

**CALON KONSUMEN DAN POTENSI UMOT (PRODUK
TURUNAN MENGKUDU)**

SKRIPSI

Oleh:

**MURTADHA
2004300109
Agribisnis**



UMSU

Unggul | Cerdas | Terpercaya

**FAKULTAS PERTANIAN
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
MEDAN
2024**

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SKRIPSI

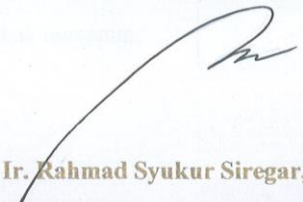
Oleh:

MURTADHA

2004300106

AGRIBISNIS

**Disusun Sebagai Salah Satu Syarat untuk Menyelesaikan Strata 1
(S1) pada Fakultas Pertanian Universitas Muhammadiyah
Sumatera Utara**



Ir. Rahmad Syukur Siregar, S.P., M.P.

Disahkan Oleh: Dekan



Assoc. Prof. Dr. Dafni Mawar Tarigan, S.P., M.Si.

Tanggal Lulus : 5 Februari 2025

PERNYATAAN

Dengan ini saya

Nama : Murtadha

NPM : 2004300109

Menyatakan dengan sebenarnya bahwa skripsi dengan judul “Calon Konsumen Dan Potensi UMOT (Produk Turunan Mengkudu)” adalah berdasarkan hasil penelitian, pemikiran dan juga pemaparan dari saya sendiri. Jika terdapat karya orang lain, saya akan mencatulkannya sebagai sumber yang jelas.

Demikian pernyataan ini saya buat dengan sesungguhnya dan apabila dikemudian hari ternyata ditemukan adanya penjiplakan (plagiarisme), maka saya bersedia menerima sanksi akademik berupa pencabutan gelar yang telah diperoleh.

Demikian pernyataan ini saya buat dalam keadaan sadar dan tanpa paksaan apapun dari pihak manapun.

Medan, 05 Februari 2025



Murtadha

RINGKASAN

Pembangunan wilayah berbasis integrasi komoditas pertanian dan sosial budaya dapat meningkatkan kesejahteraan petani dan masyarakat. Kabupaten Karo di Sumatera Utara telah membuktikan hal ini melalui pengembangan Usaha Mikro Obat Tradisional (UMOT) berbasis komoditas hortikultura, yang berkontribusi positif terhadap pertumbuhan ekonomi daerah. Sebaliknya, Kabupaten Asahan, meskipun memiliki potensi tanaman obat seperti mengkudu (*Morinda citrifolia*), menunjukkan pertumbuhan UMOT yang rendah dalam lima tahun terakhir. Mengkudu di Kabupaten Asahan mengalami peningkatan produksi dari tahun 2019 hingga 2022, menunjukkan peluang besar untuk pengembangan UMOT. Tanaman ini kaya akan metabolit sekunder seperti flavonoid, glikosida, fenol, alkaloid, dan triterpenoid yang terbukti efektif untuk pencegahan dan pengobatan penyakit kronis seperti tuberkulosis dan diabetes, dua penyakit dengan prevalensi tinggi di Kabupaten Asahan. Potensi pengembangan UMOT di Asahan didukung oleh beberapa faktor, seperti kondisi geografis yang mendukung budidaya tanaman obat, ekonomi lokal berbasis agraris, populasi tenaga kerja yang besar, pertumbuhan ekonomi yang positif, dan ketersediaan bahan baku mengkudu. Produk turunan mengkudu, seperti jus, kapsul, teh herbal, dan minyak esensial, berpotensi menjadi solusi kesehatan alternatif sekaligus mendorong diversifikasi ekonomi, peningkatan kesejahteraan, dan pengembangan ekonomi lokal di Kabupaten Asahan. Dengan pendekatan yang terencana dan berbasis potensi lokal, pengembangan UMOT berbahan baku mengkudu di Kabupaten Asahan dapat menjadi model baru dalam mengoptimalkan sumber daya daerah sekaligus meningkatkan taraf hidup masyarakat.

RIWAYAT HIDUP

Penulis yang Bernama Murtadha lahir pada 12 Mei 2002 di Labuhan Bilik Kabupaten Labuhan Batu Provinsi Sumatera Utara. Penulis merupakan anak keempat dari lima bersaudara dari kedua orang tua bapak Baharudin dan ibu Trisnawati.

Pendidikan formal yang pernah di tempuh antara lain:

1. Tahun 2014, menyelesaikan Pendidikan Sekolah Dasar di SDN Panai Tengah.
2. Tahun 2017, menyelesaikan Pendidikan MTsN 3 Labuhan Batu Kecamatan Panai Tengah.
3. Tahun 2020, menyelesaikan Pendidikan Sekolah Menengah Atas di SMAN 1 Panai Tengah.
4. Tahun 2020, diterima di Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara Program Studi Agribisnis.

Prestasi dan kegiatan akademik yang pernah diraih dan diikuti selama menjadi mahasiswa Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara antara lain yaitu:

1. Tahun 2020, mengikuti Perkenalan Kehidupan Kampus Mahasiswa/i Baru (PKKMB) Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
2. Tahun 2020, mengikuti Masa Ta'aruf (MASTA) Ikatan Mahasiswa Muhammadiyah (IMM) Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
3. Tahun 2021, mengikuti Manajemen Kepemimpinan Dasar (MAKASAR) ke 6 Himpunan Mahasiswa Agribisnis (HIMAGRI) Fakultas Pertanian

Universitas Muhammadiyah Sumatera Utara.

4. Tahun 2022, menjadi Badan Pengurus Harian (BPH) sebagai departemen bidang Pengabdian Masyarakat Himpunan Mahasiswa Agribisnis (HIMAGRI) Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
5. Tahun 2022, menjadi Ketua Humas Bakti Tani 7 Himpunan Mahasiswa Agribisnis (HIMAGRI) Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
6. Tahun 2023, menjadi Badan Pengurus Harian (BPH) sebagai ketua bidang Pengabdian Masyarakat Himpunan Mahasiswa Agribisnis (HIMAGRI) Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
7. Tahun 2023, mengikuti program Magang dan Studi Independen Bersertifikat (MSIB) di PT. Japfa Comfeed Indonesia Tbk. melalui Yayasan Edufarmers International di Kabupaten Cianjur, Jawa Barat.
8. Tahun 2023, menjadi Ketua Panitia pada kegiatan Training of Administration ke 8 yang diadakan oleh Himpunan Mahasiswa Agribisnis (HIMAGRI) Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.

KATA PENGANTAR

Alhamdulillah, puji dan syukur penulis ucapkan kehadiran Allah SWT. yang telah memberikan rahmat, karunia dan hidayah-Nya, sehingga penulis dapat menyelesaikan penulisan skripsi ini. Tidak lupa penulis haturkan shalawat dan salam kepada Nabi Muhammad SAW. Adapun judul skripsi ini adalah **“Calon Konsumen Dan Potensi UMOT (Produk Turunan Mengkudu)”**

Pada kesempatan ini penulis mengucapkan terima kasih kepada :

1. Terkhusus kepada kedua orang tua saya tercinta bapak Baharudin dan ibu Trisnawati yang telah memberikan dukungan, semangat serta motivasi baik itu secara moral, material dan doa kepada penulis sehingga penulis dapat menyelesaikan skripsi ini.
2. Ibu Assoc. Prof. Dr. Dafni Mawar Tarigan, S.P., M.Si. selaku Dekan Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
3. Ibu Prof. Dr. Ir. Wan Arfiani Barus, M.P., selaku Wakil Dekan I Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
4. Bapak Akbar Habib, S.P., M.P., selaku Wakil Dekan III Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
5. Ibu Mailina Harahap, S.P., M.Si. selaku Ketua Program Studi Agribisnis Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
6. Ibu Juita Rahmadani Manik, S.P., M.Si. selaku Sekretaris Program Agribisnis Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
7. Bapak Ir. Rahmad Syukur Siregar, S.P., M.P. selaku Dosen Pembimbing yang telah membimbing penulis dalam penulisan skripsi.

8. Seluruh Dosen Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara.
9. Biro Administrasi yang telah banyak membantu penulis dalam urusan administrasi.
10. Keluarga besar Himagri FP UMSU yang telah banyak membantu dan memberikan motivasi.
11. Seluruh teman-teman seperjuangan Kontnex, kos pak Mur dan teman-teman kelas Agribisnis 3 stambuk 2020.

Akhir kata penulis mengharapkan saran dan masukan dari semua pihak lain demi kesempurnaan skripsi penelitian ini.

Medan, 05 Februari 2025

dto

Murtadha

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PENDAHULUAN

Latar Belakang

Pembangunan wilayah yang mengintegrasikan antara ketersediaan komoditas pertanian pada suatu daerah dengan sosial budaya akan meningkatkan kesejahteraan petani dan masyarakat (Roldan et al., 2023). Kabupaten Karo sebagai basis subsektor hortikultura Sumatera Utara telah mampu menghasilkan produk turunan dari komoditas subsector hortikultura melalui Usaha Mikro Obat Tradisional (UMOT). Kabupaten Karo menunjukkan peningkatan UMOT dengan jumlah 4 pada tahun 2018, 4 pada tahun 2019, 9 pada tahun 2020, 14 pada tahun 2021 dan 17 pada tahun 2022 (Dinas Kesehatan Provinsi Sumatera Utara). keberadaan UMOT telah menunjukkan peningkatan pertumbuhan ekonomi sebesar 0,80% pada tahun 2020, 2,25% pada tahun 2021, dan 5,06% pada tahun 2022 (Badan Pusat Statistik Provinsi Sumatera Utara). Ini membuktikan bahwa dalam pembangunan wilayah, petani dan masyarakat mendapatkan manfaat besar dari integrasi sosial, budaya, dan ekonomi (Visca et al., 2020).

PDRB pada Kabupaten Asahan memiliki kontribusi paling rendah dari subsektor hortikultura (Badan Pusat Statistik Provinsi Sumatera Utara). Salah satu penyebabnya adalah UMOT di Kabupaten Asahan memiliki pertumbuhan yang rendah pada lima tahun terakhir, yaitu 0 pada tahun 2018, 0 pada tahun 2019, pada tahun 2020, 1 pada tahun 2021 dan 1 pada tahun 2022 (Dinas Kesehatan Provinsi Sumatera Utara). Pertumbuhan UMOT di kabupaten Asahan berbanding terbalik dengan kabupaten Karo.

Pemanfaatan tanaman obat oleh etnis Melayu, Jawa dan Batak di

gunakan untuk ritual kebudayaan, keagamaan, peningkatan imunitas dan pengobatan (Nasution et al., 2016). Etnis Melayu, Jawa dan Batak dalam menghasilkan obat tradisional memiliki keunikan dalam cita rasanya yang bersifat pahit. Peningkatan produksi mengkudu di Kabupaten Asahan menunjukkan tren positif, dengan jumlah produksi 237 kg pada tahun 2019, 994 kg pada tahun 2020, 1.725 kg pada tahun 2021, dan 1.556 kg pada tahun 2022 (Badan Pusat Statistik Provinsi Sumatera Utara). Mengkudu adalah komoditas tanaman obat yang paling potensial produk turunannya berdasarkan pertumbuhan produksi trend positif (Djauhariya et al., 2006).

Pemetaan langkah utama untuk pengembangan Usaha Mikro Obat Tradisional melakukan pemetaan masyarakat yang menjadi calon pembeli dari produk turunan tanaman obat yang dihasilkan (Ozkan and Deniz, 2023). Masyarakat yang tertarik untuk menggunakan produk turunan secara berkelanjutan akan menjadi konsumen potensial (Smith-Hall et al., 2012). Penelitian ini akan melakukan pemetaan analisis terhadap jenis dan jumlah penderita penyakit serta mengkaji calon konsumen dan potensi penggunaan produk turunan mengkudu oleh Usaha Mikro Obat Tradisional.

Rumusan Masalah

1. Bagaimana manfaat tanaman mengkudu (*Morinda Citrifolia*)
2. Bagaimana kesesuaian manfaat tanaman mengkudu (*Morinda Citrifolia*) untuk mencegah atau mengobati penyakit di kabupaten Asahan
3. Bagaimana potensi produk turunan dari tanaman mengkudu pada Usaha Mikro Obat Tradisional (UMOT) di kabupaten Asahan

Tujuan Penelitian

1. Untuk mengetahui bagaimana manfaat tanaman mengkudu (Morinda Citrifolia)
2. Untuk mengetahui bagaimana kesesuaian manfaat tanaman mengkudu (Morinda Citrifolia) untuk mencegah atau mengobati penyakit di kabupaten Asahan
3. Untuk mengetahui bagaimana potensi produk turunan dari tanaman mengkudu pada Usaha Mikro Obat Tradisional (UMOT) di kabupaten Asahan

Manfaat Penelitian

Hasil dari penelitian ini diharapkan dapat memberikan manfaat, antara lain:

1. Bagi peneliti, penelitian ini merupakan salah satu syarat untuk menyelesaikan program Strata 1 (S1) di Fakultas Pertanian, Universitas Muhammadiyah Sumatera Utara.
2. Bagi institusi pendidikan, penelitian ini dapat memberikan manfaat bagi dunia pendidikan, perpustakaan, serta menjadi referensi untuk penelitian selanjutnya.
3. Bagi masyarakat umum, penelitian ini menyajikan informasi tentang potensi Usaha Mikro Obat Tradisional (UMOT) dengan fokus pada produk turunan mengkudu.

TINJAUAN PUSTAKA

Sejarah Tanaman Obat

Sejak ribuan tahun yang lalu, nenek moyang bangsa Indonesia telah menggunakan ramuan dari berbagai tanaman obat dan hewan untuk mencegah dan mengobati beragam penyakit. Indonesia juga dikenal sebagai negara yang memiliki jumlah tanaman obat yang sangat banyak. Penggunaan ramuan dari tanaman obat telah menjadi bagian dari kehidupan sehari-hari masyarakat Indonesia. Tradisi ini diwariskan dari generasi ke generasi. Pengobatan herbal ini secara empiris diyakini keampuhan dan khasiatnya. Banyak masyarakat yang masih memanfaatkan ramuan tradisional hingga saat ini. Tanaman obat tidak hanya digunakan untuk kesehatan, tetapi juga sebagai bagian dari budaya. Warisan ini terus dijaga dan dilestarikan oleh masyarakat Indonesia. Tradisi lisan berperan penting dalam menyebarkan pengetahuan tentang pengobatan herbal (Ong Peter Leonardo et al., 2023).

Sejarah tanaman obat atau herbal di Indonesia berdasarkan fakta sejarah adalah obat asli Indonesia. Catatan sejarah menunjukkan bahwa di wilayah nusantara dari abad ke 5-19, tanaman obat merupakan sarana paling utama bagi masyarakat tradisional kita untuk pengobatan penyakit dan pemeliharaan kesehatan. Banyak jenis tanaman yang digunakan secara tunggal maupun ramuan terbukti sebagai bahan pemelihara kesehatan. Tetapi dengan masuknya pengobatan modern di Indonesia, dengan didirikannya sekolah dokter jawa di Jakarta pada

tahun 1904, maka secara bertahap dan sistematis penggunaan tanaman obat sebagai obat telah ditinggalkan. Dan telah menggantungkan diri pada obat kimia modern, penggunaan tanaman obat dianggap kuno, berbahaya dan terbelakang (Marwati & Amidi 2018).

Pengertian Tanaman Obat

Tanaman obat adalah tanaman atau bagian dari tumbuhan yang dimanfaatkan sebagai bahan dalam obat tradisional atau obat herbal. Tanaman ini, yang juga dikenal sebagai biofarmaka, digunakan untuk menyembuhkan atau mencegah berbagai penyakit. Obat yang efektif mengandung zat aktif yang dapat menyembuhkan penyakit tertentu, atau berbagai zat yang bekerja secara sinergis untuk memberikan efek penyembuhan. Penggunaan tanaman obat sebagai obat dapat dilakukan melalui konsumsi, aplikasi topikal pada kulit, atau penghirupan. Proses ini melibatkan reseptor sel yang berfungsi menerima senyawa kimia dari tanaman obat, baik yang ditanam secara sengaja maupun yang tumbuh secara alami (Sarno, 2019).

Menurut Siregar dkk (2020) Tanaman obat merupakan tanaman yang sangat populer yang dapat dimanfaatkan sebagai bahan baku obat tradisional dan jamu, yang bila dikonsumsi akan meningkatkan kekebalan tubuh (immune system). Kementerian Pertanian dalam hal ini Direktorat Jenderal Hortikultura sebagai institusi pemerintah yang menangani produksi tanaman obat menyatakan bahwa yang dimaksud tanaman obat adalah tanaman yang bermanfaat untuk obat-obatan, kosmetik dan kesehatan yang dikonsumsi atau digunakan dari bagian-

bagian tanaman seperti daun, batang, buah, umbi (rimpang) ataupun akar.

Sedangkan pada penelitian Hedi R. Dewoto (2007) menjelaskan bahwa Definisi obat tradisional adalah bahan atau ramuan yang berasal dari tumbuhan, hewan, mineral, sediaan galenik, atau campuran dari bahan-bahan tersebut, yang telah digunakan secara turun-temurun untuk pengobatan berdasarkan pengalaman. Obat tradisional Indonesia, yang lebih dikenal dengan nama jamu, umumnya merupakan campuran dari berbagai bahan herbal yang berasal dari tanaman. Bagian tanaman yang digunakan dapat meliputi akar, batang, daun, umbi, atau bahkan seluruh bagian tanaman.

Bagian Tanaman Berkhasiat Obat

Pengelompokan famili tanaman obat berdasarkan bagian tanaman yang memiliki khasiat obat (Yowa Mariana et al., 2019) dapat dilihat pada tabel berikut ini:

Tabel 1. Bagian tanaman berkhasiat obat

NO	Organ Tanaman	Famili
1	Umbi	<i>Zingiberaceae, Araceae</i>
2	Akar	<i>Myricaceae, Solanaceae</i>
3	Rimpang	<i>Zingiberaceae, Myricaceae</i>
4	Batang	<i>Rutacea, Moraceae</i>
5	Kulit Batang	<i>Lauraceae, Myrtaceae</i>
6	Daun	<i>Sterculiaceae, Myrtaceae, Asteraceae, Caricaceae, Ericaceae, Annonaceae, Amaranthaceae, Basellaceae, Solanaceae, Myrtaceae, Malvaceae, Lamiaceae, Fabaceae, Apiaceae, Annonacea</i>

7	Buah	<i>Caricaceae, Bromeliaceae, Annonaceae, Rutaceae, Guttiferae, Cucurbitaceae</i>
8	Biji	<i>Solanaceae</i>

Sumber: United States Department of Agriculture

Tidak semua bagian tumbuhan dapat digunakan sebagai obat tradisional, namun hanya bagian-bagian tertentu saja seperti: umbi 3,22%, akar 12,90%, rimpang 12,90%, batang 6,45%, kulit batang 6,45% daun 32,25%, buah 19,35% dan biji 6,45%. Hal ini disesuaikan dengan jenis penyakit yang akan diobati dan terkadang hanya satu organ tumbuhan yang digunakan dan ada pula beberapa organ tumbuhan yang diracik bersama-sama (Yowa Mariana et al., 2019).

Kandungan Senyawa Aktif Metabolit Sekunder Pada Tumbuhan Obat

Tumbuhan memiliki senyawa metabolit sekunder yang terdiri dari molekul- molekul kecil spesifik dan memiliki struktur bervariasi dengan fungsi dan peran berbeda pada tiap jenisnya. Metabolit sekunder pada tumbuhan memiliki peran sebagai senyawa penuntun dalam penemuan dan pengembangan obat baru, serta melindungi tumbuhan itu sendiri dari ancaman lingkungan. Beberapa senyawa metabolit sekunder memiliki khasiat obat, seperti flavonoid, saponin, alkaloid, steroid, triterpenoid dan tannin (Ergina dan Pursitasari, 2014) dalam (Khafid et al., 2023).

a. Flavonoid

Flavonoid adalah kelompok produk alami yang sangat penting. Secara khusus, flavonoid termasuk dalam kelompok metabolit sekunder

tumbuhan yang memiliki struktur polifenol, yang banyak ditemukan dalam buah-buahan, sayuran, dan minuman tertentu. Flavonoid memiliki berbagai manfaat biokimia dan antioksidan, yang berhubungan dengan berbagai penyakit seperti kanker, penyakit Alzheimer (AD), aterosklerosis, dan lainnya (Panche et al, 2016).

b. Saponin

Saponin adalah glikosida yang memiliki aglikon berupa sapogenin. Saponin mampu menurunkan tegangan permukaan air, yang menyebabkan terbentuknya buih pada permukaan air setelah dikocok. Sifat ini mirip dengan surfaktan. Penurunan tegangan permukaan terjadi karena adanya senyawa mirip sabun yang dapat merusak ikatan hidrogen pada air (Nurzaman et al., 2018).

c. Alkaloid

Alkaloid adalah salah satu senyawa metabolisme sekunder yang dihasilkan oleh tumbuhan. Senyawa ini banyak ditemukan pada organ tumbuhan seperti pada daun, kulit batang, ranting dan biji. Alkaloid memiliki manfaat dalam bidang kesehatan antara lain mampu meningkatkan tekanan darah, sebagai pemicu sistem saraf, mengurangi rasa sakit, senyawa antimikroba, sebagai obat penenang, obat penyakit jantung serta berbagai manfaat lainnya (Aksara et al, 2013) dalam (Khafid et al., 2023).

d. Steroid

Steroid adalah salah satu senyawa metabolit sekunder pada tumbuhan. Senyawa ini dapat dikategorikan sebagai kelas utama

fitokimia tanaman. Selain steroid, kelas utama fitokimia tanaman meliputi fenolik, terpenoid, minyak esensial, alkaloid, dan polipeptida. Setiap kelas fitokimia memiliki fungsi dan peran spesifik dalam tumbuhan. Steroid, misalnya, berperan penting dalam berbagai proses fisiologis (Bialangi, et al., 2018).

e. Triterpenoid

Triterpenoid adalah senyawa metabolit sekunder turunan terpenoid yang kerangka karbonnya berasal dari enam satuan isoprena (2-metilbuta-1,3-diene) yaitu kerangka karbon yang dibangun oleh enam satuan C₅ dan diturunkan dari hidrokarbon C₃₀ asiklik, yaitu skualena. Senyawa ini berbentuk siklik atau asiklik dan sering memiliki gugus alkohol, aldehida, atau asam karboksilat (Widiyati, 2006) dalam (Balafif et al., 2013).

f. Tannin

Tannin merupakan senyawa aktif metabolit sekunder golongan polifenol yang terdiri dari gugus hidroksi dan beberapa gugus terkait seperti karboksil yang dihasilkan oleh tanaman. Senyawa tannin memiliki aktivitas antifungi sehingga dapat memperkecil dinding sel jamur karena permeabilitasnya akan terganggu sehingga dinding sel jamur tersebut tidak dapat melakukan proses metabolisme sel (Hersila et al., 2023).

