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Training for Enhancing Farmers Capacity Using Cultivation Technology and High-Quality Seeds in Kabangka District

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Abstract

The agricultural sector is the foundation of the national economy, where the basic needs of the Indonesian people can be fulfilled through agricultural products. Vegetables, as one of the main food sources, require proper cultivation processes to produce high-quality products in sufficient quantities. Several studies have shown that training and extension methods are effective in improving farmers capacities. This training activity aims to enhance farmers capacity through cultivation technology and the use of high-quality seeds. The program was carried out in July 2024 with the final evaluation in November 2024, located in Wasungi Village Kabangka District Muna Regency Southeast Sulawesi. The training participants included farmer groups from Kabangka District, with the presence of the Muna Agriculture Department, Kabangka Agricultural Extension Agency and the District Government. In this study, the descriptive method was used. The results show that this training is an effective strategy to help farmers improve agricultural production. Positive impacts were observed in the final evaluation, with satisfying production outcomes and improved farmers welfare with an increase of 52%. The support of advanced technology and the use of high-quality seeds has proven to increase productivity and farmers income while supporting the sustainability of their agricultural businesses. This program not only benefits farmers but also enhances the effectiveness of program implementation by stakeholders.

Keywords: Cultivation technology, farmer training, farmer productivity, quality seeds

Abstrak

Sektor pertanian merupakan fondasi utama ekonomi bangsa, di mana kebutuhan dasar masyarakat Indonesia dapat dipenuhi melalui produk-produk pertanian. Sayuran sebagai salah satu bahan pangan utama masyarakat memerlukan proses budidaya yang tepat untuk menghasilkan produk berkualitas dalam jumlah yang cukup. Berbagai studi menunjukkan bahwa pelatihan dan metode penyuluhan efektif dalam meningkatkan kapasitas petani. Kegiatan pelatihan ini bertujuan untuk meningkatkan kapasitas petani melalui teknologi budidaya dan penggunaan benih berkualitas. Program ini dilaksanakan pada Juli 2024 dengan evaluasi akhir pada November 2024, bertempat di Desa Wasungi Kecamatan Kabangka Kabupaten Muna Sulawesi Tenggara. Peserta pelatihan meliputi kelompok tani se-Kecamatan Kabangka dan turut hadir Pemerintah Dinas Pertanian Muna, Balai Penyuluh Pertanian Kabangka serta Pemerintah Kecamatan. Metode analisis yang digunakan dalam kegiatan ini berupa metode deskriptif. Hasil yang diperoleh bahwa pelatihan ini merupakan strategi efektif untuk membantu petani meningkatkan hasil produksi di sektor pertanian, dimana dampak positifnya terlihat dari evaluasi akhir dengan hasil produksi memuaskan dan meningkatkan kesejahteraan petani dengan peningkatan 52%. Dukungan teknologi canggih dan penggunaan benih berkualitas terbukti mendongkrak produktivitas serta pendapatan petani, sekaligus mendukung keberlanjutan usaha tani mereka. Program ini tidak hanya memberikan manfaat bagi petani tetapi juga meningkatkan efektivitas pelaksanaan program oleh para pemangku kepentingan.

***Kata Kunci**: Benih berkualitas, pelatihan petani, produktivitas petani, teknologi budidaya*

INTRODUCTION

The agricultural sector serves as the cornerstone of the nations economy, providing essential means to meet the basic needs of the Indonesian population through agricultural products. Vegetables, as one of the primary food sources, require precise cultivation practices to produce high-quality outputs in sufficient quantities. This underscores the importance of support through training and extension services to enhance farmers knowledge and skills (Lestari & Mardiyanto, 2017). Various studies have shown that training and extension methods are effective in enhancing farmers capacity. Through training programs, farmers are not only taught cultivation techniques but also financial management, social capital development and digital marketing—critical aspects that support the sustainability of their farming enterprises (Pontoan et al., 2021).

Several training programs previously conducted in the agricultural sector, such as farm bookkeeping training in Otak Rarangan Village Wanasaba Sub-district East Lombok Regency have successfully enhanced farmers capacity in managing their farming businesses (Septiadi et al., 2021). The liquid organic fertilizer training using rice washing water in Biting Village which received positive feedback from farmers demonstrates that innovative training programs can help address these (Dwijayanto et al., 2023). Other training programs, such as farm bookkeeping in Kabba Village Pangkep Regency have also demonstrated success in improving farmers' capacity to manage their farming outputs more effectively (Amin et al., 2023). However, the decline in income experienced by some farmers has become a significant issue.

This condition not only affects their ability to meet daily needs but also impacts food availability. It has even driven some farmers to seek side jobs outside the agricultural sector (A'dani et al., 2021). Meanwhile, Kabangka District, one of the sub-districts in Muna Regency holds significant potential in the agricultural sector with vast land and a variety of commodities such as corn, cocoa, vegetables and patchouli. (Misrawati et al., 2024). However, limitations in production factors and a lack of information regarding cultivation technology and quality seeds remain the main obstacles (Dewi et al., 2024).

Currently, farmers in Kabangka District face challenges in utilizing cultivation technology and quality seeds. Therefore, this training program aims to enhance farmers capacity through the adoption of cultivation technology and the use of high-quality seeds. With this training, it is hoped that farmers in Kabangka District can improve the productivity of their farming businesses, thereby increasing their income and ensuring sustainable well-being.

