

EMPOWERING THE PONCOREJO VILLAGE COMMUNITY THROUGH HYDROPONIC TRAINING & FRIED ONION MSME DEVELOPMENT IN PONCOREJO VILLAGE

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Abstract – *Community service is a step that every student in higher education must go through. Including UIN Sunan Kalijaga students who carry out community service from July to August 2023 in places chosen by each student located throughout Java. Poncorejo Village, which is located in Gemuh District, Kendal Regency, Central Java, as one of these locations has natural potential that can increase the level of prosperity and welfare of the village, for example agricultural products in the form of tobacco, corn and shallots. The background of this research is to utilize natural potential as fully as possible and develop an entrepreneurial spirit and community skills. The research, which was carried out with the aim of developing existing types of agricultural commodities with not too large capital, was applied in hydroponic vegetable cultivation and the development of fried onion entrepreneurship. This research, which uses descriptive qualitative research methods and the ABCD concept, has shown that hydroponic education is able to provide affordable agricultural alternatives for the community, while the development of fried onion MSMEs is able to improve the entrepreneurial spirit and economy of the residents of Poncorejo Village.*

Keywords: *Hydroponic, Fried Onion, Natural Resources*

1. INTRODUCTION

Community service or often referred to as KKN (Real Work College) is a step that every student in college must go through. Including UIN Sunan Kalijaga students who carry out community service from July to August 2023 in places chosen by each student located throughout Java. One of the community service locations is located in Poncorejo Village, Gemuh District, Kendal Regency, Central Java. Poncorejo has a lot of natural potential which can increase the level of prosperity and welfare of the village. Poncorejo Village is located in the lowland which tends to have a large enough land area for use by its inhabitants.

Based on these natural conditions, the majority of the livelihoods of the Poncorejo village community are farmers, followed by laborers, traders, and entrepreneurs. As a village with the majority of the population as farmers, Poncorejo Village produces agricultural commodities in the form of tobacco, shallots, corn, and others. The types of plants planted can vary adjust the weather conditions dry season or rainy season. Even so, the weather did not become a barrier for farmers to continue farming in the fields. In accordance with the results of observations and brief interviews with farmers, one of their problems is the difficulty in procuring fertilizers as well as the use of pesticides due to the increasingly expensive price of fertilizers and pesticides to repel pests. After further analysis, the high cost of fertilizer was also due to the lack of livestock in Poncorejo village whose manure could be used to make compost. This is a concern for all members of the KKN team, so that a solution is sought for this problem in the form of training in hydroponic vegetable planting as a substitute for expensive fertilizers.

Training on hydroponic vegetable planting has also been carried out in other places, one of which is in Sumberdadi Village, Tulungagung Regency, East Java as an effort to utilize the potential of surrounding yard land and the high costs of managing large-scale farming by Nugraha (2019). Vegetable planting training with the hydroponic system is expected to be an alternative to agriculture in Poncorejo Village, especially if the prices of fertilizers and pesticides are getting more expensive because with hydroponics farming efforts will be cheaper, easier, and do not require such a large area of land. Furthermore, at a later date when it has entered the harvest season, these vegetables can be directly marketed to distributors to be resold or sold slim to the nearest stores.

The concept of selling vegetables, as explained in the previous paragraph, has also become a topic of concern among residents. Because after further investigation, agricultural products that are directly marketed make residents, especially mothers and young women, less skilled in processing agricultural products to become more useful and have more selling values.

This became one of the problems that the KKN students solved as much as possible, where it was decided to develop these agricultural products

into an MSME. The MSMEs that will be developed are shallots processed into fried onions, as has been done by Prayoga *et al.*, (2023) where the business of developing fried onion MSME is carried out in Cikaso Village, Kuningan Regency with fried onion business actors already being found but many deficiencies in terms of raw material processing. Unlike the fried onion SMEs in Poncorejo which started from the initial stage, the potential for selling fried onions will increase the number of SMEs in Poncorejo Village, because the production of onion every year is always abundant compared to other agricultural products and the manufacturing process is not too difficult.

