

Ergonomic Park Erving Tools in Banyuurip Village Kedamean District

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Abstract

One of the factors that influence on plant development is watering. Watering is an indispensable thing in keeping and caring for the plants to thrive. In Banyuurip Village, the entrepreneurs are still doing manual methods by using a water hose that is considered to be time consuming and less efficient. Adequate water demand is one of the most important things. If this is not addressed then it will be fatal for the development of the crop itself. The results of the work program organized by the Group 6 Industrial Engineering course by implementing an ergonomic garden sprinkler application can assist entrepreneurs in shortening time and more efficiently. It is recommended that ornamental garden or gardening equipment can be applied by all entrepreneurs of ornamental plants, and also the village government should be able to conduct an in-depth review so as to provide progress and mutual benefit for both community and government.

Keywords: farmers, ornamental plants, watering, ergonomic

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Introduction

In our daily lives, a system with very complex planning is needed to facilitate and assist people in life. If the system can be shaken with an integrated control, it will have a major impact on humans to be able to create and think of a form of control that will help them more efficiently.

Currently in the current era of globalization we are not separated from the development and technology. Therefore we must be able to master and follow the development of technology. Ease and efficient time and workforce today, a major consideration of human activities in doing. We are faced with technological developments from time to time so rapidly, therefore we are trying to make ergonomic garden watering equipment, so that makes human work easier. Where the tool we use as ergonomic garden watering is a butterfly sprinkler.

In the national economic development, Micro Small and Medium Enterprises (MSMEs) have a strategic role. Therefore, in addition to play a role in economic growth and employment, but also play a role in the distribution of development results. In order to grow more competitive with other economic actors, the development of SMEs need to

get a great attention both from society and government. The policy of the government in the future also needs to be made more conducive to the growth and development of UMKM.

The current business model has started a lot. Starting from the type of mainstream to online business with the model was already diverse. Some of these businesses also do not last long because they do not have good prospects or only seasonal business, but many also last long. Of the many business options that are in circulation, in fact very many businesses are very profitable and have a bright prospect. But unfortunately the limited information available and the lack of initiative of young entrepreneurs, so that business opportunities will be a dead ball. Called the ball off because as in football, the ball is in the right position or good to be kicked but unfortunately there is no right executor to take the opportunity.

Creative, unyielding and market-oriented endeavors are indispensable in increasing income in times of economic crisis. In addition, the business is also expected to provide job opportunities for potential workers whose numbers are very abundant today. Therefore the effort is easy and simple to glimpse and develop, for

example ornamental plants business. Not only in terms of marketing, ornamental plants can also be seen from the way of monitoring and care of the plant is quite easy to do with watering as well as perawatan or special treatment in plants. Especially the stage ornamental plants that currently have many new varieties that appear, and will increasingly attract the ornamental plant enthusiasts especially ornamental plants sold are usually used as decoration around the home page.

Watering is one of the most influencing factors on plant development. In keeping and caring for the plants to grow fertile, there is one thing that can not be released that is watering. In addition, the water requirement is also one of the most important things. From some of these things if not paid attention will be fatal for the development of the plant itself. Factors of temperature, humidity, the need for water, irradiation or intensity of light used and others, are the factors that influence in the development of the cultivation of these plants.

Therefore, this year community engagement program (KKN) program is expected to help government programs one of them in carrying out development, in this case the role of students is expected to explore and motivate and empower all the potential of the village in welcoming the Regional Autonomy so as to realize the development of quality and responsive village.

The people of Banyuurip Village number around \pm 6,829 people. Most of the livelihoods of Banyuurip Village are ornamental planters, besides traders and civil servants. In Banyuurip Village there are potential businesses to be developed one of them is an ornamental plant.

One of the SMEs active and growing ie SMEs ornamental garden farmers. The sale of ornamental plants is able to penetrate to all of Indonesia. In the process of gardening or decorative plant is done by using a manual water hose and with the extent of agricultural land it takes a lot of time to water the area of the park. The reason is that we take the initiative to make ergonomic garden watering tools.

Problem Formulation

From the above description can be formulated problems that occur in Micro Small and Medium Enterprises (MSMEs) that exist in the Village Banyuurip include:

- Manually is often forgotten or lazy to treat and water plants or garden.
- Assist in treating and watering plants or garden.
- Lack of expertise or knowledge with the setting of the watering system.
- The absence of information on the application of ergonomic plant or garden watering.

From the description above, KKN team group of 6 from Industrial department want to implement the ergonomic park penyimman to entrepreneurs SMEs ornamental plants, so that entrepreneurs can be helped by the existence of this ergonomic garden watering.

Writing purpose

The purpose of the author chose this title is:

- Make ergonomic garden or garden flushing tools.
- Facilitate humans in treating and watering plants or garden.

Restricting the problem

Given the wide range of issues related to this writing, the author will only discuss about:

- Making this tool using a butterfly sprinkler.
- This tool works not automatically.
- This tool is applied to open space.

Activity Method

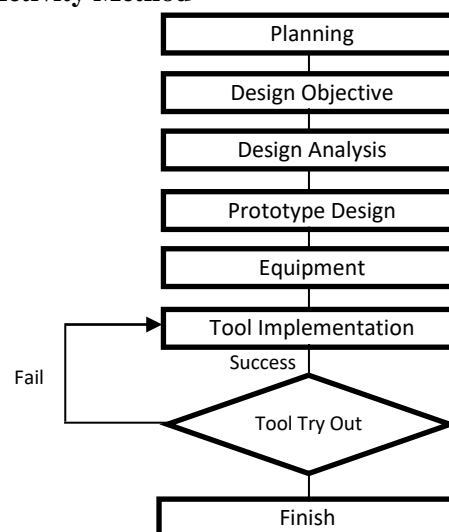


Figure 1 Flowchart Design

Objective

It is hoped that the study can help ergonomic farmers to water their plants more effectively.

