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IMPROVING THE QUALITY OF OIL PALM CULTIVATION WITH GOOD AGRICULTURAL PRACTICES (GAP) AND GOOD HANDLING PRACTICES (GHP) FOR SUPPORTING ISPO IN KUALA PESISIR DISTRICT NAGAN RAYA REGENCY

Aswin Nasution[1*], Abdul Latif[2], Bagio[1], Muhammad Jalil[2], Qhisthina Atikah[3], Sri Handayani[1], Akhmad Baihaqi[3], Rusdi Faizin[1]

Agribusiness Study Program, Universitas Teuku Umar, Indonesia[1]
Agrotechnology Study Program, Universitas Teuku Umar, Indonesia[2]
Department of Agribusiness, Universitas Syiah Kuala, Indonesia[3]

*Correspondence: nasution_aswin@utu.ac.id

Abstract

Nagan Raya District, with an area of 52,228 hectares of oil palm plantation with CPO production of 98,620 tons in 2023 (Plantation Office of Nagan Raya District, 2023). These plantations are managed by large companies and smallholders who are members of cooperatives or farmer groups, making it the main economic sector in the area. The development of Nagan Raya's oil palm plantations, continues to increase thanks to the replanting program conducted by the government and the private sector to replace old plants with superior seedlings that are more productive and disease-resistant. The implementation of better agricultural practices, such as Good Agricultural Practices (GAP) and Good Handling Practices (GHP), also plays an important role in improving productivity and crop quality. The training was conducted over two days, on September 10-11, 2024, at the Kuala Pesisir sub-district Vocational Training Center (BLK). The training method included detailed material explanations and discussion sessions. The materials were delivered systematically using real-life examples to facilitate participants' understanding. GAP and GHP training is necessary for farmers in Kuala Pesisir sub-district to improve the productivity and quality of fresh fruit bunches (FFB) and to preserve the environment. The training supports compliance with certification standards such as the Indonesian Sustainable Palm Oil (ISPO), which opens access to global markets and increases the competitiveness of Indonesian palm oil products. The training ensures that all palm oil businesses meet permitted agricultural standards, including sustainable cultivation practices and good environmental management. So that palm oil products are recognized as sustainable and environmentally friendly products in accordance with ISPO standards. In addition, improving the welfare of oil palm farmers will support them in better providing for their families. Prosperous farmers are not only able to fulfill their daily needs but also contribute to the region and country.

Keywords: Oil Palm, GAP and GHP Training, ISPO Certification, Agricultural Sustainability

INTRODUCTION

Oil palm plantations in Aceh cover an area of 247,102 hectares with palm oil (CPO) production reaching 456,427 tons in 2023 (Badan Pusat Statistik Provinsi Aceh 2023). These plantations are spread across various districts such as Aceh Tamiang, West Aceh, North Aceh, and Nagan Raya, contributing significantly to the regional economy by increasing income and creating jobs for the community. In Nagan Raya Regency, the area of oil palm plantations reached 52,228 hectares with CPO production of 98,620 tons in the same year (Dinas Perkebunan Kabupaten Nagan Raya 2023). Plantations in this area are managed by large companies as well as smallholders

who are members of cooperatives or farmer groups, making it one of the main economic sectors in the area.

The development of oil palm plantations in Aceh, including in Nagan Raya, continues to show an increase. The replanting program conducted by the government and private sector to replace old plants with superior seedlings that are more productive and disease-resistant is one of the main factors driving this increase. In addition, the implementation of better agricultural practices, such as Good Agricultural Practices (GAP) and Good Handling Practices (GHP), also plays an important role in increasing the productivity and quality of oil palm yields.

The lack of knowledge and awareness among oil palm smallholders on the importance of implementing GAP and GHP is a serious problem. Many farmers do not yet understand environmentally friendly farming techniques and good yield handling practices, so the level of adoption of these practices is still low, which will have an impact on Fresh Fruit Bunch (FFB) yields (Nasution, Ismiasih, and Dinarti 2023). In addition, not all farmers can participate in GAP and GHP training programs due to several factors, including: the cost of training, and the lack of educational infrastructure hinders the dissemination of necessary information and skills (Susiyo, Darwanto, and Waluyati 2020). This cost burden is a challenge for smallholder farmers with limited resources, hindering the adoption of sustainable practices (Fachrudin, Nearti, and Awaliah 2020). The conditions in the field are still some farmers tend to maintain traditional agricultural practices that they consider easier and cheaper.

