



Handy Spade

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Matthayom Suksa 5

Presented to

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ABSTRACT

From research on Handy Spade was weeding, reduced the occurrence of weeds and maintained soil fertility.

The purposes were to 1) apply knowledge from agriculture and industry.

2) use weeding and maintained soil fertility.

3) educate about weeds and soil.

The population of 150 people are the residents of Pearch Suan Community in Muang District , Sisaket Province. And the sample group of 10 people are the residents of Pearch Suan community in Muang District, Sisaket Province by simple randomness.

The research instruments was a satisfaction test of Handy Spade. The basic statistics used in this research is mean.

From the results of the research we found sample group be satisfied to handy spade. Overall in high-level of satisfaction (\bar{X} = 4.20). There was satisfaction rating in 7 areas. 5) The product can be used practically In daily life (\bar{X} =4.50). 7) The product can be developed further (\bar{X} =4.40). 1) The product can eliminate weeds and treat topsoil (\bar{X} =4.20). 2) The product saves a lot of in used (\bar{X} =4.20). 6) The product was very comfortable to use (\bar{X} =4.10). 4) The product was durable for a long term to use (\bar{X} =3.90).

Keyword : Handy Spade , weeds , soil

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So to sum it up the results of the research sample group over or in high level of satisfaction to used handy spade that was eliminate weeds and treat topsoil fo above purpose.

Keyword : Handy Spade , weeds , soil

Introduction

Since at present in Thailand there was cultivate of vegetables and fruits. Because they were important to human beings in daily life. It may be intended to be cultivated for eating, family, community, cost reduction or a system for earning extra income and a primary income. The farmers or villagers in each area would grow different vegetables in the garden. Depending on weather conditions, soil. But the most common problem faced is that weeds grow in field plants interfere with the growth of agricultural products. Causing some plants to not grow fully or some plants did not grow at all and experiencing the problem of weeds. Some areas were more common Some areas less found. Each area had a different weed problem. Depending on the area of agriculture common weeds for example, Globe amaranth, Shame-plant and Goose grass etc. Brought about life and economic problems making it had to rely on production factors such as chemical fertilizers, pesticides. For productivity goals. In addition, the occurrence of weeds was influenced by environmental changes. Results in a change in the balance of nature. Observe the occurrence of weeds from the cultivation of the farmers' vegetable garden in Sisaket province. Most of them were grown in many types of plants, such as Holy basil and Marsh Mint etc. There was weeding and soil preparation. Pearch Suan community in Muang District, Sisaket Province. It was another community that has faced the problem of weeds. But the most of the community still has the method of growing vegetables in the area of the house or the fence.

The organizers observed the growth of weeds and weeding before planting vegetables in Pearch Suan community, Muang District, Sisaket Province. The organizers realized the problem and invented “ **Handy Spade** ”. For the purpose of applied knowledge of agriculture and industry to benefit. And the product was also suitable for agriculturist.

Purpose of the study

1. Apply knowledge from agriculture and industry.
2. Use weeding and maintained soil fertility.
3. Educate about weeds and soil.

Expected benefits

1. The material is durable and can be used in the long term.
2. The material is convenient and easy to use.
3. The material is reusable and can make of unwanted objects.

Scope of study

This research has set the scope of the study as follow.

1. Population

The residents of Si Saket Pearch Suan Community, they are 150 people in total.

2. Sample group

The residents of Si Saket Pearch Suan Community selected 10 people by using a simple random sampling approach.

3. Time

The period of this research is from 22 August - 11 November 2020.

Methods

Started from assign topic. Problem survey found in community , found that the problems in agriculture and the environment. Choose the most interesting topic for the purpose to find answers. Learn problem solving thinking. Designate title. 6 member meet adviser and plan. Listen to opinions and edit, write down the importance and derivation, objective, hypothesis research scope benefit and learn information from internet, books and take note are framework academic. Make a 5-level satisfaction test with 7 questions. Let the sample group try the improved products. Gather information by using this information studied. Analyze information by using the information collected to design and modify it to meet the purpose.

Research's equipment

Research instrument is satisfaction survey of Handy Spade.

Method to collecting data

This study was conducted by Satisfaction test the sample group 10 people And Gather information from the sample people.

Analyzing Satisfaction Data

Mean of sample with the following formula.

$$\bar{x} = \frac{\sum x}{n}$$

\bar{x} is Arithmetic Mean.

$\sum x$ is the sum of all data.

n is the total amount of information.

Conclusion

From the results of the research we found sample group be satisfied to handy spade. Overall in high-level of satisfaction (\bar{x} = 4.20). There was satisfaction rating in 7 areas. 5) The product can be used practically In daily life (\bar{x} =4.50). 7) The product can be developed further(\bar{x} =4.40). 1) The product can eliminate weeds and treat topsoil(\bar{x} =4.20). 2) The product saves a lot of in used (\bar{x} =4.20). 6) The product was very comfortable to use (\bar{x} =4.10). 4) The product was durable for a long term to use(\bar{x} =3.90).

Discussion

From the experiment and questioning the satisfaction of used Handy Spade. The sample group were satisfied with Handy Spade. The sample group were directly tested and were able to actually weeding and maintained the soil fertility. **Consistent with the research of (Piyaporn Srisom (2017))** She studied the use of soil for agriculture at Nang Lae Village, Nang Lae Sub-district, Muang District, Chiang Rai Province. She found that farmers were use the area for their agriculture. In a manners that determined the species of plant. They were use organic fertilizers, chemical fertilizers and materials used to improve the soil. They were constantly fertilize and replant in their original soil. In which there was no suitable soil amendment first. It was made the soil hard absorb less water and minerals.

From the soil quality examination results, women could not be able to complete the overall health. Because the soil properties were suitable for Each plant has different values. The results of the soil quality assessment study in Therefore, this study is a tool for

Important used in processing soil and fertilizer management recommendations. Details are took at random frequency with plants for efficient utilization, reducing production, allowing plants to grow well and produce high yields.

(Thapharat Siloyunkaew (2018)) studied whether the seeded and primary rice cultivars location converted in the area within the rice research center area in Chachoengsao Province. There had a flat area with an area connected to each other as a large plot with research centers divided It is a sub-plot, size 3 -12 rai, total of 21 plots. The soil in the area was clay. Soil reactions were highly acidic to strong acids, presenting most of the organic matter and carbon content in soil at a very high level. But the nitrogen content was very low. The useful phosphorus in soil was relatively high to high. Contains a very high amount of potassium extracted. The extracted calcium was moderate and the extracted magnesium was at a very high level. In the soil of the main varieties and rice varieties, restrictions on utilization. Since the soil reaction was very acidic, before planting rice, the acidity problem should be corrected. By using lime or marl to reduce acidity and increase yield. When calculated the demand for cement in the area.

Suggestions

1. As it's difficult to use fermented water, it is required the fermented water bottle that can be rotated for easy to use.
2. Increase the length of handling for tall people.

Public services

1. Present the ingredients and methods how to making and using the handy spade.
2. Apply the product to community people.

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APPENDICES







