



The comparison of absorption oil from natural material in sink

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Presented to

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Acknowledgements

The sink project compares the absorption of oil stains from natural materials as part of studying, researching and creating knowledge. The panel of producers therefore proposes an effective method of fabricating the sink to absorb oil, and it is explained. The method of use and the importance of the project. Knowledge of sinks comparing oil stain absorption from natural materials In order for everyone to know the benefits of the invention of an effective sink to separate food waste and absorb oil from natural materials.

The panel would like to thank Mr. Somsak Nantavisit. Director of Satri Siriket School Ms. Thidarat Khampang And all the teachers at Sirikit Women's School who are knowledgeable about the project. The panel hopes that those who are interested in the project will gain knowledge from this project and hope it will be useful to all of you. This project may have gone wrong and we apologize for this opportunity.

Faculty of Preparation

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TITLE The comparison of absorption oil from natural material in sink

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SCHOOL Satreesiriket School

Abstract

Research on sinks comparing oil stains from natural materials is intended to 1) Fabricate a sink that is effective in separating food waste and absorbing oil from natural materials. 2) Compare the effectiveness of chicken feathers and coconut oil filters. 3) A satisfying study to compare the sink absorbs oil from natural materials. The population is agricultural college teachers' housing 15 households. The sample of this research was 91/30, Moo 8, kasikram Road, Tumbol Nongkrok, Amphur Muang, Sisaket by Simple randomness. The tools used in the research are satisfaction measurements in the sink comparison absorb oil from natural materials. The basic statistics used to analyze the data are: Average The results of the research showed that Agricultural College Teacher's Residence Population Overall performance satisfaction after performance testing Of the work of the sink is moderate. (\bar{x} = 3.7) There are four agreeing sequences, the materials used are suitable (\bar{x} = 4.4) the sink absorbs oil from natural materials, It can be used practically in everyday life (\bar{x} = 4.4) The material used can absorb oil effectively (\bar{x} = 3.8) . Ease of use (\bar{x} = 3.7) and three more. all moderate clauses. In conclusion, the research from the sample was moderately satisfied. Per product sink comparison oil absorption from natural materials It can absorb the oil obtained from washing dishes as cited above.

Keyword : The comparison, Absorption oil, Natural material, Sink

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Introduction

Water is an important factor in the livelihood of people and organisms. It is the birthplace of aquatic animals. Water is also useful in industrial agriculture. Useful for households to drink, eat, use, cook, and purify the body of various impurities. Water also contributes to the abundance of organisms. At present, the water is contaminated by activities and drained into the river. Although natural water sources can clean themselves. For example, degradation of contaminants in water with microorganisms contained in the water naturally and exposure to air and sunlight. It's one of the ways natural therapy is however, at present, water pollution is also a very common problem in many areas. As a result of neglecting the value of water in human life for example, washing dishes, cooking. It is not filtered by food waste and absorbs oil stains before it is released into the river. Therefore, these adverse things are contaminated in the water. This causes the condition to deteriorate from impurity. This affects human health and aquatic life in terms of health and well-being.

(Kred kruam Lu. n.d. : online)Water with oil is water containing oil or fat is so high that it hinders the transfer of oxygen to the water source. or the livelihood of animals and aquatic plants. This is mainly due to the discharge of wastewater from the community into the water source. Industrial & Water Transportation.

(Wastewater Management Guide for Households. n.d. : online)The oil will have an impact on hygiene and the environment. Since the oil floats into a film on the surface, it hinders the exchange of oxygen transfer between water and air. It affects water quality and it is toxic to animals and plants that live in water bodies, as well as affect aquatic ecosystems.

