, spinach, kale, and chili. As for the Toga are ginger, turmeric and kencur.

Attitude

Attitude is a reaction from someone to a stimulus or object. Based on table 4, attitude indicators are included in the high category with a percentage of 40%, in which in this study the farm woman agrees to the statement given regarding empowerment through optimizing the plot of land with the SFHA system.

Viewed from the structure, attitude consists of three components, namely cognitive components, affective components, and conative components. The cognitive component is in the form of a person's beliefs (behavior beliefs and group beliefs), the affective component concerns emotional aspects, and the conative component is an aspect of the tendency to act in accordance with his attitude. The affective

component or emotional aspect is usually rooted deeply as an attitude component, the most resistant to influences that might change attitudes (Azwar, 1988: 17-18).

Farming women in the fostered area have tended to be good, where farmer women have implemented SFHA where the commodities planted are chili leaf vegetables and tomatoes, where the implementation is not affected by land area. Women farmers use used materials as planting media or containers for the placement of their plants.

Skills

The skills in this study look at the extent to which the ability of women farmers in carrying out optimization activities with pekarangan land. Based on the results of the study seen from table 4, that the skills of women farmers included in the moderate category with a percentage of 85.7% where the women were already quite good in performing yard optimization.

The ability of farmer wankta groups is included in the medium category, this is influenced by the fact that most farmer women are farmers' wives, most of whose main commodity is rice cultivation, so farmer women focus on helping their husbands in their main business, namely rice cultivation.

Factors Related to the Empowerment of the Women Farmers Group

Table 5. Test Results between Variables X1 to Y1

No	Variable	R	α	Interpretation
1	Age	-.234*	.032	No connection
2	Formal Education Level	-.094	.231	No connection
3	Area of Yard	-.081	.265	No connection

Source: Primary data processed by author (2020)

Note: R = correlation coefficient, α = Significance, *. Correlation is significant at the 0.05 level (1-tailed).

Empowerment with Age

Based on table 5, empowerment with age has a correlation value - 0.234 which means it has a negative correlation value, then it will have an inverse relationship, where age continues to increase, empowerment will decrease. in the sense of empowerment with age having no relationship. This is based on the fact that as we get older the more experience we get so empowerment is not needed.

Empowerment with Formal Education Level

Empowerment with education level has a correlation value of -0.094, the correlation has a negative correlation value and has an opposite relationship, where when the value of formal education increases, the value of empowerment decreases. Then empowerment with formal education level has no relationship.

Empowerment with Area of the Yard

In this study, the area of a yard is a plot of land owned by a farm woman. In this study the area of the plot does not have a relationship with empowerment, because it has a correlation value of -0.081 then

the relationship is contradictory, where when the area of the plot increases then the empowerment will decrease.

Furthermore, the results of the analysis between external factors (X2) and empowerment (Y) are presented in table 6.

Table 6. Test Results between Variables X2 with Y1

No	Variable	R	α	Interpretation
1.	Environment	.461**	.000	The relationship is quite strong, one way and very significant
2.	Government Support	.800**	.000	The relationship is quite strong, one way and very significant
3.	Production facilities	.645**	.000	The relationship is quite strong, one way and very significant
4.	The Role of Extension	.591**	.000	The relationship is quite strong, one way and very significant

Source: Primary data processed by author (2020)

Note: R = correlation coefficient, α = Significance, **. Correlation is significant at the 0.01 level (1-tailed).

Empowerment with the Environment

In this study, what is meant by the environment is the growth requirements for plants and the availability of water that supports cultivation activities, in this analysis the relationship between the environment and empowerment has a strong relationship.

According to Supardi (2003), the environment or often also called the environment is the sum of all living and inanimate objects as well as all the conditions that exist in the space we occupy.

The environment has an effect on the optimization of the yard, especially for water supply and growing requirements whether or not it is suitable for cultivation.

Empowerment with Government Support

Government support is strongly and significantly related to the empowerment of peasant women. Government Regulation No. 32/1998 on the Guidance and Development of Small Businesses said that it was clear the need for the role of the government in fostering and developing small businesses in the informal sector in order to continue to play a role in realizing a better and balanced national economy based on economic democracy in Indonesia. It also affects the implementation of empowering women farmers. According to Sugiri (2012), it is said that the implementation of the functions of the local government is said to be successful if the people of the area have been empowered from the aspects of education, economy, social culture, psychology, and politics.

Government support to support the empowerment of women farmers can be in the form of providing capital for the implementation of the optimization of the plot of land and / or can be in the form of providing facilities and infrastructure to support the needs in the implementation of the optimization of the plot of land.

The government also plays a role as a provider of training for farm women, where much of the information and technology is growing and diverse food that can be processed there needs to be a means for farm women to be able to learn more deeply to increase the insight of farm women.

