

LAMPIRAN

Lampiran 1



Contoh Tanaman Takokak (*Solanum torvum*)

Lampiran 2

a. Pubmed

The screenshot shows a PubMed search for "solanum torvum". The search bar contains the text "solanum torvum" and a "Search" button. Below the search bar are links for "Advanced", "Create alert", and "Create RSS", and a "User Guide" link. There are buttons for "Save", "Email", and "Send to". The results are sorted by "Best match" and there are "Display options" settings. The search results show 80 results on page 1 of 8. The first result is titled "Solanum torvum responses to the root-knot nematode *Meloidogyne incognita*." by Bagnaresi P, Sala T, Irdani T, Scotto C, Lamontanara A, Beretta M, Rotino GL, Sestili S, Cattivelli L, Sabatini E. The second result is titled "Degree of resistance of *Solanum torvum* cultivars to Mi-1.2-virulent and avirulent isolates of *Meloidogyne incognita*, *Meloidogyne javanica*, and *Meloidogyne luci*."

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RESULTS BY YEAR

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- Abstract
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80 results Page 1 of 8

Solanum torvum responses to the root-knot nematode *Meloidogyne incognita*.
1 Bagnaresi P, Sala T, Irdani T, Scotto C, Lamontanara A, Beretta M, Rotino GL, Sestili S, Cattivelli L, Sabatini E.
Cite BMC Genomics. 2013 Aug 9;14:540. doi: 10.1186/1471-2164-14-540.
Share PMID: 23937585 [Free PMC article](#).
BACKGROUND: **Solanum torvum** Sw is worldwide employed as rootstock for eggplant cultivation because of its vigour and resistance/tolerance to the most serious soil-borne diseases as bacterial, fungal wilts and root-knot nematodes. The little information on **Solanum** ...

Degree of resistance of **Solanum torvum** cultivars to Mi-1.2-virulent and avirulent isolates of *Meloidogyne incognita*, *Meloidogyne javanica*, and *Meloidogyne luci*.
2
Cite

(Kata Kunci: *Solanum torvum*)

The screenshot shows a PubMed search for "antibacterial solanum torvum". The search bar contains the text "antibacterial solanum torvum" and a "Search" button. Below the search bar are links for "Advanced", "Create alert", and "Create RSS", and a "User Guide" link. There are buttons for "Save", "Email", and "Send to". The results are sorted by "Best match" and there are "Display options" settings. The search results show 8 results on page 1 of 1. The first result is titled "Synthesis and antibacterial activity of solanum torvum mediated silver nanoparticle against *Xanthomonas axonopodis* pv. *punicae* and *Ralstonia solanacearum*." by Vanti GL, Kurjogi M, Basavesha KN, Teradal NL, Masaphy S, Nargund VB. The second result is titled "[*Solanum torvum*, toxicological evaluation on microorganisms and sperm cells]." by Domínguez-Odio A, Puente-Zapata E, Pérez-Andrés IY, Salas-Pérez H.

MY NCBI FILTERS

RESULTS BY YEAR

TEXT AVAILABILITY

- Abstract
- Free full text

8 results Page 1 of 1

Synthesis and antibacterial activity of **solanum torvum** mediated silver nanoparticle against *Xanthomonas axonopodis* pv. *punicae* and *Ralstonia solanacearum*.
1 Vanti GL, Kurjogi M, Basavesha KN, Teradal NL, Masaphy S, Nargund VB.
Cite J Biotechnol. 2020 Feb 10;309:20-28. doi: 10.1016/j.jbiotec.2019.12.009. Epub 2019 Dec 18.
Share PMID: 31863800
Silver nanoparticle (AgNP) using a green approach has become a promising substitute to the synthetic pesticides to overcome pest menace. In this study, AgNPs were synthesized from **Solanum torvum** fruit extract and their bactericidal property against phyto bacteria wa ...

[**Solanum torvum**, toxicological evaluation on microorganisms and sperm cells].
2 Domínguez-Odio A, Puente-Zapata E, Pérez-Andrés IY, Salas-Pérez H.

