

SWEET POTATO CULTIVATION TECHNOLOGY IN BAGS IN SURAU VILLAGE, TABA PENANJUNG, CENTRAL BENGKULU

TEKNOLOGI BUDIDAYA UBI JALAR DALAM KARUNG DI DESA SURAU, TABA PENANJUNG, BENGKULU TENGAH

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ABSTRAK

Pelaksanaan kegiatan pengabdian kepada masyarakat di Desa Surau ini melibatkan civitas akademika termasuk dosen dan mahasiswa pasca sarjana. Implementasi ini dilakukan dalam bentuk ceramah dan diskusi antara tim pengabdian dan warga desa Surau. Pengabdian masyarakat ini terkait dengan kesejahteraan dan ketahanan pangan warga di desa Surau yang perlu ditingkatkan. Penyuluhan dan praktek penanaman ubi jalar dalam karung dilakukan bersama-sama antara tim pengabdian dengan partisipasi ibu-ibu warga Desa Surau. Warga desa surau antusias dan semangat mengikuti kegiatan pembinaan pengabdian yang dilakukan dosen dan mahasiswa pasca sarjana Program Studi Magister Agroekoteknologi. Dalam kegiatan ini tim pengabdian sudah membawa karung yang berisi media tanam dan bibit ubi jalar. Karung yang sudah berisi media tanam dilubangi de beberapa titik yang merepresentasikan jarak tanam kalau ditanam di petakan bedengan. Karung selain sudah dipersiapkan titik titik untuk dilubangi untuk tanam batang ubi jalar juga disediakan lubang yang sudah dipasang botol air mineral yang sudah disiapkan lubang untuk mengalirkan air bila kondisi tidak hujan. Dalam praktek menanam batang ubi jalar ini sangat mudah dan menyenangkan dan bila sudah mulai tumbuh ubi jalarnya dapat digunakan sebagai tanaman hias di halaman eumah warga Desa Surau.

Kata Kunci : pangan, ubi jalar, dalam karung

ABSTRACT

The implementation of community service activities in Surau Village involves the academic community including lecturers and postgraduate students. This implementation was carried out in the form of lectures and discussions between the service team and Surau village residents. This community service is related to the welfare and food security of residents in Surau village which needs to be improved. Counseling and practice of planting sweet potatoes in sacks was carried out jointly between the service team with the participation of mothers from Surau Village. Surau village residents are enthusiastic and enthusiastic about participating in community service development activities carried out by lecturers and postgraduate students from the Agroecotechnology Masters Study Program. In this activity the service team brought sacks containing planting media and sweet potato seeds. The sack containing the planting medium is perforated at several points which represent the distance between the plants when planted in the raised bed. In addition to having holes prepared at points for planting sweet potato stems, the sacks are also provided with holes in which mineral water bottles have been installed and holes have been prepared to drain the water if conditions are not rainy. In practice, planting sweet potato stems is very easy and fun and when the sweet potatoes start to grow they can be used as ornamental plants in the yards of the residents of Surau Village.

Keywords: food, sweet potatoes, in sacks

INTRODUCTION

Surau is a village located on the slopes of the Kepahyang hills, precisely in Taba Penanjung District, Central Bengkulu Regency, Bengkulu Province, Indonesia. According to the 2020 Bangun Village Index (IDM), Surau Village is included in the disadvantaged village category. In terms of tourism, this village is listed as a tourist village that is still in the development stage. Known as the oldest village in Central Bengkulu, Surau is inhabited by the Rejang Tribe, one of the oldest ethnic groups on the island of Sumatra. The civilization of the Rejang people is more advanced than other communities, which is proven by the existence of independent community government and customary laws that are respected by the population. The progress of this civilization is also reflected in the fact that the Rejang tribe has its own script, namely the kaganga script, as a medium of communication (Darubekti and Hanum, 2022; Pasca, 2023). The tourism potential in this village includes Blue Lake, Silver Bridge, White

Napal Hill, Hot Water, Waterfall, and Lubuk V. However, in the development process, this village faces various obstacles and challenges, such as the community's low vision of tourism, lack of interest and public awareness, as well as limited resource and workforce capacity. Obstacles in developing tourist villages often come from within the village itself, including the village superstructure such as the government and tourist package regulations that are not attractive enough (Darubekti and Hanum, 2022; Pasca, 2023). Surau Village is one of the villages located in the Taha Penanjung District area, Central Bengkulu Regency. Administratively, this village has the following territorial boundaries: to the west it is bordered by Bajak 1 Village, to the east by Rindu Hati Village, to the south by Kota Nur Village, and to the north by Taha Barn Village. The area of Surau Village reaches 1212 Ha, consisting of 15% residential areas, 50% land used for agriculture, and 35% empty land that has not been managed. Like other tropical areas, Surau Village experiences two seasons every year, namely the dry season and the rainy season. The average rainfall during the rainy season is higher than the dry season, this is due to its proximity to the equator and proximity to the protected forests of Bukit Barisan and Bukit Sunur (BPS, 2010).