Empowerment with Production Facilities

The availability of production facilities is strongly and significantly related to the empowerment of women farmers. The availability of production facilities will make it easier for farmer women to become empowered. That is because women farmers can be more easily and easily implemented because the raw materials for implementation are available and sufficient. The availability of these production facilities is expected to increase the enthusiasm of peasant women to develop their abilities.

Means of agricultural production (*saprotan*) is one of the most important factors in supporting the development or progress of agriculture, especially to achieve the goal of creating food security. Fertilizers and pesticides (agricultural medicines) are the main agricultural production facilities most needed by farmers in agricultural activities. Fertilizers in this case consist of organic fertilizers (compost, animal manure, castings, and green fertilizers) and inorganic fertilizers (urea, ZA, TSP, SP36 and KCL). While pesticides include, herbicides, insecticides, fungicides, and others. (Anonimus, 2010 in Ginting, 2012).

Empowerment with the Role of Extension Workers

The role of extension workers is strongly and significantly related to the empowerment of women farmers. According to Van Den Ban and Hawkins (1999), Counseling is the involvement of a person to communicate information consciously with the aim of helping the target give an opinion so that they can make the right decision. The activity is carried out by someone called an agricultural instructor. Similar to what was stated by Sairi (2015), Agricultural counseling plays an important role for agricultural development, because counseling is an effort to empower farmers and other agricultural businesses to increase productivity, income and welfare.

Counseling activities are not limited to providing information, but with the activity of meetings between extension workers with members of women farmers can discuss problems that are being experienced by women farmers, so they can provide solutions in solving problems. The greater the support given to farm women, the more independence will increase as a form of empowerment.

Strategy for Empowering Women Farmers Groups through SFHA

Empowerment of women farmer groups is empowering women farmers so that the level of empowerment of women farmers increases. In the process of empowerment an empowerment strategy is needed. The empowerment strategy was then analyzed using the Kendall's W analysis which was processed through SPSS. The results of the analysis can be seen in table 7.

Table 7. Analysis Results of the Empowerment of Women Farmers Group Strategy

No	Variable	Mean Rank	Rank
1.	Knowledge	2.00	2
2.	Attitude	3.00	3
3.	Skills	1.00	1

Source: Primary data processed by author (2020)

Based on the table above, it can be seen that the lowest first rank means there is a skill of 1.00, and the second lowest is knowledge with a mean rank of 2.00. then to find out which parts can not be understood and carried out followed by analyzing the specs with the lowest mean rank, namely skills. The results of the analysis can be seen in table 8.

Table 8. Results of the analysis of the skills of farm women

No	Aspect	Mean Rank	Rank
1.	Benefits of yard	3,25	3
2.	Planting Pattern	2,94	1
3.	Crop Commodities	2,94	2

Source: Primary data processed by author (2020)

Based on the results of the analysis of the lowest mean rank skill skills first, it discusses cropping patterns, which is 2.94 and second, it discusses crop commodities in the yard. So, to increase empowerment see from the lowest aspect that is about cropping patterns because then there will be opportunities to increase empowerment.

Apart from the results of the analysis above, to improve the empowerment of farmer women groups in implementing the SFHA system is also supported by factors that are strongly related such as government support, the environment, the role of extension workers and production facilities. This can be increased to increase effectiveness in the empowerment process.

Conclusion and Suggestion

Conclusion

After the activity of the study of the empowerment of women farmer groups through optimization of the plot of land with the SFHA system in Lelea District, Indramayu Regency, it can be concluded that:

1. Empowerment of women farmer groups in the use of yard is included in the medium category for the variable knowledge and skills, while for the attitude included in the high category. And empowerment activities that are in the medium category.
2. There is a strong relationship between external factors for women farmers, namely the environment, government support, infrastructure and support for extension services to the process of empowering women farmer groups.
3. Strategies that can be carried out to improve the behavior of farmers, especially the ability in empowering farmer women's groups through optimization of the plots of land with the SFHA system, is by providing counseling about demonstration plots related to cropping patterns and yard plots of cultivation in the SFHA system.

Suggestion

Furthermore, the suggestions that can be delivered in this assessment activity are:

1. For the authors in describing the relationship of empowerment of farm women groups through optimization of the yard with SFHA system can clearly describe so that it can be used as a reference for further studies.

2. For the government, after an analysis of empowerment of women farmer groups is carried out through optimization of the yard with the SFHA system, it is then followed up with farmer development activities in order to create the empowerment of farmer women groups.
3. For BPP Lelea District, a guidance and counseling activity is carried out on land use technology, specifically the SFHA system, which involves all stakeholders.

