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Developing Millennial Generation Skills Through a Technology-Based Agribusiness Training Program in Mekarsaluyu Village, Cimenyan District, West Java Regency

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ABSTRACT

This community service activity aims to increase the understanding, knowledge, and interest of the younger generation in Mekarsaluyu Village towards technology-based agribusiness. The method of implementing activities uses a socialization method that is carried out in a structured manner through the delivery of materials and interactive discussions. The target of the activity is students and youth of Mekarsaluyu Village who have not been actively involved in agricultural activities. The results of the activity showed an increase in participants' understanding and interest in the technology-based agriculture and agribusiness sectors. Through this activity, the young generation is expected to be able to play an active role in the sustainable development of village agricultural potential and encourage innovative and competitive agribusiness-based local economic growth.

Keywords: Mekarsaluyu village, technology, agribusiness

INTRODUCTION

The agricultural sector is still the main pillar of the rural economy in Indonesia. However, in recent years, there has been a decline in the interest of the younger generation in agriculture. Agriculture is often perceived as a less promising sector, synonymous with heavy work, low income, and lack of innovation. This condition leads to low involvement of students and village youth in agricultural activities, which can ultimately threaten the sustainability of the agricultural sector in the future. (Prayitno et al ., 2022; Purwantini , 2023) (Ningrum et al., 2023).

Mekarsaluyu Village has considerable natural resource potential in the agricultural sector, especially in horticultural commodities. However, this potential has not been utilized optimally, especially by the younger generation. Most of the students and village youth do not have adequate knowledge and skills related to modern agricultural practices, processing agricultural products, and the management of agricultural businesses that have added value. Agricultural activities are still carried out conventionally with relatively limited use of technology and innovation.

On the other hand, the development of agricultural technology and the digitalization of agribusiness open up new opportunities for the younger generation to be actively involved in the agricultural sector. The application of efficient and environmentally friendly cultivation techniques, the use of appropriate technology, and the use of digital media for

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the promotion and marketing of agricultural products can increase productivity, competitiveness, and economic value of agricultural products. However, the youth of Mekarsaluyu Village have not fully understood and accessed these opportunities due to the limitations of structured training and mentoring. (Nur & Saifuloh, 2023; Pujiriyani, 2022; Purwantini, 2023; Sha'roni et al, 2023; Wardhono & Wibowo, 2020).

Based on these problems, a community service activity is needed to bridge the gap in knowledge and skills of the younger generation in the agricultural sector. The technology-based agribusiness training program is designed as a strategic effort to increase the understanding, skills, and interest of village students and youth in the agricultural sector. Through an applicable training approach, participants are expected not only to understand modern agricultural practices and agricultural product processing, but also to have entrepreneurial insights and the ability to utilize technology and digitalization in agricultural business development. With the implementation of this activity, it is hoped that the young generation of Mekarsaluyu Village will be able to play an active role in developing the village's agricultural potential in a sustainable manner, as well as encouraging innovative and competitive agribusiness-based local economic growth. (Amaluddin et al., 2024; Duffy et al., 2021) (Shawn O'Neill & Raddatz, 2010; Novita, 2023; S São Paulo et al ., 2022)(Panjaitan, 2024).

The outputs to be achieved from the Technology-Based Agribusiness Training for the Millennial Generation include aspects of increasing the capacity of human resources, strengthening the economic potential of the village, and academic contributions through the dissemination of the results of the activity. Substantively, this activity is expected to result in an increase in the knowledge, skills, and attitudes of the younger generation towards the agricultural sector, especially in understanding the concept of modern agribusiness that is integrated with the use of technology. Training participants are expected to be able to apply cultivation and processing techniques that are more effective, innovative, and value-added, as well as have entrepreneurial insights that encourage the emergence of new business ideas in the agricultural sector. In addition, the output of activities is also expected in the form of increasing interest and active participation of the millennial generation in the development of the village agricultural sector, so as to create program sustainability and make a real contribution to strengthening the local economy.