Kondisi Tanaman Obat di Indonesia

Tumbuhan obat tradisional di Indonesia mempunyai peran yang sangat penting terutama bagi masyarakat di daerah pedesaan yang

fasilitas kesehatannya masih sangat terbatas. Nenek moyang kita mengenal obat-obatan tradisional yang berasal dari tumbuhan di sekitar pekarangan rumah maupun yang tumbuh liar di semak belukar dan hutan-hutan. Masyarakat sekitar kawasan hutan memanfaatkan tumbuhan obat yang ada sebagai bahan baku obat-obatan berdasarkan pengetahuan tentang pemanfaatan tumbuhan obat yang diwariskan secara turun-temurun (Hidayat & Hardiansyah 2012).

Di Indonesia terdapat 20.000 jenis tumbuhan obat. Yang terdata sekitar 1.000 jenis, dan yang sudah dimanfaatkan untuk pengobatan tradisional baru sekitar 300 jenis (Susilo Yulianto 2017). Pengetahuan tentang tumbuhan obat dan pengembangannya yang bersumber dari hutan dan pekarangan seharusnya mendapat perhatian besar. Untuk menunjang kelestarian lingkungan hidup dan menjaga agar tumbuhan obat tetap ada maka perlu dikembangkan kegiatan budidaya tumbuhan obat (Abdi, Murdiono, & Sitompul, 2015) dalam (Dewantari et al., 2018).

Obat Tradisional Lebih Sesuai Untuk Penyakit Metabolit Sekunder

Metabolit sekunder adalah senyawa kimia yang diproduksi oleh tanaman. Senyawa ini bervariasi antara spesies yang satu dengan yang lainnya. Produksi metabolit sekunder tidak seragam dan spesifik untuk setiap spesies. Perbedaan ini menunjukkan keanekaragaman fungsi dan peran dalam tanaman (Hersila et al., 2023). Obat tradisional lebih sesuai untuk mengatasi penyakit yang melibatkan metabolit sekunder karena banyak tanaman obat mengandung senyawa metabolit sekunder seperti

flavonoid, alkaloid, terpenoid, dan polifenol yang memiliki aktivitas biologis seperti anti-inflamasi, antimikroba, dan antioksidan. Selain itu, obat tradisional biasanya lebih aman dan memiliki efek samping yang lebih rendah dibandingkan obat sintetis, serta lebih mudah diakses dan lebih ekonomis, terutama di daerah pedesaan atau negara berkembang. Pendekatan holistik dalam pengobatan tradisional juga mempertimbangkan keseimbangan tubuh secara keseluruhan, yang seringkali lebih efektif dalam mengelola penyakit kompleks. Banyak dari tanaman obat ini telah digunakan selama berabad-abad dalam berbagai budaya, menunjukkan keamanan dan efektivitasnya yang berkelanjutan (Zeeshan Bhatti et al., 2022).

UMOT (Usaha Mikro Obat Tradisional)

UMOT merupakan bagian dari UMKM sesuai dengan Pasal 1 butir 6 Peraturan Menteri Kesehatan Nomor 006 Tahun 2012, yang mendefinisikan UMOT sebagai usaha yang menghasilkan sediaan obat tradisional dalam bentuk param, tapel, pilis, cairan obat luar, dan rajangan. Usaha Mikro Obat Tradisional (UMOT) merujuk pada usaha kecil yang bergerak dalam produksi, pengolahan, dan/atau distribusi obat tradisional. Obat tradisional adalah produk yang berasal dari bahan-bahan alami, seperti tumbuhan, hewan, atau mineral. Produk ini digunakan untuk tujuan kesehatan, pencegahan, dan pengobatan penyakit.

a. Potensi Ekonomi

Usaha mikro obat tradisional memiliki potensi ekonomi yang signifikan. Permintaan pasar yang tinggi terhadap produk alami dan

tradisional, baik di dalam negeri maupun di pasar internasional, menjadikan usaha ini berpotensi besar. Selain itu, penggunaan bahan baku lokal yang mudah ditemukan mengurangi biaya produksi dan mendukung pertumbuhan ekonomi lokal. Inovasi dalam pengembangan produk baru juga menciptakan nilai tambah dan membuka pasar baru. Usaha ini juga membuka lapangan kerja baru bagi masyarakat dalam proses produksi, distribusi, dan pemasaran. Agribisnis tanaman obat memiliki nilai rantai yang memberikan sumber penghasilan bagi setiap pelakunya. Tanaman herbal (obat) memiliki potensi bisnis untuk dapat dikembangkan dan sebagai upaya deversifikasi usaha pertanian yang berkelanjutan (Hidayat and Supartoko., 2017).

b. Pemerataan Kesejahteraan

Pemerataan kesejahteraan dapat dicapai melalui pengembangan usaha mikro obat tradisional, yang memanfaatkan kekayaan alam dan pengetahuan lokal. Dengan mendukung usaha kecil ini, masyarakat di berbagai daerah dapat meningkatkan pendapatan dan taraf hidup mereka. Usaha mikro obat tradisional juga membantu melestarikan budaya dan warisan leluhur, sambil memberikan alternatif pengobatan yang terjangkau dan alami bagi masyarakat. Selain itu, usaha ini dapat membuka lapangan pekerjaan baru dan mengurangi kesenjangan ekonomi antara daerah perkotaan dan pedesaan, sehingga menciptakan keseimbangan ekonomi yang lebih merata dan berkelanjutan.

c. Pertumbuhan Ekonomi

Pertumbuhan ekonomi dapat didorong secara signifikan melalui

usaha mikro obat tradisional, yang menggabungkan kearifan lokal dengan inovasi dalam pengolahan bahan alam. Usaha mikro ini tidak hanya meningkatkan pendapatan individu dan keluarga, tetapi juga memperluas pasar domestik dan internasional untuk produk-produk kesehatan alami. Dengan memberikan pelatihan dan dukungan keuangan kepada pengusaha mikro, pemerintah dan lembaga terkait dapat mendorong pertumbuhan sektor ini, menciptakan lapangan kerja, dan meningkatkan daya saing produk lokal di pasar global. Selain itu, Usaha Mikro Obat Tradisional (UMOT) dapat menarik minat wisatawan kesehatan dan penelitian, yang pada gilirannya menambah devisa negara dan mendorong pertumbuhan ekonomi yang inklusif dan berkelanjutan.

Masyarakat dan Tanaman Obat

Tanaman obat adalah tumbuhan yang telah diidentifikasi dan diketahui berdasarkan pengamatan manusia memiliki senyawa yang bermanfaat untuk mencegah, menyembuhkan penyakit, melakukan fungsi biologis tertentu. Pengertian tanaman obat tradisional juga sering disebut apotek hidup, yakni pemanfaatan sebagian tanah agar dapat ditanami tanaman obat yang digunakan untuk kepentingan sehari-hari (Grenvilco D. Kumontoy 2023).

Tumbuhan obat mempunyai hubungan yang erat dengan masyarakat, baik sebagai sumber mata pencaharian dan pendapatan petani sekitar hutan maupun sebagai peluang yang menjanjikan dalam

sektor ekonomi lokal. Tradisi pengobatan dalam masyarakat tidak terlepas dari budaya setempat dan sering kali diwariskan secara turun-temurun. Pemanfaatan tumbuhan obat oleh masyarakat mencerminkan pengetahuan lokal yang kaya, yang berperan penting dalam menjaga kesehatan komunitas dan melestarikan biodiversitas. Selain itu, industri tanaman obat dapat memberikan dampak positif dengan menciptakan lapangan kerja, meningkatkan nilai tambah produk melalui inovasi, dan mengurangi ketergantungan pada obat-obatan impor. Dengan demikian, tumbuhan obat tidak hanya berkontribusi pada kesehatan individu tetapi juga pada kesejahteraan sosial dan ekonomi masyarakat secara keseluruhan (Herlina et al., 2019).

Penelitian Terdahulu

a. Tanaman Mengkudu

Tanaman mengkudu, yang dikenal dengan nama ilmiah *Morinda citrifolia*, adalah tanaman tropis yang banyak ditemukan di Asia Tenggara dan Pasifik Selatan. Buahnya yang berwarna hijau kekuningan memiliki rasa dan aroma yang khas serta kaya akan senyawa fitokimia seperti antioksidan, vitamin, dan mineral. Berikut adalah penelitian

Peneliti	Judul	Rumusan Masalah	Teknik Analisis	Hasil
Reni Mayanti (2019)	PENGARUH EKSTRAK DAUN MENGKUDU (Morinda citrifolia lignosae) TERHADAP PERSENTASE DAYA TETAS DAN BOBOT TETAS BURUNG PUYUH (Coturnix-coturnix japonica)	Rumusan masalah penelitian ini, yaitu bagaimana pengaruh desinfektan alami ekstrak daun mengkudu (Morinda citrifolia lignosae) terhadap persentase daya tetas dan bobot	Data yang diperoleh dalam penelitian ini diolah secara statistik dengan menggunakan Rancangan Acak Lengkap (RAL)	penggunaan ekstrak daun mengkudu (Morinda citrifolia lignosae) berpotensi sebagai bahan sanitasi alami dengan proses pengelapan telur tetas burung puyuh (Coturnix-coturnix japonica) pada

terdahulu yang mendukung khasiat tanaman mengkudu: Tabel 2.

Penelitian terdahulu yang mendukung khasiat tanaman mengkudu

tetas telur burung puyuh (Coturnix coturnix japonica)?	perlakuan ekstrak daun mengkudu 30% yang memberikan rata-rata persentase daya tetas tertinggi sebesar (93%) dan bobot tetas tertinggi sebesar (6,89 gram)
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Cagiva Geovani dkk (2022)	Literature review: efektivitas daya hambat antibakteri tanaman mengkudu (<i>Morinda citrifolia</i> L.) terhadap <i>S.aureus</i> dan <i>E.coli</i>	1. Bagaimana efektivitas antibakteri dari ekstrak tanaman mengkudu (<i>Morinda citrifolia</i> L.) terhadap bakteri patogen <i>Staphylococcus aureus</i> dan <i>Escherichia coli</i> secara in vitro? 2. Faktor-faktor apa saja yang mempengaruhi daya hambat antibakteri dari ekstrak tanaman mengkudu terhadap pertumbuhan <i>Staphylococcus aureus</i> dan	Teknik analisis menggunakan dasar PRISMA (<i>Preferred Reporting Items for Systemic Reviews and Meta Analyses</i>)	Tanaman mengkudu (<i>Morinda citrifolia</i> L.) perpotensi menghambat bakteri Gram positif maupun Gram negatif. Diameter zona hambat biji mengkudu termasuk kategori kuat yaitu sebesar 20,45 mm terhadap bakteri <i>Escherichia coli</i> dan sebesar 13,4 mm terhadap bakteri <i>Staphylococcus aureus</i> . Pembentukan daya hambat bakteri tanaman mengkudu dipengaruhi oleh
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		<i>Escherichia coli</i> ?		beberapa faktor meliputi senyawa kimia, varietas tanaman, pelarut yang digunakan untuk ekstraksi, metode ekstraksi, metode pengujian, stain bakteri dan bentuk sediaan (ekstrak atau nanopartikel).
Hermawan Surya (2009)	D	EFEK EKSTRAK BUAH MENGKUDU (Morinda citrifolia L) TERHADAP KADAR ENZIM SGOT DAN SGPT PADA MENCIT DENGAN INDUKSI KARBON TETRAKLORIDA	Adakah pengaruh pemberian ekstrak buah mengkudu (Morinda citrifolia L) terhadap kadar SGOT dan SGPT mencit putih jantan galur Swiss Webster yang diinduksi CCl 4?	Data hasil penelitian yang berupa kadar enzim SGOT dianalisis dengan uji One Way Anova yang kemudian dilanjutkan dengan Post Hoc Test berupa uji Tukey HSD. Data Diolah dengan program Statistical Product and Service Solution (SPSS)16,0 0 for windows. 1. Ekstrak buah mengkudu dosis I (0,56 gram/ 20 gram BB); dosis II (1,12 gram/ 20 gram BB); dan dosis III (2,24 gram/ 20 gram BB) dapat menurunkan kadar enzim SGOT dan SGPT pada mencit yang diinduksi karbon tetraklorida. 2. Dosis II (1,12 gram/ 20 gram BB) merupakan dosis optimal untuk menurunkan kadar enzim SGOT dan SGPT.

DELLI CIPTA LESTARI (2021)	OPTIMASI PROSES EKSTRAKSI DAUN MENKUDU (Morinda citrifolia L.) SECARA MASERASI DENGAN PENDEKATAN SURFACE RESPONSE ANALYSIS	bagaimana kombinasi parameter rasio pelarut dan sampel serta lama waktu ekstraksi yang dapat menghasilkan ekstrak yang optimal dalam proses ekstraksi daun mengkudu (M.citrifolia L.) secara metode maserasi dengan pendekatan Surface Response Analysis.	Analisis hasil data yang diperoleh kemudian diolah menggunakan an metode Surface Response Analysis merupakan metode analisis untuk penentuan beberapa parameter yang berbeda.	optimasi proses ekstraksi daun mengkudu (Morinda citrifolia L.) secara maserasi dengan pendekatan Surface Response Analysis didapatkan dua parameter optimum yaitu, parameter rasio simplisia dan pelarut pada rendemen ekstrak yaitu 1:34 serta waktu ekstraksi selama 12 jam, dan untuk konsentrasi stigmasterol didapatkan parameter rasio simplisia dan pelarut yaitu 1:34 serta waktu ekstraksi selama 84 jam.
Amanda Prasty Ascalonicaw ati (2016)	PENGARUH EKSTRAK DAUN MENKUDU (MORINDA CITRIFOLIA L.) TERHADAP JUMLAH SEL MAKROFAG DI SOKET	Apakah ekstrak daun mengkudu (Morinda citrifolia L.) dapat menurunkan jumlah sel makrofag di soket	uji one way ANOVA menggunakan an program SPSS dengan tingkat signifikansi 0,05 (p=0,05)	1. Ekstrak etanol daun mengkudu (Morinda citrifolia L.) mempunyai efek menurunkan jumlah sel makrofag pada

MANDIBULA PASCA	mandibula pasca	dan taraf kepercayaa	soket mandibula
EKSTRAKSI GIGI PADA TIKUS WISTAR (RATTUS NORVEGICUS)	pencabutan gigi pada Rattus norvegicus?	n 95% ($\alpha=0,05$). Untuk menghitung perbedaan hasil dari masing- masing konsentrasi yang diberikan, maka dilakukan perhitungan dengan menggunak an metode Tukey atau Honestly Significant Difference/ HSD.	pasca pencabutan gigi tikus wistar Rattus norvegicus. 2. Semakin tinggi konsentrasi ekstrak daun mengkudu yang diberikan maka jumlah sel makrofag akan semakin menurun (arah korelasi negatif) dan koefisien R bernilai 0.695 sehingga dapat dikatakan bahwa hubungan antar kedua variabel tersebut adalah kuat positif.

Sumber: Data sekunder diolah

b. Produk Turunan

Produk turunan adalah hasil dari proses transformasi bahan mentah menjadi produk yang memiliki nilai tambah dan manfaat lebih besar. Produk turunan sering kali dihasilkan melalui berbagai metode pengolahan seperti ekstraksi, fermentasi, atau sintesis kimia. Berikut adalah penelitian terdahulu yang membahas produk turunan:

Tabel 3. Penelitian terdahulu produk turunan pertanian

Peneliti	Judul	Rumusan Masalah	Teknik Analisis	Hasil
Larasati hardian (2018)	ANALISIS NILAI TAMBAH, PENDAPATAN USAHA, DAN PENGEMBANGAN PRODUK	1. Berapa nilai tambah per produk yang diperoleh dari pengolahan	Analisis data dilakukan dibagi menjadi dua, yaitu analisis kuantitatif dan analisis kualitatif	Penelitian menunjukkan bahwa opak singkong dan tepung gaplek memiliki nilai tambah dan

OLAHAN SINGKONG SKALA INDUSTRI RUMAH TANGGA	singkong di Kecamatan Sepatan Timur? 2. Berapa keuntungan yang didapat dari masing- masing jenis produk olahan singkong di Kecamatan Sepatan Timur? 3. Bagaimana pengembang- an lebih lanjut produk olahan singkong di Kecamatan Sepatan Timur?	keuntungan signifikan, masing- masing Rp 3.739/kg dan Rp 6.160/kg. Setelah menghitung upah tenaga kerja, margin tertinggi untuk opak adalah pendapatan tenaga kerja (89,5%) dan tepung gaplek (78,4%). Produk dengan keuntungan tertinggi adalah tapai singkong dengan pendapatan Rp 7.057.860/bul- an. Disarankan mengembang- kan opak singkong, tapai singkong, dan tepung gaplek dengan strategi seperti promosi online, partisipasi bazar, pelatihan, dan branding. Strategi ini bertujuan meningkatkan daya saing produk di
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Nurasi ma (2024)	KONTRIBUSI USAHA KOPRA TERHADAP PENINGKATAN TARAF HIDUP KELUARGA PETANI KOPRA PERSPEKTIF EKONOMI SYARIAH (STUDI DESA PANYAMPA POLEWALI MANDAR)	1. Bagaimana sistem pendistribusian kopra di Desa Panyampa Polewali Mandar? 2. Bagaimana kontribusi usaha kopra terhadap peningkatan taraf hidup petani kopra di Desa Panyampa?	Data yang didapatkan bersumber dari data primer dan data sekunder. Sedangkan untuk teknik analisis data yaitu reduksi data, penyajian data dan penarikan kesimpulan.	Kecamatan Sepatan Timur. Sistem pendistribusian kopra di Desa Panyampa, Polewali Mandar, melalui tiga cara: dijemput pedagang, pemilik kelapa, atau diantar ke gudang perusahaan. Distribusi ini sudah sesuai prinsip syariah dengan kesepakatan adil. Usaha kopra meningkatkan taraf hidup petani melalui stabilitas pendapatan, mendukung kebutuhan sandang, pangan, papan, dan kesehatan masyarakat. Ditemukan alternatif-alternatif yang menjadi faktor pengembangan usaha pengolahan selai nenas Bokondini. Strategi S-O
Kelina Bembo k (2021)	PROSPEK PENGEMBANG AN INDUSTRI RUMAH TANGGA PENGOLAHAN SELAI NENAS DI DISTRIK BOKONDINI	Bagaimana faktorfaktor prospek pengembangan industri rumah tangga pengolahan nenas di Distrik	Analisis SWOT digunakan untuk mengidentifikasi faktor prospek pengembangan internal dan eksternal pada usaha pengolahan	

		Bokondini	nenas	Menggunakan
		Kabupaten Tolikara.	(homindustri) di Distrik Bokondini.	kekuatan yang ada untuk memperkuat kelemahan-kelemahan usaha pengolahan selai nenas, Strategi WO memanfaatkan peluang secara maksimal untuk lebih memperkuat kekuatan usaha pengolahan selai nenas, Strategi S-T memaksimalkan peluang-peluang usaha untuk menghindari ancaman usaha, dan Strategi W-T mempertahankan kekuatan usaha pengolahan selai nenas semaksimal mungkin dan menghindari ancaman.
Kurniya Sani (2022)	MANAJEMEN PENGELOLAAN PRODUK OLAHAN SINGKONG UNTUK MENINGKATKAN	Bagaimana manajemen pengelolaan umkm olahan singkong dalam meningkatkan	Metode analisis data yang dipakai dalam penelitian ini adalah metode analisis kualitatif lapangan, karena data yang	Usaha mikro kecil menengah opak ini merupakan salah satu usaha yang banyak di

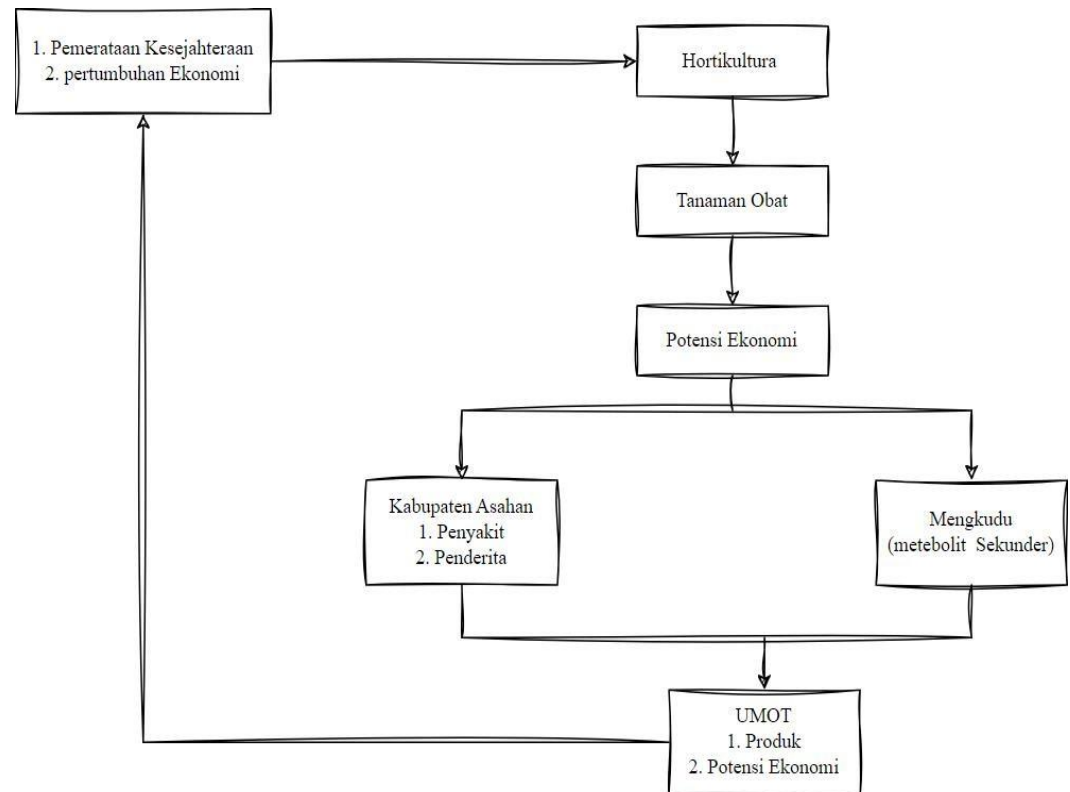
PENDAPATAN USAHA UMKM	DI DESA	n pendapatan usaha.	dihasilkan merupakan keterangan	geluti masyarakat sekitar. Jenis
REJO TEGINENENG PESAWARAN	AGUNG		dalam uraian.	bentuk olahan singkong seperti ini walaupun sederhana tapi memiliki tingkat penjualan tinggi. Jenis olahan singkong ini akan memiliki nilai jual yang lebih dan dapat menarik konsumen dibandingkan hanya menjual singkong saja tanpa mengolahnya.