References

- Adi, Isbandi Rukminto. 2005. Ilmu Kesejahteraan Sosial dan Pekerjaan Sosial: Pengantar pada Pengertian dan Beberapa Pokok Bahasan. Jakarta: UIPress.
- Ali-Olubandwa, A.M., Kathuri, N.J., dan Wesonga, T.E.O. 2011. "Effective extension methods for increased food production in Kakamega District"., Kenya: Egerton University. Journal of Agricultural Extension and Rural Development, Vol. 3 (5) : pp. 95 – 101.
- Ardita. 2017. Kinerja Penyuluh Pertanian Menurut Persepsi Petani: Studi Kasus di Kabupaten Landak.
- Azwar, Saifuddin. 1988. Sikap Manusia Teori dan Pengukurannya. Yogyakarta: Liberty.
- Badan Pusat Statistik tahun 2018, Kecamatan Lelea Dalam Angka.
- BPP, 2019, Programa Kecamatan Lelea.
- Ghozali, Imam. 2005. Aplikasi Analisis Multivariate dengan SPSS. Semarang: Badan Penerbit UNDIP.
- Ginting, R.A. (2012). Karakterisasi Simplisia dan Skrining Fitokimia serta Uji Antimutagenik Ekstrak Etanol Daun Afrika (*Vernonia amygdalina* Del. pada Mencit Jantan Menggunakan Metode Mikronukleus. Skripsi. Medan : Fakultas Farmasi USU.
- Hawkins dan Van den Ban. 1999. Penyuluhan Pertanian. Kanisius. Yogyakarta.
- Hermanto. (2007). Rancangan Kelembagaan Tani dalam Implementasi Prima Tani di Sumatera Selatan. Jurnal Analisis Kebijakan Pertanian,
- Imam Supardi. 2003. Lingkungan Hidup Dan Kelestariannya. Alumni. Bandung.
- Ismilaili. 2015. Tingkat Adopsi Inovasi Pengelolaan Tanaman Terpadu Padi Sawah di Kecamatan Leuwiliang Kabupaten Bogor. (tesis). Bogor (ID). Institut Pertanian Bogor.
- Kartasapoetra, G.1994. *Teknologi Penyuluhan Pertanian*. Bumi Aksara. Jakarta.
- Kementan, 2019, Tentang Petunjuk Teknis Bantuan Pemerintah Kegiatan Kawasan Rumah Pangan Lestari (SFHA).
- Levis, 1996. *Komunikasi Penyuluhan Pedesaan. PT Citra Aditya Bakti*. Bandung.
- Mardikanto, T. 1993. *Penyuluhan Pembangunan Pertanian*. Sebelas Maret University Press. Surakarta.

- Nasution LI. 1995. Pertanian berkelanjutan dan kaitannya dengan pelaksanaan kegiatan pendidikan tinggi peranian. Jakarta : PT GramediaWidiasarana Indonesia. Salikin, K.A, 2003. Sistem Pertanian Berkelanjutan. Kanisius, Yogyakarta.
- Nlerum, F.E, dan Akanji, P.D. 2015. "Analysis of Agricultural Extension Teaching Methods of Bayelsa and Rivers State Agricultural Development Programmes". Canadian Open Applied Sociology Journal, Vol. 1 (1) : pp. 1 – 6.
- Peraturan Kepala Badan Penyuluhan dan Pengembangan Sumber Daya Manusia Pertanian No.84/PER/SM./100/J/11/12).
- Peraturan Menteri Pertanian Republik Indonesia Nomor 67/Permentan/Sm.050/12/2016 Tentang Pembinaan Kelembagaan Petani.
- Peraturan Pemerintah Nomor 32 Tahun 1998 tentang Pembinaan dan Pengembangan Usaha Kecil.
- Peraturan Presiden (PERPRES) Nomor 22 Tahun 2009, tentang Kebijakan Percepatan Penganekaragaman Konsumsi Pangan Berbasis Sumber Daya Lokal.
- Permentan No 43 tahun 2019, tentang Gerakan Percepatan Penganekaragaman Konsumsi Pangan Berbasis Sumber Daya Lokal.
- Permentan no 67 th 2016 Peraturan Menteri Pertanian Republik Indonesia Nomor 67/Permentan/Sm.050/12/2016 Tentang Pembinaan Kelembagaan Petani.
- Rogers, E. M. dan F. F Shoemaker. 1971. Communication of Innovations. New York. The Free Press.
- Ruyadi, Ida. 2017. Media Komunikasi Dan Informasi Dalam Menunjang Kegiatan Penyuluhan Pertanian.
- Sairi, Akhmad. 2015. Peran Petugas Penyuluh Pertanian Dalam Mengembangkan Budidaya Padi Di Desa Sumber Sari Kecamatan Loa Kulu Kabupaten Kutai Kartanegara. Ejournal Ilmu Komunikasi, Vol. 3, (2) : 150-164.
- Salikin, K.A, 2003. Sistem Pertanian Berkelanjutan. Kanisius, Yogyakarta.
- Sugiri, Lasiman.2012. Peranan Pemerintah Daerah Dalam Pemberdayaan Masyarakat.
- Sugiyono. 2012. Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfabeta.
- Suhardiyono. 1992. *Penyuluhan Petunjuk bagi penyuluh pertanian*. Erlangga. Jakarta.
- Undang – Undang No 18 Tahun 2012, Tentang Pangan.

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