



INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE & EDUCATION

“Optimizing Innovation in Knowledge, Education and Design”

EXTENDED ABSTRACT



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Azni Syafena Andin Salamet
Nurfaznim Shuib

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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)

LIPELLENT

Zuriahanim Binti Abdul Manan
Sekolah Menengah Kebangsaan Taman Selayang
g-74321434@moe-dl.edu.my

Batrisyia Aliah Binti Mohd Hadaffi
m-8152740@moe-dl.edu.my

Nur Imanina Binti Mohd Ali
Sekolah Menengah Kebangsaan Taman Selayang
mailto:m-7872282@moe-dl.edu.my

Nur Arissa Binti Redzuan
Sekolah Menengah Kebangsaan Taman Selayang
m-9695491@moe-dl.edu.my

Nur Aqilah Binti Saiful Bahri
Sekolah Menengah Kebangsaan Taman Selayang
m-9522734@moe-dl.edu.my

ABSTRACT

The name Lipellent was taken from the word lizard and also repellent. Our main objective for this product is to drive away pests around the house. Most pest love warm places and habitats where they can find water. These pests are mostly found in areas with low temperatures and musty smells such as on the fridge, in the cabinets or maybe under the rice cooker. However, you can use Lipellent not only around the house but also at school or offices. As it is known, pesticide products that are on the market nowadays contain chemicals that are very dangerous to human health. For example, bromethalin that can cause nausea, vomiting, diarrhea and headache. This toxic chemicals are also not environmental friendly. Lipellent is an pesticides spray that are made from citric acid (weak acid), cloves (*Syzygium aromaticum*) and lime juice. This pesticides spray is aim to repel lizards and other pest. You may ask, what are the differences between Lipellent and the product that are out on the market? Well, this is because our products do not contain any harmful substances and only uses natural ingredient that are safe to use and easy to find. To give you an idea, cloves and vinegar (citric acid) are ingredients that are often used in cooking. This makes it easy to find and used as an pest repellent. Furthermore, natural ingredients are also used for reduce the risk of being exposed to dangerous toxic substances which can cause a person to experience health problems as mentioned before. Our objective for Lipellent is to produce a products that are safe to use without any side effects such as headache and nausea.

Keywords: environmental friendly, pesticide spray, safe to use

INTRODUCTORY

It has became our goal to produce a pesticide spray without using any harmful substances like bromethalin that has many side effects on human. For instances headache and nausea. Why did we choose lime juice and cloves to make Lipellent spray? The reason behind this is

because, some people find the smell from regular pesticides spray to be intoxicating for them, they also often find themselves having difficulties to breathe if they had been exposed with regular pesticides spray. Other than that, chemicals that had been used in regular pesticides spray could cause environmental pollution that are very harmful to the ecosystem. Furthermore, other pesticides spray that are out in the market are quite expensive. Therefore, we bare that in mind when we produce our product. For instance, we only use the ingredients that are not harmful to humans, like cloves which can be rid of headache. We also use ingredients that are easy to get and also cheap.

METHODOLOGY

After we have conducted numerous tests, research and also asking some guidelines from our teacher, we have finally finished the procedure to make our product. Firstly, measure 3 gram of cloves and crush them using mortar and pestle, you also can use a blender for this part. After that, squeeze the lime then strain the lime juice to make sure there is no excess pulp and measure up to 40 ml of lime juice. Next, measure 20 ml of citric acid (weak acid). Then, heat all the ingredients that have been measured earlier and stir for 1 minute. After that, strain the substances to rid of the excess cloves. Lastly, wait for a while to cool then put the substances into the spray container.

INGREDIENTS

- i Citric acid (weak acid)
- i Cloves
- i Lime juice

PROCESS

In the first week of testimony, Lipellent is used on places that lizards usually has been seen. For instances, in the window area and behind the curtains. It is sprayed twice a week by the testimony. The table below shows the amount of lizards that has been seen around the sprayed area for 2 weeks every 3 days.

DATE	LIZARDS BEEN SEEN
1 July 2023	5 lizards
5 July 2023	3 lizards
9 July 2023	0 lizard
13 July 2023	0 lizard

RESULT

The results are there were none lizards that has been seen by the end of the testimony. We even got one lizard that has been found dead on the window.



DISCUSSION AND DECISION

Lipellent has caused an affective response in eradicating lizards. Our products are much cheaper than other products in the market..We also produce our product without using any dangerous chemicals.Dispite that,since we use lime juice to make Lipellent, our product might not last long.Thus we could exchange lime juice with essential oil. For instances,lime essential oil or lemon essential oil in order to ensure our product to last long. Other than that,our product targeted are people that has problem with pest around them.For example,people around the age 19 to age 60.However,Lipellent is suitable to be use by all ages, whether old or young. To sum up all the points that has been stated,it is proven that our product works really well in reducing lizards and other pest as it only take one week to show a response.Our product created from innovations and we hope many people realise that we should reduce chemicals usage in our daily life as it could lead us to pollution if it is not prevented early.

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