(Kata Kunci: Antibacterial *Solanum torvum*)

b. Google Scholar

Google Cendekia

Artikel Sekitar 7.270 hasil (0,04 dtk)

Kapan saja
Sejak 2022
Sejak 2021
Sejak 2018
Rentang khusus...
2011 — 2021
Telusuri

Urutkan menurut relevansi
Urutkan menurut tanggal

Semua jenis
Artikel kajian
 sertakan paten
 mencakup kutipan

Comparative physiological responses of *Solanum nigrum* and *Solanum torvum* to cadmium stress
J Xu, Y Zhu, Q Ge, Y Li, J Sun, Y Zhang... - *New Phytologist*, 2012 - Wiley Online Library
... *Solanum nigrum* accumulated threefold more Cd in its leaves and was tolerant to Cd, whereas its low Cd-accumulating relative, *Solanum torvum*. *Solanum* species are largely unknown. ...
☆ Simpan 📄 Kutip Dirujuk 120 kali Artikel terkait 9 versi [PDF] wiley.com

Comparative transcriptome analysis of cadmium responses in *Solanum nigrum* and *Solanum torvum*
J Xu, J Sun, L Du, X Liu - *New Phytologist*, 2012 - Wiley Online Library
... *Solanum nigrum* is a cadmium (Cd) accumulator, whereas *Solanum torvum* is a low Cd-... differential cadmium (Cd) accumulation in the two *Solanum* species are poorly understood. ...
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Chemical constituents from *Solanum torvum*
LU Yuan-Yuan, LUO Jian-Guang, K Ling-Yi - *Chinese Journal of Natural* ..., 2011 - Elsevier
... [ABSTRACT] AIM: To investigate the chemical constituents of *Solanum torvum* Swartz. METHODS: The compounds were isolated by silica gel, Sephadex LH-20, and Rp-C18 column ...
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(Kata Kunci: *Solanum torvum*)

Google Cendekia

Artikel Sekitar 1.630 hasil (0,06 dtk)

Kapan saja
Sejak 2022
Sejak 2021
Sejak 2018
Rentang khusus...
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Urutkan menurut relevansi
Urutkan menurut tanggal

Semua jenis
Artikel kajian
 sertakan paten
 mencakup kutipan
 Buat lansiran

Antibacterial activity of different extracts of Sundakai (*Solanum torvum*) fruit coat.
M Sivapriya, R Dinesha, R Harsha... - *International journal of* ..., 2011 - cabdirect.org
... In the present study, *Solanum torvum* *Solanum torvum* Subject Category: Organism Names ... The antibacterial activity of different extracts of *Solanum torvum* (Sundakai) fruit coat was ...
☆ Simpan 📄 Kutip Dirujuk 42 kali Artikel terkait 8

Synthesis and antibacterial activity of *solanum torvum* mediated silver nanoparticle against *Xanthomonas axonopodis* pv. *punicae* and *Ralstonia solanacearum*
GL Vanti, M Kurjogi, KN Basaveshha, NL Teradaj... - *Journal of* ..., 2020 - Elsevier
... In this study, AgNPs were synthesized from *Solanum torvum* fruit extract and their bactericidal property against phyto bacteria was shown. UV-vis spectroscopic observation revealed a ...
☆ Simpan 📄 Kutip Dirujuk 20 kali Artikel terkait 6 versi [PDF] google.com

[PDF] Phytochemical, antibacterial and antioxidant studies on medicinal plant *Solanum torvum*
M Kannan, B Dheeba, S Gurudevi, A Singh - *J Pharm Res*, 2012 - researchgate.net
... properties of *Solanum torvum*. Methods In this study the plant *Solanum torvum* was powdered ... The antibacterial activity and antioxidant activity of the plant was analysed using Fenton's ...
☆ Simpan 📄 Kutip Dirujuk 14 kali Artikel terkait 3 versi [PDF] researchgate.net

Solanum torvum mediated synthesis and characterization of silver nanoparticles for antibacterial activities
R Renuka, K Renuka Devi, M Sivakami... - *Journal of Plant* ..., 2021 - Springer

(Kata Kunci: Antibacterial *Solanum torvum*)

c. Science Direct



ScienceDirect

Journals & Books

Find articles with these terms

Year: 2011-2021 X

Advanced search

394 results

Refine by:

Years

- 2021 (66)
- 2020 (34)
- 2019 (45)
- 2018 (36)
- 2017 (27)
- 2016 (40)
- 2015 (27)
- 2014 (33)
- 2013 (30)
- 2012 (25)

Research article ● Open access

Insecticidal and repellent activities of **Solanum torvum** (Sw.) leaf extract against stored grain Pest, (Coleoptera: Bruchidae)

Journal of King Saud University - Science, 25 February 2021, ...

