

“SMART” (*SIMPLE MORINGA OLEIFERA VITAMINS*)

Discussion:

Indonesia is a rich country. Not only rich in ethnic, religious and racial differences. And diverse cultures. Indonesia is also rich in natural resources as it is an archipelagic country. With so many natural resources, of course many are classified into various types of natural resources, such as renewable natural resources (renewable energy) and non-renewable natural resources (non-renewable energy). In terms of packaging, non-renewable natural resources or non-renewable energy have a lower level of efficiency than renewable energy. Why is that? Therefore, let's take a closer look and review, non-renewable energy includes fossil fuels such as coal, natural gas and petroleum. As we know, this energy has many negative impacts on the environment, such as greenhouse gas effects, acid rain and global warming. So it is not effective and efficient if used, and transformed with renewable energy sources which are much more environmentally friendly.

Non-renewable energy, if continuously used, will not only have a negative impact on the environment, non-renewable energy will also run out if it is not used wisely. This is where environmentally friendly renewable energy comes into play. Renewable energy is an energy source that comes from natural resources and will not run out because it is formed from sustainable natural processes. Examples of renewable energy are sunlight, waves, wind and water. Apart from that, renewable energy also includes animal natural resources and biological natural resources which are very beneficial for our daily lives.

So what is the relationship between renewable energy, especially vegetable natural resources, in everyday life, especially in the field of dental health? Basically, human life cannot be separated from health. Human health is very important in order to continue living a better life. Early prevention alternatives need to be instilled so that everyone is able to start preventing early through the natural resources we have.

Moringa or *Moringa Oleifera* is a plant that we often encounter in Indonesia, in fact its number is said to be very large and circulating throughout Indonesia. It is not wrong that WHO has designated Moringa as a miracle tree in the world of treatment and prevention of various diseases from Moringa. More than 1.300 studies, articles and reports have explained the benefits of Moringa and its ability to cure diseases which is important in dealing with disease outbreaks and malnutrition problems. Research shows that almost every part of the moringa plant has important properties, which can be utilized in several ways.

When talking about Moringa, vegetables definitely come to mind and are not tasty to consume. However, basically food that we don't like to consume or food that is little liked by the public is actually 90% very good for our health. For example, vegetables themselves. But how can we increase interest and consumption of vegetables among the public, especially teenagers. As we know, teenagers tend to prefer eating foods that are not very nutritious and good for the body, such as consuming lots of foods and medicines that contain high levels of chemical substances. When people are sick, they always prioritize taking as much medicine as possible without knowing the side effects of consuming it. And natural prevention and treatment alternatives are often underestimated. In fact, good prevention is prevention that starts from consuming healthy and natural foods.

New innovations and strategies continue to be developed in the health sector today, especially in the era of modernization where all discoveries are developing rapidly. This is the role of various parties, including stakeholders, in increasing food consumption rates based on balanced nutrition guidelines.

Dental health is often considered a common problem. Currently, people will only report their illness when they feel sick, without any desire to treat it or take preventive measures early on. Based on the description above, we are releasing new innovations to increase consumption of natural local food in a form that is more attractive and of course very good for consumption, which relies on the use of moringa as the main raw material.

Sustainable Development Goals 2030, is a global development agenda to end poverty, increase prosperity and protect planet Earth, through achieving 17 (seventeen) goals by 2030. And the achievements in the third sub-chapter explain that they guarantee a healthy life and encourage prosperity for society. everyone at all ages. There are 38 SDGs targets in the health sector that need to be realized. In achievement 4 it discusses quality education, and in achievement 6 it discusses clean water and sanitation. So what is the relationship between these three substances? Achievements 3, 4, and 6 are very closely related, where with quality education we will be able to produce human resources who are capable and technologically literate, so that they are able to make changes, especially in the social aspect, namely fighting. for sanitation. and clean water through changes created by quality natural resources. When we have the power of infrastructure knowledge produced by society, we will be able to achieve the third achievement, namely regarding health. A quality society supported by clean and good sanitation means that health can be achieved with small steps to create big changes in the future. From there we can conclude that the achievement of SDGs 2030 with substances 3,4 and 6 are very closely related. With good quality education, we can strive to improve good sanitation as well. Because sanitation and clean water have a big influence on health. Because all life depends on good water quality and sanitation. And from there we can also create much better health changes by continuing to utilize the natural biological resources around us. What we will discuss this time is Moringa.