Sumber: Data sekunder diolah

Kerangka Berpikir

Kerangka berpikir atau kerangka pemikiran adalah dasar pemikiran dari penelitian yang disintesis dari fakta-fakta, observasi dan kajian kepustakaan. Oleh karena itu, kerangka berpikir memuat teori, dalil atau konsep-konsep yang akan dijadikan dasar dalam penelitian. Di dalam kerangka pemikiran variabel- variabel penelitian dijelaskan secara mendalam dan relevan dengan permasalahan yang diteliti, sehingga dapat dijadikan dasar untuk menjawab permasalahan penelitian (Syahputri et al., 2023). Berikut ini adalah kerangka

pekerjaan yang telah disusun oleh peneliti:



Gambar 1. Kerangka berpikir

METODE PENELITIAN

Metode Penelitian

Metode yang digunakan dalam penelitian ini adalah studi kepustakaan atau tinjauan literatur. Tinjauan literatur adalah evaluasi komprehensif terhadap penelitian sebelumnya yang berkaitan dengan topik tertentu. Tujuannya adalah untuk memberi informasi kepada pembaca tentang pengetahuan yang telah ada dan yang masih belum terungkap mengenai topik tersebut, serta untuk menemukan dasar rasional dari penelitian yang sudah dilakukan atau untuk menginspirasi penelitian selanjutnya (Denney & Tewksbury, 2013). Data yang digunakan merupakan data sekunder diperoleh dari Scientdirect, Googlescholer, BPS Sumatera Utara, Dinas Kesehatan Provinsi Sumatera Utara, Asahan Satu Data, Dinas Kependudukan dan Pencatatan Sipil Kabupaten Asahan, dengan rentang waktu 2019-2024.

Metode Penentuan Lokasi Penelitian

Penelitian ini dilakukan di Kabupaten Asahan Provinsi Sumatera Utara. Metode penentuan lokasi dilakukan secara (*purposive*) sengaja dengan pertimbangan bahwa Kabupaten Asahan memiliki calon Konsumen dan Potensi UMOT (Produk Turunan Mengkudu).

Metode Analisis Data

Metode yang di gunakan untuk analisis data adalah PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). PRISMA adalah pendekatan sistematis yang digunakan untuk mengumpulkan, menyeleksi, dan mensintesis hasil dari berbagai studi yang relevan dalam tinjauan sistematis atau meta-analisis. PRISMA dirancang untuk memastikan transparansi dan

ketelitian dalam pelaksanaan penelitian, serta untuk membantu peneliti dalam melaporkan

hasil mereka secara terstruktur. Berikut penjelasan lebih rinci tentang metode analisis data dengan dasar PRISMA:

1. Identifikasi (Identification):

Pada tahap ini, peneliti mencari dan mengumpulkan semua literatur atau studi yang relevan dengan topik penelitian dari berbagai sumber seperti database akademik, jurnal ilmiah, konferensi, dan sumber lainnya. Pencarian ini dilakukan dengan menggunakan kata kunci yang spesifik dan strategi pencarian yang telah dirancang sebelumnya. Tujuan dari langkah ini adalah untuk mendapatkan sebanyak mungkin referensi yang berkaitan dengan topik penelitian.

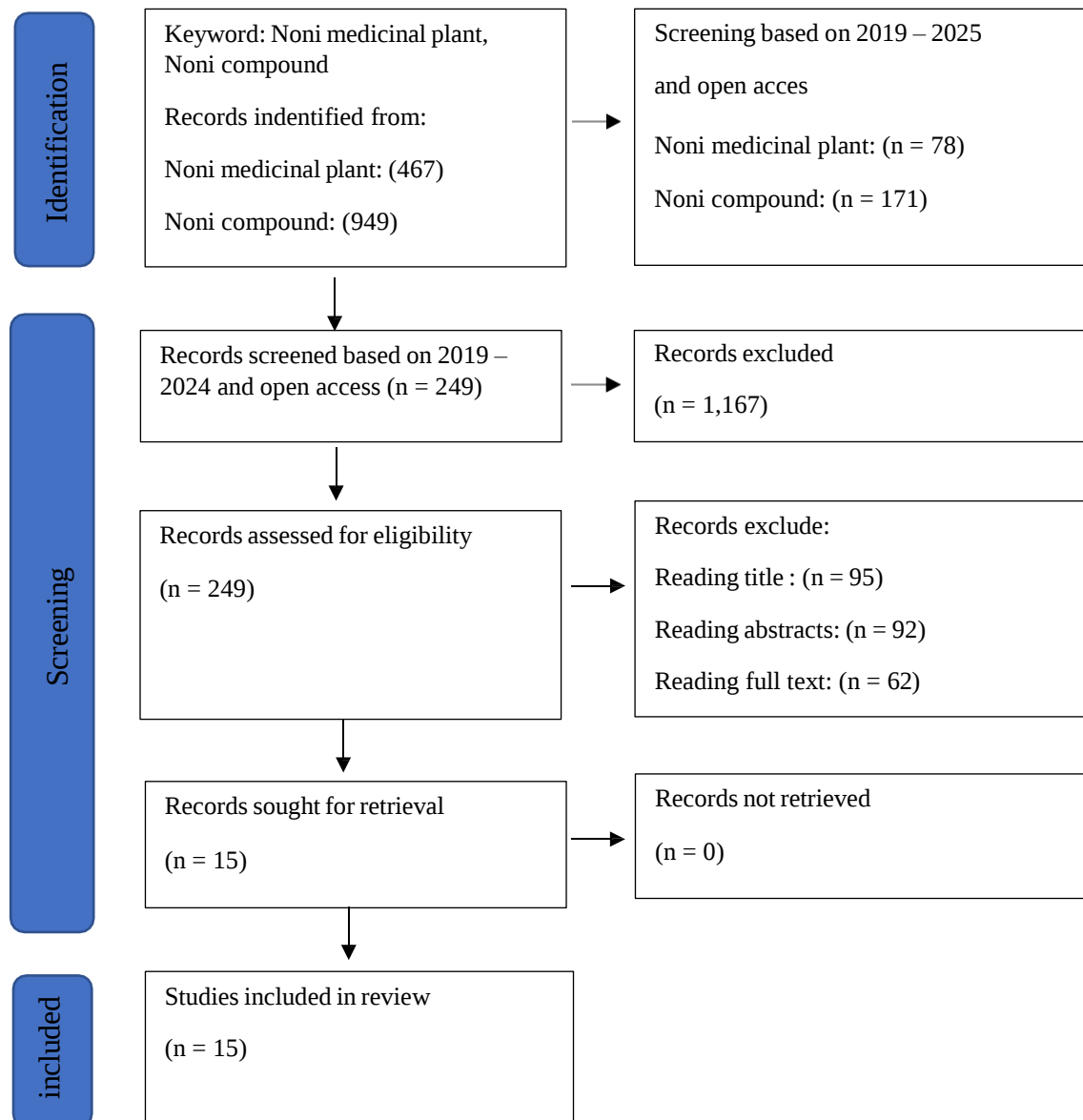
2. Penyaringan (Screening):

Setelah semua studi yang relevan diidentifikasi, langkah berikutnya adalah menyaring atau menyeleksi studi tersebut berdasarkan kriteria inklusi dan eksklusi yang telah ditetapkan sebelumnya. Pada tahap ini, peneliti akan mengeliminasi duplikasi dan menyingkirkan studi yang tidak relevan atau tidak memenuhi kriteria kualitas yang diperlukan. Penyaringan biasanya dilakukan melalui evaluasi judul, abstrak, dan kemudian teks lengkap dari studi yang tersisa.

3. Inklusi (Included):

Tahap akhir adalah inklusi, di mana studi yang lolos penyaringan dan memenuhi kriteria dimasukkan dalam analisis akhir.

Studi ini dianalisis secara mendalam, dan hasilnya digunakan untuk menjawab pertanyaan penelitian atau menyimpulkan topik yang dibahas. Proses ini memastikan hanya studi yang paling relevan dan berkualitas tinggi yang mempengaruhi hasil penelitian.



Gambar 2. Diagram Prisma

Definisi Operasional

1. **Potensi:** Dalam konteks ekonomi atau penelitian, potensi merujuk pada kapasitas atau kemungkinan suatu objek, aktivitas, atau area untuk menghasilkan hasil atau keuntungan tertentu. Ini mencakup kemungkinan pengembangan dan kontribusi terhadap pencapaian tujuan tertentu, seperti peningkatan ekonomi atau kesehatan masyarakat.
2. **Tanaman:** Tanaman adalah organisme hidup yang termasuk dalam kerajaan Plantae, yang umumnya memiliki kemampuan fotosintesis untuk menghasilkan makanan dari sinar matahari. Tanaman dapat berupa pohon, semak, herba, atau rumput yang tumbuh di berbagai lingkungan dan memiliki berbagai fungsi ekologis dan ekonomi.
3. **Tanaman Obat:** Tanaman obat adalah tanaman yang bagian-bagiannya, seperti daun, akar, batang, atau bunga, digunakan untuk tujuan terapeutik atau pengobatan. Tanaman ini mengandung senyawa aktif yang dapat membantu dalam pencegahan, pengobatan, atau perawatan berbagai kondisi kesehatan.
4. **Bagian Tanaman Obat:** Bagian tanaman obat merujuk pada bagian spesifik dari tanaman yang digunakan untuk tujuan pengobatan. Ini bisa mencakup akar, daun, batang, bunga, atau biji, tergantung pada tanaman dan kegunaan terapeutiknya. Misalnya, akar ginseng sering digunakan dalam pengobatan tradisional, sedangkan daun teh hijau digunakan untuk manfaat kesehatan.
5. **Tanaman Mengkudu:** Tanaman mengkudu (*Morinda citrifolia*)

adalah tanaman tropis yang dikenal karena sifat obatnya. Buah dan daun tanaman ini sering digunakan dalam pengobatan tradisional untuk berbagai penyakit, seperti peradangan dan gangguan pencernaan, karena kandungan senyawa aktifnya, seperti saponin dan flavonoid.

6. **Metabolit Sekunder:** Metabolit sekunder adalah senyawa organik yang diproduksi oleh tanaman (dan organisme lain) yang tidak terlibat langsung dalam pertumbuhan atau perkembangan utama, tetapi memainkan peran penting dalam interaksi dengan lingkungan, seperti perlindungan terhadap herbivora atau patogen. Contoh metabolit sekunder termasuk alkaloid, flavonoid, dan terpenoid, yang sering memiliki aktivitas biologis yang bermanfaat.
7. **Penyakit:** Penyakit adalah kondisi abnormal yang memengaruhi tubuh atau pikiran, biasanya ditandai dengan gejala dan tanda-tanda tertentu. Penyakit dapat disebabkan oleh berbagai faktor, seperti infeksi, ketidakseimbangan biokimia, gangguan genetik, atau kerusakan fisik.
8. **Penderita Penyakit:** Penderita penyakit adalah individu yang mengalami atau terdiagnosis dengan suatu penyakit. Mereka mungkin mengalami berbagai gejala dan dampak yang memengaruhi kualitas hidup mereka, dan biasanya memerlukan diagnosis dan perawatan medis untuk mengelola kondisi mereka.
9. **UMKM (Usaha Mikro, Kecil, dan Menengah):** UMKM adalah

kategori usaha yang meliputi perusahaan mikro, kecil, dan menengah, yang ditandai dengan skala operasional, jumlah tenaga kerja, dan pendapatan tahunan yang relatif kecil dibandingkan dengan perusahaan besar. UMKM berperan penting dalam perekonomian lokal dengan menciptakan lapangan kerja dan mendukung pengembangan ekonomi.

10. UMOT (Usaha Mikro Obat Tradisional): UMOT adalah subkategori UMKM yang fokus pada produksi dan pemasaran obat tradisional. Usaha ini melibatkan pengolahan dan pemanfaatan tanaman obat untuk membuat produk-produk kesehatan yang bersifat tradisional dan alami.
11. Produk: Produk adalah barang atau jasa yang dihasilkan untuk dijual atau digunakan. Dalam konteks usaha mikro obat tradisional, produk merujuk pada hasil akhir yang dibuat dari tanaman obat, seperti ramuan, kapsul, atau ekstrak, yang ditawarkan kepada konsumen untuk keperluan kesehatan.
12. Produk Turunan: Produk turunan adalah hasil sampingan atau variasi yang dihasilkan dari produk utama. Dalam konteks tanaman obat, produk turunan bisa termasuk bentuk lain dari produk utama, seperti ekstrak, bubuk, atau minyak esensial, yang diolah dari bahan dasar tanaman obat untuk meningkatkan kegunaan atau nilai tambahnya.

Tabel 4. Sumber tinjauan literatur

NO	Rumusan Masalah	Jenis Data	Sumber	Analisis	Hasil
1.	Bagaimana manfaat tanaman mengkudu (Morinda Citrifolia)	Skunder	Sciendirect, Google Scholer, Pubchem	Prisma P	Mengetahui manfaat tanaman mengkudu
2.	Bagaimana kesesuaian manfaat tanaman mengkudu (Morinda Citrifolia) untuk mencegah atau mengobati penyakit di kabupaten Asahan	Skunder	Dinas Kesehatan provinsi Sumatera utara, Sciendirect, Google Scholer, Pubchem	Prisma p	Mengetahui Bagaimana kesesuaian manfaat tanaman mengkudu (Morinda Citrifolia) untuk mencegah atau mengobati penyakit di kabupaten Asahan
3.	Bagaimana potensi tanaman mengkudu pada Usaha mikro Obat Tradasional (UMOT) di Kabupaten Asahan	Skunder	BPS Sumatera Utara, Dinas Kesehatan Sumatera Utara, Googlesholer	Prisma P	Bagaimana potensi tanaman mengkudu pada Usaha mikro Obat Tradasional (UMOT) di Kabupaten Asahan

DESKRIPSI UMUM DAERAH PENELITIAN

Karakteristik Lokasi

a) Kabupaten Asahan

Kabupaten Asahan merupakan salah satu wilayah di Provinsi Sumatera Utara, dengan ibukota terletak di Kisaran. Secara geografis, kabupaten ini berbatasan dengan Kabupaten Batubara di barat, Kabupaten Labuhanbatu di selatan, Kabupaten Simalungun di utara, dan Selat Malaka di timur. Daerah ini dikenal sebagai wilayah yang subur dengan sektor pertanian, perkebunan, dan perikanan sebagai tulang punggung ekonominya. Komoditas utama seperti kelapa sawit, karet, dan kakao mendominasi kegiatan perkebunan. Sungai Asahan yang membelah wilayah ini juga menjadi sumber penting untuk perikanan air tawar.

Letak geografis Kabupaten Asahan berada di kawasan pantai timur Sumatera Utara terletak pada garis 2°30'00'' - 3°10'00'' Lintang utara, 99°01'-100°00'' Bujur Timur dengan ketinggian 0 – 1.000 m di atas permukaan laut. Total luas wilayah kabupaten Asahan adalah 3732,97 Km persegi atau sekitar 373.297 Hektar.

Tabel 5. Perbatasan Kabupaten Asahan

Sebelah Utara	Berbatasan dengan Kabupaten Batu Bara
Sebelah Timur	Berbatasan dengan Selat Malaka
Sebelah Selatan	Berbatasan dengan Kabupaten Labuhan Batu Utara dan Kabupaten Toba Samosir
Sebelah Barat	Berbatasan dengan Kabupaten Simalungun

Sumber: Asahan Satu Data

b) Data penduduk terkait jenis pekerjaan kabupaten asahan

Berdasarkan data penduduk Kabupaten Asahan, terdapat 99 jenis pekerjaan formal dan non formal yang tersebar di berbagai sektor ekonomi. Sektor-sektor utama seperti pertanian, kehutanan, dan perikanan tetap menjadi penopang utama lapangan pekerjaan, sejalan dengan karakteristik wilayah yang didominasi oleh aktivitas agraris. Selain itu, sektor industri pengolahan dan perdagangan juga berperan penting dalam menyerap tenaga kerja, terutama di wilayah perkotaan. Jenis pekerjaan lainnya tersebar di sektor jasa, transportasi, konstruksi, dan layanan publik, yang turut memberikan kontribusi terhadap kesejahteraan masyarakat. Diversifikasi jenis pekerjaan ini mencerminkan adanya perkembangan ekonomi yang berkelanjutan di Kabupaten Asahan.

Tabel 6. Pekerjaan Formal di Kabupaten Asahan 2023

No	Pekerjaan Formal	Jumlah
1	Profesi Keuangan dan Hukum	92
2	Profesi di Lembaga Pemerintahan	8.858
3	Profesi Medis dan Kesehatan	1.804
4	Profesi Pendidikan dan Penelitian	5.316
5	Profesi Seni, Hiburan, dan Media	47
6	Karyawan dan Pegawai Swasta/BUMN/BUMD	24.685
7	Profesi di Industri dan Teknik	1.298
Total		42.100

Sumber: Asahan Satu Data

Tabel 7. Pekerjaan NonFormal di Kabupaten Asahan 2023

No	Pekerjaan NonFormal	Jumlah
1	Pekerja di Sektor Pertanian, Perikanan, dan Peternakan	38.103
2	Profesi Kerajinan dan Keterampilan	499
3	Profesi Agama dan Layanan Komunitas	186
4	Profesi Seni, Hiburan, dan Media	10
5	Pekerjaan Rumah Tangga dan Pekerjaan Mandiri Lainnya	547.278
Total		586.076

Sumber: Asahan Satu Data

c) Tingkat kepadatan penduduk di kabupaten asahan

Secara umum, rasio kepadatan penduduk didefinisikan sebagai angka yang menunjukkan perbandingan antara jumlah penduduk dengan luas wilayah, atau jumlah penduduk per kilometer persegi dalam periode tertentu. Berikut adalah data jumlah penduduk dan rasio kepadatan penduduk di Kabupaten Asahan pada tahun 2022.

Kecamatan Kota Kisaran Timur menjadi wilayah dengan kepadatan tertinggi, yakni 2.829 jiwa/km². Ini berarti setiap kilometer persegi wilayah Kota Kisaran Timur dihuni oleh sekitar 2.829 orang. Kecamatan Aek Kuasan berada di urutan kedua dengan kepadatan 1.908 jiwa/km², diikuti oleh Kecamatan Kota Kisaran Barat dengan 1.901 jiwa/km², Kecamatan Air Joman sebesar 600 jiwa/km², dan Kecamatan Meranti sebesar 538 jiwa/km². Kecamatan dengan kepadatan penduduk terendah adalah Kecamatan Bandar Pasir Mandoge dengan 49 jiwa/km², Kecamatan Sei Kepayang dengan 53 jiwa/km², dan Kecamatan Aek

Songsongan dengan 67 jiwa/km². Meskipun Kecamatan Bandar Pasir Mandoge dan Kecamatan Sei Kepayang memiliki luas wilayah yang besar, sebagian besar wilayah tersebut merupakan area perkebunan, baik yang dimiliki oleh perusahaan negara, perusahaan swasta, maupun masyarakat.

Tabel 8. Kepadatan Penduduk di Kabupaten Asahan Tahun 2022

No	Kecamatan	Penduduk Jumlah	(jiwa) (%)	Luas Wilayah (Km2)	Kepadatan (jiwa/Km2)
1.	Meranti	24 193	3,06	45.33	538
2.	Air Joman	58 796	7,43	98.09	600
3.	Tanjung Balai	42 845	5,41	88.68	487
4.	Sei Kepayang	19 647	2,48	370.69	53
5.	Simpang Empat	48 339	6,11	135.77	358
6.	Air Batu	47 418	5,99	117.15	405
7.	Pulau Rakyat	36 153	4,57	213.65	170
8.	Bandar Pulau	24 452	3,09	268.41	91
9.	Butu Pane	25 642	3,24	153.4	168
10.	Bandar Pasir Mandoge	35 186	4,45	713.13	49
11.	Aek Kuasan	26 717	3,38	14.13	1 908
12.	Kota Kisaran Barat	60 818	7,68	32.81	1 901
13.	Kota Kisaran Timur	84 866	10,72	30.17	2 829
14.	Aek Songsongan	18 832	2,38	282.21	67
15.	Rahuning	20 461	2,59	195.8	105
16.	Sei Dadap	37 981	4,80	82.87	463
17.	Sei Kepayang Barat	15 131	1,91	49.19	309
18.	Sei Kepayang Timur	10 102	1,28	100.65	101
19.	Tinggi Raja	20 833	2,63	107.9	195
20.	Setia Janji	13 070	1,65	62.37	211
21.	Silau Laut	25 802	3,26	84.68	307
22.	Rawang Panca Arga	20 707	2,62	67.37	309
23.	Pulo Bandring	35 197	4,45	86.99	409
24.	Teluk Dalam	19 165	2,42	117.01	164
25.	Aek Ledong	19 139	2,42	85.12	225
	JUMLAH	791 492	100,00	3 603.57	230

Sumber : Dinas Kependudukan dan Pencatatan Sipil Kabupaten Asahan

d) Data usia penduduk di kabupaten asahan

Karakteristik penduduk berdasarkan usia dan jenis kelamin sangat penting dalam merencanakan pemenuhan kebutuhan dasar penduduk sesuai dengan kebutuhan spesifik setiap kelompok umur, seperti kebutuhan pangan, sandang, papan, pendidikan, kesehatan, dan pekerjaan. Setiap kelompok usia memiliki kebutuhan yang berbeda, misalnya, bayi dan balita membutuhkan asupan gizi yang baik dan perawatan kesehatan. Sementara itu, remaja perempuan memerlukan perhatian lebih pada peningkatan status kesehatan agar terhindar dari anemia saat memasuki usia reproduksi. Kelompok usia lanjut juga memerlukan layanan kesehatan khusus dan berbagai kebutuhan lainnya.