R. Murugesan, K. Vasuki, ... Jawaher Alkahtani

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Research article ● Open access

In search of the exclusion/low-accumulation mechanisms: Cadmium uptake and accumulation of **Solanum torvum** L. and wild eggplants (**Solanum torvum** L.)

Journal of Cleaner Production, 24 September 2021, ...

Huiping Dai, Shuhe Wei, ... Qing Zhang

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(Kata Kunci: *Solanum torvum*)



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110 results

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Years

- 2021 (21)
- 2020 (14)
- 2019 (12)
- 2018 (9)
- 2017 (6)
- 2016 (8)
- 2015 (6)
- 2014 (10)

Research article

Characterization of gold nanoparticles synthesized from **Solanum torvum** (Turkey Berry) fruit extract and its antibacterial activity against methylene blue and **antibacterial** properties

Materials Today: Proceedings, 20 May 2021, ...

Ami Ansul Shah, D. Jayalakshmi, Belina Xavier

Research article

Synthesis and **antibacterial** activity of **solanum torvum** mediated silver nanoparticle against Xxant *Ralstonia solanacearum*

Journal of Biotechnology, 18 December 2019, ...

Gulamnabi L. Vanti, Mahantesh Kurjogi, ... Vijendra B. Nargund

(Kata Kunci: Antibacterial *Solanum torvum*)

4. MDPI

The screenshot shows the MDPI search interface. At the top, there is a navigation bar with links for Journals, Information, Author Services, Initiatives, and About, along with a Sign In button. Below this is a search bar with four input fields: Title / Keyword (containing 'solanum torvum'), Author / Affiliation (containing 'Author / Affiliation'), Journal (set to 'All Journals'), and Article Type (set to 'All Article Types').

On the left side, there is a 'Saved Queries' section with a 'Sign in' link. Below it is a 'Search Filter' section with a 'Reset All' button. The filter includes a 'Years' section with a range from 2011 to 2021 and a 'Subjects' section with a 'Select Subjects' button.

The main content area displays 'Search Results (12)'. It shows search parameters: 'Keywords = solanum torvum'. Below this are three dropdown menus for 'Order results' (set to 'Publication Date'), 'Result details' (set to 'Normal'), and 'Results per page' (set to '50'). There is also a 'Show export options' link.

At the bottom of the search results, there are two buttons: 'Open Access' and 'Article'. Below these is the title of the first result: 'Bioassay-Guided Discovery of Potential Partial Extracts with Cytotoxic Effects on Liver Cancer Cells from Vietnamese Medicinal Herbs'.

(Kata Kunci: *Solanum torvum*)

The screenshot shows the MDPI search interface with a different search term. The search bar now contains 'antibacterial solanum torvum' in the Title / Keyword field. The search results section shows 'Search Results (0)'. The search parameters are 'Keywords = antibacterial solanum torvum'. The 'Order results', 'Result details', and 'Results per page' dropdowns are the same as in the previous screenshot. There are also 'Show export options' links. At the bottom, it says 'Displaying article 1-50 on page 1 of 1.'

(Kata Kunci: Antibacterial *Solanum torvum*)

e. Portal Garuda

The screenshot shows the Garuda Portal search interface. The search bar contains the keyword "solanum torvum". The search results show 28 documents. The first document is titled "EFEK INTERVENSI BUAH TAKOKAK (Solanum torvum Swartz) TERHADAP KADAR SUPEROKSIDA DISMUTASE ERITROSIT DAN 8-ISOPROSTAN SERUM PADA WANITA DEWASA GEMUK" by Novitasari, Putri; Marliyati, Sri Anna; Damayanthi, Evy. The second document is titled "FEMINISASI PADA IKAN MAS (Cyprinus carpio) DENGAN PERENDAMAN EKSTRAK DAUN-TANGKAI BUAH TERUNG CEPOKA (Solanum torvum) PADA LAMA WAKTU PERENDAMAN BERBEDA" by Wihardi, Yedi; Yusanti, Indah Anggraini; Kusuma Haris, Rangga Bayu.