In terms of institutional and program sustainability, this activity is expected to become a model of technology-based agribusiness training that can be replicated and further developed by the village community and related stakeholders. The existence of documentation of activities, training modules, and the results of discussions and field practices supports outputs that strengthen the usefulness of the program in the long term. In addition, the building of networks between universities, village communities, and local agribusiness actors is also a strategic output that can encourage sustainable collaboration in the future.

As an academic output, the results of the implementation of this community service activity will be compiled in the form of scientific articles and published in the Journal of Community Service. This publication contains the background of the activities, implementation methods, results, and impacts of training, as well as an analysis of the program's achievements in increasing the capacity of the millennial generation in the agribusiness sector. With this publication, it is hoped that the experiences and findings of this activity can be a reference for academics and practitioners.

Mekarsaluyu Village was chosen because the selection of the location for the training was carried out strategically, taking into account the ease of access to transportation and its proximity to the domicile of prospective participants, to ensure maximum participation. The location chosen must be in an area that is easily accessible by public and private vehicles, and have adequate supporting facilities, such as training rooms, sanitation facilities, and a stable internet network.

METHOD

This community service activity is carried out using Socialization Methods as the main approach. This method was chosen to increase the knowledge, understanding, and interest of the younger generation in technology-based agribusiness through the delivery of structured and communicative information. The implementation of the activity began with the preparation stage, namely, coordination with the Mekarsaluyu Village apparatus and related parties to determine the time, location, and participants of the activity. At this stage, the implementation team also prepared socialization materials that included the introduction of agribusiness concepts, modern agricultural practices, processing of value-added agricultural products, and the use of simple technology and digital media to support agribusiness activities.

Furthermore, the activity enters the Socialization implementation stage, which is done through the delivery of material directly to the participants. The interactive lecture method is used so that participants can understand the material easily. The delivery of material is carried out contextually by adjusting the conditions and potential of agriculture in Mekarsaluyu Village, so that the information provided is relevant and applicable.

The next stage is Discussion and interaction, which aims to increase the active participation of participants. At this stage, participants were given the opportunity to convey questions, opinions, and experiences related to agricultural and agribusiness activities. The discussion took place in a two-way manner between the implementation team and the participants, so that there was an exchange of information and a strengthening of understanding of the material that had been delivered.

The participant identification process is focused on communities or groups of millennial generations who have interests and potential in the field of agribusiness. The target participants include final year students, college students, and youth from various backgrounds who show interest in the world of modern agriculture, agricultural entrepreneurship, and agribusiness-based business development. This identification can be done through collaboration with educational institutions, youth organizations, and digital farming communities that are active on social media or other platforms.

RESULTS AND DISCUSSION

This activity is designed to increase the skills, knowledge, and interest of the young generation in Mekarsaluyu Village in the agricultural sector through a technology-based agribusiness training program. The main target of the activity is students and village youth who have not been actively involved in agricultural activities so far. Through structured and applicable training, participants are equipped with an understanding of modern agricultural practices, starting from efficient and environmentally friendly cultivation of horticultural crops to the processing of agricultural products so that they have added value and competitiveness. Horticultural crops are an important component in agricultural development. The marketing of horticultural commodity products has been able to meet

the needs of the domestic and foreign markets, so that it can generate profits for the country. Furthermore, the growing awareness of consumers that horticultural products bring dual benefits, namely to meet food, health, and aesthetic needs, and protect the environment. In addition to the production aspect, this training also emphasizes the use of simple technology and digitalization in the agribusiness process, such as the use of appropriate technological aids and digital media for the promotion and marketing of agricultural products. Thus, this activity is expected to be able to foster a practical understanding of the concept of agribusiness, form entrepreneurial skills in the agricultural sector, and encourage the active role of the younger generation in developing the economic potential of Mekarsaluyu Village sustainably.

This Technology-Based Agribusiness Training for the Millennial Generation was carried out according to the schedule that had been prepared by the team, involving experienced and competent resource persons in the field of agribusiness. This activity aims to increase the interest, understanding, and involvement of the younger generation in the agricultural sector through a more modern, innovative, and technology-based approach, so that agriculture can be seen as a promising and relevant sector for the times. The training material is comprehensively arranged, including the application of simple and appropriate technology in agricultural activities, the development of agricultural product innovations to have added value, and the introduction of various business opportunities and agricultural business models that suit the character and interests of the millennial generation. Through this material, participants are expected to be able to understand that agriculture is not only limited to traditional activities, but also has great potential as a productive and profitable entrepreneurial field. The method of implementing the training is carried out interactively through the delivery of materials, discussions, and direct question-and-answer sessions with resource persons, so that participants can more actively participate, express ideas, and gain a deeper and more applicable understanding of the concept of technology-based agribusiness.