Moringa in preventing dental caries plays a very important role in the current era, but there is a lot of data that states that currently people rarely touch moringa because they don't know its benefits. This is where our innovation through Moringa leaves is "**SMART**" (Simple **M**oring**A** Oleife**R**a Vi**T**amins) where "SMART" aims to increase interest in consuming Moringa vegetables for dental health so that it can strengthen teeth and minimize dental disease. And SMART also aims to increase public awareness of vegetable innovation so that the public,

especially the younger generation, is smart in getting information and knowledge about Moringa products. And here's a more complete method:

• **Recipe:**

- 4 tablespoons Moringa leaf powder
- 1 ½ tablespoons turmeric powder
- 1 ½ tablespoons ground ginger
- 4 tablespoons honey
- 1 tablespoons Olive Oil

• **The method:**

- Prepare a medium sized bowl, then add 4 tablespoons of Moringa powder, 1 ½ turmeric powder, 1 ½ ginger powder, then stir until evenly mixed.
- After mixing well, add 2 ½ - 3 tablespoons of raw honey, knead until slightly smooth (but the texture is still a bit rough).
- Once mixed well, knead again and add a little olive oil to soften the dough. Wipe until everything is well covered.
- Then press the dough until it is flat. After that, cut into pieces according to size (of the same size).
- And the shape resembles a capsule.
- Once finished, prepare a jar that has been cleaned thoroughly and store it in a dry place for approximately 2 days.
- It is recommended to store it in a cool room.
- And vitamins are ready to be consumed at a dose of 2 tablets every day after meals (or with any type of fat - fish, nuts, avocado, milk, etc.)

- **TURMERIC:** has weight loss properties, helps joint pain and inflammation – it is a blood thinner, so it helps reduce high blood pressure and high cholesterol, it helps arthritis, regulates blood sugar, improves brain function, antioxidant properties

- **GINGER:** antioxidant, anti-inflammatory properties, it is good for the immune system –and it's a heat producing herb. Ginger may ease muscle pain and arthritis symptoms, may help with weight loss,

- **MORINGA LEAF POWDER:** has antioxidant properties, reduces inflammation, helps with joint pains and swellings, helps to treat tumors, protects tissues (liver, kidneys, heart, and lungs), lowers blood pressure

- **HONEY:** has antibacterial and anti-inflammatory properties

- **OLIVE OIL:** to prevent the mix from sticking to hands and the utensils-also, besides black pepper, any kind of fat (such as oil, milk, avocado, fish, nuts will activate the goodness in turmeric

Moringa leaves have a high calcium mineral content with levels of 603.77 mg/100 g and five times higher than milk calcium. And we chose this product because the benefits of Moringa have been felt by many people and have been recognized by WHO. Moringa is also very influential and has benefits in oral health, namely having the benefit of cleaning and polishing the surface of teeth without damaging the enamel, maintaining pellicle thickness, preventing buildup, preventing bleeding in the gums and having an effect on bad breath. and fresher breath. Moringa leaves (*Moringa Oleifera*) is a herbal medicinal plant that contains 1.4% tannins, 5% triterpenoids and 5% saponins and contains secondary metabolite compounds of flavonoids, alkaloids and phenols. Apart from being a preventive measure for dental and oral health, the flavonoid content in Moringa leaves provides anti-inflammatory activity which functions to prevent stiffness and pain, as well as reducing pain when bleeding and swelling occurs in dental wounds (Zakiya et al., 2019). Moringa leaves also contain tannins, where tannins are useful as anti-microbials, antioxidants and are responsible for 3 remodeling processes and there

are phytochemical compounds that play a role in the wound healing process (Najib et al. 2017). Based on the description above, to study and assess the effectiveness of *Moringa Oleifera* L. extract as an anti-inflammatory in preventing and healing wounds caused by tooth extraction. It is hoped that with this latest innovation, teenagers can increase awareness of health, especially oral hygiene and health, in achieving SDGs 2030. By utilizing existing biological natural resources, we can still have a much healthier and more attractive lifestyle. To realize "*STARS*" (*Sustainable Health Action For Society*) in SDGs 2030.