Berdasarkan jenis kelamin, penduduk Kabupaten Asahan mayoritas adalah laki-laki, berjumlah 400.372 jiwa atau 50,58 persen dari total penduduk, sedangkan jumlah penduduk perempuan sebanyak 391.120 jiwa, sehingga total penduduknya menjadi 791.492 jiwa. Seperti yang telah dijelaskan sebelumnya, meskipun kebutuhan dasar laki-laki dan perempuan seperti pangan, kesehatan, dan pendidikan relatif sama, ada perbedaan dalam kebutuhan khusus, seperti pakaian dan peralatan pribadi. Oleh karena itu, distribusi penduduk berdasarkan jenis kelamin ini harus menjadi pertimbangan bagi pemerintah dalam merencanakan pemenuhan kebutuhan masyarakatnya.

No	Struktur Umur	<u>Laki-Laki</u> Jumlah	<u>Perempuan</u> Jumlah	Total
1	0-19	137.746	129.175	266.921
2	20-39	133.451	127.612	261.063
3	40-59	92.884	93.933	186.817
4	60-74	30.838	33.078	63.916
5	75+	5 453	7 322	12.775
Jumlah		400.372	391 120	791.492

Tabel 9. Jumlah Penduduk di Kabupaten Asahan Tahun 2022

Sumber : Dinas Kependudukan dan Pencatatan Sipil Kabupaten Asahan

e) Pertumbuhan ekonomi kabupaten asahan

Perekonomian Kabupaten Asahan pada tahun 2022 berdasarkan Produk Domestik Regional Bruto (PDRB) atas dasar harga berlaku mencapai Rp 46,58 triliun, dengan PDRB per kapita sebesar Rp 59,13 juta. Pertumbuhan ekonomi Asahan pada tahun tersebut mencapai 4,66 persen, meningkat dibandingkan pertumbuhan tahun 2021 yang hanya sebesar 3,73 persen. Berdasarkan pendekatan produksi, pertumbuhan tertinggi terjadi pada Lapangan Usaha Transportasi dan Pergudangan dengan angka 8,48 persen, diikuti oleh Jasa Lainnya sebesar 7,29 persen, serta Pertanian, Kehutanan, dan Perikanan sebesar 6,78 persen. Tiga sektor utama yang memberikan kontribusi terbesar terhadap PDRB Asahan adalah Pertanian, Kehutanan, dan Perikanan sebesar 39,78 persen, diikuti oleh Industri Pengolahan sebesar 22,37 persen, dan Perdagangan Besar dan Eceran; Reparasi Mobil dan Sepeda Motor sebesar 19,11 persen (Badan Pusat Statistik Kabupaten Asahan).

Berdasarkan pendekatan pengeluaran, pertumbuhan terbesar terjadi pada Komponen Pengeluaran Konsumsi Rumah Tangga sebesar 4,58 persen, diikuti oleh Pembentukan Modal Tetap Bruto sebesar 3,55

persen, dan Pengeluaran Konsumsi Lembaga Non-Profit yang Melayani Rumah Tangga (LNPRT) sebesar 3,15 persen. Namun, Pengeluaran Konsumsi Pemerintah mengalami kontraksi sebesar 0,69 persen. Komponen Pengeluaran Konsumsi Rumah Tangga menyumbang kontribusi terbesar terhadap PDRB dengan 51,05 persen, diikuti oleh Pembentukan Modal Tetap Bruto sebesar 26,25 persen, dan Net Ekspor Barang dan Jasa sebesar 15,26 persen (Badan Pusat Statistik Kabupaten Asahan).

HASIL DAN PEMBAHASAN

Kemampuan Tanaman Mengkudu untuk Mencegah dan Mengobati Penyakit Kronis di Kabupaten Asahan

Mengkudu (*Morinda citrifolia*) adalah tanaman obat dari daerah tropis yang telah digunakan sejak lama dalam pengobatan tradisional di Asia Tenggara dan Kepulauan Pasifik. Tanaman ini diakui karena berbagai manfaat kesehatannya yang beragam (Abou Assi et al., 2019). Buah mengkudu kaya akan nutrisi dan bahan bioaktif alami, dengan lebih dari 200 fitokimia yang telah diidentifikasi. Produk berbasis mengkudu semakin diminati konsumen karena manfaat kesehatannya yang luas, efek samping minimal, dan ketersediaan bahan yang mudah ditemukan. Tanaman ini tetap potensial dalam pencegahan berbagai penyakit. (Wang et al., 2024). Perkembangan penelitian modern yang menemukan lebih banyak manfaatnya, dalam pengobatan tradisional maupun dalam industri kesehatan dan pertanian.

Berbagai bagian tanaman mengkudu termasuk akar, kulit batang, daun, dan buahnya, digunakan dalam pengobatan tradisional untuk mengatasi berbagai penyakit. Hasil penelitian tentang senyawa metabolit sekunder pada tumbuhan mengkudu menunjukkan bahwa buah mengkudu mengandung senyawa flavonoid, tanin, glikosida, fenol, terpenoid, alkaloid, saponin, triterpenoid dan fitat (Oluwafemi Oyabambi et al., 2023). Flavonoid merupakan polifenol utama yang ada pada buah mengkudu (Chen et al., 2024). Konsumsi makanan kaya flavonoid memberikan manfaat bagi kesehatan. Misalnya, menunjukkan hubungan antara konsumsi antosianin dan pengurangan peradangan (Galatro et al., 2024). Glikosida merupakan

Senyawa yang terdiri dari bagian glikon yang terikat pada aglikon non- gula melalui ikatan glikosidik (Chen et al., 2024). Fenol dapat menangani penyakit kronis seperti tuberkulosis dan diabetes karena manfaat fungsional dan kesehatan yang diperoleh dari fitokimia, seperti senyawa fenolik dan antioksidan secara keseluruhan (Dzah et al., 2024). Alkaloid adalah keluarga besar fitokimia yang mengandung nitrogen dengan banyak khasiat obat. Terpenoid yang diisolasi dari tumbuhan memiliki aktivitas antidiabetes dan antihipertensi (Asafo-agyei et al., 2023). Buah Mengkudu membantu mengatur enzim glukosa, menjaga gula darah normal, dan melindungi hati. Sifat antihiperglikemiknya diduga berasal dari alkaloid, flavonoid, triterpenoid, mineral, dan vitamin (Haque & Rao, 2019).

Tabel 11. Kandungan mengkudu untuk penyakit kronis

Jenis Penyakit	HIV		AIDS		Kusta		Filariasis		TB		Diabetes	
	MH	MI	MH	MI	MH	MI	MH	MI	MH	MI	MH	MI
Flavonoid									✓	✓	✓	
Tanin												
Glikosida											✓	✓
Fenol											✓	
Terpenoid												
Alkaloid												✓
Saponin												
Triterpenoid												✓
Fitat												

Sumber: Data sekunder diolah 2022

Penelitian tentang senyawa metabolit sekunder pada tanaman mengkudu menunjukkan bahwa buah mengkudu mengandung flavonoid, tanin, glikosida, fenol, terpenoid, alkaloid, saponin, triterpenoid, dan fitat. Dari senyawa-senyawa tersebut, terdapat lima senyawa yang memiliki kemampuan untuk mencegah dan mengobati tuberkulosis dan diabetes, yaitu flavonoid,

glikosida, fenol, alkaloid, dan triterpenoid. Tuberkulosis (TB) adalah penyakit yang sangat menular yang disebabkan oleh *Mycobacterium tuberculosis* atau *M. bovis* pada manusia dan hewan, Penyebab tuberkulosis yang berupa penyembuhannya dapat dicegah dan diobati melalui senyawa flavonoid dari tanaman mengkudu dengan cara meningkatkan sistem kekebalan tubuh dan menghambat pertumbuhan bakteri, flavonoid memiliki kemampuan untuk mengganggu mekanisme mikobakteri tertentu seperti gangguan sintesis asam nukleat dan asam mikolat (Omukhua-uyi A et al., 2023; Okodawa et al., 2024).

Diabetes adalah penyakit inflamasi kronik yang menjadi ancaman serius bagi kesehatan manusia, disebabkan oleh ketidakmampuan tubuh untuk mengatur kadar gula darah akibat kekurangan produksi insulin atau resistensi terhadap insulin, dan dipengaruhi oleh interaksi antara faktor genetik dan lingkungan (Wang et al., 2024). Penyebab diabetes yang berupa penyembuhannya dapat di cegah melalui senyawa flavonoid dari tanaman mengkudu yang meningkatkan sensitivitas insulin, menghambat enzim pencernaan karbohidrat, dan menurunkan produksi glukosa oleh hati (Bouyahya et al., 2024; Shen et al., 2024; Bondonno et al., 2021). Glikosida memiliki kemampuan untuk mencegah dan mengobati diabetes dengan efek terapeutik yang kuat. Senyawa ini terdiri dari bagian glikon yang terikat pada aglikon non-gula melalui ikatan glikosidik. Fenol memiliki potensi untuk mencegah diabetes melalui berbagai mekanisme, termasuk meningkatkan sensitivitas insulin, mengurangi peradangan, menghambat enzim yang terlibat dalam metabolisme glukosa, dan melindungi sel-sel pankreas dari

kerusakan oksidatif (Chen et al., 2024). Alkaloid dan triterpenoid telah terbukti memiliki potensi untuk mengobati diabetes melalui berbagai mekanisme, seperti meningkatkan sensitivitas insulin, mengurangi resistensi insulin, dan menurunkan kadar gula darah (Haque & Rao, 2019).

Jenis penyakit dan jumlah penderita penyakit di Kabupaten Asahan

Penyakit di klusterkan menjadi dua, yaitu akut dan kronis. Penyakit akut adalah kondisi medis yang muncul secara tiba-tiba dan berlangsung dalam waktu singkat dengan penyembuhan kurang dari 6 bulan, dan umumnya dapat diobati (El- Gilany et al., 2023). Penyakit kronis merupakan kondisi kesehatan yang membutuhkan penanganan jangka panjang, dengan waktu penyembuhan yang lebih dari 6 bulan. Penyakit kronis adalah masalah kesehatan yang serius dan menjadi penyebab utama kematian di seluruh dunia (Grover & Joshi, 2019).

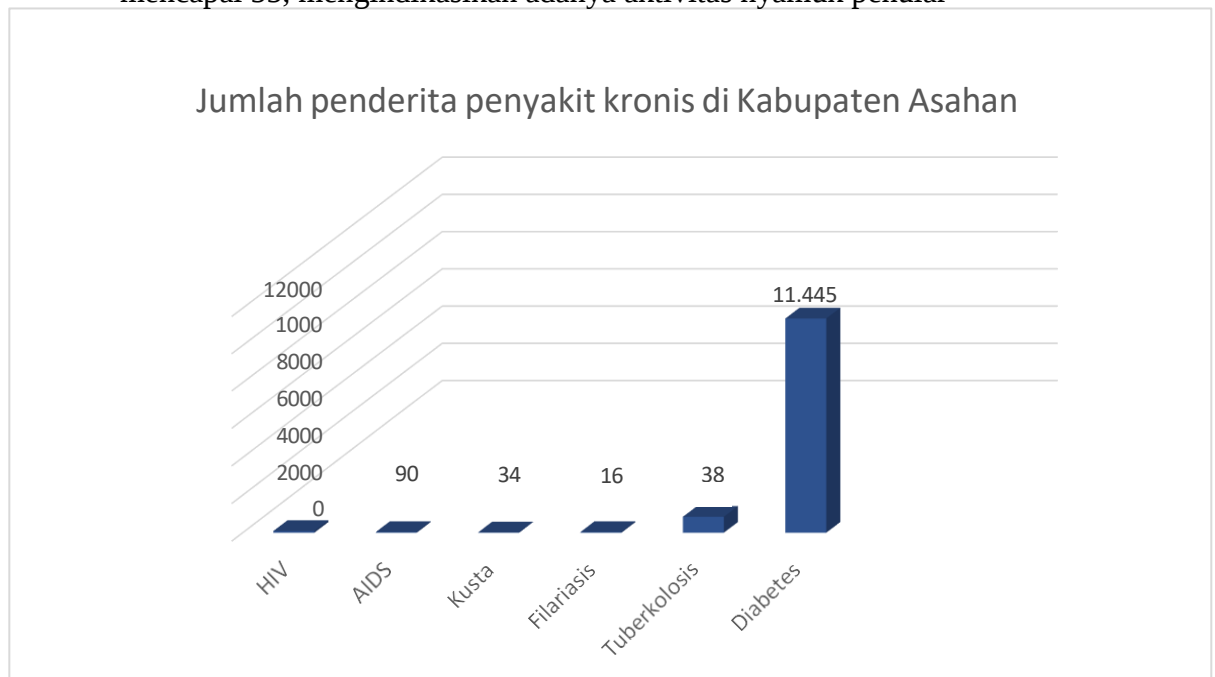
Tabel 10. Penderita Penyakit Akut Di kabupaten Asahan 2022

No	Penderita Penyakit Akut	Jumlah
1	Malaria (Suspek)	2.981
2	Pneumonia Balita	0
3	Tetanus	0
4	Campak (Suspek)	0
5	Diare	3.422
6	Demam Berdarah Dengue (DBD)	55

Sumber : Badan Pusat Statistik Provinsi Sumatera Utara 2022

Tabel menunjukkan data penderita beberapa penyakit akut dengan jumlah kasus tertinggi pada diare (3.422 kasus) dan malaria suspek (2.981 kasus), sementara tidak ada laporan kasus untuk

pneumonia balita, tetanus, dan campak. Kasus DBD yang dilaporkan mencapai 55, mengindikasikan adanya aktivitas nyamuk penular



Sumber: Dinas Kesehatan provinsi Sumatera Utara 2022

Gambar 3. Penderita Penyakit Kronis di Kabupaten Asahan

berdasarkan data grafik diatas, Kabupaten Asahan, Provinsi Sumatera Utara, tercatat mengalami enam jenis penyakit kronis. Data menunjukkan bahwa terdapat 90 kasus HIV, 34 kasus AIDS, 16 kasus Kusta, 38 kasus Filariasis, 847 kasus Tuberkulosis, dan 11.445 kasus Diabetes Melitus (Dinas Kesehatan Provinsi Sumatera Utara). Tuberkulosis dan diabetes merupakan dua penyakit kronis yang prevalensinya tinggi di Kabupaten Asahan, menjadi ancaman serius bagi kesehatan masyarakat. Oleh karena itu, perlu dicari alternatif lain untuk pencegahan dan pengobatan kedua penyakit ini.

Potensi UMOT Untuk Menghasilkan Produk Turunan Dari Tanaman Mengkudu Berdasarkan Karakterisasi Lokasi

Kabupaten Asahan memiliki potensi besar untuk mengembangkan UMOT (Usaha Mikro Obat Tradisional), terutama dengan memanfaatkan mengkudu sebagai bahan baku. Mengkudu dikenal memiliki khasiat obat tradisional, terutama untuk mengatasi masalah kesehatan seperti tekanan darah tinggi, diabetes, dan infeksi. UMOT di Asahan dapat berkembang pesat karena beberapa factor:

a) Wilayah

Asahan memiliki iklim tropis dan tanah subur, ideal untuk pengembangan tanaman herbal seperti mengkudu.

b) Ekonomi Lokal

Pertanian, kehutanan, dan perikanan merupakan sektor utama di Asahan, dengan banyak penduduk bekerja di sektor agraris. Pengembangan UMOT dapat memberikan diversifikasi ekonomi bagi para petani.

c) Populasi dan Tenaga Kerja

Asahan memiliki populasi besar dan tenaga kerja yang siap terlibat dalam pengembangan dan pemasaran produk turunan mengkudu.

d) Ekosistem Ekonomi

Pertumbuhan ekonomi Asahan yang positif menandakan adanya peningkatan daya beli masyarakat dan peluang pasar yang terbuka

untuk produk turunan mengkudu.

e) Potensi Produk Turunan

Mengkudu dapat diolah menjadi jus, kapsul ekstrak, teh herbal, dan minyak esensial. Pengembangan produk ini melalui UMOT dapat meningkatkan kesejahteraan petani lokal dan diversifikasi produk pertanian.

Dengan memanfaatkan potensi alam, sumber daya manusia, dan dukungan ekonomi, Asahan memiliki peluang besar untuk menjadi pusat pengembangan UMOT yang menghasilkan produk turunan mengkudu. Hal ini dapat meningkatkan perekonomian lokal dan memberikan alternatif kesehatan berbasis tanaman obat bagi masyarakat luas.

Berdasarkan jenis penyakit kronis dan jumlah penderita penyakit kronis

Kabupaten Asahan memiliki potensi besar untuk mengembangkan Usaha Mikro Obat Tradisional (UMOT) yang memanfaatkan tanaman mengkudu sebagai bahan baku utama. Mengkudu memiliki khasiat obat tradisional, terutama untuk mengatasi berbagai masalah kesehatan, termasuk penyakit kronis seperti tuberkulosis dan diabetes.

Data dari Dinas Kesehatan Provinsi Sumatera Utara menunjukkan bahwa tuberkulosis dan diabetes merupakan dua penyakit kronis dengan prevalensi tinggi di Kabupaten Asahan. Hal ini menjadi ancaman serius bagi kesehatan masyarakat dan menunjukkan perlunya alternatif pencegahan dan pengobatan.

Penelitian menunjukkan bahwa buah mengkudu mengandung senyawa metabolit sekunder seperti flavonoid, tanin, glikosida, fenol, terpenoid, alkaloid, saponin, triterpenoid, dan fitat. Lima senyawa di antaranya, yaitu flavonoid, glikosida, fenol, alkaloid, dan triterpenoid, terbukti memiliki kemampuan untuk mencegah dan mengobati tuberkulosis dan diabetes.

Pemanfaatan khasiat mengkudu dalam pengembangan UMOT di Kabupaten Asahan dapat memberikan manfaat yang signifikan:

a) Solusi Kesehatan

Produk turunan dari mengkudu, seperti jus, kapsul ekstrak, teh herbal, dan minyak esensial, dapat menjadi alternatif pengobatan dan pencegahan yang aman dan efektif untuk penyakit kronis.

b) Diversifikasi Ekonomi

UMOT dapat memberikan peluang usaha baru bagi petani lokal, meningkatkan pendapatan mereka, dan mengurangi ketergantungan pada komoditas utama seperti kelapa sawit, karet, dan kakao.

c) Pengembangan Ekonomi Lokal

Produk UMOT berbasis mengkudu memiliki potensi untuk menjadi komoditas unggulan Kabupaten Asahan, baik untuk pasar lokal maupun ekspor.

d) Peningkatan Kesejahteraan

UMOT dapat menciptakan lapangan kerja baru dan meningkatkan kesejahteraan masyarakat di Kabupaten Asahan.

Potensi pembentukan UMOT di kabupaten Asahan di dukung dari ketersediaan bahan baku. Produksi mengkudu di Kabupaten Asahan dengan tren positif dari tahun 2019-2022 yaitu, 237 kg pada tahun 2019, 994 kg pada tahun 2020, 1725 kg pada tahun 2021, dan 1556 kg pada tahun 202 (Badan Pusat Statistik Provinsi Sumatera Utara). Ketersediaan bahan baku yang meningkat ini UMOT yang di hasilkan dari bahan baku mengkudu mengurangi kebutuhan modal awal. Pangsa pasar utama dari produk turunan tanaman mengkudu dari UMOT adalah kabupten asahan. Ketersediaan lembaga keuangan di kabupaten asahan cukup banyak yang dapat dimanfaatkan sebagai sumber modal awal. Berdasarkan data dari dinas koperasi, perdagangan dan perindustrian terdapat sebanyak 655 koperasi yang aktif di kabupaten Asahan.

Konsumen potensial UMOT dari produk turunan mengkudu adalah individu yang cenderung membeli secara berulang, disesuaikan dengan kondisi penyakit kronis. Kabupaten Asahan memiliki enam jenis riwayat penyakit utama, yaitu HIV, AIDS, Kusta, Filariasis, Tuberkulosis, dan Diabetes (Dinas Kesehatan Provinsi Sumatera Utara). Tanaman mengkudu memiliki kemampuan untuk mencegah dan mengobati Tuberkulosis dan Diabetes berdasarkan metabolitnya, dengan jumlah penderita Tuberkulosis yaitu sebanyak 847 orang dan Diabetes sebanyak 11.445 orang.

KESIMPULAN DAN SARAN

Kesimpulan

1. Manfaat Tanaman Mengkudu (*Morinda Citrifolia*): Penelitian ini berhasil mengidentifikasi beragam manfaat tanaman mengkudu (*Morinda Citrifolia*) yang terbukti efektif dalam pencegahan dan pengobatan berbagai penyakit kronis seperti tuberkulosis dan diabetes.
2. Kesesuaian Manfaat Tanaman Mengkudu di Kabupaten Asahan: Temuan dalam penelitian menunjukkan bahwa manfaat tanaman mengkudu sangat sesuai untuk mencegah dan mengobati penyakit kronis yang prevalensinya tinggi di Kabupaten Asahan, seperti tuberkulosis dan diabetes.
3. Potensi Tanaman Mengkudu pada UMOT sebagai produk turunan di Kabupaten Asahan: Potensi tanaman mengkudu pada Usaha Mikro Obat Tradisional (UMOT) sebagai produk turunan di Kabupaten Asahan sangat besar, terutama dalam penyediaan solusi kesehatan yang berkelanjutan dan meningkatkan perekonomian lokal.