(Kata Kunci: *Solanum torvum*)

The screenshot shows the Garuda Portal search interface. The search bar contains the keyword "antibacterial solanum torvum". The search results show 0 documents. The search filter is set to "Title" and "Downloadable PDF Only". The filter by year is set to "From 0000" and "To 2021".

(Kata Kunci: Antibacterial *Solanum torvum*)

Lampiran 3

a. Data Penelitian Anwar et al, 2017

Jurnal Mutu Pangan Vol. 4(2): 59-64, 2017
ISSN 2355-5017

Identifikasi Komponen Antibakteri Pada Ekstrak Buah Takokak Menggunakan Kromatografi Lapis Tipis

Identification of Antibacterial Compounds from Turkey Berry (Solanum torvum Swartz) Extracts by Thin-Layer Chromatography

Hilda Utami Anwar¹⁾, Nuri Andarwulan^{1,2)}, Nancy Dewi Yuliana^{1,2)}

¹⁾ Departemen Ilmu dan Teknologi Pangan, Fakultas Teknologi Pertanian, Institut Pertanian Bogor, Bogor

²⁾ South East Asian Food and Agricultural Science and Technology Center, Institut Pertanian Bogor, Bogor

Abstract. Turkey berry (*Solanum torvum Swartz*) is one of medicinal plants and indigenous vegetables which grows abundantly in Indonesia. It has been known to have antibacterial activity against some pathogen bacteria, including *Bacillus cereus*. The aim of this study was to determine turkey berry's metabolites that have antibacterial activity by TLC method. The dried turkey berry was extracted by eight different combinations of methanol and water. These extracts were then divided into two parts: for antibacterial activity analysis and for TLC analysis. Extract with good antibacterial activity and showed more spots in TLC was further identified by two-dimensional TLC. The Rf score of this extract was also compared with reference compounds. F1 extract which was extracted by methanol:water (1:0) showed the highest diameter of inhibition. It also had more TLC spots than other extracts. F1 extract was then chosen to be identified by two dimensional TLC. It showed 14 sub-spots which have maximum absorption at 200-400 nm. Some sub-spots of F1 extract also showed similar Rf score with reference compounds. Based on its TLC profile, F1 extract contain saponin, gallic acid, quercetin, myricetin, kaempferol, and apigenin. However, since TLC has limited resolution, it is possible that F1 contains other flavonoids and phenolic acids that may also responsible for its antibacterial activity.

Keywords: antibacterial, TLC, turkey berry

Abstrak. Takokak (*Solanum torvum Swartz*) adalah salah satu tanaman obat dan sayuran asli yang tumbuh subur di Indonesia. Tanaman ini telah diketahui memiliki aktivitas antibakteri terhadap beberapa bakteri patogen, termasuk *Bacillus cereus*. Tujuan dari penelitian ini adalah untuk menentukan metabolit takokak yang memiliki aktivitas antibakteri dengan metode TLC. Takokak kering diekstraksi dengan delapan kombinasi metanol dan air yang berbeda. Ekstrak ini kemudian dibagi menjadi dua bagian: untuk analisis aktivitas antibakteri dan untuk analisis TLC. Ekstrak dengan aktivitas antibakteri yang baik dan menunjukkan lebih banyak bintik-bintik dalam TLC akan diidentifikasi lebih lanjut dengan TLC dua-dimensi. Skor Rf dari ekstrak ini juga dibandingkan dengan senyawa standar. Ekstrak F1 yang diekstraksi dengan metanol: air (1:0) menunjukkan diameter penghambatan tertinggi. Ekstrak tersebut juga memiliki lebih banyak TLC bintik-bintik dari ekstrak lainnya. Ekstrak F1 kemudian dipilih untuk diidentifikasi oleh TLC dua-dimensi. Ekstrak ini menunjukkan 14 sub-spot yang memiliki penyerapan maksimum pada 200-400 nm. Beberapa sub-spot ekstrak F1 juga menunjukkan skor Rf yang sama dengan senyawa referensi. Berdasarkan profil TLC-nya, ekstrak F1 dapat mengandung saponin, asam galat, kuersetin, mirisetin, kaempferol, dan apigenin. Namun, karena TLC memiliki resolusi terbatas, ada kemungkinan bahwa F1 mengandung flavonoid dan asam fenolik lain yang mungkin juga bertanggungjawab atas aktivitas antibakterinya.