The distance between the city center and the district capital can be reached by land, a distance of approximately 25 km. The condition of the road infrastructure in the village is still under construction, so it can be traversed by motor vehicle in around 30 minutes, while the distance from the village center to the sub-district capital is approximately 2 km. Surau Village is an area that has potential for rice fields, oil palm and rubber activities. This is supported by geographical conditions and attractive fertile soil types (Darubekti and Hanum, 2022). Support from the regional government for the development of community plantation cultivation was realized by establishing the Surau village area as part of the plantation land development area. Surau village has a population of 725 people, consisting of 350 men, 375 women, and 175 heads of families divided into 3 hamlet areas (Pasca, 2023).

Sweet potato (*Ipomoeae Batatas*) has another name: Sele bun, sweet potato or sweet potato is a type of tuber that has many advantages compared to other tubers, including containing carbohydrates and high energy which is able to restore energy quickly, as well as several very important substances (Suparman, 2006; Rosidah, 2014).

Fathonah, et al. 2022, states that a yard is an open area around a residence. Utilizing yard land can provide benefits for family life, such as as a source of food. A large yard provides more freedom for planting. If you have a large yard, several ways you can do this include planting directly in the ground (beds), which can also be combined with the use of pots, polybags and verticulture. Meanwhile, in a narrow yard, an alternative that can be done is to use planting media such as pots, polybags and verticulture (Suparman. 2006; Slamet et al. 2023). Cultivating sweet potatoes in sacks is one solution for providing food for families in limited or narrow yard space.

Activity Objectives: This activity aims to: Provide alternative food to meet the family's carbohydrate source needs, Utilize yard land for agriculture

Benefits of Activities

Through this service activity, it is hoped that the people of Surau Village can understand how to make optimal use of their yard land by cultivating alternative food, such as cultivating sweet potatoes in sacks, to provide practical food in their yard land..

LITERATURE REVIEW

Sweet potatoes are a plant food ingredient that is very well known in Indonesia. With its sweet taste and filling ability, sweet potatoes are widely consumed and processed into various types of creative food (Fathonah, et al. 2022 and Suparman, 2006; Widowati, 2011). Market demand for sweet potato stocks remains stable (Ranhmannisa, et al., 2011). Therefore, many people started growing sweet potatoes, both for personal consumption and for sale. There are various methods and methods for planting sweet potatoes (Kumiawan, et al., 2011). Some people choose to plant it in open land, usually on a large scale, while others plant it in sacks, especially on limited land (Suparman, 2006). Sweet potatoes are a plant food ingredient that is very well known in Indonesia. With its sweet taste and filling ability, sweet potatoes are widely

consumed and processed into various types of creative food (Pratiwi, 2020, and Suparman, 2006; Widowati, 2011). Market demand for sweet potato stocks remains stable (Ranhmannisa et al., 2011). Therefore, many people started growing sweet potatoes, both for personal consumption and for sale. There are various methods and methods for planting sweet potatoes. Some people choose to plant it in open land, usually on a large scale, while others plant it in sacks, especially on limited land (Suparman, 2006).

Intensification efforts that can be made to increase sweet potato production are through intensification, namely by using superior seeds and improving the management of sweet potato farming businesses through the application of balanced fertilizer with the right dose, time and method according to the conditions and chemical properties of the local soil (Suparman, 2006; Sasongko, 2009). Recently, cultivating sweet potatoes in sacks has become increasingly popular in the urban farming cultivation system, which utilizes narrow land in urban housing (Dewi and Sutrisno; 2017). Techniques and methods for planting sweet potatoes in sacks are not only practical, but it also provides benefits for growers who can produce their own sweet potatoes without having to buy them. These sweet potatoes can be used for personal consumption or sold as additional family income (Fajriani, et al. 2012).