Saran

1. Kolaborasi dan Sinergi: Mendorong kolaborasi lintas sektor antara petani, pengusaha UMOT, peneliti, dan pemerintah untuk memaksimalkan potensi tanaman mengkudu dalam pengembangan UMOT di Kabupaten Asahan.
2. Penguatan Infrastruktur: Menyediakan infrastruktur yang mendukung pengembangan UMOT, seperti program pelatihan, pendanaan, dan pemasaran, guna memastikan keberlanjutan dan kesuksesan usaha.
3. Edukasi Masyarakat: Melakukan edukasi yang intensif kepada masyarakat tentang manfaat kesehatan dari tanaman mengkudu dan produk UMOT,

sehingga meningkatkan minat konsumsi produk lokal dan mendukung perekonomian daerah.

4. Standarisasi Produk: Mendorong standarisasi kualitas produk UMOT berbasis mengkudu untuk menjamin keamanan, kualitas, dan khasiat produk yang dihasilkan.
5. Inovasi dan Diversifikasi: Mendorong inovasi produk dan diversifikasi yang berkelanjutan untuk memperluas pasar, meningkatkan daya saing, dan memperkaya produk UMOT di pasaran lokal maupun ekspor.

Dengan penerapan saran-saran di atas, diharapkan pengembangan UMOT berbasis tanaman mengkudu di Kabupaten Asahan dapat memberikan manfaat yang maksimal bagi kesehatan masyarakat, ekonomi lokal, serta meningkatkan kesejahteraan petani dan pelaku usaha mikro di daerah tersebut.

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LAMPIRAN

Lampiran 1.

A. Daftar judul artikel menggunakan kata kunci Noni Medicinal Plant

No	Judul	Tahun
1	Antibacterial and <i>plant</i> growth promoting attributes of <i>Limosilactobacillus</i> sp. MYSN3 isolated from <i>noni</i> fruit	2023
2	Enhancing bioactive compounds extraction from <i>noni</i> leaves (<i>Morinda citrifolia</i>) by enzymes-assisted extraction	2024
3	<i>Noni</i> (<i>Morinda citrifolia</i>) fruit and by-products: A comprehensive review of its chemical compositions, health-promoting effects, safety assessment and industrial applications	2024
4	Chemical constituents from <i>noni</i> (<i>Morinda citrifolia</i> L.) fruit juice and their chemotaxonomic significance	2024
5	The protective effects of <i>medicinal plants</i> against cigarette smoking: A comprehensive review	2024
6	Antimicrobial and anticancer activities of Hainan dry <i>noni</i> fruit alcoholic extracts and their novel compounds identification using UPLC-Q-Exactive Orbitrap-MS/MS	2022
7	Physiological and biochemical responses and fruit production of <i>noni</i> (<i>Morinda citrifolia</i> L.) <i>plants</i> irrigated with brackish water	2020
8	Bioactivity and influence on colonic microbiota of polyphenols from <i>noni</i> (<i>Morinda citrifolia</i> L.) fruit under simulated gastrointestinal digestion	2024
9	Multiple metabolite profiles uncover remarkable bioactive compounds and metabolic characteristics of <i>noni</i> fruit (<i>Morinda citrifolia</i> L.) at various stages of ripeness	2024
10	<i>Morinda Citrifolia</i> (<i>Noni</i>) attenuated transcriptional and degenerative markers of cardiac toxicity in bisphenol A treated male wistar rats	2024
11	Effects of <i>noni</i> fruit extract on the growth performance, digestive enzymes, and stress tolerance of juvenile whiteleg shrimp (<i>Litopenaeus vannamei</i>)	2023
12	Exploring the therapeutic potential of Brazilian <i>medicinal plants</i> for anti-arthritic and anti-osteoarthritic applications: A comprehensive review	2024
13	Constituent analysis, laxative activity, and toxicological evaluation of methanol extract of <i>noni</i> fruit (<i>Morinda citrifolia</i> L., Rubiaceae)	2023
14	On the importance of integrating convolution features for Indian <i>medicinal plant</i> species classification using hierarchical machine learning approach	2024
15	DIMPSAR: Dataset for Indian <i>medicinal plant</i> species analysis and recognition	2023
16	Essential oil of <i>Noni</i> , <i>Morinda citrifolia</i> L., fruits controls the rice stem-rot disease without detrimentally affect beneficial fungi and ladybeetles	2021
17	Antimicrobial activity of selected <i>plant</i> extracts against common food borne pathogenic bacteria	2023
18	Immunomodulatory actions of a Polynesian herb <i>Noni</i> (<i>Morinda citrifolia</i>) and its clinical applications	2019
19	<i>Medicinal plants</i> used for management of diabetes and hypertension in Ghana	2023
20	Unraveling the role of <i>medicinal plants</i> and Gut microbiota in colon	2023

	cancer: Towards microbiota- based strategies for prevention and treatment	
21	Quality control standardization of Indonesian <i>noni</i> fruit (<i>Morinda citrifolia</i>) extract and evaluation of their angiotensin-converting enzyme inhibitory activity	2022
22	Effect of combined ultrasonic and enzymatic extraction technique on the quality of <i>noni</i> (<i>Morinda citrifolia</i> L.) juice	2023
23	Diversity and community structure of endophytic <i>Bacillus</i> with antagonistic and antioxidant activity in the fruits of Xisha Wild <i>Noni</i> (<i>Morinda citrifolia</i> L.)	2021
24	Effect of surfactants and Co-surfactants in formulation of <i>noni</i> fruit extract in virgin coconut oil-based emulsion	2022
25	Ethylene is the key signal in the accumulation process of scopoletin in <i>noni</i> (<i>Morinda citrifolia</i>)	2020
26	Pulmonary anti-inflammatory effects and spasmolytic properties of Costa Rican <i>noni</i> juice (<i>Morinda citrifolia</i> L.)	2016
27	Protective role of herbal formulation-divine <i>noni</i> against cisplatin-induced cytotoxicity in healthy cells by activating Nrf2 expression: An in-vivo and in-vitro approach	2021
28	New alkaloids from the <i>noni</i> juice with potential α -glucosidase inhibitory activity	2021
29	Evaluation of Nutrient, Antinutrient and Phytochemical Properties of <i>Noni</i> Fruit (<i>Morinda citrifolia</i>); (Concentrate, Pulp, And Seed) (P10-047-19)	2019
30	The influence of <i>Morinda citrifolia</i> fruit maturity level, parts and storage length on total phenols, ascorbic acid, antioxidant activity and ethylene gas emission	2024
31	The <i>noni</i> fruit (<i>Morinda citrifolia</i> L.): A review of agricultural research, nutritional and therapeutic properties	2006
32	Studies related to the chemical composition, biological activities and toxicity of methanolic extracts of <i>noni</i> (<i>Morinda citrifolia</i>) fruits and leaves	2022
33	Chapter 9: Update on phytoplasma diseases associated with <i>medicinal plants</i> and spices in Asian Countries	2023
34	A quantitative comparison of phytochemical components in global <i>noni</i> fruits and their commercial products	2010
35	Nutritional, phytochemical and commercial quality of <i>Noni</i> fruit: A multi-beneficial gift from nature	2015
36	Physicochemical properties, antioxidant and antiproliferative activities of polysaccharides from <i>Morinda citrifolia</i> L. (<i>Noni</i>) based on different extraction methods	2020
37	Chapter 5: <i>Medicinal plants</i> as potential functional foods or resources for obtaining anticancer activity metabolites	2021
38	Chapter 7: <i>Medicinal plants</i> and their traditional uses in different locations	2021
39	4: <i>Noni</i> (<i>Morinda citrifolia</i> L.)	2011
40	<i>Noni</i> (<i>Morinda citrifolia</i>) fruit polysaccharide films containing blueberry (<i>Vaccinium corymbosum</i>) leaf extract as an antioxidant packaging material	2021
41	Use of <i>medicinal plants</i> by health professionals in Mexico	2017
42	Chapter 14: <i>Noni</i> (<i>Morinda citrifolia</i>) Fruit as a Functional Food and Dietary Supplement for an Aging Population	2009
43	<i>Medicinal plants</i> for primary dysmenorrhoea: A systematic review	2018

44	Effect of maltodextrins in the water-content–water activity–glass transition relationships of <i>noni</i> (<i>Morinda citrifolia</i> L.) pulp powder	2011
45	<i>Morinda citrifolia</i> Linn (<i>Noni</i>): In vivo and in vitro reproductive toxicology	2009
46	Review: African <i>medicinal plants</i> with wound healing properties	2016
47	<i>Medicinal</i> herbs and their metabolites with biological potential to protect and combat liver toxicity and its disorders: A review	2024
48	Production of biomass and useful compounds from adventitious roots of high-value added <i>medicinal plants</i> using bioreactor	2012
49	A comparative ethno-religious study of traditionally used <i>medicinal plants</i> employed in the management of cardiovascular diseases	2021
50	Characterization, anti-oxidative and anti-inflammatory effects of Costa Rican <i>noni</i> juice (<i>Morinda citrifolia</i> L.)	2011
51	Total phenolics, ascorbic acid, and antioxidant capacity of <i>noni</i> (<i>Morinda citrifolia</i> L.) juice and powder as affected by illumination during storage	2010
52	Traditional ecological knowledge and <i>medicinal plant</i> diversity in Ecuadorian Amazon home gardens	2019
53	Beneficial health applications and <i>medicinal</i> values of <i>Pedicularis plants</i> : A review	2017
54	Damnacanthal, a <i>noni</i> component, exhibits antitumorigenic activity in human colorectal cancer cells	2012
55	Historical versus contemporary <i>medicinal plant</i> uses in the US Virgin Islands	2016
56	<i>Morinda citrifolia</i> (<i>Noni</i>): A comprehensive review on its industrial uses, pharmacological activities, and clinical trials	2019
57	In vitro propagation of traditional <i>medicinal</i> and dye yielding <i>plant</i> <i>Morinda coreia</i> Buch.–Ham	2015
58	Concentration of <i>noni</i> juice by means of osmotic distillation	2009
59	Ethnobotanical survey of usage of fresh <i>medicinal plants</i> in Singapore	2014
60	<i>Noni</i> as an anxiolytic and sedative: A mechanism involving its gamma-aminobutyric acidergic effects	2007
61	<i>Noni</i> (<i>Morinda citrifolia</i> L.) fruit juice delays immunosenescence in the lymphocytes in lymph nodes of old F344 rats	2018
62	Multifaceted roles of <i>plant</i> -derived bioactive polysaccharides: A review of their biological functions, delivery, bioavailability, and applications within the food and pharmaceutical sectors	2025
63	Extraction and Characterization of Antioxidant Compositions From Fermented Fruit Juice of <i>Morinda citrifolia</i> (<i>Noni</i>)	2007
64	From lab to nature: Recent advancements in the journey of gastroprotective agents from <i>medicinal</i> chemistry to phytotherapy	2024
65	The effects of <i>Morinda citrifolia</i> L. (<i>noni</i>) on the immune system: Its molecular mechanisms of action	2008
66	A comprehensive review of ethnopharmacologically important <i>medicinal plant</i> species from Mauritius	2019
67	Polysaccharide composition of the fruit juice of <i>Morinda citrifolia</i> (<i>Noni</i>)	2006
68	Ethnopharmacological analysis of <i>medicinal plants</i> used against non-communicable diseases in Rodrigues Island, Indian Ocean	2015
69	Changing markets – <i>Medicinal plants</i> in the markets of La Paz and El Alto, Bolivia	2016
70	A review study on <i>medicinal plants</i> used in the treatment of learning	2014

	and memory impairments	
71	Chapter 5: <i>Plant</i> crude drugs	2024
72	Ethnopharmacological analysis of <i>medicinal plants</i> and animals used in the treatment and management of pain in Mauritius	2014
73	Inhibitory effect of anthraquinones isolated from the <i>Noni</i> (<i>Morinda citrifolia</i>) root on animal A-, B- and Y-families of DNA polymerases and human cancer cell proliferation	2010
74	Chemical variability, pharmacological potential, multivariate and molecular docking analyses of essential oils obtained from four <i>medicinal plants</i>	2020
75	Resilience of Andean urban ethnobotanies: A comparison of <i>medicinal plant</i> use among Bolivian and Peruvian migrants in the United Kingdom and in their countries of origin	2011
76	Ethnobotanical study of <i>medicinal plants</i> by population of Valley of Jurueña Region, Legal Amazon, Mato Grosso, Brazil	2015
77	A review of natural <i>plant</i> extracts in beverages: Extraction process, nutritional function, and safety evaluation	2023
78	The <i>medicinal plants</i> of Myanmar	2018
79	Minimum inhibitory concentrations of <i>medicinal plants</i> used in Northern Peru as antibacterial remedies	2010
80	Impact of combined <i>plant</i> extracts on long COVID: An exploratory randomized controlled trial	2024
81	Current status and contemporary approaches to the discovery of antitumor agents from higher <i>plants</i>	2020
82	Toxicity of <i>medicinal plants</i> used in traditional medicine in Northern Peru	2011
83	Initial review on <i>medicinal</i> preparations of undetermined constitution containing natural materials for the treatment of HIV or AIDS	2021
84	Light-mediated activities of some Thai <i>medicinal plant</i> teas	2002
85	Do Uncommon <i>Plant</i> Phenolic Compounds Have Uncommon Properties? A Mini Review on Novel Flavonoids	2021
86	Biocontrol mechanism of <i>Bacillus siamensis</i> sp. QN2MO-1 against tomato fusarium wilt disease during fruit postharvest and <i>planting</i>	2024
87	<i>Medicinal Plants</i> : Historical and Cross-Cultural Usage Patterns	2005
88	In vitro evaluation of traditionally used Surinamese <i>medicinal plants</i> for their potential anti-leishmanial efficacy	2016
89	Studies of HIV Integrase Inhibitory Activity of <i>Morinda citrifolia</i> L <i>Noni</i> Fruit Extracts	2010
90	Antioxidant and antimicrobial activities of Ethanolic Jik (<i>Barringtonia acutangula</i>) leaf extract and its application for shelf-life extension of Pacific white shrimp meat during refrigerated storage	2024
91	Potential of traditionally consumed <i>medicinal</i> herbs, spices, and food <i>plants</i> to inhibit key digestive enzymes geared towards diabetes mellitus management — A systematic review	2019
92	Chapter 17: Utilization of contaminated lands for cultivation of dye producing <i>plants</i> for dyestuff	2024
93	Invited review: Advances in yogurt development—Microbiological safety, quality, functionality, sensory evaluation, and consumer perceptions across different dairy and <i>plant</i> -based alternative sources	2025
94	Extraction and purification of Pongame oil tree essential oils enhanced the anti-biofilm activity against biofilm-forming <i>Acinetobacter baumannii</i>	2024
95	Ethnopharmacological field study of the <i>plants</i> used to treat type 2	2015

	diabetes among the Cakchiquels in Guatemala	
96	53rd Annual Congress of the Society for <i>Medicinal Plant</i> Research, a joint meeting with the Italian Society of Phytochemistry — August 21–25, 2005, Florence, Italy	2006
97	New unusual iridoids from the leaves of <i>noni</i> (<i>Morinda citrifolia</i> L.) show inhibitory effect on ultraviolet B-induced transcriptional activator protein-1 (AP-1) activity	2003
98	Role of herbal tea (<i>Camellia sinensis</i> L. Kuntze, <i>Zingiber officinale</i> Roscoe and <i>Morinda citrifolia</i> L.) in lowering cholesterol level: A review and bibliometric analysis	2023
99	Endophytic fungi: Unravelling <i>plant</i> -endophyte interaction and the multifaceted role of fungal endophytes in stress amelioration	2024
100	Chapter 14: <i>Plant</i> extracts with putative hepatotoxicity activity	2021
101	Effects of local Polynesian <i>plants</i> and algae on growth and expression of two immune-related genes in orbicular batfish (<i>Platax orbicularis</i>)	2016
102	Evaluation of the Brazilian functional fruit <i>Morinda citrifolia</i> as phospholipases A2 and proteases modulator: <i>Morinda citrifolia</i> : enzymatic modulation	2021
103	Virtual screening of potential phyto-candidates as therapeutic leads against SARS-CoV-2 infection	2021
104	Polysaccharides derived from <i>Morinda citrifolia</i> Linn reduce inflammatory markers during experimental colitis	2020
105	Survival strategies of <i>Bacillus</i> spp. in saline soils: Key factors to promote <i>plant</i> growth and health	2020
106	CHAPTER 11: <i>Plant</i> Chemistry in Veterinary Medicine: <i>Medicinal</i> Constituents and Their Mechanisms of Action	2007
107	Phytoimmunomodulators: A review of natural modulators for complex immune system	2024
108	Impact of phytoconstituents on oral health practices: a post COVID-19 observation	2024
109	Antiviral activity of Hawaiian <i>medicinal plants</i> against human immunodeficiency Virus Type-1 (HIV-1)	1996
110	Time dependent inhibition of <i>Morinda citrifolia</i> essential oils against multi drug resistant bacteria and A549 lung cancer cells	2024
111	Usage, biological activity, and safety of selected botanical dietary supplements consumed in the United States	2018
112	Isolation of scopoletin via LC-MS in roots of <i>Girardinia diversifolia</i>	2023
113	The use of <i>plants</i> in the traditional management of diabetes in Nigeria: Pharmacological and toxicological considerations	2014
114	Structure and bioactivity of the polysaccharides in <i>medicinal plant</i> <i>Dendrobium huoshanense</i>	2008
115	Chapter 6: <i>Plant</i> Crude Drugs	2017
116	Ethnomedical uses of Zingiberaceous <i>plants</i> of Northeast India	2010
117	New technology to overcome defects in production of fermented <i>plant</i> products- a review	2021
118	Why Surinamese migrants in the Netherlands continue to use <i>medicinal</i> herbs from their home country	2010
119	Mediterranean exposotype: Genomic architecture and <i>plant</i> -based dietary metabolites	2023
120	Anti-microbial activity and anti-complement activity of extracts obtained from selected Hawaiian <i>medicinal plants</i>	1995
121	Antiplasmodial, anti-inflammatory and cytotoxic activities of various <i>plant</i> extracts from the Mascarene Archipelago	2011

122	Natural resources as cancer-treating material	2023
123	Synbiotic effects of <i>Lactobacillus plantarum</i> CMT1 and <i>Morinda citrifolia</i> on the growth performance and disease resistance of whiteleg shrimp	2025
124	Delayed ossification in Wistar rats induced by <i>Morinda citrifolia</i> L. exposure during pregnancy	2010
126	Disease-Consensus Index as a tool of selecting potential hypoglycemic <i>plants</i> in Chikindzonot, Yucatán, México	2006
127	The classical drug discovery approach to defining bioactive constituents of botanicals	2011
128	12: Fortification of Functional and <i>Medicinal</i> Beverages With Botanical Products and Their Analysis	2019
129	Application of chromatography and mass spectrometry to the characterization of cobalt, copper, manganese and molybdenum in <i>Morinda Citrifolia</i>	2013
130	Effective removal of biofilm formation in <i>Acinetobacter baumannii</i> using chitosan nanoparticles loaded <i>plant</i> essential oils	2022
131	Species composition determines forage quality and <i>medicinal</i> value of high diversity grasslands in lowland England	2017
132	Green synthesis of titanium dioxide nanoparticles using <i>plant</i> biomass and their applications- A review	2022
133	Multi-stage block freeze concentration via gravitational method applied to increase of the nutritional content of <i>Morinda citrifolia</i> L. tea	2023
134	Chapter 3: Anticancer activity of natural compounds from roots of the <i>plants</i>	2024
135	1: Introduction to herbs and spices: <i>medicinal</i> uses and sustainable production	2012
136	Therapeutic potentials of iridoids derived from Rubiaceae against in vitro and in vivo inflammation: A scoping review	2024
137	A selection of eleven <i>plants</i> used as traditional Polynesian cosmetics and their development potential as anti-aging ingredients, hair growth promoters and whitening products	2019
138	Modulation of dendritic cell immune functions by <i>plant</i> components	2016
139	The impact of the European Novel Food Regulation on trade and food innovation based on traditional <i>plant</i> foods from developing countries	2009
140	Chapter 14: Utilization of Contaminated Lands for Cultivation of Dye Producing <i>Plants</i>	2016
141	Impact of lactic acid bacterial fermentation on the chemical composition, antioxidant capacities and flavor properties of dandelion	2024
142	Prospects for the use of <i>plant</i> cell cultures in food biotechnology	2014
143	Potential of pharmaceutical formulation based on <i>Morinda citrifolia</i> extract for the treatment of schistosomiasis	2023
144	10: Landscape of natural product diversity in land- <i>plants</i> as source for anticancer molecules	2021
145	Review on potential therapeutic effect of <i>Morinda citrifolia</i> L.	2016
146	The tree <i>planting</i> and protecting culture of cattle ranchers and small-scale agriculturalists in rural Panama: Opportunities for reforestation and land restoration	2011
147	13: Trends and Possibilities of the Usage of <i>Medicinal</i> Herbal Extracts in Beverage Production	2019
148	<i>Morinda citrifolia</i> L. fruit extracts modulates H ₂ O ₂ -induced oxidative stress in human liposarcoma SW872 cells	2016
149	Verification and applications of 1-deoxynojirimycin biosynthesis:	2024