Kata Kunci: antibakterial, KLT, takokak

Tabel 2. Aktivitas antibakteri ekstrak kering buah takokak

Sampel	Nilai Diameter Penghambatan (mm)
Ekstrak F1	7.1 ± 0.63 ^a
Ekstrak F2	5.5 ± 0.15 ^b
Ekstrak F3	5.6 ± 0.54 ^b
Ekstrak F4	5.6 ± 0.26 ^b
Ekstrak F5	3.4 ± 1.33 ^c
Kloramfenikol	34.0 ± 0.44
DMSO	0.0 ± 0.00
Metanol	0.0 ± 0.00

Keterangan: Nilai rata-rata dengan huruf yang berbeda pada tiap batang menunjukkan analisis rata-rata nilai diameter penghambatan berbeda nyata antar sampel (nilai p<0.05)

b. Data Penelitian Lajira & Lister, 2019

BioLink : Jurnal Biologi Lingkungan, Industri dan Kesehatan, Vol. 6 (1) Agustus (2019)
 ISSN: 2356- 458X (print) ISSN: 2550-1305 (online)
 DOI: 10.31289/biolink.v6i1.2237



BioLink
Jurnal Biologi Lingkungan, Industri, Kesehatan

Available online <http://ojs.uma.ac.id/index.php/biolink>

UJI ANTIBAKTERI EKSTRAK BUAH TAKOKAK (*SOLANUM TORVUM SWARTZ*) TERHADAP PERTUMBUHAN BAKTERI *PROPIONIBACTERIUM ACNES*

ANTIBACTERIAL TEST OF TAKOKAK FRUIT EXTRACT (*SOLANUM TORVUM SWARTZ*) AGAINST *PROPIONIBACTERIUM ACNES* BACTERIAL GROWTH

Merta Meliana Lajira, I Nyoman Ehrich Lister*

Program Studi Pendidikan Dokter, Fakultas Kedokteran, Universitas Prima Indonesia, Indonesia

Diterima : 06-02-19; Disetujui : 26-04-19; Diterbitkan : 12-08-19

*Corresponding author: E-mail: Melianalajira@gmail.com

Abstrak

Acne vulgaris merupakan kelainan pada kulit yang ditandai dengan munculnya komedo, papul, pustul, dan nodul yang sering terjadi pada wajah, bahu, dan punggung. *Propionibacterium acnes* merupakan organisme utama yang memberi kontribusi terhadap terjadinya *acne*. Salah satu tanaman yang memiliki efek anti bakteri yaitu buah takokak. Penelitian ini bertujuan untuk mengetahui ada tidaknya efek anti bakteri ekstrak buah takokak terhadap pertumbuhan bakteri *Propionibacterium acnes*. Metode uji yang digunakan adalah metode disk diffusion Diplo. Buah diekstraksikan dengan metode maserasi menggunakan etanol sebagai pelarut kemudian diencerkan menggunakan etanol 96% pada konsentrasi 25%, 50%, 75%, 100% sedangkan kontrol positif menggunakan suspensi klindamisin dan kontrol negatifnya aquades. Hasil penelitian menunjukkan bahwa ekstrak buah takokak memiliki efek antibakteri terhadap *Propionibacterium acnes* dengan rata-rata diameter zona hambat 16,75 mm; 18,3 mm; 18,85 mm; 21,92 mm. Kontrol positif (klindamisin) 37,45; kontrol negatif (aquades) tidak memiliki nilai untuk dapat menghambat bakteri.

