



## **MAKING SOAP FROM COCONUT OIL AND CANOLA OIL FOR ASMAN TOGA TEMULAWAK IN SINGOPADU VILLAGE TULANGAN DISTRICT, SIDOARJO REGENCY**

**Fitroh Annisaul Mubarakah<sup>1</sup>, Nandyta Rizqy A<sup>2</sup>, Sudiana Putri<sup>3</sup>, Teguh Setiawan Wibowo<sup>4</sup>**

<sup>1 2 3</sup>Akademi Farmasi Yannas Husada Bangkalan

<sup>4</sup>STIE Mahardhika



**\*Corresponding author**

Teguh Setiawan Wibowo

Email :

[teguh10setiawan@gmail.com](mailto:teguh10setiawan@gmail.com)

No HP. +62 878-4616-4681

**Kata Kunci:**

Sabun;  
Minyak Kelapa;  
Minyak Canola;  
Saponifikasi;

**Keywords:**

Soap;  
Coconut Oil;  
Canola Oil;  
Saponification;

### **ABSTRAK**

Sabun dapat membantu menghilangkan kotoran, debu, dan keringat pada tubuh secara menyeluruh. Bahan dasar pembuatan sabun adalah asam lemak dan alkali. Asam lemak yang digunakan dapat diperoleh dari hewan dan tumbuhan seperti minyak kelapa dan minyak canola. Keduanya berguna untuk menghasilkan busa yang stabil dan menghasilkan sabun yang melindungi kulit dan melembabkannya. Pengabdian masyarakat ini bertujuan untuk melatih masyarakat atau kelompok Asman Toga Temulawak Desa Singopadu dalam pembuatan sabun dari bahan herbal yang mereka hasilkan. Metode yang digunakan dalam pengabdian ini adalah ceramah, demonstrasi dan praktek bersama. Hasil dari kegiatan pengabdian masyarakat ini menunjukkan bahwa peserta atau kelompok Asman Toga Temulawak Desa Singopadu sangat menikmati, bersemangat dan antusias mengikuti pelatihan ini karena bisa membuat produk sabun batangan dari bahan herbal dengan kemasan yang menarik untuk kemudian dipasarkan sebagai produk baru. produk dari Asman Toga Temulawak.

### **ABSTRACT**

The fatty acids used can be obtained from animals and plants such as coconut oil and canola oil. Both are useful for producing stable foam and producing soap that protects the skin and moisturizes it. This community service aims to train the community or Asman Toga Temulawak group of Singopadu Village in making soap from the herbal ingredients they produce. The methods used in this service are lecture, demonstration and practice together. The results of this community service activity show that the participant or the Asman Toga Temulawak group in Singopadu Village are really enjoyed, excited and enthusiastic about participating in this training because they could make bar soap products from herbs with attractive packaging and then market them as new products from Asman Toga Temulawak.



## PENDAHULUAN

Skin health is something that everyone needs to pay attention to. Dust, dirt and germs can stick to our skin, especially after spending a day outside. Dirt mixed with oil on our skin can clog pores and cause various skin problems such as itching, acne or skin irritation. So it is recommended to shower every day, so that the skin is clean and dead skin cells are removed, and away from various skin problems. Using soap when bathing can help clean dirt thoroughly. There are two types of bath soap on the market, namely liquid soap and bar soap. However, both can help us clean dust, dirt, dryness, and also provide a fragrant effect after bathing.

Fatty acids and alkali are the main ingredients of soap, where distilled water is an alkaline solvent, and alkali is a fatty acid neutralizer<sup>1</sup>. Based on the Indonesian National Standard or SNI number 06-3532-1994, soap is a cleaning preparation from a mixture between alkaline compounds (sodium or potassium) and fatty acids (vegetable oil or animal fat)<sup>2</sup>. Both react to form salt and glycerin. The reaction that occurs in the formation of soap is called the saponification reaction, can be seen in figure 1<sup>3</sup>.

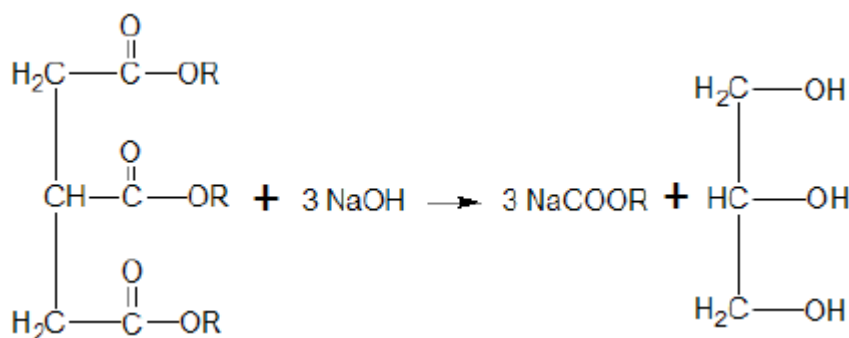


Figure 1. Saponification reaction<sup>4</sup>

The soap used for bathing can help remove dirt, bacteria and dust from our skin. However, using soap can remove oil from the body, resulting in dry skin, and can trigger other skin problems such as eczema. Therefore, soap is needed that can remove dirt and bacteria, but also has a gentle effect on the skin after use. Soap that does not dry out the skin can be produced from ingredients or ingredients that can moisturize the skin in the manufacturing process.

One of the elements that make up soap that can affect the quality of the soap is the fatty acids used. Fatty acids can be obtained from animals or plants. Using canola oil can have a moisturizing effect on the skin. Canola oil contains almost the same amount of oleic acid as olive oil.<sup>5,6</sup> Apart from that, canola oil contains vitamin E which can act as a skin protector from free radicals, and moisturizes the skin too.