From the above issues, therefore, the faculty is interested in studying and fabricating comparative sink absorbing oil from natural materials, easy to find in residential areas. To absorb oil caused by the use of water in human daily life. To reduce the problem of water pollution. Oil stains are contaminated. from water use. without filtering, one household It could have a broader negative effect. It's a difficult issue to fix. The coconut gab has the following properties (Siriporn pongantisuk. 2541 :32) The outer shell

has a fibrous and softshell. It is about 2-15 centimeters thick. It is characterized by a small, dry and flaky appearance. with small hairs or thorns, a rough surface. The oil is frayed and the skin area is very lightweight. This makes it possible to float for a long time. And (Sorawut kittibunorn. 2563 :online) Chicken feathers are a miracle material. Because it was built to protect poultry from bad conditions. It is light and can prevent heat and cold. It is also waterproof and absorbs oil stains biodegradable

(Maitree Jiramaimai. 2008 : 14) Selection of oil and fat suction materials Consider the following features

1. Can float on water at any time, such as material when absorbing oil. And the fat is completely saturated and it's still floating.
2. Low density materials have high buoyancy capabilities.
3. There are gaps in the material to absorb oil and fat quickly.
4. Easy to use and layer when collision sending, hassle-free transmission.
5. Low toxicity
6. Minimal environmental impact
7. The price is not high or easy to find from the community.

Objectives

1. To make a powerful sink for extract food waste and absorb oil from natural materials.
2. To compare performance Chicken feathers and coconut shells to filter the oil.
3. To study satisfaction in comparison, the sink absorbs oil from natural materials.

Expected benefits

1. Fabricate the sink effective to extract food waste and absorb oil from natural materials.
2. Compare the effectiveness of chicken feathers and coconut to filter the oil.
3. Satisfaction studies in comparison, the sink absorbs oil from natural materials.

Scope of Research

Population : 15 households of agricultural college teachers' homes

Sample : 91/30, Moo 8, kasikram Road, Tumbol Nongkrok, Amphur Muang, Sisaket

Tools : Satisfaction measurements in the sink comparison absorb oil from natural materials.

Duration : 22 August – 11 November 2020

How to conduct a study

The study follows the following steps 6 members convened together and discussed and planned to study of the subject, most of the topics developed into IS projects, often comes from attention questions or observe things around you. And explore the problems found in schools that include student problems. Teachers environment, building, location school environment. The problems that are being developed in the IS project have come from different areas, including books, newspaper papers or documents, visits to various places, listening to academic lectures, Radio & TV shows internet information. We are exchange of opinions between group members or other people activities held in schools viewing is an is-project exhibition or project contest. And then choose the subject to study by choosing which subjects members are most interested in as an incentive to find answers by gathering information, problems, related factors and then applying force data to get more concise information. And it's a matter of interest to the members of the group. Later, he studied the idea of solving the problem. In studies from documents and resources that help with the concept. In studies based on documents and resources, they must be answered what to do? Why do you want to? What caused it? What resources are used, what do you do with whom, and how to offer them? With the title of the story. Naming a subject brings information and problems and six members of the group. Meet teachers and counselors based on documents and information from the company also plans to complete the project at every stage of the project. Ready to write the importance of the background of the problem. Objectives, assumptions, scope of research and benefits. The study was conducted in the the thesis book and searched from the internet and the outline of the academic report, once approved by the mentor, it is the next step. Develop projects according to the steps laid out. After that, it was created a tool that was a measure of

satisfaction. 7 notes and apply the updated tools to the sample snippet can be changed or added. If found to improve the work, you can improve your work. And gather information by preparing and preparing materials and equipment. Prepare data analysis by testing and editing to ensure that the results are improved. Work properly with the requirements specified in the goal and efficiency. In order to conclude the study by presenting the workpiece. Summary of project preparation and the work piece created for the relevant person of the project to express the work that the project maker has dedicated to and how to make others aware and understand the work.

Research instruments

The instrument used in this study was a satisfaction measure in comparing oil absorption from natural materials in a sink using the Likert's scale theory and seeking advice from teachers as well as advisors by preparing a draft of questions. There are 7 questions which are classified as a 5-level scale. Creating a record for comparing the absorption of natural oils in a sink. Using the recording of the absorption of natural oils in a fixed sink. Then, improving and providing the samples for estimating. After that, using the result for finding the mean.

Data collection

This study conducted a satisfaction measurement. The data were collected from the sample group of 15 households. The data were collected from the sample and the study conducted by the data analysis. In data analysis, the researchers analyzed the following data:

1. Consolidating the answers which are conducted by the sample group then, finding out the total score.
2. Calculating the total score from mean

Statistics used in the study

The mean of the sample is determined by the following formula:

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

When \bar{x} is Mean of sample group

$\sum x$ is the sum total score

n is number of samples

Summary of findings

The effect of comparing the sink absorbs oil from natural materials appears as follows. According to the study, the effectiveness of oil stain removal in water and the ability to absorb oil stains in water using chicken feathers and coconut shells is an absorbent material and the oil used is vegetable oil. The following are summarised below.