This training was carried out with a total of 14 participants, consisting of village youth, students, fathers, and women who have an interest in the world of agriculture and small businesses in the food sector. This activity was carried out at the Mekarsaluyu bamboo castle with the full support of the village apparatus, which provided facilities such as chairs, tables, and projector screens (white screens). The material provided in the training was divided into three sessions.

Plant Cultivation Techniques

The material was delivered by Dr. Eso Solihin, S.P., M.P., who explained how to cultivate horticultural plants properly and efficiently, starting from the selection of superior seeds, seeding techniques, irrigation arrangements, and integrated pest control. This material also emphasizes the importance of maintaining soil fertility and the implementation of sustainable planting systems.

In the initial stage, the presenter explained the importance of the selection of superior seedlings as the main factor in the cultivation of horticultural crops. Superior seedlings have the first characteristics of ideal climatic conditions for vegetable growth ranging from air temperature 15-27, air humidity 70-80, rainfall 1000-1500 and sunlight 6-8, ideal soil characteristics for plants are sandy clay soil texture and dusty clay, loose and well-porous soil structure, soil pH 6.0-6.8, minimum processing depth of 30 cm and organic matter content 2-5%. The second characteristic of managing water for optimal plant growth is that if the lack of water causes stunted growth and decreased yields and if the excess water increases the risk of root rot and disease, irrigation methods can be carried out including rainfall, sewers, drips, and sprinklers, and can produce products with optimal quality and quantity with plant suitability based on height, namely the appropriate plant

lowlands, namely kale, spinach, long beans, cucumbers, tomatoes, and chilies, the medium plains of suitable crops are mustard greens, petsai, tomatoes, large red chilies, while the suitable highlands of plants are cabbage, carrots, broccoli, lettuce, potatoes. Participants were given an understanding of vegetable plant seeds from the understanding, good seed requirements namely viability, vigor of genetic purity, physical purity, low humidity and free of pests and diseases, seed types namely hybrid seeds (f1), seeds of open superior varieties and local/traditional seeds, seed preparation namely seed selection, soaking, treatment of fungi and/or insecticides, and germination tests and good storage of vegetable plant seeds, namely dry places, Cool place, good ventilation, tightly closed container, avoid sunlight, and low temperature. The speaker also emphasized that the use of superior seeds can reduce the risk of planting failure and increase production efficiency.

Next, the presenter discussed Seeding Techniques as the first step in the cultivation process. Good seeding aims to produce strong seedlings that are ready to be transferred to the planting field. The speaker explained the various processes of preparing land for vegetable farming ranging from land clearing by removing weeds and debris from the land, tillage by loosening and turning the soil for aeration, making beds by forming beds for planting, liming by adjusting the pH of the soil if needed, providing organic matter by adding compost or manure for fertility, installing mulch by using mulch for weed control and moisture, early watering by watering the land for moisture before planting, and basic fertilizer by applying fertilizer before planting. Participants were also given an understanding of the right time to move seedlings to the field so that plant growth can take place optimally.

The next material is focused on plant growth maintenance practices, namely watering, weeding, pest and disease control, installing ajir, land sanitation, weeding, follow-up fertilization, spraying, and draining/irrigation arrangements. Irrigation arrangements in horticultural cultivation. The speaker explained that the water needs of each plant are different, so irrigation management must be adjusted to the type of plant, growth phase, and environmental conditions. Proper irrigation can support optimal plant growth, while excessive or under-irrigation can reduce productivity and yield quality. Therefore, participants are invited to understand the importance of water use efficiency as part of sustainable agricultural practices.