Kata Kunci: *Propionibacterium acnes*, antibakteri, takokak

Tabel 1. Hasil Skrining Fitokimia Ekstrak Buah Takokak

No	Skrinning	Hasil
1	Flavanoid	+
2	Alkaloid	+
3	Saponin	+

Tabel 2. Hasil Zona Hambar Bakteri *Propionibacterium acnes*

Percobaan	Diameter zona hambat					
	Konsentrasi				Kontrol	
	25%	75%	50%	100%	(+) klindamisin	(-) Aquades
I	16,1	18,1	18,6	21,64		
II	17,1	18,5	19,1	22,2	37,45	0
Rata-rata	16,75	18,3	18,85	21,92		

c. Data Penelitian Rokhmawati et al, 2014

**Daya Antibakteri Ekstrak Buah Takokak (*Solanum torvum* Swartz) terhadap
Pertumbuhan *Streptococcus mutans*
(Antibacterial Activity of Turkey Berry Fruit [*Solanum torvum* Swartz] Extract
against *Streptococcus mutans*)**

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Abstract

Streptococcus mutans is Gram-positive bacteria which plays an important role on caries process. It has 82% prevalence, a high percentage of bacteria isolated from dental caries. Acid was produced from carbohydrate fermentation on dental plaque by *S. mutans*. It cause mineralization of enamel surface. Therefore, an effective way to control plaque accumulation was needed. One of it by using mouth rinse. The mouth rinse in the market is expensive and give some side effect in long term. Turkey berry fruit extract is a natural product that consists of antimicrobial substance such as flavonoid and tannin from polyphenol group. This study was conducted to prove the antibacterial effect of turkey berry fruit extract against *S. mutans*. Kind of this study was an experimental laboratories using post-test only control group design. The method of antibacterial testing was well diffusion. 48 samples were divided into 6 treated groups that consists of 12,5%, 25%, 50%, 100% turkey berry fruit extract, chlorhexidine 0,2% and aquadest. Diameter of inhibition zone was measured after 24 hours. Kruskal-Wallis test showed the results $p=0,000$, a significant difference between the treated groups ($p<0,05$). The conclusion of this study is turkey berry fruit extract has antibacterial effect against *S. mutans*.

Keywords: Antibacterial activity, caries, flavonoid, *Streptococcus mutans*, turkey berry fruit extract

Tabel 1. Hasil penghitungan nilai rata-rata diameter zona hambat pertumbuhan *S. mutans*

Kelompok perlakuan	n	\bar{X}	SD
K+	8	12,98	0,89
E100	8	10,90	0,80
E50	8	10,08	1,16
E25	8	9,16	1,21
E12,5	8	7,87	0,59
K-	8	5,00	0,00

n : jumlah sampel
 \bar{X} : nilai rata-rata diameter zona hambat (mm)
SD : standar deviasi (simpangan baku) diameter zona hambat
E100 : ekstrak buah takokak konsentrasi 100 %
E50 : ekstrak buah takokak konsentrasi 50 %
E25 : ekstrak buah takokak konsentrasi 25 %
E12,5 : ekstrak buah takokak konsentrasi 12,5 %
K+ : chlorhexidine 0,2 % (kontrol positif)
K- : aquades steril (kontrol negatif)

d. Data Penelitian Nilda, 2016

**UJI AKTIVITAS ANTIMIKROBA EKSTRAK DAUN RIMBANG (*Solanum torvum* Swartz)
TERHADAP BAKTERI *Staphylococcus aureus*, *Escherichia coli* DAN JAMUR
*Candida albicans***

Nilda Lely

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ABSTRAK

Daun rimbang secara tradisional telah digunakan untuk pengobatan, salah satunya digunakan untuk penyakit kulit. Telah dilakukan uji aktifitas antimikroba dari ekstrak daun rimbang (*Solanum torvum* Swartz) terhadap bakteri *Staphylococcus aureus*, *Escherichia coli* dan jamur *Candida albicans*. Ekstraksi daun rimbang dilakukan dengan cara maserasi dengan pelarut etanol. Uji aktifitas antimikroba dilakukan dengan metode difusi agar dengan menggunakan kertas cakram sebagai media difusi. Pengujian aktivitas antimikroba menggunakan berbagai variasi konsentrasi yaitu konsentrasi 50%, 25%, 12,5%, 6,25%, dan 3,15%. Hasil penelitian menunjukkan ekstrak daun rimbang mempunyai aktifitas antimikroba terhadap bakteri *Escherichia coli* ATCC 25922, *Staphylococcus aureus* ATCC 25923 dan jamur *Candida albicans* ATCC 01231.