According to a study of the effectiveness of oil removal in the water when two types of absorbent materials are chicken feathers and coconut, they have the highest efficiency in removing oil stains in water, followed by coconut deposits where the amount of oil is 100 ml. Chicken hair is 70% higher than the coconut crow, which is effective. This explains that each type of absorbent material differs in the structure of the fibre. If any material has good oil absorption properties, also known as Oleophilic, but less absorbent, the hydrophobic material is suitable for use as an oil stain-absorbing material. In the case of chicken feathers, cotton contains fibres with wax. Natural wax is coated on fibres and feathers, and fat is lanolin. Olephlic is a natural fibre that does not contain any fat, so it has little ability to absorb oil.

Discuss the results

By comparing oil absorption from the natural material of the sink, the chicken feathers were able to absorb oil at a very good level, and the coconut cap was able to absorb the oil at a modest level, which matched the research hypothesis set. This is because the chicken feathers are characterized by fibre. Low density, allowing it to float on the water. When absorbing oil until it is saturated, it can continue to float on the water. Besides, chicken feathers can be easily obtained according to local gold and are not toxic to the environment. For this reason, the feathers are effective in sucking. In line with the findings of Kris Thienkhasit and Siriporn Pong Santisuk. What kind of fat is coated? This allows the chicken fur to absorb up to 94.08% of the oil. In the trials of Johnson Manjrekar and Halligan. The

company has studied the oil-absorbing ability of various fibres such as cotton, animal hairs, and other fibres. Cotton has the best ability to absorb oil stains, second only to wool, and rice straw has the least ability to absorb oil stains, but cotton is a rare local material. According to the grab study, chicken fur is an easy-to-find gold material and has the best ability to absorb oil.

Suggestion

1. Suggestions for adoption can be applied. You can make money and use it in everyday life or household.
2. Recommendations in further research. It is important to study the information about the use of natural materials to absorb various and complete oil stains for future use or study.

Public services

People in society can bring themselves a sink by comparing the absorption of oil from natural materials. To allow people to realize the value of water use properly and to reduce the production of oil water before floating to other sources.

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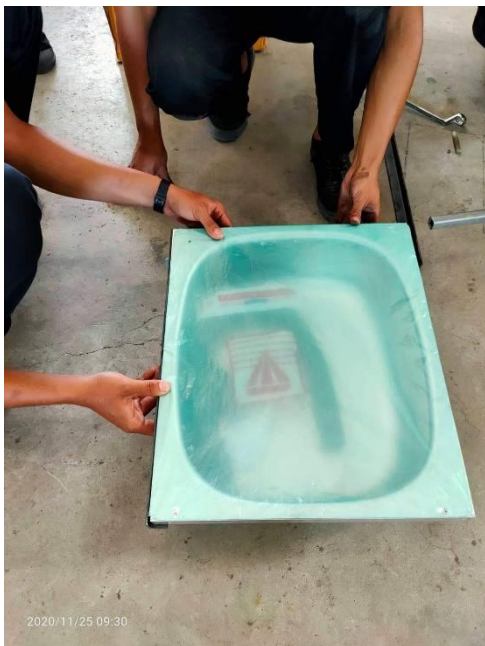
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APPENDICES











The Satisfaction Survey of Education and Knowledge Building Project (IS1)

The comparison of absorption oil from natural material in sink

Disclaimer: Check ✓ in the box corresponding to your knowledge / understanding / satisfaction / application.

Evaluated item	Satisfaction level				
	Most Agree 5	Agree 4	Agree Moderate 3	Agree At Least 2	Least Agree 1
1. Structure					
1.1 The materials used are suitable.					
1.2 Ease of use					
1.3 Can be moved easily					
2. Application aspects					
2.1 The materials used can absorb oil efficiently.					
2.2 Chicken feathers can absorb oil.					
2.3 Coconut cloves can absorb oil.					
3. Value at a glance					
3.1 The sink absorbs oil from the material. Nature can be used in Daily life					

Additional comments

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