Fried onion SMEs, which were originally produced from shallots and then processed into fried onions, is expected to be an effort to increase the skills and activities of mothers and young women in utilizing their free time. Besides that, it can also improve marketing capabilities online considering that currently technological developments are also very rapid, so that sales of a product are not only marketed directly by word of mouth but also through technological intermediaries. With the production of fried onions, red onions which were previously only sold directly to distributors in markets or nearby stalls can be marketed more widely across provinces or even countries.

Based on the potential agricultural products of Poncorejo Village which are dominated by tobacco, shallots and corn, community empowerment by holding counseling on hydroponic system vegetable planting and the development of MSME fried onions is the focus of KKN students in community service efforts for 45 days. It is hoped that the existence of these two types of activities will be able to foster interest and attention from the community to continue these activities on an ongoing basis in order to make the most of the natural potential that exists in Poncorejo Village to the fullest.

2. METHOD

The research method used in this community service and empowerment effort uses a qualitative research method with a descriptive approach. As explained by Afrizal (2014), qualitative research takes the form of collecting and analyzing data in the form of words and actions from the individuals studied and the researchers themselves. The data obtained was taken using data collection methods in the form of direct observation of residents' agricultural activities as well as unstructured interviews with all farmers in Poncorejo Village. Apart from using qualitative research methods, the hydroponic extension activities and fried onion MSMEs are also structured based on the ABCD (*asset based community-driven development*) concept. According to Yuwana (2022), the ABCD concept is defined as an effort to empower the community, which makes the potential assets or resources of a place able to be developed in associations in society. These potential assets can be in the form of natural resources or human resources. In this article,

which takes place in Poncorejo Village, natural potential is taken as the main focus; the stages consist of four parts, namely:

- a. planning stage, contains the planning of activities to be carried out along with the objectives and implementation of the activities
- b. the socialization stage to the community, contains the delivery of activities to be carried out to the community, especially farmers, youth, and housewives
- c. the activity implementation stage, contains the implementation of activities in the form of counseling on hydroponic system vegetable planting and assistance for the development of fried onion SMEs in the form of a short seminar followed by discussion and question and answer session
- d. activity evaluation, contains discussions between activity implementers regarding what needs to be improved after the activity is carried out

3. RESULTS AND DISCUSSION

Based on the method that has been done, the results obtained are: implementation of hydroponic system vegetable planting extension activities and the development of fried onion MSMEs which lasted for two weeks in different week periods. In this hydroponic system vegetable planting counseling activity consists of two series of activities. The first activity starts from the second week of July to the first week of August. This activity was in the form of an experiment of planting vegetables independently by all KKN participants using two types of systems, namely the wick system and the DFT (*deep flow technique*) system.

The wick system, which is the simplest method, uses tools in the form of used drink bottles (glass or ½ liter size), jars, plastic cething, styrofoam, basins or buckets, scissors/ cutters, knives, rockwool, and trays which can be easily found around the place where we live in. Meanwhile, the DFT system uses PVC pipes, net pots, water aerators, buckets and hoses which can be obtained by purchasing a set of DFT tools and then assembling them yourself. Then the materials needed are vegetable seeds (eg lettuce, pakcoy, shallots, and kale), water, and AB mix nutrition. The hydroponic system vegetable planting experiment was carried out for a month, starting from planting the seeds in the first planting medium, namely rockwool, watering regularly every morning and evening, transferring the seeds to the planting medium in used drink bottles after they were 10-14 days old, providing AB mix nutrition, looking after them. Temperature and humidity of vegetables that must be exposed to sufficient sunlight every day. The process lasts for approximately one month to get results in the form of vegetables that thrive and are ready to be harvested.

Then in the DFT system which uses PVC pipes as a planting site, water and nutrients flow through pipes originating from water reservoirs with the help of water pumps so that they require the help of electric power. Plant the seeds in a net pot placed on a PVC pipe that has been perforated. Just like the wick system, the DFT system requires approximately 1 month to wait for the vegetable harvest. Furthermore, after one month of experimenting with hydroponic vegetable planting, outreach is planned for the first week of August in the form of outreach to farmer groups, young people, and design staff regarding hydroponic vegetable planting.