Dewi and Sutrisno. 2017; Suparman 2006, stated that the most efficient and practical method for cultivating sweet potatoes is through the stems. Healthy quality seeds with large and numerous tubers can be used as a source of seeds. Cut several stems, each 15 cm long, and adjust the number of seeds to the number of sacks, because each sack can hold 2-4 sweet potato seeds. Collect and tie all the seeds then place them in a shady area and not exposed to direct sunlight. Water the seedlings regularly every morning and let all the leaves fall so that new leaves can grow. After one week, the seeds are ready to be planted in sack media.

Maintaining Sweet Potato Plants

Watering can be done once every 7 days or according to soil moisture. Don't water sweet potato plants too often which will trigger the growth of pathogenic fungi which can cause scab (scab) on sweet potato plants, especially the tubers (Dewi and Sutrisno. 2017; Suparman, 2006)

Weeding is enough to do once a month or longer by weeding out weeds that grow in the media. Sweet potato plants will usually start to grow tubers after 1.5 months after planting, that's when fertilizer is given to enlarge the tubers. (Dewi and Sutrisno. 2017; Suparman, 2006).

According to Ranhmannisa, et.al. 2011; Aini, et al, 2022, sweet potato plants have resistance to disease and pests. This plant does not die immediately if attacked by pests or disease. However, pest and disease attacks on sweet potato plants can reduce production yields (Pests and diseases that attack sweet potatoes include pathogenic fungi (which cause scab), worms (which damage the tubers and cause them to rot), and worms (which also damage the tubers). and cause it to rot). Control of pathogenic fungi can be done by using sprinkled fungicides mixed with the soil when planting seeds. Another method is to spray and apply fungicide Sow/furadan insecticide is used mixed with soil when planting seeds.

Sweet potatoes can be harvested 3.5 - 4.5 months after planting (depending on the variety). The ideal time to harvest is 4 months after planting, when the tubers are at their peak of tenderness and sweetness. The harvesting process is carried out by removing the tubers (Slamet. et al. 2023)

METHODS AND IMPLEMENTATION

Community service with the theme "Efforts to Fulfill Family Food through Sweet Potato Cultivation Technology in Sacks will be carried out in Surau Village, Taba Penanjung District, Central Bengkulu Regency, in the period September to December 2024. This activity involves students from the Agroecotechnology Masters Study Program as a form of teaching in transfer technology to the community before they go directly into society. Students participate fully and are given responsibility for carrying out service activities.

The materials used in this study included 40 sacks of manure, N, P, and K fertilizer, sand, 40 40 kg sacks, sweet potato seeds of various varieties, furadan, banners, and props. The tools used include hoes, machetes, kored, and others.

The target audience for this service activity is housewives who are members of the Tunas Harapan Group who will later develop a sweet potato processing agribusiness with economic value as an additional family income.

Devotion Method

The service approach chosen is counseling supported by visuals using an LCD screen/in focus to convey material topics. After that, the activity continued with a question and answer session and making a damp plot in one of the local residents' yards. Delivery of the material takes place through lectures equipped with pictures/visuals about urban farming and how to make maximum use of yard space for alternative food cultivation that is easy to do on limited land. Next, the activity continued with making damp plots and demonstrating how to plant sweet potatoes in sacks using materials and tools that had been prepared previously.

RESULTS AND DISCUSSION

Implementation of service activities

"The first work step taken was to equalize perceptions between the service team and the village head, village secretary and surau village residents in planting and placing sweet potatoes (*Ipomoea batatas* L.)." The next work step is to make holes in the sacks where the sweet potato stems are to take measurements. The picture above shows the service team carrying out plot measurements in collaboration with partners in determining the appropriate layout (this information was obtained after the first survey). The service team inspects the location that will be used to place sweet potatoes to decorate the yards of the residents of Surau Hamlet. The team and residents helped each other in planting sweet potatoes in sacks. The Community Service Team showed surau village residents how to plant sweet potatoes in sacks



Figure 1. The Service Team gave an example of planting sweet potato stems in sacks that already contained planting media in the form of sandy soil mixed with manure



Figur 2. The Community Service Team distributed sacks to residents to develop sweet potatoes in sacks on their own initiative



Figur 3. During the monitoring and evaluation team, the monitoring and evaluation team reviewed the condition of the sweet potato plants in sacks and they were growing well

CONCLUSION

1. The residents of Surau village have been motivated to plant sweet potatoes in sacks.
2. The village residents' yards are made more beautiful by the presence of falam sack sweet potato plants that decorate their yards.
3. Residents of Surau Village understand the benefits of sweet potatoes, apart from being food, they are also useful for their health in preventing diabetes mellitus.
4. Surau Village officials are more aware of the benefits of sweet potato plants.

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