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150	Genus <i>Morinda</i> : An insight to its ethnopharmacology, phytochemistry, pharmacology and Industrial Applications	2022
151	Chronic toxicity evaluation of <i>Morinda citrifolia</i> fruit and leaf in mice	2017
152	Extraction of anti-cancer damnacanthal from roots of <i>Morinda citrifolia</i> by subcritical water	2007
153	Potentiality of Neglected and Underutilized Species (NUS) as a future resilient food: A systematic review	2024
154	Chapter 8: Indian Berries and Their Active Compounds: Therapeutic Potential in Cancer Prevention	2019
155	The prevalence of herbal medicine home use and concomitant use with pharmaceutical medicines in Jamaica	2011
156	Role of herbal products in animal production – An updated review	2021
157	Ethnobotanical study of herbal medicines for management of diabetes mellitus in Dangme West District of southern Ghana	2016
158	Antiphage activity in extracts of <i>plants</i> growing in Greece	1997
159	TRAMIL ethnomedicinal survey in Jamaica	2015
160	Botanicals – challenges abound, solutions in sight?	2020
161	Chapter 30: Validation of Thai traditional medicine: Current scenario	2022
162	Jamu: Indonesian traditional herbal medicine towards rational phytopharmacological use	2014
163	Prise en charge des symptômes douloureux par la médecine traditionnelle haïtienne : résultats d'une enquête réalisée dans le quartier de Martissant à Port-au-Prince	2017
164	Role of g-C ₃ N ₄ as a 2-D composite partner in enhancing the photocatalytic waste water detoxifying ability of green routed cerium doped zinc oxide ²	2025
165	Emerging therapeutic potential of the iridoid molecule, asperuloside: A snapshot of its underlying molecular mechanisms	2020
166	6: Anticancer Potential of Functional and <i>Medicinal</i> Beverages	2019
167	Antioxidant and immunosuppressive activities of extracts of endophytic fungi isolated from <i>Psidium guajava</i> and <i>Newbouldia laevis</i>	2021
168	Phyto-synthesis of silver nanoscale particles using <i>Morinda citrifolia</i> L. and its inhibitory activity against human pathogens	2012
169	Water-soluble polysaccharides from <i>Piper regnellii</i> (Pariparoba) leaves: Structural characterization and antinociceptive and anti-inflammatory activities	2023
170	Herbal medicine in the Marquesas Islands	2015
171	Chapter 7: Anthraquinones and SARS-CoV-2	2023
172	5: Sustainable approach toward antibacterial textiles	2023
173	Herbs to Homeopathy— <i>Medicinal</i> Products for Children	2007
174	A comparative ethnopharmacological analysis of traditional medicine used against respiratory tract diseases in Mauritius	2016
175	Exploration of therapeutic applicability and different signaling mechanism of various phytopharmacological agents for treatment of breast cancer	2021
176	How scientific is the science in ethnopharmacology? Historical perspectives and epistemological problems	2009
177	The cytochrome P450 superfamily: Key players in <i>plant</i> development and defense	2015
178	Chapter 1: Potentially Chemopreventive Triterpenoids and Other Secondary Metabolites From <i>Plants</i> and Fungi	2016
179	Antimicrobial action of Oregano, Thyme, Clove, Cinnamon and Black	2023

180	pepper essential oils free and encapsulated against foodborne pathogens Damnacanthal and its nanoformulation exhibit anti-cancer activity via cyclin D1 down-regulation	2016
181	Phytogenic synthesis of ZnO nanoparticles from Catharanthus Roseus and Morinda Citrifolia leaf extract and its promising multifunctional biological applications	2023
182	Estrogenic activity and toxicity screening of Damnacanthal nanospheres and their metabolites assessed using an in vitro bioluminescent yeast assay	2022
183	Chapter 25: Herbals and green synthesized nanoparticles in dentistry	2019
184	Chapter 18: Indian fermented herbal beverages	2025
185	Phytochemical composition and in vitro biological activities of Morinda citrifolia fruit juice	2021
186	Ethnobotany in the Andes and the Amazon in a world of Nagoya Protocol and post SARS-CoV-2 pandemic	2021
187	Antioxidant and α -glucosidase inhibitory activities of Murraya koenigii leaf extracts	2012
188	The geographic origin of the <i>plants</i> most commonly used for medicine by Hawaiians	1985
189	Antivirulence and antipathogenic activity of Mayan herbal remedies against Pseudomonas aeruginosa	2024
190	Chapter 16: Taraxacum officinale (Dandelion)	2024
191	Effects of Morinda citrifolia aqueous fruit extract and its biomarker scopoletin on reflux esophagitis and gastric ulcer in rats	2011
192	Enhanced micropropagation protocol of Morinda citrifolia L. through nodal explants	2015
193	Nutritional value, phytochemistry, health benefits, and potential food applications of Pouteria campechiana (Kunth) Baehni: A comprehensive review	2023
194	Polynesian medicine used to treat diarrhea and ciguatera: An ethnobotanical survey in six islands from French Polynesia	2022
195	Hepatoprotective and hypoglycemic effect of lactic acid fermented Indian Gooseberry-Amla beverage on chronic alcohol-induced liver damage and diabetes in rats	2023
196	A systematic review of antimalarial activities of Morinda species	2022
197	Diverse bioactive secondary metabolites from Phyllopoentias schimperi (Hochst.) Y.D. Zhou & Q.F. Wang with chemophenetic significance	2024
198	Microwave-assisted extraction of antioxidative anthraquinones from roots of Morinda citrifolia	2007
199	Ethnomedicinal application of native remedies used against diabetes and related complications in Mauritius	2014
200	Chapter 9: Quinones as antiinflammatory agents	2025
201	Chapter 9: Quinones as antiinflammatory agents	2019
202	Scopoletin ameliorates hyperlipidemia and hepatic steatosis via AMPK, Nrf2/HO-1 and NF- κ B signaling pathways	2025
203	Multiple pharmacological targets, cytotoxicity, and phytochemical profile of Aphloia theiformis (Vahl.) Benn.	2017
204	Polysaccharides as antioxidants and prooxidants in managing the double-edged sword of reactive oxygen species	2023
205	Herbs and the kidney	2004
206	Phytotoxicity, nematocidal activity and chemical constituents of Peucedanum ostruthium (L.) W.D.J.Koch (Apiaceae)	2021

207	bioNMR-based identification of natural anti-A β compounds in <i>Peucedanum ostruthium</i>	2019
208	Chapter 9: Exploring the world of herbal teas	2025
209	Anthropogenic forests, arboriculture, and niche construction in the Marquesas Islands (Polynesia)	2020
210	Chapter 11: An update on antileishmanial agents from natural resources	2023
211	14: Curry leaf	2012
212	Bioactive polysaccharides from natural sources: A review on the antitumor and immunomodulating activities	2019
213	Probing occurrence of phenylpropanoids in <i>Morinda citrifolia</i> in relation to foliar diseases	2015
214	The impact of <i>Paullinia cupana</i> extract on pharmacokinetics of phenytoin in rats	2025
215	Fruit extracts to control pathogenic <i>Escherichia coli</i> : A sweet solution	2020
216	Treatments used in complementary and alternative medicine	2002
217	Foie, médicaments et agents chimiques	2009
218	Asparaginyl endopeptidases: enzymology, applications and limitations	2021
219	Development and characterization of the zeolite imidazolate framework for a modified release of the drug scopoletin	2021
220	3.27: Trees: A Remarkable Biochemical Bounty	2010
221	<i>Costus spicatus</i> tea failed to improve diabetic progression in C57BLKS/J db/db mice, a model of type 2 diabetes mellitus	2009
222	Adverse reactions of herbal medicine—A quantitative assessment of severity in Mauritius	2018
223	3: Functional Nonalcoholic Beverages: A Global Trend Toward a Healthy Life	2019
224	Evaluation of cytotoxic activity of protein extracts from the leaves of <i>Morinda pubescens</i> on human cancer cell lines	2017
225	Causality imputation between herbal products and HILI: An algorithm evaluation in a systematic review	2021
226	The use of alternative water sources as a means of adaptation to water shortages in Nsimeyong, Yaounde city: a quality assessment	2021
227	<i>Morinda citrifolia</i> lipid transfer protein 1 exhibits anti-inflammatory activity by modulation of pro- and anti-inflammatory cytokines	2017
228	Ultrasound-assisted extraction of anthraquinones from roots of <i>Morinda citrifolia</i>	2006
229	Virgin coconut oil: wet production methods and food applications – a review	2024
230	In vitro polyphenol effects on apoptosis: An update of literature data	2017
231	The anti-leech potential of the solvent extract of Bornean neem leaves and ultra-high performance liquid chromatography-high-resolution mass spectrometry profiling	2021
232	Chapter 16: Transgenic Research in Spices	2018
233	Cytotoxicity, antioxidant activity and an effect on CYP3A4 and CYP2D6 of <i>Mutellina purpurea</i> L. extracts	2013
234	Microscopic monitoring of the antibacterial potential of <i>Nepeta elymaitica</i> Bornm essential oil against kohlrabi leaves' foodborne pathogens	2023
235	In silico and in vivo study of anti-inflammatory activity of <i>Morinda longissima</i> (Rubiaceae) extract and phytochemicals for treatment of inflammation-mediated diseases	2024
236	Medicalethnobotany of some weeds of Mauritius and Rodrigues	1993
237	Identification of the effective α -amylase inhibitors from <i>Dalbergia</i>	2022

	odorifera: Virtual screening, spectroscopy, molecular docking, and molecular dynamic simulation	
238	Chapter 4: Phospholipid complexation: A versatile technique for delivery of phytomedicine	2022
239	Subcritical water extraction on phenolic, flavonoid and antioxidant activity from <i>Orthosiphon stamineus</i> leaves: Experimental and optimization	2024
240	Green extraction of <i>Commiphora leptophloeos</i> Mart. – J. B. Gillett aiming to increase the content of hinokinin, an “emerging bioactive”	2023
241	Fruits of Tropical Climates: Biodiversity and Dietary Importance	2016
242	Polysaccharide-mediated modulation of gut microbiota in the treatment of liver diseases: Promising approach with significant challenges	2024
243	Complementary and alternative medicine use among Mauritian women	2013
244	Altersolanol B, a fungal tetrahydroanthraquinone, inhibits the proliferation of estrogen receptor-expressing (ER+) human breast adenocarcinoma by modulating PI3K/AKT, p38/ERK MAPK and associated signaling pathways	2022
245	Bioactive components and biological properties of cornelian cherry (<i>Cornus mas</i> L.): A comprehensive review	2020
246	Nonsteroidal anti-inflammatory drug activated gene-1 (NAG-1) modulators from natural products as anti-cancer agents	2014
247	2,4-Quinolinedione alkaloids: occurrence and biological activities	2024
248	<i>Morinda officinalis</i> How. – A comprehensive review of traditional uses, phytochemistry and pharmacology	2018
249	Eco-friendly synthesis of CeO ₂ nanoparticles using <i>Morinda citrifolia</i> L. leaf extracts: Evaluation of structural, antibacterial, and anti-inflammatory activity	2024
250	1: An Overview of Functional Beverages	2019
251	Chapter 5: Riparian vegetation in Kerala's river basins: Diversity, ecological functions and restoration prospects	2025
252	Recent research and prospects of non-thermal physical technologies in green and high-efficient extraction of natural pigments: A review	2024
253	In vitro evaluation of antioxidant and anticancer potential of <i>Morinda pubescens</i> synthesized silver nanoparticles	2013
254	Ethanol-salt based two-phase partitioning for concentration of milk clotting proteases from Sweet Indrajao (<i>Wrightia tinctoria</i> R. Br.) fruit	2024
255	Chapter One: Toxicity of Naturally Occurring Anthraquinones	2017
256	Access and benefit-sharing: what indicators to measure ‘success’?	2023
257	Chapter 4: Herbal Remedies	2023
258	Natural Medicines Causing Acute Kidney Injury	2008
259	Six centuries of anthropogenic forest change on a Polynesian high island: Archaeological charcoal records from the Marquesas Islands	2016
260	Internal and external modulation factors of the orexin system (REVIEW)	2023
261	2: Health-Promoting Ingredients in Beverages	2019
262	Effect of drying temperature on antioxidant activity, phenolic compound profile and hygroscopic behavior of pomegranate peel and seed flours	2023
263	Rubiaceae	2016
264	Modulatory effect of Mengkudu fruit on the activities of key enzymes of glucose synthesis and utilization pathways of diabetic induced rats	2013
265	Pterocarpan scaffold: A natural lead molecule with diverse pharmacological properties	2017

266	Eleutherococcus senticosus (Rupr. & Maxim.) Maxim. (Araliaceae) as an adaptogen: a closer look	2000
267	Parkinson's disease a futile entangle of Mankind's credence on an herbal remedy: A review	2020
268	One health and social research in disease ecology: A social contextual study of vector-borne diseases in the Yucatan Peninsula, Mexico	2024
269	Amazon acai: Chemistry and biological activities: A review	2015
270	Gastroprotective effects of Pikad Tri-phol-sa-mut-than herbal remedy on multiple gastric ulcer models in rats	2023
271	Capsaicin and gingerol analogues inhibit the growth of efflux-multidrug resistant bacteria and R-plasmids conjugal transfer	2019
272	Effectiveness of Morinda citrifolia, Sapindus mukorossi, and curcumin used in curry spice, to the radicular canal irrigant in improving bond integrity of glass fiber post	2023
273	Anthraquinones from the roots of Morinda scabrida Craib exhibit antiproliferative activity against A549 lung cancer cells and antitubulin polymerization	2024
274	Photocatalytic action of AgCl nanoparticles and its antibacterial activity	2014
275	Fuzi polysaccharides improve immunity in immunosuppressed mouse models by regulating gut microbiota composition	2023
276	Dietary Practices After Primary Treatment for Ovarian Cancer: A Qualitative Analysis From the OPAL Study	2022
277	Optimisation of spray drying operating conditions of Morinda citrifolia L. fruit extract using response surface methodology	2015
278	Morinda citrifolia L. leaves extracts obtained by traditional and eco-friendly extraction solvents: Relation between phenolic compositions and biological properties by multivariate analysis	2020
279	Acute diseases: An epidemiologic perspective	2023
280	Microextraction of essential oils: A review	2023
281	Chapter 18: Health foods and foods with health claims in the Asian subcontinent: countries of the Association of Southeast Asian Nations	2017
282	Analysis of nutrient composition and antioxidant characteristics in the tender shoots of Chinese toon picked under different conditions	2019
283	Considerations for Complementary and Alternative Interventions for Pain	2015
284	Açaí (Euterpe oleracea Mart.)—A phytochemical and pharmacological assessment of the species' health claims	2011
285	Analysis of the hotspots and trends in traditional Chinese medicine immunomodulation research based on bibliometrics	2021
286	Index	2019
287	Fourth Controlled Human Infection Model (CHIM) meeting – CHIMs in endemic countries, May 22–23, 2023	2024
288	Chapter 18: Safety-Related Quality Issues for the Development of Herbal Drugs	2019
289	Ancient woodlands of Polynesia: A pilot anthracological study on Maupiti Island, French Polynesia	2017
290	Herbal medicines for the treatment of cardiovascular diseases: Benefits and risks – A narrative review	2023
291	Lycium barbarum leaf flavonoids ameliorate high fructose induced insulin resistance in mice by regulating blood glucose and gut microbiota composition	2024
292	Impact des Thérapies Complémentaires sur la Survie de Patients Atteints d'un Cancer Traités par Chimiothérapie Orale dans un	2022

	Établissement Hospitalier Français Spécialisé en Oncologie : Étude Exploratoire	
293	Extraction of apple pomace polyphenols using natural deep eutectic solvents: A sustainable approach	2024
294	Liver toxicity related to herbs and dietary supplements: Online table of case reports. Part 2 of 5 series	2017
295	Green synthesized metal nanoparticles as a selective inhibitor of human osteosarcoma and pathogenic microorganisms	2019
296	Index	2018
297	An overview of herb and dietary supplement efficacy, safety and government regulations in the United States with suggested improvements. Part 1 of 5 series	2017
298	Rubiaceae	2006
299	48: Treatments used in complementary and alternative medicine	2008
300	Biological Activity of Quinones	2005
301	Contents	2021
302	Effects of stevia (<i>Stevia rebaudiana</i> Bertoni) leaf extracts on the quality and shelf life of refrigerated catla (<i>Gibelion catla</i>) fillets	2024
303	Liver Injury Induced by Herbal Complementary and Alternative Medicine	2013
304	Antioxidant and cytotoxic effects of hexane extract of <i>Morinda pubescens</i> leaves in human liver cancer cell line	2012
305	Contributor contact details	2012
306	Influence of contemporary ceramo-metallic crown decontamination on the surface roughness, color stability, and disinfection. An in vitro analysis	2024
307	Effect of scopoletin on phagocytic activity of U937-derived human macrophages: Insights from transcriptomic analysis	2020
308	Chapter 27: Nutraceuticals in digestive therapy	2022
309	P.408 Protective effect of <i>morinda citrifolia</i> l. Juice on cognition and memory in diazepam-induced amnesia in rats	2019
310	Novel botanical ingredients for beverages	2009
311	Covalent organic frameworks (COFs) and metal–organic frameworks (MOFs) as electrochemical sensors for the efficient detection of pharmaceutical residues	2023
312	Graphical Abstract Contents List	2011
313	Preface	2018
313	Natural Therapeutic Options in Endodontics - A Review	2016
314	Herbal Medicines, Pharmaceutical Press Editorial, Pharmaceutical Press, London (2013), 4th revised edition. Hardcover, 912 pages, £ 99, numerous colour photos, numerous chemical line drawings, bibliography for each monograph, index, ISBN: 978 0 85711 035 0. Also available online via MedicinesComplete®	2013
315	Chapter 26: Hepatotoxicity of Herbal Preparations	2012
316	Kidney toxicity related to herbs and dietary supplements: Online table of case reports. Part 3 of 5 series	2017
317	Receptor Interacting Ser/Thr-Protein Kinase 2 as a New Therapeutic Target	2023
318	Contributor contact details	2012
319	Complementary and alternative medicine practices, traditional healing practices, and cultural competency in pediatric oncology in Hawai'i	2016

320	Enhancing the bio-polymeric stabilization of spray-dried <i>Chlorella</i> phenolic-rich extract: Analysis of its physicochemical, functional, structural, and biological properties	2023
321	Gingival mesenchymal stem cells: Biological properties and therapeutic applications	2024
322	Transport, metabolism and remedial potential of functional food extracts (FFE) in Caco-2 cells monolayer: A review	2024
323	Multi-therapeutic potential of flavonoids as an essential component in nutraceuticals for the treatment and management of human diseases	2024
324	Chapter 35: Hepatotoxicity of Herbals and Dietary Supplements	2013
325	Cavitation technologies for extraction of high value ingredients from renewable biomass	2024
326	Continuity of care: The ongoing use of “bush medicine” as a transnational therapeutic health practice in Guyanese immigrant communities	2021
327	History of safe use as applied to the safety assessment of novel foods and foods derived from genetically modified organisms	2007
328	Comprehensive review of <i>Argulus</i> infestations in aquaculture: Biological impacts and advanced management strategies	2024
329	Insights into physicochemical and sensory properties and metabolomic changes of antioxidant-rich jackfruit juice fermented by lactic acid bacteria	2024
330	Whole <i>Leea macrophylla</i> ethanolic extract normalizes kidney deposits and recovers renal impairments in an ethylene glycol-induced urolithiasis model of rats	2012
331	Larvicidal and antibacterial activity of aqueous leaf extract of <i>Peepal</i> (<i>Ficus religiosa</i>) synthesized nanoparticles	2020
332	Subject Index	2018
333	Chapter 4: Development of New Probiotic Foods—A Case Study on Probiotic Juices	2018
334	The prevalence of herbs use in conjunction with conventional medicines in Jamaica	2010
335	Application of fermented Chinese herbal medicines in food and medicine field: From an antioxidant perspective	2024
336	Antimicrobial anthraquinones from <i>Morinda angustifolia</i>	2008
337	Adventitious root cultures and secondary metabolite production in <i>Morinda citrifolia</i> as affected by growth regulators and inoculum density	2008
338	Chapter 48: Treatments used in complementary and alternative medicine	2011
339	Index	2009
340	Colonial history impacts urban tree species distribution in a tropical city	2019
341	Antifungal activity of <i>Morinda citrifolia</i> fruit extract against <i>Candida albicans</i>	2009
342	Characterizations and antibacterial activities of passion fruit peel pectin/chitosan composite films incorporated <i>Piper betle</i> L. leaf extract for preservation of purple eggplants	2022
343	From flavor to function: A review of fermented fruit drinks, their microbial profiles and health benefits	2024
344	Proteolytic profile, angiotensin-I converting enzyme inhibitory activity and sensory evaluation of <i>Codonopsis pilosula</i> and fish collagen cheese	2021
345	Complementary medicine oncology research in the Middle-East: Shifting from traditional to integrative cancer care	2011