In addition, the presenter also discussed Integrated Pest Control (IPC) as an environmentally friendly approach in controlling plant pest organisms. Integrated pest control emphasizes the judicious use of various control methods, such as mechanical, biological, and chemical controls. The speaker emphasized that the implementation of IPC can reduce dependence on chemical pesticides, maintain ecosystem balance, and increase the safety of agricultural products for consumers.

The material covers the harvesting process and post-harvesting of the vegetables emphasis on the importance of maintaining soil fertility and the implementation of sustainable planting systems. The speaker explained that fertile soil is the main asset in agricultural activities. Efforts to maintain soil fertility can be done through the use of organic fertilizers, crop rotation, and good land management. The sustainable planting system is expected to be able to maintain land productivity in the long term while supporting environmental sustainability.

Overall, the material presented provided a comprehensive understanding to participants of good and efficient horticultural cultivation techniques. Through this material, participants are expected to be able to implement proper cultivation practices, increase production yields, and support the development of sustainable agriculture in Mekarsaluyu Village.

Precision Farming (Smart Farming)

This material was delivered by Fitria Suryatini, S.Pd., M.T., who introduced the knowledge of the types of horticultural plants that can be planted by the Greenhouse, observing the process or cultivation method to get maximum yields, introducing automatic watering control system and control fuzzy on the process of nurturing horticultural plants in Greenhouse, introducing a control system for the application of liquid fertilizer in the process of nurturing horticultural plants in the Greenhouse which is carried out periodically using time detection data, introducing a control system based on IoT to monitor and control drip irrigation can be seen in Figure 1. and automatic fertilization in the process of breeding horticultural plants inside Greenhouse. The speaker provided material on how the cultivation process used can be applied by the trainees to apply horticultural crop cultivation and help overcome limited land. The use of simple technology in the world of agriculture, such as the use of soil moisture sensors, weather monitoring applications, and automatic irrigation systems to increase production efficiency. This material opened up participants' insights about the importance of innovation and technology in today's agricultural sector. This material aims to introduce the concept of modern agriculture that utilizes appropriate technological innovations as solutions to various problems faced by farmers, especially in increasing the efficiency and productivity of agricultural businesses. The speaker emphasized that the application of technology is not always synonymous with high costs, but can start from the use of simple technology that is easily accessible and applied by village farmers.

Figure 1. Examples of drip irrigation applications

In his presentation, the speaker explained that the definition of a greenhouse is effective in optimizing plant growth with automatic control for the regulation of various parameters in the environment. IoT systems make it easy for farmers to monitor and control crops remotely. Ornamental plants, especially orchids and chrysanthemums, greatly contribute to the country's horticultural economy. The importance of automatic watering system automation can prevent excess or lack of water according to plant needs automatic nutrient supply system can prevent excess or lack of nutrients according to plant needs, the use of LED grow can overcome plant lighting needs that require more than 12 hours, in Indonesia IoT systems can monitor plant conditions remotely the system can detect conditions quickly and provide an immediate response to plant handling delays due to lack of real-time monitoring. The use of soil moisture sensors as a tool in the management of plant cultivation. This sensor functions to measure soil moisture levels in real time so that farmers can find out the condition of the plant's water needs more accurately. With this information, farmers can determine the exact time and volume of watering, so that water use becomes more efficient and the risk of water shortage and excess water can be minimized. The application of this technology is considered very

relevant to increase production yields while supporting environmentally friendly agricultural practices.

In addition to soil moisture sensors, presenters also introduced Weather Monitoring Apps, which can be accessed through digital devices such as smartphones. This application provides information related to weather forecasts, rainfall, temperature, and air humidity, which is very useful in planning agricultural activities. Participants were given the understanding that by using weather information appropriately, farmers can better manage planting, fertilization, and harvesting times, as well as reduce the risk of losses due to erratic weather changes.

