

## The Kasumba Turate (*Carthamus tinctorius* L.) Plant as a Traditional Practice of Medicine: A Local Judiciary Representation of Smallpox in South Sulawesi

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### ABSTRACT

ABSTRACT Kasumba turate (*Carthamus tinctorius* L.) is a traditional plant that has long been used by the people of South Sulawesi in treating various diseases including smallpox. However, little systematic research has been conducted on the representation of local wisdom in traditional medicine practices against smallpox. This study aims to analyze the role of kasumba turate (*Carthamus tinctorius* L.) as a traditional medicine practice and representation of local wisdom in dealing with smallpox in South Sulawesi. The method used was a systematic literature review by searching various scientific databases related to the use, bioactive content, and pharmacological effects of kasumba turate (*Carthamus tinctorius* L.). The results showed that kasumba turate (*Carthamus tinctorius* L.) contains active compounds such as flavonoids, phenolics, and terpenoids that function as antioxidants, anti-inflammatory, and antibacterials and maintain immunity. In general, the Bugis-Makassar community uses this plant to increase endurance and treat symptoms and smallpox by boiling kasumba turate (*Carthamus tinctorius* L.) flowers and drinking regularly. In addition, kasumba turate (*Carthamus tinctorius* L.) also has social meaning and customary values as an effort to protect local wisdom-based health. Kasumba turate (*Carthamus tinctorius* L.) not only plays a pharmacological role in the treatment of smallpox but also represents the practice of traditional medicine based on local wisdom in the people of South Sulawesi.

**Keywords:** Kasumba turate, *Carthamus tinctorius* L., traditional medicine, smallpox, South Sulawesi

## 40 Introduction

South Sulawesi is one of the regions in Indonesia that is known for its rich heritage of traditional medicine rooted in local wisdom. The Bugis-Makassar community has developed and preserved a system of traditional medicine based on ancestral heritage that includes the use of natural herbal medicines. Such as the application of traditional massage therapy methods and the use of mantras or ritual healing prayers that have been passed down from generation to generation as part of one of the cultural identities [1]. Knowledge of these medicinal plants and healing methods is widely recorded in the ancient manuscripts of Lontarak Pabbura, which is the main source of documentation of traditional medicine practices, including for diseases such as chickenpox [2]. Ethnopharmacological studies also confirm that the traditional medicinal heritage of the Bugis community not only has historical and cultural value but is also relevant and rational to use today due to the potential safety, accessibility, and effectiveness of herbs that have been validated through scientific research [3].

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Kasumba Turate (*Carthamus tinctorius* L.) also known as safflower, is one of the most widely used plants in traditional medicine of the Bugis-Makassar community, especially to overcome chickenpox disease. Kasumba Turate (*Carthamus tinctorius* L.) flowers contain various active compounds such as terpenoids, phenolics, flavonoids, and carotenoids that have antioxidant, antibacterial, antiviral, and anti-inflammatory activities [4][5]. The effectiveness of Kasumba Turate (*Carthamus tinctorius* L.) as a traditional medicine for chickenpox has been recognized empirically by the community and supported by scientific research that shows its pharmacological potential. In addition, its use is also often associated with rituals and spiritual beliefs, thus strengthening the cultural meaning in the healing process.

Ethnobotanical research in South Sulawesi shows that local communities utilize a variety of medicinal plants to treat various diseases, including chickenpox, fever and other skin infections [6]. This practice is generally carried out by sanro or traditional healers who have in-depth knowledge of herbal ingredients and how to process them. The ways of using medicinal plants are very diverse, ranging from being boiled and drunk, pounded and applied, to being combined with certain rituals. The continuation of this traditional medicine practice proves that local wisdom remains relevant and plays an important role in maintaining public health in South Sulawesi, as well as being part of one of the Bugis-Makassar cultural identities.

## 41 Literature Review

### **Kasumba Turate (*Carthamus tinctorius* L.) as Smallpox**

Kasumba Turate (*Carthamus tinctorius* L.) is a traditional medicinal plant that is widely used by the people of South Sulawesi, especially the Bugis-Makassar ethnicity, as part of traditional medicine practices to treat diseases such as chickenpox. The morphology of this plant is characterized by brightly colored flowers that grow on annual plants of the Asteraceae family, which are commonly found in dry fields after harvesting rice or corn. The flowers are usually harvested in the morning and dried in the shade for later use as a traditional medicinal herb [7].

In addition to its cultural value, modern scientific research has confirmed the pharmacological properties of Kasumba Turate (*Carthamus tinctorius* L.) that support its use in traditional medicine. The content of bioactive compounds is proven to have broad therapeutic effects, ranging from improving blood circulation to overcoming inflammation and viral infections that cause smallpox [8]. Apart from being a natural colorant, Kasumba Turate (*Carthamus tinctorius* L.) flowers contain more than 100 active compounds that have been identified [9] such as flavonoids, alkaloids, saponins, terpenoids, tannins and anthraquinones [10] which play a role in the healing process of smallpox disease.