METHOD

The community service activity in the form of training will be conducted in July 2024, with the final evaluation phase scheduled for November 2024. The event will take place in Wasungi Village Kabangka Sub-district Muna Regency Southeast Sulawesi. The training participants will include farmer groups from across Kabangka District, with the presence of the Muna Agricultural Office, the Kabangka Agricultural Extension Center and the Sub-district Government.

This training aims to enhance farmers capacity through the application of cultivation technology and the use of high-quality seeds. The activities will involve preparation, implementation, and evaluation phases, with the goal of helping farmers understand the importance of quality technology and seeds in farming practices. It is expected that this will significantly increase production yields, thereby improving farmers income in a sustainable manner.

The analysis method used in this activity is a descriptive method. This method describes descriptively the activities from the initial stage of the activity to the evaluation stage. By measuring the success rate of farmers, the final stage is in the form of an evaluation of farmers' harvests that are very satisfactory.

DISCUSSION

Preparation and Implementation of the Training

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The preparation phase is an important initial step in the implementation of an activity (Abadi et al., 2022). Similarly, in this activity various preparations have been made, including directly preparing tools and materials as well as consolidating the readiness of participants. The participants readiness has been communicated to the local government, which consists of farmers. Once the preparation phase was completed, the next step was the main activity, which was the implementation of training to enhance the farmers capacity through the use of quality cultivation technology and seeds.



Figure 1. Training Implementation

In this training activity, the focus was not limited to one type of agricultural commodity but included a variety of crops such as chili, corn, eggplant, long beans, tomatoes, cucumbers. However, the main commodities emphasized in the training were chili and corn. The seeds used in this training are various kinds of agricultural seeds used in this training. Such vegetable seeds are of the highest quality, thanks to advanced plant breeding processes supported by cutting-edge technology. This is aimed at increasing agricultural productivity and supporting farmers income growth.

This training has proven to be effective in increasing production yields while simultaneously reducing production costs. According to Septiadi et al., (2021) providing education and training in farming practices to farmers is very important. In this training, the material presented aims to motivate farmers while also providing an understanding of the benefits and ways to utilize cultivation technology and the use of quality seeds. After the material was presented, the activity continued with a discussion to explore the farmers understanding and experiences related to the material provided.

Table 1. General Perception of Participants in Training to Activity Evaluation

No	Question Aspect	Pre-Test			Total (%)	Post-Test			Total (%)	Improvement		
		Don't Know (%)	Know (%)	Very Knowing. (%)		Don't Know (%)	Know (%)	Very Knowing. (%)		Don't Know (%)	Know (%)	Very Knowing. (%)
1	Do you know superior seeds?	0	40	60	100	0	0	100	100	0	-40	+40
2	Do you know how to get superior seeds?	20	30	50	100	0	0	100	100	-20	-30	+50
3	Do you know how to apply superior seeds?	50	50	0	100	0	0	100	100	-50	-50	+100
4	Do you know how to care for superior seeds?	100	0	0	100	0	80	20	100	-100	+80	+20
5	Do you know the success of superior seeds?	20	50	30	100	0	20	80	100	-20	-30	+50
	Average	38	34	28	100	0	20	80	100	-38	-14	52

Description: (-) = Decreased; (+) = Increase

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Table 1 shows that the percentage of participants' knowledge after the activity became 80% with an increase to 52%. This means that there is a good transfer of knowledge from the training activities. During the discussion, several important facts were discovered, such as a decline in production in recent years and the low use of cultivation technology and quality seeds by farmers. This training has had a positive impact and provided benefits to various parties, including farmers as the target of the program and the program implementers. This is in line with the finding Sukmawani et al., (2023) which states that activities like this can make a tangible contribution to improving capacity and the sustainability of farming practices.

Evaluation of Training Results

The final stage conducted was the evaluation of the training on increasing farmers capacity with cultivation technology and the use of quality seeds in Kabangka District Muna Regency. This stage involved assessing the outcomes of the training that had been carried out a few months earlier.




Figure 2. Evaluation of Training Results

According to Nugraeni et al., (2023) the evaluation of community service activities is conducted in two stages. The first stage is the evaluation of activities carried out during the implementation of the service program to ensure the quality of each activity. The second stage is the final evaluation, conducted at the end of the programs implementation month, to assess the overall activities comprehensively.

Activity evaluations are conducted after each activity to ensure the improvement of implementation quality. Additionally, the final evaluation aims to provide an overall picture of the programs success (Setiyarti et al., 2024; Soli et al., 2024; Prasetyawan et al., 2024). Continued monitoring and evaluation are still necessary to ensure that the follow-up plans carried out by training participants proceed according to target, so that all program success indicators can be achieved (Sukmawani et al., 2023).

CONCLUSION AND RECOMMENDATIONS

Conclusion

The training aimed at enhancing farmers capacity through the application of cultivation technology and the use of quality seeds is an effective alternative strategy in supporting farmers' programs to achieve abundant agricultural production. This program has had a positive impact and provided tangible benefits with an increase of 52%, both for the farmers as the target of the program and for the program implementers. The positive impact is clearly evident in the final evaluation stage where the production results achieved were highly satisfactory and brought joy to the farmers. With the support of advanced technology and the use of quality seeds like, this training has proven to increase productivity while boosting farmers income, thus supporting the sustainability of their farming activities.

Recommendations

The results of the training to enhance farmers' capacity through the application of cultivation technology and the use of quality seeds have had a very positive impact and therefore this activity should be extended to other regions especially agricultural areas.

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