346	Extraction of bioactive compounds from beach-cast brown algae: a review on accelerated solvent extraction and subcritical water extraction	2024
347	Perspectives on natural compounds in chemoprevention and treatment of cancer: an update with new promising compounds	2021
348	Editorial	2011
349	Contents (graphical abstracts and research highlights)	2016
350	Chapter 24: Modulation of inflammation and oxidative stress in <i>Helicobacter pylori</i> infection by bioactive compounds from food components	2022
351	Ontogenesis and secretion mechanism of <i>Morinda citrifolia</i> L. (Rubiaceae) colleters	2019
352	“I Want People to Be Able to Make an Informed Choice”: How Quebec naturopaths discuss vaccination in their practice	2023
351	Herbal medicines	2016
352	Structural features of polysaccharides from edible jambo (<i>Syzygium jambos</i>) fruits and antitumor activity of extracted pectins	2018
353	5: Effects and Mechanisms of Antioxidant-Rich Functional Beverages on Disease Prevention	2019
354	Chapter 49: Herbal supplements in patients with kidney disease	2022
355	Chapter 75: Regulatory aspects of nutraceuticals: Chinese perspective	2021
356	Enhancement of anthraquinone accumulation in <i>Morinda citrifolia</i> suspension cultures	2005
357	Cyberecoethnopharmacolomics	2019
358	Chapter 20: Diversification of Island Agriculture – A Viable Strategy for Adaptation to Climate Change	2018
359	Chapter 26: Hazards Associated with the Use of Herbal and Other Natural Products	2013
340	Food strategies of renal atrophy based on Avicenna and conventional medicine	2017
341	Kava hepatotoxicity. A clinical review	2010
342	Chapter 48: Treatments used in complementary and alternative medicine	2009
343	Herbal medicines	2006
344	Arabinogalactan from edible jambo fruit induces different responses on cytokine secretion by THP-1 macrophages in the absence and presence of proinflammatory stimulus	2018
345	Elucidation of the potential mechanism of punicalagin for conferring disease resistance in Yesso scallops against <i>Vibrio anguillarum</i> infection	2021
346	Microencapsulation of green tea extract (<i>Camellia sinensis</i> var <i>assamica</i>) to increase the bioaccessibility of bioactive compounds and gastroprotective effects	2021
347	Deep eutectic solvents (DES): An update on the applications in food sectors	2023
348	Larvicidal activity of titanium dioxide nanoparticles synthesized using <i>Morinda citrifolia</i> root extract against <i>Anopheles stephensi</i> , <i>Aedes aegypti</i> and <i>Culex quinquefasciatus</i> and its other effect on non-target fish	2015
349	Prospective features of functional 2D nanomaterial graphene oxide in the wound healing process	2023
350	Neo-traditional approaches for ensuring food security in Fiji Islands	2018
351	5: Fortification of beverages with products other than vitamins and	2009

	minerals	
352	Development of active packaging with chitosan, guar gum and watermelon rind extract: Characterization, application and performance improvement mechanism	2023
353	Legislation relating to nutraceuticals in the European Union with a particular focus on botanical-sourced products	2006
354	Adaptogenic-active components from <i>Kaempferia parviflora</i> rhizomes	2012
355	FLORA, USOS Y ALGUNAS CAUSALES DE CAMBIO EN QUINCE HUERTOS FAMILIARES EN EL MUNICIPIO DE JOSÉ MARÍA MORELOS, QUINTANA ROO, MÉXICO	2017
356	Activation of p38 MAPK by damnacanthal mediates apoptosis in SKHep 1 cells through the DR5/TRAIL and TNFR1/TNF- α and p53 pathways	2011
357	Comparative effects of the crude methanol/methylene chloride extract and fractions of <i>Senecio biafrae</i> (Oliv. & Hiern) J. Moore on some fertility parameters in immature female Wistar rats	2015
358	Evidence-Based Management of Herb-Drug Interaction in Cancer Chemotherapy	2010
359	Chemical profile, antioxidant and anti-inflammatory properties of <i>Miconia albicans</i> (Sw.) Triana (Melastomataceae) fruits extract	2021
360	“If I’m a naturopath, It’s because I trust nature above everything else”: Canadian naturopaths’ construction of vaccination as a risk object	2023
361	Chapter 2: Green synthesis and characterization parameters of gold nanoparticles	2024
362	Abstracts from the 64th Reciprocal Meat Conference of the American Meat Science Association, 19–22 June 2011, Kansas State University, Manhattan Kansas	2011
363	Chapter 67: Regulatory Aspects of Nutraceuticals: Chinese Perspective	2016
364	Polysaccharides obtained from natural edible sources and their role in modulating the immune system: Biologically active potential that can be exploited against COVID-19	2021
365	Age related neurodegenerative Alzheimer’s disease: Usage of traditional herbs in therapeutics	2020
366	Extraction and concentration of anthraquinones from roots of <i>Morinda citrifolia</i> by non-ionic surfactant solution	2009
365	Chapter 9: Role Phytochemicals Play in the Activation of Antioxidant Response Elements (AREs) and Phase II Enzymes and Their Relation to Cancer Progression and Prevention	2019
366	Novel foods and allergy: Regulations and risk-benefit assessment	2011
367	Plantation Crops and Plantations	2017
368	Evaluation of bioactive flavonoids and antioxidant activity in Pericarpium Citri Reticulatae (<i>Citrus reticulata</i> ‘Chachi’) during storage	2017
369	Anthraquinone Glycosides from the Roots of <i>Prismatomeris connata</i>	2011
370	Cyclocarysaponins A–J, dammarane-type triterpenoid glycosides from the leaves of <i>Cyclocarya paliurus</i>	2024
371	Current strategies, perspectives and challenges in management and control of postharvest diseases of papaya	2022
372	Structural analysis of an immunoenhancing heteropolysaccharide isolated from the green (unripe) fruits of <i>Solenum melongena</i> (Brinjal)	2009
373	Nephrotoxicity of Alternative Medicine Practice	2012
374	Ethnomedicine: Ancient Wisdom and Modern Science	2006
375	Food polysaccharides: A review on emerging microbial sources, bioactivities, nanoformulations and safety considerations	2002

376	Chemical analysis of a polysaccharide of unripe (green) tomato (Lycopersicon esculentum)	2009
377	HPLC-Q-Orbitrap-MS/MS phenolic profiles and biological activities of extracts from roxburgh rose (Rosa roxburghii Tratt.) leaves	2021
378	2: Intracanal medicaments	2022
379	CHAPTER 74: Herbal and Over-the-Counter Medicines and the Kidney	2010
380	Anti-obesity natural products and gut microbiota	2022
381	Codonopsis pilosula and fish collagen yogurt: Proteolytic, potential Angiotensin-I converting enzyme (ACE) inhibitory activity and sensory properties	2022
382	Chapter 43: Herbal Supplements in Patients with Kidney Disease	2013
383	3: Regulatory requirements for valorisation of food-chain co-products in the European Union	2009
383	Widely targeted metabolomic analysis of active compounds at different maturity stages of 'Hupingzao' jujube	2020
384	Chapter 14: Botanical Nutraceuticals, (Food Supplements, Fortified and Functional Foods) in the European Union with Main Focus on Nutrition And Health Claims Regulation	2014
385	Insight into the efficacy profile of fermented soy foods against diabetes	2023
386	Dietary supplements: International legal framework and adulteration profiles, and characteristics of products on the Brazilian clandestine market	2015
387	1: Introduction to herbs and spices: definitions, trade and applications	2012
388	Chapter 17: Complementary and Alternative Medicine for Patients with Cancer	2007
389	Naphthohydroquinones, naphthoquinones, anthraquinones, and a naphthohydroquinone dimer isolated from the aerial parts of Morinda parvifolia and their cytotoxic effects through up-regulation of p53	2016
390	Agroecology of pre-contact Hawaiian dryland farming: the spatial extent, yield and social impact of Hawaiian breadfruit groves in Kona, Hawai'i	2014
391	A review of subcritical water as a solvent and its utilisation for the processing of hydrophobic organic compounds	2017
392	CHAPTER 24: Materia Medica	2007
393	Index	2019
394	Chapter twenty two: Regulations on functional foods and nutraceuticals	2023
395	Chapter 4: Utilization of fruit waste as protein sources	2024
396	Chapter 20: Botanical nutraceuticals (food supplements and fortified and functional foods) and novel foods in the EU, with a main focus on legislative controls on safety aspects	2019
397	Chapter 17: Nutraceutical and functional food regulations in the European Union	2017
398	Practical aspects of herbal supplement use in chronic kidney disease	2004
399	Antihyperlipidemic effect of iridoid glycoside deacetylasperulosidic acid isolated from the seeds of Spermacoce hispida L. - A traditional antiobesity herb	2019
	Oxidative stability in raw, cooked, and frozen ground beef using Epazote (Chenopodium ambrosioides L.)	2020
400	Signal Transduction Pathways in Cancer Development and as Targets for Cancer Prevention	2005
401	Chapter 73: Evaluation and regulation of food supplements: European perspective	2021
402	Immunomodulant feed supplement Boswellia serrata to support broiler	2020

	chickens' health and dietary and technological meat quality	
403	An overview of RAF kinases and their inhibitors (2019–2023)	2024
404	Kapitel 2: Substanzen	2024
405	Herbal hepatotoxicity	2005
406	Microencapsulation of <i>Morinda citrifolia</i> L. extract by spray-drying	2012
407	Chapter 14: Botanical Nutraceuticals (Food Supplements, Fortified and Functional Foods) in the European Union with Main Focus on Nutrition and Health Claims Regulation	2008
408	Chapter 2: Herbal Supplements or Herbs in Heart Disease: History, Herbal Foods, Coronary Heart Disease	2013
409	Chapter 21: Historical Change of Raw Materials and Claims of Health Food Regulations in China	2014
410	Structural, functional properties and immunomodulatory activity of isolated Inca peanut (<i>Plukenetia volubilis</i> L.) seed albumin fraction	2018
411	Exopolysaccharide-producing isolates from Thai milk kefir and their antioxidant activities	2016
412	5: Legislation of functional foods in Asia	2011
413	Monkey orange fruit juice improves the nutritional quality of a maize-based diet	2019
414	Chapter 63: Evaluation and Regulation of Food Supplements: European Perspective	2016
415	Anthraquinones from <i>Morinda longissima</i> and their insulin mimetic activities via AMP-activated protein kinase (AMPK) activation	2017
416	Release of multifunctional peptides by gastrointestinal digestion of sea cucumber (<i>Isostichopus badionotus</i>)	2013
417	Poster Abstracts	2001
418	Index	2008
419	Physicochemical properties, antioxidant activity and in vitro gastrointestinal digestion of purified proteins from black cumin seeds	2019
420	Protective effect of Djulis (<i>Chenopodium formosanum</i>) and its bioactive compounds against carbon tetrachloride-induced liver injury, in vivo	2016
421	Intensification of extraction of natural products using ultrasonic irradiations—A review of current status	2012
422	Unseen existences: Stories of life from Venembeli, Papua New Guinea	2021
423	Chapter 12: Hepatic Injury due to Drugs, Dietary and Herbal Supplements, Chemicals and Toxins	2024
424	Index	2019
425	3.06: Recent Developments in Membrane Technologies for Concentration of Liquid Foods and Food Ingredients	2021
426	Chapter 15: Regulations for Nutraceuticals and Functional Foods in Europe and the United Kingdom	2008
427	2: Nutritional and health-promoting properties of tropical and subtropical fruits	2011
428	Bookshelf 2022	2023
429	Chapter 23: Food Safety Regulations Applied to Traditional and Ethnic Foods	2016
430	Drug-Induced Liver Injury	2014
431	Volatile compounds and sensory properties of Montasio cheese made from the milk of Simmental cows grazing on alpine pastures	2014
432	Index	2017

433	Chapter 2: Food and Toxicologic Pathology	2023
434	CHAPTER 12: Herbal Medicine: Potential for Intoxication and Interactions With Conventional Drugs	2007
435	Legal Issues in Caring for Patients With Kidney Disease by Selectively Integrating Complementary Therapies	2005
436	18: Colostrum new insights: products and processes	2022
437	Index	2007
438	Fostering next-generation probiotics in human gut by targeted dietary modulation: An emerging perspective	2021
439	Twenty-Fourth International Conference on Antiviral Research - Front Pages	2011
440	Chapter 2: Addressing trade and market access issues based on food safety strategies	2020
441	Trends in the extraction, purification, characterisation and biological activities of polysaccharides from tropical and sub-tropical fruits – A comprehensive review	2020
442	The Twenty-Third International Conference on Antiviral Research	2010
443	Food and nutrition labelling in the European Union	2005
444	Index	2021
445	102: Complementary and Alternative Medicine	2014
446	Chapter 11: Natural Antioxidants in Fresh and Processed Meat	2019
447	Plants as a source of dietary bioactives: Flavonoids and basis for their health benefits	2024
448	9.02: High Performance Liquid Chromatographic Separation Methods	2010
449	7.14: High Performance Liquid Chromatographic Separation Methods	2010
450	Chapter 4: Cancer	2003
451	Recent advances in the rational design and development of LIM kinase inhibitors are not enough to enter clinical trials	2018
452	11: Fruit and Vegetable-Based Beverages—Nutritional Properties and Health Benefits	2019
453	Flavonoids of <i>Chromolaena odorata</i> (L.) R.M.King & H.Rob. as potential leads for treatment against tuberculosis	2023
454	2005 CONTENTS OF VOLUMES 89,90,91,92,93	2005
455	EASL Clinical Practice Guidelines: Drug-induced liver injury	2019
456	Chapter 8 Teratogenicity of Pesticides and Other Environmental Pollutants	1988
457	Literature Listing	2018
458	Bibliography of food microbiology	2005
459	Dictionary	2006
460	Kapitel 8: Komplementäre Therapieverfahren	2006
461	Index	2018
462	Liquid column chromatographyLiquid column chromatography	2001
463	Liquid column chromatography	1997
464	Index	2012
465	Liquid column chromatography	1995
466	Contents	2019
467	Twice monthly bibliography on Neuropeptides — Late June prepared by Subis, 1 Northumberland Road, Sheffield S10 2TT	1995

B. Daftar judul artikel menggunakan kata kunci Noni Compound

No	Judul	Tahun
1	Enhancing bioactive compounds extraction from noni leaves (Morinda citrifolia) by enzymes-assisted extraction	2024
2	Multiple metabolite profiles uncover remarkable bioactive compounds and metabolic characteristics of noni fruit (Morinda citrifolia L.) at various stages of ripeness	2024
3	Antimicrobial and anticancer activities of Hainan dry noni fruit alcoholic extracts and their novel compounds identification using UPLC-Q-Exactive Orbitrap-MS/MS	2022
4	Growth of noni fruits (Morinda citrifolia L.) and accumulation of phenolic compounds during fruit development	2014
5	Insight into peroxidase-mediated Morinda citrifolia L. (noni) fruit juice browning and precipitation, and a thermal inactivation strategy	2025
6	Chemical constituents from noni (Morinda citrifolia L.) fruit juice and their chemotaxonomic significance	2024
7	Noni (Morinda citrifolia) fruit and by-products: A comprehensive review of its chemical compositions, health-promoting effects, safety assessment and industrial applications	2024
8	Insight into the changes in active metabolite profiles of noni (Morinda citrifolia L.) fruit subjected to different drying treatments	2024
9	Microencapsulation of noni fruit extract using gum arabic and maltodextrin – Optimization, stability and efficiency International Journal of Biological Macromolecules June 2024	2024
10	Postharvest ripening improves the texture and active ingredients of noni fruit (Morinda citrifolia L.) for processing	2024
11	Bioactivity and influence on colonic microbiota of polyphenols from noni (Morinda citrifolia L.) fruit under simulated gastrointestinal digestion	2024
12	Structural characterization of noni (Morinda citrifolia L.) pectin and its inhibitory activity on pancreatic lipase	2024
13	Effect of temperature regulation on microbial community, volatile flavours, amino acid profiles, and iridoid glycosides during noni (Morinda citrifolia L.) fruit fermentation	2025
14	Divine noni's protective impact on Swiss albino mice's short-term memory impairment caused by cyclophosphamide: A behavioral and biochemical approach	2024
15	Insight into the effects of different ripeness levels on the quality and flavor chemistry of Noni fruit (Morinda citrifolia L.)	2024
16	Iridoid glycosides from noni (Morinda citrifolia L.) fruit pomace: A novel booster strategy for its extraction and will its α -glucosidase inhibitory be increased by acetylation?	2024
17	Cold damage affects the quality of noni fruits (Morinda citrifolia L.)	2023
18	Effect of combined ultrasonic and enzymatic extraction technique on the quality of noni (Morinda citrifolia L.) juice	2023
19	Constituent analysis, laxative activity, and toxicological evaluation of methanol extract of noni fruit (Morinda citrifolia L., Rubiaceae)	2023
20	Acetobacter sp. improves the undesirable odors of fermented noni (Morinda citrifolia L.) juice	2023
21	A review on functional and nutritional properties of noni fruit seed	2021

	(<i>Morinda citrifolia</i> L.) and its oil	
22	Effects of <i>noni</i> fruit extract on the growth performance, digestive enzymes, and stress tolerance of juvenile whiteleg shrimp (<i>Litopenaeus vannamei</i>)	2023
23	Solvents effect on phenolics, iridoids, antioxidant activity, antibacterial activity, and pancreatic lipase inhibition activity of <i>noni</i> (<i>Morinda citrifolia</i> L.) fruit extract	2022
24	<i>Noni</i> (<i>Morinda citrifolia</i>) leaf extract incorporated methylcellulose active films: A sustainable strategy for browning inhibition in apple slice packaging	2024
25	A validated HPLC-DAD method and comparison of different extraction techniques for analysis of scopoletin in <i>noni</i> -based products	2023
26	Enzymatic hydrolysis of wheat gluten employing cysteine proteases from <i>noni</i> fruits (<i>Morinda citrifolia</i> L.)	2024
27	Correlation analysis reveals the intensified fermentation via <i>Lactobacillus plantarum</i> improved the flavor of fermented <i>noni</i> juice	2021
28	Fabrication, characterization and biological properties of pectin and/or chitosan-based films incorporated with <i>noni</i> (<i>Morinda citrifolia</i>) fruit extract	2023
29	<i>Morinda Citrifolia</i> (<i>Noni</i>) attenuated transcriptional and degenerative markers of cardiac toxicity in bisphenol A treated male wistar rats	2023
30	A novel strategy for improving the antioxidant, iridoid, and flavor properties of <i>Noni</i> (<i>Morinda citrifolia</i> L.) fruit juice by lactic acid bacteria fermentation	2023
31	New alkaloids from the <i>noni</i> juice with potential α -glucosidase inhibitory activity	2021
32	Metatranscriptomic approach reveals the functional and enzyme dynamics of core microbes during <i>noni</i> fruit fermentation	2021
33	Antibacterial and plant growth promoting attributes of <i>Limosilactobacillus</i> sp. MYSN3 isolated from <i>noni</i> fruit	2023
34	Effect of surfactants and Co-surfactants in formulation of <i>noni</i> fruit extract in virgin coconut oil-based emulsion	2022
35	Essential oil of <i>Noni</i> , <i>Morinda citrifolia</i> L., fruits controls the rice stem-rot disease without detrimentally affect beneficial fungi and ladybeetles	2021
36	Physicochemical and antioxidant properties, total phenolic and nutritional contents of <i>noni</i> (<i>Morinda citrifolia</i>) seed and its oil cultivated in Sabah, Malaysia	2022
37	Quality control standardization of Indonesian <i>noni</i> fruit (<i>Morinda citrifolia</i>) extract and evaluation of their angiotensin-converting enzyme inhibitory activity	2022
38	Effects of foliar application of gibberellic acid, boric acid and sucrose on <i>noni</i> (<i>M. citrifolia</i> L.) fruit growth and quality	2022
39	Efficient and green strategy based on pulsed electric field coupled with deep eutectic solvents for recovering flavonoids and preparing flavonoid aglycones from <i>noni</i> -processing wastes	2022
40	Phenolics from <i>noni</i> (<i>Morinda citrifolia</i> L.) fruit alleviate obesity in high fat diet-fed mice via modulating the gut microbiota and mitigating intestinal damage	2023
41	Diversity and community structure of endophytic <i>Bacillus</i> with antagonistic and antioxidant activity in the fruits of Xisha Wild <i>Noni</i> (<i>Morinda citrifolia</i> L.)	2021
42	Protective role of herbal formulation-divine <i>noni</i> against cisplatin-induced cytotoxicity in healthy cells by activating Nrf2 expression: An in-	2021

	vivo and in-vitro approach	
43	Nutritional, phytochemical and commercial quality of <i>Noni</i> fruit: A multi-beneficial gift from nature	2015
44	<i>Noni</i> (Morinda citrifolia L.) fruit phenolic extract supplementation ameliorates NAFLD by modulating insulin resistance, oxidative stress, inflammation, liver metabolism and gut microbiota	2022
45	<i>Noni</i> juice-fortified yogurt mitigates dextran sodium sulfate-induced colitis in mice through the modulation of inflammatory cytokines	2021
46	<i>Noni</i> (Morinda citrifolia) fruit polysaccharide films containing blueberry (Vaccinium corymbosum) leaf extract as an antioxidant packaging material	2021
47	Exploring the effects of microencapsulation on odour retention of fermented <i>noni</i> juice	2020
48	Untargeted metabolomic profiling of urine in Wistar rats reveals enhanced bioavailability of soy isoflavones post short-term consumption of <i>noni</i> (Morinda citrifolia) juice	2018
49	Pulmonary anti-inflammatory effects and spasmolytic properties of Costa Rican <i>noni</i> juice (Morinda citrifolia L.)	2016
50	Characterization, anti-oxidative and anti-inflammatory effects of Costa Rican <i>noni</i> juice (Morinda citrifolia L.)	2011
51	Two new anthraquinones with antiviral activities from the barks of Morinda citrifolia (<i>Noni</i>)	2016
52	Chemical components of the roots of <i>Noni</i> (Morinda citrifolia) and their cytotoxic effects	2011
53	Immunomodulatory actions of a Polynesian herb <i>Noni</i> (Morinda citrifolia) and its clinical applications	2019
54	Storage stability and in vitro digestion of microencapsulated powder containing fermented <i>noni</i> juice and probiotics	2020
55	Antibacterial activity of the <i>noni</i> fruit extract against Listeria monocytogenes and its applicability as a natural sanitizer for the washing of fresh-cut produce	2019
56	Ethylene is the key signal in the accumulation process of scopoletin in <i>noni</i> (Morinda citrifolia)	2020
57	Isolation and synergism of in vitro anti-inflammatory and quinone reductase (QR) inducing agents from the fruits of Morinda citrifolia (<i>noni</i>)	2011
58	Studies related to the chemical composition, biological activities and toxicity of methanolic extracts of <i>noni</i> (Morinda citrifolia) fruits and leaves	2022
59	Evaluation of Nutrient, Antinutrient and Phytochemical Properties of <i>Noni</i> Fruit (Morinda citrifolia); (Concentrate, Pulp, And Seed) (P10-047-19)	2019
60	<i>Noni</i> —Morinda citrifolia L.	2018
61	Morinda citrifolia (<i>Noni</i>): A comprehensive review on its industrial uses, pharmacological activities, and clinical trials	2019
62	Extraction and Characterization of Antioxidant Compositions From Fermented Fruit Juice of Morinda citrifolia (<i>Noni</i>)	2007
63	An endophytic strain of genus Paenibacillus isolated from the fruits of <i>Noni</i> (Morinda citrifolia L.) has antagonistic activity against a <i>Noni</i> 's pathogenic strain of genus Aspergillus	2018
64	Damnacanthal, a <i>noni</i> component, exhibits antitumorigenic activity in human colorectal cancer cells	2012
65	Concentration of <i>noni</i> juice by means of osmotic distillation	2009
66	<i>Noni</i> leaf and black tea enhance bone regeneration in estrogen-deficient	2017