Advantages

Increase farmers horizon on how to manage ergonomic plants more efficiently.

Target

All ergonomic farmers in Banyuurip Village.

Participants

Ergonomic owners and farmers.

Activity

Implementation of Ergonomic Park Erving Tools in Banyuurip Village Kedamean District.

Evaluation

Response from participants, discussion, strategy ergonomic park Erving.

Methods of activities of Group 6 KKN Program of Industrial Engineering in the preparation of reports KKN in Banyuurip Village is in the form of Application of Ergonomic Garden Watering Equipment

The target of this program is the entrepreneurs ornamental plants in the Village Banyuurip. To carry out this activity well and directed then the method of activities carried out and designed systematically. The steps that must be prepared is:

Prepare materials for ergonomic garden watering tools such as:

- Butterfly Sprinkler
- PVC Pipe $\frac{3}{4}$
- PVC pipe connection
- Stop the faucet
- PVC pipe glue
- Water pump



Figure 2 Butterfly Sprinkler

Then the assembly stage of the garden or plant sprinkler is the following paragraph:

- First, prepare all the tools and materials like him over.
- Cut the pipe to the specified size.

- Connect the pipe pieces vertically and horizontally by using glue and connect the pipe according to the applied pattern.
- Place the sprinkler on the end of the pipe that is mounted vertically.
- Then connect the end of the pipe mounted horizontally to the water pump, to reinforce the use of glue on the pipe connection and the water pump.
- Garden watering tools ready for application

Implementation of Ergonomic Garden Watering Equipment in Banyuurip Village Kedamean Sub District.

Method

To arrange this work program, writer use method as follows:

- a. Literature
Read books and look for references to international journals and articles relating to garden or garden flushing tools.
- b. Interview
Conduct consultations related to titles taken with field supervisors.
- c. Question and answer with the entrepreneur of ornamental plants.

Time and place

This work program is the first implementation in Banyuurip Village by holding a socialization at Balai Desa Banyuurip in order to align their thinking and understanding of the ergonomic garden watering tools.

- a. Setting up ergonomic garden watering tools at Banyuurip village is done on:
 - Day : Tuesday
 - Date : 8 Agustus 2017
 - Hour : 09.00 – 12.00 WIB
 - Place : Banyuurip Village Hall
- b. Installation of ergonomic garden tools carried on:
 - Day : Wednesday – Monday
 - Date : 9 - 18 Agustus 2017
 - Hour : 09.00 – 12.00 WIB
 - Place : Balai Desa Banyuurip

Solution to the problem

Currently in the village of Banyuurip there are still many ornamental plant entrepreneurs who have not applied ergonomic garden watering tools, due to lack of knowledge and information received by the ornamental plant entrepreneurs. Implementation of this tool can help to facilitate the entrepreneurs of ornamental plants in the village of Banyuurip in the watering of plants.

Not only that the ornamental plant entrepreneurs are also still many who do not know the benefits of the can from using gardening equipment or plants that are ergonomic.

Here are the advantages:

- a. Simplify work when watering.
- b. Shorten the watering time.

Many SMEs in the village of Banyuurip who still do not know the watering plants or ergonomic garden, the Team KKN group 6 Prodi Industrial Engineering provides an understanding of ergonomic garden watering tools.

Analytical steps taken:

- a. Conducting a field survey on MSMEs in the ornamental plant entrepreneurs.
- b. Analyzing the constraints faced by SMEs in the application of garden watering tools.
- c. Process the data and make a conclusion thoroughly based on the data obtained.

Result and Discussion

Work Program Results

The results of the work program held by Industrial Engineering program group 6 by implementing the ergonomic garden watering equipment.



Figure 3 Sprinkler Watering Process

Before implementing the application of ergonomic garden watering equipment, the first thing to do is to socialize to the local people, then do the measurement and the right place pemilihah. After that prepare the necessary items to make the watering equipment

Discussion

Results and discussion of the work program organized by the 6th Industrial Engineering Study Program with the application of ergonomic garden sprinkling equipment in Banyuurip Village Kedamean District is.

Based on the data collected by KKN Team of Group 6 of Industrial Engineering shows that in Banyuurip Village there are ornamental plant entrepreneurs, where the entrepreneurs do watering manually by using water hose or scoop which is more time consuming and less efficient. The hatcher of the plant by using a water hose or scoop is done in the morning and afternoon and takes \pm 1 hour on each watering. In addition, the water used becomes more. After the ergonomic garden watering tool entrepreneurs can be helped in shorten the time and more efficient because the reach obtained from the tool reaches 2 to 3 meters, and of course can save more water. It also can help the ornamental plant entrepreneurs in the care of ornamental plants or garden.

Conclusion and Recommendation

Conclusion

Based on the discussions of the KKN team of Industrial Engineering Study Program and the interviews of the business actors of ornamental plants, it was found that the watering of ornamental plants or garden by the manager of SMEs in Banyuurip village is still done by manual watering by using the hose and of course need water and long time. After the plant watering or garden equipment the ornamental plant entrepreneurs feel very helpful in doing the treatment, especially in the watering of ornamental plants. In addition the range obtained from the tool reaches 2 to 3 meters, and certainly can save more water.

Suggestion

For the future, ornamental garden or garden flowering equipment can be applied by all entrepreneurs ornamental plants. And also the village government should be able to review mendlam against local SMEs so as to provide progress and mutual benefit for both local communities and for government.

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