The next material discusses about System as a form of application of simple technology in agriculture. This system has characteristics The controlled parameters are Humidity, Nutrients, and Light Intensity, control using Fuzzy Logic for watering and control systems On/Off based Timer for nutrient supply and lighting in plants, nutrient metering with water and filling of nutrient reservoirs and watering manually, Proportion of power for pump DC minimum at 100-255, The test plant is Chrysanthemum (Chrysanthemum). System reliability i.e. Automatic watering system based on IoT Using the control method Fuzzy Logic, able to adjust the water needs of plants real-time Based on soil moisture, the automatic nutrient system uses control On/Off time-based, and able to maintain the NPK fertilizer application schedule according to the needs of the plant growth phase., the automatic lighting system uses LED grow light proven to support the vegetative phase of the plant, although it slightly delays the generative phase, the system is integrated with the ESP32 microcontroller, Firebase, and applications Mobile Kodular, can monitor & control the entire system remotely up to more than 160 km, proving the reliability of the connection IoT For the implementation of technology-based intelligent agriculture, the integration of a control system based on Fuzzy Logic for watering and time-based systems for nutrition and lighting, which are adapted to the growth phase of the plant by combining sensors, actuators and mobile applications in one Platform, can support real-time and adaptive automation of horticultural agriculture. This system allows the irrigation of plants to be carried out automatically based on soil conditions and plant needs. The speaker explained that an automatic irrigation system can help save labor, time, and water use, so that cultivation activities become more efficient. In addition, this system can also be implemented gradually according to the ability and needs of farmers, so that it does not become a burden in terms of costs.

Systems are generally described as including greenhouses, controllers, data communication, and interfaces. This system has input in the form of data from three main types of sensors, namely soil moisture sensors, nutrient sensors (TDS), and light intensity sensors. These sensors function to detect the environmental conditions of the plant in real time. The data obtained from the sensor is then sent to the ESP32 microcontroller, which acts as a data processing center. In the process, the microcontroller processes sensor data and determines the decision using the fuzzy logic method to control the watering system automatically, based on the moisture and lighting levels detected. Meanwhile, the supplemental nutrition and lighting are controlled using a preset timer to activate the components at specific time intervals. The monitoring data is also sent in real-time to the Firebase database over the internet, so it can be accessed remotely. As an output, the system will activate a water pump for watering, a nutrient pump for NPK solution, as well as LEDs for additional lighting. To make it easier for users to monitor and manage the system, an Android application was created using Kodular, which allows users to view environmental data directly and set up system controls as needed. Thus, the system is not only automated but also adaptive and can be flexibly controlled via a mobile app.

