

RESEARCH AND DEVELOPMENT FINAL PROJECT

SEA-STRAW

(Edible Straw)



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RESEARCH AND DEVELOPMENT NEW PRODUCT

FINAL REPORT

“SEA-STRAW”

Edible Straw

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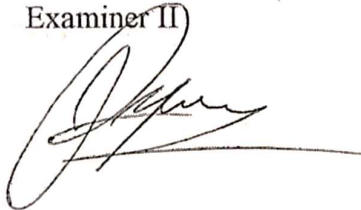
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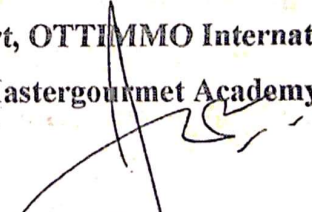
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Surabaya, September 10th 2019



Thalia Oka Setiawan

PREFACE

As I learned my degrees in culinary arts, I began to recognize the importance of research and development for managing a new product. After studying in culinary arts for 2 years, I realized that we cannot resist for not using plastic during the procedure of cooking. I come to a breakthrough of creating an “edible straw”. A straw that can be used and eat at the same time, also it only takes months to break down. This book will explain my recipes and also the method on how I made the edible straw.

During this process of completing this report, I received so much guidance and support. By this, I would like to express my gratitude to the names below:

1. My parents who have supported and provided me to achieve good education and as a family role to help me in personally. ^{L}_{SEP}
2. Mr. Arya Putra Sundjaja, S.E. as my RnD mentor who have helped me in so many things in order for me to understand the guideline for making this report. ^{L}_{SEP}
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4. Mr. Zaldy Iskandar as the head Director of Ottimmo International. ^{L}_{SEP}

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Executive summary

In the year of 2019 with the following years, people will have a problem with plastic. Plastic is one of the most used item in the history of human being. People use it as a packaging, fishing lines, glues, etc every day without realizing on how long it takes for plastic to decomposed/disappear. It only takes hours or maybe minutes for them to throw plastic like its going to disappear in seconds, when normally, plastic takes over 100 years or more to dicomposed. So that I come with a breakthrough of creating an edible straw that I called “Sea-Straw”.

Sea-Straw is made out of seaweed that came out of the ocean.

Before we get through a lot more question, here is a fact:

1. In the year of 2017, Americans used about 390 million plastic straws each day. This data comes from from the market research firm, Freedonia Group.
2. Straws are currently the 8th most found ocean trash in cleanups by quantity (January 2019).
3. It is projected that by 2050, 99% of all sea bird species will have ingested plastic. Mortality rate can be “up to” 50%. And, already, research has shown plastic in sea salt, 94% of U.S. tap water, and shellfish.

Plastic Straws are really bad for the Earth, especially to the ocean. When plastic does make it into the ocean it breaks down into smaller and smaller pieces known as “microplastics” rather than biodegrading or dissolving, which poses great threats to marine life including fish.