Another oil that is often used is coconut oil. This clear, water-soluble oil contains lauric acid as its main component. Using coconut oil in soap making can create soap with good foam quality and lauric acid also has antimicrobial properties, namely antifungal, antibacterial and antivirus.<sup>7</sup>

Using herbal ingredients in soap can also increase the useful value of the soap. For example, using turmeric can make the soap have antibacterial properties, because

turmeric contains curcumin and essential oils which inhibit the proliferation of bacterial cells.<sup>8</sup>

The Asman Toga Temulawak group, Singopadu village, Sidoarjo produces various kinds of family medicinal plants or herbal ingredients such as turmeric, ginger, spinach, and others. This herbal ingredient can be used as an additional ingredient in making soap so that the value of the soap increases.

This soap making training can help residents and the Asman Toga Temulawak group to produce a home made product using herbal ingredients obtained from Asman Toga. So Asman Toga Singopadu has products other than herbal medicine, instant powder, chips and others, namely herbal soap.

## METODE PELAKSANAAN

Community service was carried out in the Asman Toga Temulawak group, Singopadu village, Tulangan District, Sidoarjo Regency. This service begins in August 2023 and ends in October 2023. This community service activity is led by lecturers as resource persons and accompanied by students and the participant is Asman Toga Temulawak group of Singopadu village and 90 people from the community of Singopadu Village, Tulangan subdistrict, Sidoarjo. The implementation of community service can be seen in more detail in Table 1.

Table 1. Time line of Community Service

Time line	Details of activities
August 2023	<b>Socialization and demonstration</b> , presentation about the benefits of using herbal ingredients, coconut and canola oil in soap.
September 2023	<b>Mentoring</b> , teach and give examples to participants, the correct way to make bar soap.
October 2023	<b>Educational</b> , The implementer teaches how to package the finished soap and how to market it.
November 2023	<b>Closing</b>

In this bar soap making activity, several tools are used, namely a hand blender, measuring cup, container, scales, spatula and spoon, whisk, PVC pipe, universal indicator, cloth and tissue. The ingredients used are distilled water, coconut oil, glycerin, canola oil, distilled water, herbal ingredients (turmeric, black cumin, and coriander), fragrance, and NaOH.

## HASIL PEMBAHASAN

This community service activity is one of the three principles of higher education that must be carried out by lecturers at every university. Participants in this activity are the community or group of Asman Toga Temulawak, Singopadu Village, Tulangan District, Sidoarjo Regency, East Java Province, Indonesia. Participants consisted of mothers and fathers from the Toga Temulawak independent care group, a group of PKK mothers, and several housewives in Singopadu village.

This service activity was carried out for a duration of 4 months, namely from August 2023 to November 2023. The activity began with socialization and demonstrations, where the resource person explained the benefits of using herbal

ingredients, coconut oil and canola oil in soap. This bar soap product could be a business opportunity for the Asman Toga Temulawak group, and increase the number of products that can be cultivated by the group. Apart from that, this handmade herbal soap can use herbal ingredients produced by the Asman Toga group, so it utilizes the ingredients available there, such as turmeric, black cumin, lemongrass, and others.

These herbal ingredients can have a good effect on skin health, such as antiseptic, anti-bacterial, skin infections and can brighten the skin. The soap produced is soap that has a protective effect on the skin, softens the skin because of the canola oil content. Canola oil is an antioxidant that can fight the skin from free radicals because canola oil contains vitamin E, so it can avoid black spots on the skin or skin cancer. Apart from that, using coconut oil in making bar soap can maintain the hardness of the soap and the stability of the foam produced.

In making it, use simple materials such as printers from PVC pipes, hand blenders or whisks which are easy to find. The kitchen utensils used should not be used when cooking, to avoid poisoning.

When making soap, the thing you need to pay attention to is when mixing NaOH and Aquades which produces an exothermic reaction or increase in temperature.<sup>9,10</sup> To prevent the appearance of light sparks when mixing NaOH and distilled water, place the distilled water in the container first, then add NaOH to it, don't let it tip over.

Soap that has been molded and cut cannot be used immediately, we have to leave it for a certain time to wait for the curing period to complete Curing is the waiting time after the soap becomes solid, the time to ensure that the saponification reaction is complete, the water has evaporated and the lye has completely transformed, usually around 4-6 weeks.<sup>11</sup> The soap that will be packaged is previously carried out an organoleptic test and then tested for the degree of acidity (pH) of the soap. If the pH of the soap is in the range 8-10, then the soap is safe to use. However, if the pH of the soap is still high, then you need to wait longer for the curing period. Once the soap is declared safe, it is ready to be packaged and marketed. Documentation of community service activities can be seen in Figure 1.



Figure 1. Making Herbal Bar Soap from Canola Oil and Coconut Oil

It is hoped that this community service activity will provide benefits to the community, especially the Asman Toga Temulawak independent care group.

## KESIMPULAN DAN SARAN

Making herbal bar soap using canola oil and coconut oil received high enthusiasm from participants, namely the Asman Toga Temulawak independent care group. The benefit of taking part in this activity is that participants can make soap using herbal ingredients that they have grown in the Asman Toga Temulawak environment, then how to package and market it, thereby increasing the number of Asman Toga Temulawak products that can be marketed. The organizers hope that the products produced by Asman Toga Temulawak can compete internationally.

## UCAPAN TERIMAKASIH

We would like to thank all parties who have been involved in this community service.

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