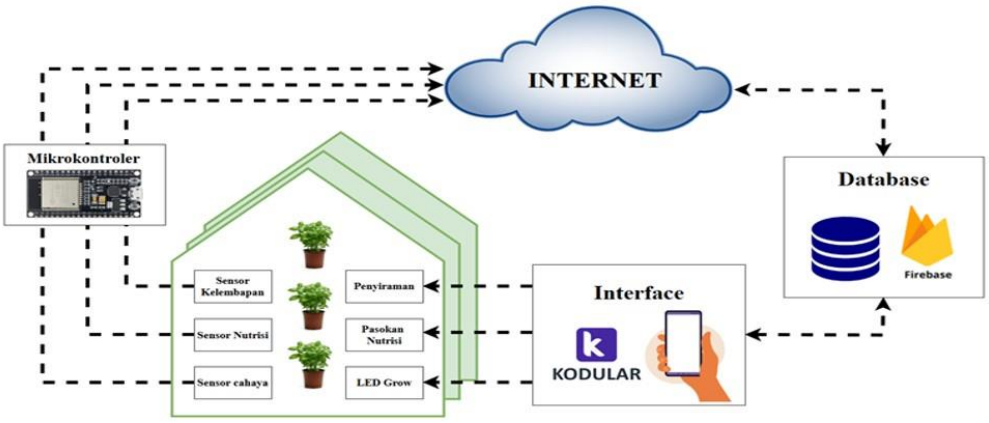

Figure 2. System overview

System design consists of mechanical, electrical, control system, and informatics design. First, mechanical design includes creating a framework to bring together all components, growing media, and the greenhouse. This stage starts with creating a 3D design. After that, the manufacturing process is carried out either by machine or manually, paying attention to the suitability and accuracy of the design. An overview of the watering, nutrition, and lighting control system of chrysanthemums in the greenhouse is shown. The system uses an ESP32 microcontroller for data capture and collection from light sensors (BH1750), nutrient sensors (SEM225 Sentec Soil NPK), and soil moisture sensors. ESP32 also processes data and communicates via WiFi. The BH1750 sensor measures light intensity (lux), the SEM225 measures nitrogen, phosphorus, and potassium in the soil (mg), and the humidity sensor measures the soil moisture content (%). The outputs include a DC pump for nutrition and watering, and an LED grow light for night lighting, with a drive motor to regulate the pump speed. I2C LCD is used to display sensor data. The process begins with the microcontroller processing sensor data and sending it to the serial monitor and Firebase via IoT. Data on Firebase can be accessed through the Koular application. The microcontroller continues. Second, the electrical design uses the ESP32 as a microcontroller, then a sensor and actuator. For an overview of the electrical system and a schematic picture of the Control System Planning. In the following picture, the block diagram of the control system, Fuzzy Design, is shown. This is an approach that uses fuzzy logic to control plant growth conditions. Taking into account the level of uncertainty, the system optimally regulates soil moisture and watering needs, ensuring plants grow in ideal conditions and improving plant efficiency and health.

In delivering the material, the speaker emphasized the importance of the role of the younger generation in the adoption and development of agricultural technology. The younger generation is considered to have a better ability to understand and operate technology, so that they can become agents of change in encouraging agricultural modernization at the village level. Participants were invited to see the agricultural sector as a dynamic, innovative, and promising field if managed with the right technological approach.

Overall, the material presented opened up participants' insights on the importance of innovation and the use of simple technology in facing today's agricultural challenges. Through this understanding, participants are expected to be able to change their mindset towards conventional agriculture, and are encouraged to apply technology gradually to improve production efficiency and sustainability of agricultural businesses in Mekarsaluyu Village.

Digital Marketing in the Agricultural Sector

This material was delivered by Khariful Syukri, S.T., M.A.B., who discussed how farmers and village business actors can utilize social media, marketplaces, and digital platforms to market crops or processed products more widely and effectively. This material is focused on efforts to increase the understanding of young farmers and village business actors about the importance of digitalization in supporting the development of competitive agribusiness. The speaker emphasized that changes in consumer behavior in the digital era require agricultural business actors to adapt by utilizing information and communication technology as an effective marketing tool.

In his presentation, the speaker explained that digital marketing has a strategic role as a promotional tool that is easily accessible, cheap, has a wide reach, and has higher profits. Platforms such as TikTok, Shopee, Tokopedia, Gojek, Grab, Instagram, Facebook, and WhatsApp business can be used to introduce agricultural products, both fresh crops and processed products, to a wider range of consumers. Participants were given an understanding of how to create attractive promotional content, such as the use of quality product photos, writing informative product descriptions, and consistency in uploading content to be able to build consumer trust. Participants were given an understanding of WhatsApp Business features that can be used, namely catalogs, quick replies, groups, and stories. Facebook features that can be used are Facebook marketplace, buying and selling forums, feeds, and stories. Shopee features that can be used are product catalogs, store promos, vouchers, flash sales, discount packages, shopee ads, shopee promotions (salary sale, Ramadan sale, shopee flash sale, etc.), star seller, star seller+, shopee mall, store decoration, and shopee video.

In addition to social media, the speaker also discussed the use of the marketplace as a distribution and sales channel for agricultural products. Marketplaces are considered to be able to open wider market access without having to rely on middlemen or traditional markets. In this material, participants were introduced to the basic concepts of marketing through the marketplace, starting from creating seller accounts, uploading products, managing orders, and competitive pricing strategies. The speaker emphasized that the use of the marketplace can increase price transparency and provide opportunities for farmers and village business actors to obtain better selling value.

Furthermore, the speaker explained the importance of building a product identity or branding in digital marketing. Village agricultural products need to have characteristics that distinguish them from other products, both in terms of quality, packaging, and the story behind the product. Participants were given insights into simple branding concepts, such as determining product names, attractive packaging designs, and conveying product excellence values to consumers. This aims to ensure that village agricultural products are not only known, but also have attractiveness and competitiveness in the market.

