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“Optimizing Innovation in Knowledge, Education and Design”

EXTENDED ABSTRACT



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Assalamualaikum warahmatullahi wabarakatuh,



First and foremost, I would like to express my gratitude to the organizing committee of i-Spike 2023 for their tremendous efforts in bringing this online competition a reality. I must extend my congratulations to the committee for successfully delivering on their promise to make i-Spike 2023 a meaningful event for academics worldwide.

The theme for this event, 'Optimizing Innovation in Knowledge, Education, and Design,' is both timely and highly relevant in today's world, especially at the tertiary level. Innovation plays a central role in our daily lives, offering new solutions for products, processes, and services. By adopting a strategic approach to 'Optimizing Innovation in Knowledge, Education, and Design,' we have the potential to enhance support for learners and educators, while also expanding opportunities for learner engagement, interactivity, and access to education.

I am awed by the magnitude and multitude of participants in this competition. I am also confident that all the innovations presented have provided valuable insights into the significance of innovative and advanced teaching materials in promoting sustainable development for the betterment of teaching and learning. Hopefully, this will mark the beginning of a long series of i-Spike events in the future.

It is also my hope that you find i-Spike 2023 to be an excellent platform for learning, sharing, and collaboration. Once again, I want to thank all the committee members of i-Spike 2023 for their hard work in making this event a reality. I would also like to extend my congratulations to all the winners, and I hope that each of you will successfully achieve your intended goals through your participation in this competition.

Professor Dr. Roshima Haji Said
RECTOR
UiTM KEDAH BRANCH



WELCOME MESSAGE (i-SPIKE 2023 CHAIR)



We are looking forward to welcoming you to the 3rd International Exhibition & Symposium on Productivity, Innovation, Knowledge, and Education 2023 (i-SPIKE 2023). Your presence here is a clear, crystal-clear testimony to the importance you place on the research and innovation arena. The theme of this year's Innovation is "*Optimizing Innovation in Knowledge, Education, & Design*". We believe that the presentations by the distinguished innovators will contribute immensely to a deeper understanding of the current issues in relation to the theme.

i-SPIKE 2023 offers a platform for nurturing the next generation of innovators and fostering cutting-edge innovations at the crossroads of collaboration, creativity, and enthusiasm. We enthusiastically welcome junior and young inventors from schools and universities, as well as local and foreign academicians and industry professionals, to showcase their innovative products and engage in knowledge sharing. All submissions have been rigorously evaluated by expert juries comprising professionals from both industry and academia.

On behalf of the conference organisers, I would like to extend our sincere thanks for your participation, and we hope you enjoy the event. A special note of appreciation goes out to all the committee members of i-SPIKE 2023; your dedication and hard work are greatly appreciated.

Dr. Junaida Ismail

Chair

3rd International Exhibition & Symposium Productivity, Innovation, Knowledge, and Education 2023 (i-SPIKE 2023)

CR SPRAY

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ABSTRACT

Nowadays, people always use different kinds of cleaning products to clean and repel. Which is that it contains a huge amount of chemicals. Those people do not know how dangerous these products are for them and the environment. Based on this issue, we are planning to produce cleaning and repellent sprays. We chose lemon as the main ingredient in our product because it contains citric acid and phytic acid. Therefore, it is good for cleaning and removing grease. The ingredients used in the product are lemon peel, lemongrass, and vinegar. Firstly, we check and choose the best quality of lemon peel and lemongrass. After that, we soak them in vinegar and put them in an airtight container. The next step is filtering them. Lastly, bottling and labelling. We have given our product a test, and it has been proven that our product does not pose any potential harm to people.

Keywords: affordable cost, environmentally friendly

INTRODUCTION

People nowadays are not aware of the wastefulness of lemon peel. People should know lemon peel can last a few days—at least 2–3 days. Therefore, we hope to create a culture of people recycling at the same time in every community through our product, CR Spray. Why did we choose to create cleaning and repellent sprays? Firstly, the cost of cleaning spray on the market is more expensive. Second, we could control the ingredients. When we make our product. We have full control over the ingredients that are included. Additionally, it is beneficial to increase awareness of the ingredients we are using and any potential harmful effects. Besides, our product can also clean and repel insects that may be lying around since lemongrass and vinegar are included in its ingredients.

METHODOLOGY

After doing research and following some guidelines from our teacher, we have perfectly finished the procedure to make our product. Firstly, prepare the ingredients and cut the lemongrass and lemon peel into smaller pieces. Put them in an airtight container. Next, add vinegar to an airtight container. Let the peels, lemongrass, and vinegar sit for at least a week. Then, using a strainer, pour the vinegar from the container into a spray bottle.

Caution:

Do not use CR on marble or granite. This cleaning spray can leave scratches or blemishes on the surface of your worktops or flooring.

INGREDIENTS:

- ï Lemon peels
- ï Vinegar
- ï Lemongrass

PROCESS

We have to simply cut the lemongrass and peel the fruit. Place it in a container. Next, we add vinegar. Vinegar's acidity makes it a great natural cleaner. It can dissolve soap scum and is also great for getting rid of stains. However, vinegar can etch away the stone on marble surfaces. Make sure that our container is sealed shut. Then, we should make sure that the peel and lemongrass are submerged. After a few weeks, the peels have fused with the vinegar.

And we are ready to start our cleaning and repellent spray. We can see that the peels and lemongrass are far paler in colour, and the vinegar solution is more cloudy compared to earlier. Lastly, we can move on to the straining step. Use a strainer to separate the vinegar solution.



Before

After 1 week

RESULTS

The result is a cleaning and insect repellent spray that can remove stains and repel insects.

DISCUSSION AND DECISION

It is clear that our product is safe and effective for cleaning. Our product is much cheaper to make and buy. Some products can go up to RM39, which is more expensive than ours at RM5. But our product cannot be used on certain surfaces in your home. If you do want to make a cleaning and repellent product like ours, you have to be careful about concentration because vinegar contains acetic acid. Lastly, I think making CR Spray can decrease the waste of lemon peel.

REFERENCES

<https://en.m.wikipedia.org/wiki/Lemon>

<https://thekitchengarten.com/homemade-lemon-vinegar-for-cleaning/>

<https://www.iheartnaptime.net/lemon-vinegar-cleaner/>

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