

STUDI LITERATUR: EFEKTIVITAS EKSTRAK DAUN SIRIH MERAH (*Piper ornatum*) SEBAGAI DESINFEKTAN ALAMI DALAM MENCEGAH PENYEBARAN PENYAKIT COVID-19

Jeremy Fernando Clinton¹⁾, Galuh Yulieta Nitihapsari²⁾ Dwi Utami Anjarwati²⁾

- 1) Mahasiswa S1 Kedokteran Umum Fakultas Kedokteran Universitas Jenderal Soedirman Purwokerto
- 2) Departemen Mikrobiologi Fakultas Kedokteran Universitas Jenderal Soedirman Purwokerto

Corresponding Author Email: jeremy9509@gmail.com ; galuhyn@gmail.com ; dwi.anjarwati@gmail.com

ABSTRAK

Pandemi *Corona-virus Disease 19 (COVID-19)*, merupakan penyakit infeksi yang terjadi sejak akhir tahun 2019 hingga tahun 2020 dan menyerang berbagai usia. *Severe Acute Respiratory Syndrome-Coronavirus 2 (SARS CoV-2)*, menginfeksi *mucosal membrane* yang menyebabkan peradangan dan bermanifestasi terutama pada organ-organ dengan reseptor *Angiotensin Converting Enzyme – 2 (ACE-2)* seperti sistem *cardiovascular*, saluran pernapasan, sistem pencernaan, dan beberapa organ lain seperti ginjal. Saat ini masih belum dapat ditemukan pengobatan untuk penyakit ini, sehingga perlu dilakukan pencegahan secara efektif, seperti penggunaan pelindung wajah (*facemask* ataupun *faceshield*) dan penggunaan agen desinfektan. Banyak zat alami yang digunakan sebagai bahan untuk menjadi desinfektan untuk mencegah perkembang-biakan virus dan mengurangi penyebaran penyakit ini, salah satunya adalah daun sirih merah (*Piper ornatum*). Studi literatur ini digunakan untuk mendapatkan berbagai informasi terkait pengaruh daun sirih merah sebagai salah satu desinfektan alami untuk mencegah penyebaran penyakit *COVID-19*. Referensi didapatkan dari *textbook*, jurnal ilmiah, artikel ilmiah, serta berbagai data yang disediakan dari badan resmi. Hasil studi ditemukan, bahwa ekstrak daun sirih merah berpotensi sebagai bahan desinfektan alami untuk mencegah penyebaran penyakit melalui penghambatan reproduksi virus karena adanya kandungan fenol seperti flavonoid dan tannin.

Kata kunci: *COVID-19*, *SARS-Coronavirus-2*, ekstrak daun sirih merah, *Piper ornatum*, desinfektan.

**LITERATURE STUDY: THE EFFECTIVENESS OF RED BETLE LEAF EXTRACT
(*Piper ornatum*) AS A NATURAL DESINFECTANT AGENT TO AVOID THE
SPREADING OF COVID-19 DISEASE**

Jeremy Fernando Clinton¹⁾, Galuh Yulieta Nitihapsari²⁾, Dwi Utami Anjarwati²⁾,

- 1) Undergraduate Student of the Faculty of Medicine, Jenderal Soedirman University
Purwokerto
- 2) Microbiology Department of the Faculty of Medicine, Jenderal Soedirman University
Purwokerto

Corresponding Author Email: jeremy9509@gmail.com ; galuhyn@gmail.com ;
dwi.anjarwati@gmail.com

ABSTRACT

The pandemic of *Corona-virus Disease 19 (COVID-19)*, is an infectious disease that occurred since the end of 2019 up until the year 2020 and targets people of all ages. The cause of the disease, *Severe Acute Respiratory Syndrome-Coronavirus 2 (SARS CoV-2)*, infects the *mucosal membrane* which initiates inflammation processes and manifests, especially within certain organs that contains a specific receptor for the *Angiotensin Converting Enzyme-2 (ACE-2)* such as the cardiovascular system, the respiratory system, the digestive systems, and other types of organs such as the kidneys. Up until now, the cure for this disease hasn't been found yet, and in terms of the situation, it's important to avoid the spreading of the disease itself effectively, for example the usage of facial masks or a face shields and the utilization of a disinfectant agent. A lot of natural substances were being used as a disinfectant agent to reduce/avoid the reproduction process of the virus and to decrease the spreading of the disease, for example the red betle leaf (*Piper ornatum*). This literature studies are used for finding certain informations regarding the effectiveness of the red betle leaf extract, as a part of being a natural disinfectant agent, to avoid the spreading of the *COVID-19* disease. References were taken from textbook, scientific journals, articles, and various data from official organizations. The results showed that red betle leaf extracts, potentially, are able to be utilized as a natural disinfectant agent, to avoid the spreading of the disease by inhibiting the reproductive processes of virus's life cycle because of it containing phenol substances such as flavonoids and tannins.

Keyword: *COVID-19*, *SARS-Coronavirus-2*, red betle leaf extract, *Piper ornatum*, disinfectants.