Achieving Indonesian Sustainable Palm Oil (ISPO) certification is also one of the main drivers for improving the quality of oil palm plantations in Aceh and Nagan Raya. This certification ensures that agricultural practices comply with nationally and internationally recognized sustainability standards, thereby increasing the competitiveness of palm oil products in the global market. However, there are still regulatory constraints and ISPO certification requires the fulfillment of various strict and sometimes complex requirements. Farmers often face difficulties in fulfilling all administrative and technical requirements, thus requiring intensive assistance to obtain certification (Susiyo, Darwanto, and Waluyati 2020).

Good Agricultural Practices (GAP) and Good Handling Practices (GHP) training is needed so that farmers in Kuala Pesisir sub-district can improve the productivity and quality of their Fresh Fruit Bunches (FFB) while preserving the environment. The training also supports compliance with certification standards such as the Indonesian Sustainable Palm Oil (ISPO), which will ultimately open access to a wider global market and improve the competitiveness of Indonesian palm oil products. With such training, farmers will be better prepared to face challenges in the plantation industry and contribute to long-term environmental and economic sustainability.

LITERATURE REVIEW

(Pahan 2010) emphasizes the importance of soil with a thick solum, light texture, and a pH of around 5-6 and an altitude of 0-500 meters above sea level with rainfall of 2,000-3,000 mm per year. (Mangoensoekarjo and Semangun 2005) state that Podsolik red yellow, Latosol, and Aluvial soils as well as peat soils are suitable for oil palm. (Fauzi et al. 2014) added that oil palm grows well in the tropics between 130 North Latitude and 120 South Latitude. (Sukamto 2008) highlighted that the increase in oil palm production in Indonesia is due to the expansion of planting area, not productivity.

Good Agricultural Practices (GAP) is a set of procedures applied by farmers to ensure environmental, economic and social sustainability in the agricultural process. In the context of oil palm cultivation, GAP includes the safe use of chemicals, wise soil management, efficient water management, and protecting workers. According to (FAO 2021) GAP aims to address environmental, economic and social sustainability in the agricultural process, and produce safe and high-quality products. Good Agricultural Practices (GAP) are applied in controlling the quality of oil palm harvest to improve production efficiency and maintain environmental sustainability.

Through GAP methods, farmers ensure that crop yields meet high quality standards, reduce negative environmental impacts, and improve worker welfare. GAP also supports pest and disease management and efficient resource use. In short, GAP supports the production of sustainable and high-quality oil palm (Trimo and Hidayat 2024). Good Handling Practices (GHP) focuses on post-harvest handling to ensure product quality and safety. In oil palm cultivation, GHP includes proper collection and sorting, proper cleaning and packaging, and safe storage and transportation. (Departemen Pertanian 2020) GAP and GHP provide general guidance in post-harvest handling to produce quality fresh agricultural products that are safe for consumers. Effective implementation of GAP and GHP can help oil palm farmers achieve sustainability standards and improve competitiveness in the global market. The implementation of GHP helps in improving crop quality, reducing losses, and improving the welfare of farmer group members. In addition, it also strengthens the skills and knowledge of farm women in managing their farming businesses more effectively and sustainably (Faradilla et al. 2023).

METHOD

The service activities were carried out for 2 (two) days, namely on Wednesday - Thursday, September 10-11, 2024, which took place at the Kuala Pesisir District Work Training Center (BLK) Building, Nagan Raya Regency. The training method used was to present or explain the material to the participants in detail and followed by a discussion session after the theoretical presentation was completed. In the explanation session, the instructor delivered the material systematically using real and relevant examples to facilitate participants' understanding (Sugiyono 2016); (Arikunto 2010). This approach allows participants to assimilate the concepts taught more deeply.

After the theoretical explanation, participants are given the opportunity to ask questions and actively discuss. This discussion not only clarifies the material that has been presented, but also allows participants to share their experiences and perspectives, creating an interactive and collaborative learning environment (Sugiyono 2016); (Arikunto 2010). This method is very effective because participants can relate theory to real practice and gain a more comprehensive understanding of the topics discussed. Thus, it is expected that participants can apply the knowledge gained during training to the work context (Sugiyono 2016); (Arikunto 2010).