The counseling was socialized through the hamlet heads and farmer groups. The event began with the delivery of hydroponic material by two KKN participants who were quite proficient in this field. Before delivering the material, the presenter prepares reading material for the counseling participants to facilitate the participants' understanding. The reading material is made in the form of a brochure consisting of a brief introduction to hydroponics, all the advantages of hydroponics, the types of hydroponics that will be applied to counseling, along with the material tools and steps for making it to its implementation.

The second activity is the development of fried onion SMEs which consists of two series of activities namely fried onion entrepreneurship seminars and assistance to fried onion SMEs in Poncorejo Village. The entrepreneurship seminar and mentoring were conducted on the same day, namely the second week of August. Before the seminar was held, the KKN participants tried to make fried onions to be used as testers on the day of implementation. The experiment took one week. The result is fried onions in various types of preparation methods. The experiment in making fried onions was carried out to estimate the initial production capital of fried onion MSMEs. The targets of this fried onion MSME are housewives, PKK mothers, and young women from Poncorejo Village.

The activity, which began with an entrepreneurship seminar, included the delivery of material about fried onion MSMEs from red onions produced in Poncorejo Village, delivered by two KKN participants who understand this field using power point media. Furthermore, the material explained contains the management structure of fried onion MSMEs which needs to be created to facilitate communication and coordination for each resident who will produce fried onions in large enough quantities. The final material presented was about the amount of production costs that need to be incurred in making fried onions on a large scale considering that this is in a village.

It should be remembered that before starting a business, a SWOT analysis is required which consists of *strengths* in the form of the strengths or advantages of the business, *weaknesses* in the form of shortcomings of the business compared to other businesses, *opportunities* consist of opportunities that can be generated from the business, and finally, *treath* in the form of

threats. of the business when compared with other similar businesses. This analysis has also been carried out by KKN participants and conveyed to participants so that they know the pros and cons of fried onion MSMEs in Poncorejo Village.

Seeing that the enthusiasm of the participants was very high after the entrepreneurship seminar was finished, they immediately continued with the practice of making fried onions. The practice of making fried onions consists of five main stages which are demonstrated directly, namely:

1. Peel, wash the shallots then slice the shallots using a shallot cutter so that the thickness you get is the same pieces, place them on a tray to sprinkle with salt, so that the resulting fried onions have a savory taste, not just bland or bitter
2. Fry the shallots using coconut oil over low heat, fry until golden
3. Drain the fried onions using fried onion slicer until all the oil is gone
4. Pack the fried onions that have been drained, wait 5 minutes after they are drained, pack them using a standing pouch or small jar to increase the selling value and durability of the fried onions
5. Attach the fried onion logo sticker and it is ready to be marketed

After the practice, it was continued with an explanation regarding assistance for fried onion MSMEs from the stage of creating product names, logo design, marketing on social media which will be assisted online by KKN students. The seminar was then given to the participants as product samples and the creation of the MSME management structure was handed over to the PKK of Poncorejo Village to be shared with the selection independently. The advantages of starting a fried onion MSME include maximizing the use of shallots with a higher selling value, high market demand for snack products, especially fried onions as a complementary ingredient that must be included in every heavy meal, quite promising profits, and increased production skills. to marketing from the residents of Poncorejo Village. This is also a factor in the high interest of residents in developing fried onion MSMEs further.

4. CONCLUSION

Based on the problems to the results and discussion that have been previously described, it can be concluded that the hydroponic system

vegetable planting extension activities and the development of fried onion MSMEs in the village Poncorejo ran quite smoothly and received quite high enthusiasm from the local residents. By utilizing the natural potential of Poncorejo Village, it is able to produce a series of activities that are useful for improving the skills and welfare of the residents of Poncorejo Village.

Even so, the activities carried out by the KKN students still have many shortcomings so it is recommended that in the future village officials continue to monitor hydroponics and fried onion MSMEs by residents, and also maintain good communication between KKN students and the village to monitor the sustainability of these two activities. So that it continues in a conducive manner.

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