The presenter also highlighted the role of other digital platforms, such as instant messaging apps and digital catalogs, in strengthening communication with consumers. Through this platform, business actors can establish closer relationships with customers, receive feedback, and increase consumer loyalty. In addition, the use of digital technology is expected to encourage the young generation of villages to be more actively involved in agricultural activities, especially in the aspects of marketing and business development.

Overall, the material presented provided a practical overview of opportunities and strategies for the use of social media, marketplaces, and digital platforms in marketing agricultural and processed village products. Through this understanding, participants are expected to be able to optimize the potential of their agricultural products, expand their marketing network, and increase the economic value of agricultural products sustainably. The thing that must be considered in selling agricultural products digitally is first, the freshness level is that many sellers only serve sales in the city so that they only activate

instant sales, second, the admin costs of many e-commerce take admin costs from the seller and even up to 20% of the turnover, make sure it is included in the calculation in determining the price in e-commerce, and third, make sure the calculation is included in the calculation of the profit that will be in the Achieve. This is very necessary because there are many errors in calculating profits, as advertising costs are not included in the product cost element.

Participant Feedback

During the activity, all participants showed high enthusiasm. They actively asked questions to the presenters, discussed the problems they faced in the field, and provided ideas related to the development of agricultural businesses. Participants who have worked as farmers find it helpful because they can get direct solutions from experts, especially regarding the problem of fertilizer use efficiency and marketing strategies for agricultural products.

In addition to increasing knowledge, this training also provides new motivation for the younger generation to start getting involved in agricultural activities. Participants became more aware that the agricultural sector can be run in a modern, efficient, and economic way when combined with the right technology and business strategy. This training activity was considered successful because it was able to provide applicable knowledge transfer, build a spirit of collaboration between participants and presenters, and foster new awareness that agriculture is a promising sector to be developed professionally and sustainably.

Figure 3. The presenter was giving a socialization

Obstacles to Implementation of Activities

In the implementation of Agribusiness Training activities for the Technology-Based Millennial Generation, there are still several obstacles that affect the smooth running of activities, both in terms of planning and technical implementation in the field. The first obstacle is related to the limited availability of presenters, where some speakers cannot attend according to the predetermined schedule. This has an impact on readjusting the structure of the event and training materials, so the implementation team needs to improvise so that the objectives of the activity can still be achieved despite the change in agenda. This condition shows the importance of alternative planning and more intensive coordination with resource persons before the activity is carried out.

The second obstacle is the absence of some participants on the day of the activity, so that the number of participants is not fully in accordance with the planned target. The factors that cause this include the limited time of participants, the existence of other activities at the same time, and the low awareness of some of the younger generation about

the importance of agribusiness training. The impact of this obstacle is the lack of an optimal range of benefits of activities and the lack of an optimal knowledge transfer process to all intended targets. In addition, technical obstacles also occur, such as delays in the provision and operation of supporting equipment, especially the sound system. This technical problem causes a delay in the start time of the activity and has the potential to reduce the effectiveness of the delivery of material, especially in presentation and discussion sessions. However, these obstacles can be overcome gradually through the internal coordination of the implementation team, so that activities can continue until completion. The evaluation of these various obstacles is an important material for improving the planning and implementation of similar activities in the future so that they can run more optimally and effectively.

CONCLUSION

The research program and follow-up programs of the Technology-Based Agribusiness Training for the Millennial Generation are focused on efforts to sustain the impact of activities and strengthen the role of the younger generation in the development of village agribusiness. The research program is directed at evaluating the effectiveness of training, especially in increasing the knowledge, interest, and readiness of the millennial generation in applying simple technology and agricultural entrepreneurship concepts. In addition, the research also includes mapping the potential of village superior commodities and opportunities for the development of youth-based agribusiness businesses as the basis for the formulation of advanced empowerment programs.

Meanwhile, the follow-up program is focused on mentoring and implementation activities, in the form of fostering farmer youth groups, assisting in cultivation practices and processing of agricultural products, as well as strengthening business management and digital marketing. This program is supported by the development of networks with village governments and related stakeholders to open access to advanced training and business opportunities. Overall, this research and follow-up program is expected to produce a sustainable millennial-based agribusiness development model and become the basis for scientific publications and the development of subsequent service programs.

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