RESULTS AND DISCUSSION

The presentation of GAP training materials provides knowledge and skills to increase oil palm productivity through more efficient and appropriate cultivation practices. This can be done by using organic fertilizers to increase organic matter in the soil, the addition of compost or green manure is highly recommended. Fertilizers should be applied according to recommended rates, and should be applied on time to ensure optimal nutrition for the plants. Pruning is also important to remove unproductive parts of the plant, so that the plant's energy can be directed towards better growth. Weed control should be done by manually removing them without the use of pesticides, to maintain the balance of the ecosystem and reduce the risk of soil pollution. These approaches can support sustainable agricultural practices and improve crop productivity.

The GAP training not only increases farmers' awareness and knowledge of sustainable agricultural practices, but also equips them with the skills to effectively apply these techniques in the field. This training makes farmers more aware of the importance of preserving the environment and able to adopt environmentally friendly farming methods. GAP also covers occupational health and safety aspects, ensuring that farmers work in safe and healthy conditions. Thus, GAP training contributes to the improvement of farmers' quality of life as well as the sustainability of agricultural practices.

Figure 1. Day 1, Good Agricultural Practices (GAP) Training

This training ensures that all palm oil businesses meet permitted agricultural standards, including sustainable cultivation practices and good environmental management. By attending GAP training, farmers can meet ISPO requirements, so that their palm oil products are recognized as sustainable and environmentally friendly. The implementation of Good Agricultural Practices (GAP) through cultivation techniques, farm management, and harvest management has proven to have a significant impact on the income of PT Duta Reka Mandiri in Sungai Dua Village, Rambutan District, Banyuasin Regency. By implementing GAP, the company can improve efficiency at every stage of production, from planting to harvesting (Fachrudin, Nearti, and Awaliah 2020).

On day 2 (two) Thursday, September 11, 2024, the training continued with Good Handling Practices (GHP) in oil palm cultivation. Before cutting ripe fruit bunches, farmers need to first observe the maturity of the fruit on the tree. Ripe oil palm fruits usually change color from green to reddish orange, with the fruits at the end of the bunch changing color first. A bunch is considered ripe when about 5-10 fruits have fallen around the bunch, indicating that the fruit has reached optimal maturity.

Cutting Fresh Fruit Bunches (FFB), cut using dodos for bunches 3-5 years old, or egrek for bunches more than 8 years old. The bunches are cut into V-shapes, so that no stalks are carried into the mill. The loose fruits in the leaf axils and discs are collected and transported to the collection point (TPH) using sacks. The stacking of loose fruits should be done next to the markings and be padded. Bunches and loose fruits should be free from sand, garbage, bunch stalks, and other debris. It is important to avoid defects (such as openings or tears) in the bunches during cutting, transportation to the TPH, and to the truck, to prevent an increase in free fatty acid (ALB) levels. In general, the ALB percentage after cutting is 0.2-0.7%, and if the bunches fall to the ground, this percentage can increase to 0.9-1.0% every 24 hours (Direktorat Jenderal Perkebunan. 2022).

Figure 2. Second day, Good Handling Practices (GHP) training

Good Handling Practices (GHP) and Indonesian Sustainable Palm Oil (ISPO) are interlinked in an effort to improve the quality and sustainability of oil palm production. GHP provides practical guidance for proper post-harvest handling, thereby reducing losses and ensuring the quality of the harvest. By implementing GHP, farmers and companies can fulfill ISPO requirements, which in turn opens up global market access and increases the competitiveness of Indonesian palm oil products (Direktorat Jenderal Perkebunan. 2022).

CLOSING

The implementation of Good Agricultural Practices (GAP) provides farmers with the knowledge and skills to increase oil palm productivity through efficient and appropriate cultivation practices. With the use of organic fertilizers, compost addition, and proper pruning, as well as manual weed control without pesticides, farmers can optimize sustainable farming conditions. The GAP training also emphasizes the importance of occupational health and safety, and increases farmers' awareness of environmentally friendly farming practices. In addition, the application of Good Handling Practices (GHP) in post-harvest handling ensures that the quality of crops remains high and reduces losses, which supports the fulfillment of the Indonesian Sustainable Palm Oil (ISPO) standard. Thus, GAP and GHP training not only improves farmers' quality of life and crop productivity, but also meets sustainability standards and opens global market access for Indonesian palm oil products.

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