Kata kunci : Antimikroba, daun rimbang (*Solanum torvum* Swartz), difusi agar

Tabel 1. Diameter daya hambat rata-rata ekstrak etanol daun rimbang (*Solanum torvum* Swartz) terhadap bakteri *Escherichia coli* ATCC 25922, *Staphylococcus aureus* ATCC 25923 dan jamur *Candida albicans* ATCC 01231

Konsentrasi Sampel	Diameter Hambat rata-rata (mm)		
	<i>Escherichia coli</i> ATCC 25922	<i>Staphylococcus aureus</i> ATCC	<i>Candida albicans</i> ATCC 01231
10% b/v	6,8	7,8	7,8
20%b/v	7,3	9,3	7,3
30% b/v	7	10,5	8,7
40% b/v	8,5	10	9,5
50% b/v	11,7	12,8	11,2
Etanol	-	-	-
Kloramfenikol 0,01%	18,2	19,0	18,3

**AKTIVITAS ANTIOKSIDAN EKTRAK METANOL DAN AIR
TEH HERBAL POKAK (*Solanum torvum*) TERHADAP
ANTIBAKTERI PATOGEN**

Nunuk Helilusiatiningsih

Program Studi Agroteknologi, Fakultas Pertanian, Universitas Islam Kadiri

Abstract

Pokak (*Solanum torvum*) can thrive in Indonesia and had high phytochemical and antioxidant compounds. The aim of this study was to analyze the effect of antioxidant compounds on herbal tea products, namely methanol extract of pokak herbal tea and water extract of pokak herbal tea on the inhibition of the growth of pathogenic bacteria. The herbal tea processing method uses surface response. The measured parameters were the total phenol content, tannins, flavonoids, and antioxidant activity (% DPPH Imbibition) and test for pathogenic bacteria inhibition zone using the disc method. The results showed that the best treatment was pokak green tea water extract containing 93.81% antioxidant activity (% DPPH inhibition), total phenol 55.20 mgGAE/g, tannin content 1.70 mgTAE/g, flavonoid levels 1.78 mgQAE/g. Analysis of pokak green tea water extract at a concentration of 100% had an inhibitory power against pathogenic bacteria *E coli* 20 mm, 20 mm MRSA, 20 ml *Salmonella typhi*, 19 mm *Streptococcus pneumonia*. Pokak green tea water extract can be used as a drink that functions for health in inhibiting the growth of pathogenic bacteria.

Keywords: Antioxidants; antibacteria; disc method; pathogenic bacteria; pokak.

Tabel 1. Zone hambat minimum infus air teh herbal pokak (mm)

No.	Organisme	konsentrasi infus air teh hijau pokak (%)				konsentrasi infus air teh hitam pokak (%)			
		100	50	25	12,5	100	50	25	12,5
1	<i>E coli</i>	20	15	10	8	16	12	8	7
2	<i>Salmonella</i>	20	16	11	7	14	12	10	8
3	MRSA	20	16	10	8	15	12	10	8
4	<i>Streptococcus pneumonia</i>	19	14	10	8	15	10	8	7

Tabel 2. Zone hambat minimum ekstrak metanol teh herbal pokak (mm)

No.	Organisme	konsentrasi ekstrak metanol teh hijau pokak (%)				konsentrasi ekstrak metanol teh hitam pokak (%)			
		100	50	25	12,5	100	50	25	12,5
1	<i>E coli</i>	15	10	8	7	14	10	8	7
2	<i>Salmonella</i>	16	12	10	8	15	12	10	8
3	MRSA	20	14	12	10	15	11	9	7
4	<i>Streptococcus pneumonia</i>	17	12	10	8	16	11	9	7

Lampiran 4

No	Jenis Kegiatan	Bulan (2021-2022)											
		6	7	8	9	10	11	12	1	2	3	4	5
1	Penelusuran Artikel					√							
2	Pembuatan Proposal					√							
3	Penyelesaian Proposal						√	√					
4	Skripsi								√	√	√		