### **Traditional Medicine Practices in South Sulawesi**

The use of Kasumba Turate (*Carthamus tinctorius* L.) as a traditional medicine is a clear representation of the local wisdom of the people of South Sulawesi who utilize natural resources sustainably and based on hereditary knowledge. This treatment practice is not only medical in nature, but also contains cultural and spiritual values that strengthen the identity of the Bugis-Makassar community [9]. This shows that local wisdom not only acts as a healing method but also as a means of cultural preservation in the community. Thus, Kasumba Turate (*Carthamus tinctorius* L.) is an example of integration between modern science and local wisdom that can be further developed as an effective and sustainable alternative treatment in South Sulawesi.

## 42 Research Methods

This study uses the systematic literature review (SLR) method to examine the traditional medicine practice of Kasumba Turate (*Carthamus tinctorius* L.) in treating smallpox in South Sulawesi. Reputable articles spanning 2018-2025 were collected from scientific databases such as PubMed, ScienceDirect, Perplexity and Google Scholar using the keywords: “Kasumba Turate,” ‘*Carthamus tinctorius*,’ ‘traditional medicine,’ ‘smallpox,’ and ‘South Sulawesi’. The selected reputable literature was analyzed to identify and explore the representation of local wisdom and effectiveness of Kasumba Turate (*Carthamus tinctorius* L.), which has bioactive compounds and pharmacological effects and as a traditional medicine practice in the treatment of smallpox, while integrating the scientific and cultural perspectives of the local community.

## 43 Result and Discussion

Kasumba Turate (*Carthamus tinctorius* L.) is one of the traditional medicinal plants that is very important in the practice of Bugis-Makassar community medicine in South Sulawesi, especially in dealing with smallpox. Research [8][13][11][12] states that Kasumba Turate contains bioactive compounds such as terpenoids, phenolics, flavonoids, carotenoids, alkaloids and tannins that have antioxidant, antibacterial, antiviral, anti-inflammatory, and antiallergic activities.

The ancient manuscript of Lontarak Pabbura is an important source of documentation that records various traditional medicine methods, including the use of Kasumba Turate (*Carthamus tinctorius* L.), which shows that this practice has been going on for generations and has become a strong cultural identity [1][2]. The representation of local wisdom in the use of Kasumba Turate (*Carthamus tinctorius* L.) is not only seen from the pharmacological aspects, but also from the cultural and spiritual values attached to this treatment practice. Bugis-Makassar people combine the use of herbs with rituals and prayers as part of the healing process.



Figure 14: The Kasumba Turate (*Carthamus tinctorius* L.) Plant

Recent studies have corroborated claims of Kasumba Turate’s (*Carthamus tinctorius* L.) benefits in the treatment of smallpox. Phytochemical and pharmacological studies show that Kasumba Turate (*Carthamus tinctorius* L.) flower extract is able to increase immunoglobulin activity and strengthen the immune system, thus helping the body fight viral infections that cause smallpox [10]. In addition, flavonoids and other active compounds also contribute to

reducing inflammation and accelerating the regeneration of skin damaged by smallpox [9][8]. This makes Kasumba Turate a herbal medicine that is not only empirically effective, but also has a strong scientific basis.

Kasumba Turate (*Carthamus tinctorius* L.) extract has immunomodulatory activity that supports the body's ability to recognize and fight pathogens more effectively so that kasumba turate flower extract has the potential as an immunostimulant that can increase the body's resistance to infection [14]. The existence and use of Kasumba Turate also shows the importance of preserving local wisdom in the health system of the people of South Sulawesi. This traditional medicine is an easily accessible, affordable, and sustainable alternative, especially in areas with limited access to modern medical services. Thus, Kasumba Turate (*Carthamus tinctorius* L.) not only functions as a treatment therapy, but also as a symbol of cultural identity and ancestral heritage that needs to be preserved and developed in an integrated manner between modern science and local traditions.

## 44 Conclusion

Kasumba Turate (*Carthamus tinctorius* L.) is an important part of the traditional medicine practices of the Bugis-Makassar community in South Sulawesi in treating chickenpox, which not only has pharmacological properties due to its bioactive compounds such as antioxidants and antivirals, but also represents local wisdom that integrates cultural, spiritual and social aspects in the healing process. The continued use of Kasumba Turate (*Carthamus tinctorius* L.) shows the importance of preserving ancestral heritage as an effective, affordable and sustainable alternative treatment amid modern medical developments, while strengthening the cultural identity of the local community.

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