	rats	
67	Chemical structure and anti-inflammatory effect of polysaccharide extracted from <i>Morinda citrifolia</i> Linn (<i>Noni</i>)	2018
68	Beneficial effects of <i>noni</i> (<i>Morinda citrifolia</i> L.) juice on livers of high-fat dietary hamsters	2013
69	<i>Noni</i> (<i>Morinda citrifolia</i> L.) fruit as a new source of milk-clotting cysteine proteases	2020
70	The <i>noni</i> fruit (<i>Morinda citrifolia</i> L.): A review of agricultural research, nutritional and therapeutic properties	2006
71	Physicochemical properties, antioxidant and antiproliferative activities of polysaccharides from <i>Morinda citrifolia</i> L. (<i>Noni</i>) based on different extraction methods	2020
72	Inhibitory effect of anthraquinones isolated from the <i>Noni</i> (<i>Morinda citrifolia</i>) root on animal A-, B- and Y-families of DNA polymerases and human cancer cell proliferation	2010
73	<i>Noni</i> puree (<i>Morinda citrifolia</i>) mixed in beef patties enhanced color stability	2012
74	<i>Noni</i> increased the systemic exposure of methotrexate in rats through inhibition on multi-drug resistance protein 2 (MRP 2) and breast cancer resistance protein (BCRP)	2013
75	Study of the effect of the different parts of <i>Morinda citrifolia</i> L. (<i>noni</i>) on the green synthesis of silver nanoparticles and their antibacterial activity	2021
76	Beverages of lemon juice and exotic <i>noni</i> and papaya with potential for anticholinergic effects	2015
77	Effect of maltodextrins in the water-content–water activity–glass transition relationships of <i>noni</i> (<i>Morinda citrifolia</i> L.) pulp powder	2011
78	Total phenolics, ascorbic acid, and antioxidant capacity of <i>noni</i> (<i>Morinda citrifolia</i> L.) juice and powder as affected by illumination during storage	2010
79	A quantitative comparison of phytochemical components in global <i>noni</i> fruits and their commercial product	2010
80	First isolation and antinociceptive activity of a lipid transfer protein from <i>noni</i> (<i>Morinda citrifolia</i>) seeds	2016
81	Nutrient and phytochemical analyses of processed <i>noni</i> puree	2011
82	Herb — drug interaction of <i>noni</i> juice and Ginkgo biloba with phenytoin	2011
83	Microencapsulation of fermented <i>noni</i> juice via micro-fluidic-jet spray drying: Evaluation of powder properties and functionalities	2020
84	Anxiolytic- and antidepressant-like activities of a methanolic extract of <i>Morinda citrifolia</i> Linn. (<i>noni</i>) fruit in mice: Involvement of benzodiazepine-GABAAergic, serotonergic and adrenergic systems	2017
85	Development and validation of an RP-HPLC method for the analysis of anthraquinones in <i>noni</i> fruits and leaves	2009
86	Quantification of coumarin derivatives in <i>Noni</i> (<i>Morinda citrifolia</i>) and their contribution of quenching effect on reactive oxygen species	2009
87	Hepatoprotective effects of naturally fermented <i>noni</i> juice against thioacetamide-induced liver fibrosis in rats	2017
88	<i>Noni</i> (<i>Morinda citrifolia</i> L.) fruit juice reverses age-related decline in neural-immune interactions in the spleens of old F344 rats	2017
89	Simultaneous characterisation and quantitation of flavonol glycosides and aglycones in <i>noni</i> leaves using a validated HPLC-UV/MS method	2008
90	Free-radical-scavenging activity and total phenols of <i>noni</i> (<i>Morinda citrifolia</i> L.) juice and powder in processing and storage	2007
91	<i>Noni</i> as an anxiolytic and sedative: A mechanism involving its gamma-aminobutyric acidergic effects	2007

92	Chapter 19: <i>Morinda citrifolia</i> Linn. (<i>Noni</i>) fruit, antioxidant effects, and neuroprotection	2020
93	The <i>noni</i> anthraquinone damnacanthal is a multi-kinase inhibitor with potent anti-angiogenic effects	2017
94	The effects of <i>Morinda citrifolia</i> L. (<i>noni</i>) on the immune system: Its molecular mechanisms of action	2008
95	Recent advances in stereoselective synthesis of non-classical glycosides	2024
96	<i>Noni</i> (<i>Morinda citrifolia</i> L.) fruit juice delays immunosenescence in the lymphocytes in lymph nodes of old F344 rats	2018
97	Chapter 14: <i>Noni</i> (<i>Morinda citrifolia</i>) Fruit as a Functional Food and Dietary Supplement for an Aging Population	2009
98	Polysaccharide composition of the fruit juice of <i>Morinda citrifolia</i> (<i>Noni</i>)	2006
99	<i>Morinda citrifolia</i> Linn. fruit (<i>Noni</i>) juice induces an increase in NO production and death of <i>Leishmania amazonensis</i> amastigotes in peritoneal macrophages from BALB/c	2016
100	Effect of <i>Noni</i> , <i>Morinda citrifolia</i> fruit extract supplementation on the growth performances and physiological responses of the hepatopancreas of Whiteleg shrimp, <i>Penaeus vannamei</i> Post Larvae	2021
101	<i>Morinda citrifolia</i> Linn (<i>Noni</i>): In vivo and in vitro reproductive toxicology	2009
102	<i>Noni</i> juice (<i>Morinda citrifolia</i>): Hidden potential for hyperkalemia?	2000
103	New unusual iridoids from the leaves of <i>noni</i> (<i>Morinda citrifolia</i> L.) show inhibitory effect on ultraviolet B-induced transcriptional activator protein-1 (AP-1) activity	2003
104	The hot-water extract of leaves of <i>noni</i> , <i>Morinda citrifolia</i> , promotes the immunocompetence of giant freshwater prawn, <i>Macrobrachium rosenbergii</i>	2017
105	Evolution of fatty acid taste in drosophilids	2023
106	Phenolic compounds in dietary target the regulation of gut microbiota: Role in health and disease	2024
107	Studies of HIV Integrase Inhibitory Activity of <i>Morinda citrifolia</i> L <i>Noni</i> Fruit Extracts	2010
108	The influence of <i>Morinda citrifolia</i> fruit maturity level, parts and storage length on total phenols, ascorbic acid, antioxidant activity and ethylene gas emission	2024
109	Mosquitocidal properties of <i>Morinda citrifolia</i> L. (<i>Noni</i>) (Family: Rubiaceae) leaf extract and <i>Metarhizium anisopliae</i> against malaria vector, <i>Anopheles stephensi</i> Liston. (Diptera: Culicidae)	2014
110	Citrifolinin A, a new unusual iridoid with inhibition of Activator Protein-1 (AP-1) from the leaves of <i>noni</i> (<i>Morinda citrifolia</i> L.)	2001
111	Multi-stage block freeze concentration via gravitational method applied to increase of the nutritional content of <i>Morinda citrifolia</i> L. tea	2023
112	Antimicrobial activity of selected plant extracts against common food borne pathogenic bacteria	2023
113	Lipid transfer protein isolated from <i>noni</i> seeds displays antibacterial activity in vitro and improves survival in lethal sepsis induced by CLP in mice	2018
114	Antioxidant and antimicrobial activities of Ethanolic Jik (<i>Barringtonia acutangula</i>) leaf extract and its application for shelf-life extension of Pacific white shrimp meat during refrigerated storage	2024
115	Scopoletin and rutin attenuate ethanol reward in mouse-conditioned place	2024

5	preference test	
11	An experimental design approach for the optimization of scopoletin	2022
6	extraction from <i>Morinda citrifolia</i> L. using accelerated solvent extraction	
11	Synbiotic effects of <i>Lactobacillus plantarum</i> CMT1 and <i>Morinda</i>	2025
7	<i>citrifolia</i> on the growth performance and disease resistance of whiteleg shrimp	
11	Red mud as catalyst for the treatment of pharmaceuticals compounds by	2024
8	advanced oxidation processes – A review	
11	Extraction of bioactive compounds from beach-cast brown algae: a review	2024
9	on accelerated solvent extraction and subcritical water extraction	
12	Super capacitive electrode performance analysis of facile synthesized α -	2024
0	Fe ₂ O ₃ aerogel and its nanocomposite with in-situ formed polyaniline (α -Fe ₂ O ₃ /PANI)	
12	Influence of fermentation conditions by <i>Rhizopus oryzae</i> on the release of	2024
1	phenolic compounds , composition, and properties of brewer's spent grain	
12	Studies on Anti-HSV Activity and Cytotoxicity of <i>Morinda</i>	2011
2	<i>citrifolia</i> L. Noni Leaf	
12	Application of chromatography and mass spectrometry to the	2013
3	characterization of cobalt, copper, manganese and molybdenum in <i>Morinda Citrifolia</i>	
12	Physiochemical properties, volatile compounds and consumer acceptance	2024
4	of novel ultra-high temperature milk during storage	
12	Molecular Basis of Hexanoic Acid Taste in <i>Drosophila melanogaster</i>	2023
6		
12	Effect of drying temperature on antioxidant activity,	2023
7	phenolic compound profile and hygroscopic behavior of pomegranate peel and seed flours	
12	The classical drug discovery approach to defining bioactive constituents of	2011
8	botanicals	
12	7: Pulsed electric fields in the extraction of bioactive compounds	2025
9		
13	Morindone as a potential	2024
0	therapeutic compound targeting TP53 and KRAS mutations in colorectal cancer cells	
13	Virtual screening of potential phyto-candidates as therapeutic leads against	2021
1	SARS-CoV-2 infection	
13	Carrier-Mediated Transport of the Quaternary Ammonium Neuronal	2008
2	Nicotinic Receptor Antagonist N,N'-Dodecylbispicolinium Dibromide at the Blood-Brain Barrier	
13	Impact of phytoconstituents on oral health practices: a post COVID-19	2024
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13	Identification of novel fatty acid glucosides from the tropical	2010
4	fruit <i>Morinda citrifolia</i> L.	
13	Multivariate data analysis strategy to monitor Trentingrana cheese real-	2023
5	scale production through volatile organic compounds profiling	
13	Usage, biological activity, and safety of selected botanical dietary	2018
6	supplements consumed in the United States	
13	Protective effect of fruits of <i>Morinda citrifolia</i> L. on scopolamine induced	2012
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13	Do Uncommon Plant Phenolic Compounds Have Uncommon Properties?	2021
8	A Mini Review on Novel Flavonoids	
13	<i>Morinda citrifolia</i> L. fruit extracts modulates H ₂ O ₂ -induced oxidative	2016

9	stress in human liposarcoma SW872 cells	
14	Estrogenic activity and toxicity screening of Damnacanthal nanospheres	2022
0	and their metabolites assessed using an in vitro bioluminescent yeast assay	
14	Chronic toxicity evaluation of Morinda citrifolia fruit and leaf in mice	2017
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14	Evaluation of drug candidature of some anthraquinones from Morinda	2017
2	citrifolia L. as inhibitor of human dihydrofolate reductase enzyme:	
	Molecular docking and in silico studies	
14	Alzheimer's Disease Prevention through Natural <i>Compounds</i> : Cell-Free,	2022
3	In Vitro, and In Vivo Dissection of Hop (<i>Humulus lupulus</i> L.) Multitarget	
	Activity	
14	Occurrence of targeted nutrients and potentially	2018
4	bioactive <i>compounds</i> during in vitro digestion of wheat spaghetti	
14	Microencapsulation of green tea extract (<i>Camellia sinensis</i> var <i>assamica</i>)	2021
5	to increase the bioaccessibility of bioactive <i>compounds</i> and	
	gastroprotective effects	
14	Antibacterial activity of Morinda citrifolia Linneo seeds against	2019
6	Methicillin-Resistant <i>Staphylococcus</i> spp	
14	Antimicrobial potential of exotic fruits residues	2019
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14	Potential of pharmaceutical formulation based on Morinda	2023
8	citrifolia extract for the treatment of schistosomiasis	
14	Syntheses and characterization of ANi(AsF ₆) ₃ (A=H ₃ O ⁺ , O ₂ ⁺ , NO ⁺ ,	2009
9	NH ₄ ⁺ , K ⁺ , Rb ⁺ , and Cs ⁺) <i>compounds</i>	
15	Effect of different heat treatments on the Maillard reaction products,	2021
0	volatile <i>compounds</i> and glycation level of milk	
15	Perspectives on natural <i>compounds</i> in chemoprevention and treatment of	2021
1	cancer: an update with new promising <i>compounds</i>	
15	Chapter 8: Indian Berries and Their Active <i>Compounds</i> : Therapeutic	2019
2	Potential in Cancer Prevention	
15	Effect of Double Branching in α,ω -Substituted Oligothiophenes on	2017
3	Thermal Solid-State Properties	
15	Active Transport of High-Affinity Choline and Nicotine Analogs into the	2003
4	Central Nervous System by the Blood-Brain Barrier Choline Transporter	
15	Utilization and Safety of Common Over-the-Counter Dietary/Nutritional	2016
5	Supplements, Herbal Agents, and Homeopathic <i>Compounds</i> for Disease	
	Prevention	
15	Role of herbal tea (<i>Camellia sinensis</i> L. Kuntze, <i>Zingiber</i>	2023
6	<i>officinale</i> Roscoe and <i>Morinda citrifolia</i> L.) in lowering cholesterol level:	
	A review and bibliometric analysis	
15	12: Characterization of Bioactive <i>Compounds</i> in Flavored Waters and	2019
7	Fruit Juices	
15	Production of biomass and useful <i>compounds</i> from adventitious roots of	2012
8	high-value added medicinal plants using bioreactor	
15	Chapter 2: Valorization of industrial by-products and waste from tropical	2021
9	fruits for the recovery of bioactive <i>compounds</i> , recent advances, and future	
	perspectives	
16	Chapter 3: Anticancer activity of natural <i>compounds</i> from roots of the	2024
0	plants	
16	Pulsed electric field assisted process for extraction of	2021
1	bioactive <i>compounds</i> from custard apple (<i>Annona squamosa</i>) leaves	
16	New anthraquinone glycosides from the roots of Morinda citrifolia	2009
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16	Chapter 24: Modulation of inflammation and oxidative stress	2022
3	in <i>Helicobacter pylori</i> infection by bioactive compounds from food	
16	The protective effects of medicinal plants against cigarette smoking: A	2024
4	comprehensive review	
16	Electrochemical characterization of Scopoletin, a 7-hydroxy-6-methoxy-	2015
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16	Finding of pesticides in fashionable fruit juices by LC–MS/MS and GC–	2012
6	MS/MS	
16	Damnacanthol inhibits IgE receptor-mediated activation of mast cells	2015
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16	Effects of <i>Morinda citrifolia</i> aqueous fruit extract and its biomarker	2011
8	scopoletin on reflux esophagitis and gastric ulcer in rats	
16	Exploring the therapeutic potential of Brazilian medicinal plants for anti-	2024
9	arthritic and anti-osteoarthritic applications: A comprehensive review	
17	Insecticidal Constructure and Bioactivities of Compounds from <i>Ficus</i>	2011
0	<i>sarmentosa</i> var. <i>henryi</i>	
17	Release of phenolic compounds from cork stoppers and its effect on	2016
1	protein-haze	
17	Volatile sulfur compounds in tropical fruits	2018
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17	Damnacanthol and its nanoformulation exhibit anti-cancer activity via	2016
3	cyclin D1 down-regulation	
17	Effect of α S1-casein genotype on phenolic compounds and antioxidant	2018
4	activity in goat milk yogurt fortified with <i>Rhus coriaria</i> leaf powder	
17	Furosine and flavour compounds in durum wheat pasta produced under	2014
5	different manufacturing conditions: Multivariate chemometric	
	characterization	
17	Cell-based chemical genetic screen identifies damnacanthol as an inhibitor	2006
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17	Widely targeted metabolomic analysis of active compounds at different	2020
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17	The role of fatty acid of <i>Morinda citrifolia</i> oil as surface-active chemicals	2022
8	on the deinking process of waste paper	
17	Isolation of scopoletin via LC-MS in roots of <i>Girardinia diversifolia</i>	2023
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18	Effects of grazing cow diet on volatile compounds as well as	2016
0	physicochemical and sensory characteristics of 12-month-ripened	
	Montasio cheese	
18	Microscopic monitoring of the antibacterial potential of <i>Nepeta elymaitica</i>	2023
1	Bornm essential oil against kohlrabi leaves’ foodborne pathogens	
18	Herbal therapy use by cancer patients: A literature review on case reports	2011
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18	Revalorization of bioactive compounds from tropical fruit by-products and	2020
3	industrial applications by means of sustainable approaches	
18	A review of subcritical water as a solvent and its utilisation for the	2011
4	processing of hydrophobic organic compounds	
18	Recent advances of fermented fruits: A review on strains, fermentation	2024
5	strategies, and functional activities	
18	Evaluation of the Brazilian functional fruit <i>Morinda citrifolia</i> as	2021
6	phospholipases A2 and proteases modulator: <i>Morinda citrifolia</i> : enzymatic	
	modulation	
18	The scientific study of the materials used to create the Tahitian mourner's	2020

7	costume in the British Museum collection	
18	Extraction of anti-cancer damnacanthal from roots of <i>Morinda citrifolia</i> by	2007
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18	Subcritical water extraction on phenolic, flavonoid and antioxidant activity	2024
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19	Current status and contemporary approaches to the discovery of antitumor	2020
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19	Protective effect of Djulis (<i>Chenopodium formosanum</i>) and its	2016
1	bioactive compounds against carbon tetrachloride-induced liver injury, in	
	vivo	
19	bioNMR-based identification of natural anti-	2019
2	A β compounds in <i>Peucedanum ostruthium</i>	
19	Evaluation of Latin-American fruits rich in phytochemicals with	2014
3	biological effects	
19	Volatile compounds and sensory properties of Montasio cheese made from	2014
4	the milk of Simmental cows grazing on alpine pastures	
19	<i>Morinda citrifolia</i> leaf enhanced performance by improving angiogenesis,	2016
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19	Use of Alternative Medicine by Patients With Stage 5 Chronic Kidney	2005
6	Disease	
19	N-n-Alkylpyridinium Analogs, A Novel Class of Nicotinic Receptor	2002
7	Antagonist: Inhibition of S(-)-Nicotine-Evoked [3H]Dopamine Overflow	
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19	A Rapid and Sensitive Screening System for Human Type I Collagen with	2008
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19	A decade overview and prospect of spray drying encapsulation of	2023
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20	Proton transfer reaction time-of-flight mass spectrometry: A high-	2015
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	and cow characteristics on the volatile compound fingerprint of cheeses	
20	Genus <i>Morinda</i> : An insight to its ethnopharmacology, phytochemistry,	2022
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20	Effect of probiotic <i>Lactiplantibacillus plantarum</i> strains on some	2024
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20	Phenolic compounds , antioxidant and antidiabetic activity of different	2016
3	cultivars of <i>Ficus carica</i> L. fruits	
20	Diverse bioactive secondary metabolites from <i>Phyllopoentia</i>	2024
4	<i>schimperii</i> (Hochst.) Y.D. Zhou & Q.F. Wang with chemophenetic	
	significance	
20	Fermentation-based biotransformation of bioactive phenolics and	2017
5	volatile compounds from cashew apple juice by select lactic acid bacteria	
20	Effect of spray drying on phenolic compounds of cranberry juice and their	2020
6	stability during storage	
20	Amplifying Bioactivity of blue honeysuckle (<i>Lonicera caerulea</i> L.) fruit	2025
7	puree through Ultrasonication: Antioxidant and antiproliferative activity	
20	Antiviral activity of diverse classes of broad-acting agents and	2006
8	natural compounds in HHV-6-infected lymphoblasts	
20	Phytoimmunomodulators: A review of natural modulators for complex	2024
9	immune system	
21	Case study of a commercial sheep flock under extensive mountain	2016
0	grazing: Pasture derived lipid compounds in milk and cheese	

21 1	Precursors consumption preferences and thiol release capacity of the wine yeasts <i>Saccharomyces cerevisiae</i> , <i>Torulaspora delbrueckii</i> , and <i>Lachancea thermotolerans</i>	2024
21 2	Bioactive compounds and antioxidant properties of pseudocereals-enriched water biscuits and their in vitro digestates	2018
21 3	N-n-Alkylpyridinium Analogs, a Novel Class of Nicotinic Receptor Antagonists: Interaction with $\alpha 4\beta 2^*$ and $\alpha 7^*$ Neuronal Nicotinic Receptors	2003
21 4	Multifaceted roles of plant-derived bioactive polysaccharides: A review of their biological functions, delivery, bioavailability, and applications within the food and pharmaceutical sectors	2025
21 5	Hepatoprotective and hypoglycemic effect of lactic acid fermented Indian Gooseberry-Amla beverage on chronic alcohol-induced liver damage and diabetes in rats	2023
21 6	Antioxidant and immunosuppressive activities of extracts of endophytic fungi isolated from <i>Psidium guajava</i> and <i>Newbouldia laevis</i>	2021
21 7	Cyclocarysaponins A–J, dammarane-type triterpenoid glycosides from the leaves of <i>Cyclocarya paliurus</i>	2024
21 8	Altersolanol B, a fungal tetrahydroanthraquinone, inhibits the proliferation of estrogen receptor-expressing (ER+) human breast adenocarcinoma by modulating PI3K/AKT, p38/ERK MAPK and associated signaling pathways	2022
21 9	Chapter 7: Anthraquinones and SARS-CoV-2	2023
22 0	Active packaging of fish gelatin films with <i>Morinda citrifolia</i> oil	2016
22 1	Microencapsulated granaticins from <i>Streptomyces vilmorinianum</i> YP1: Optimization, physiochemical characterization and storage stability	2024
22 2	The consequences of fermentation metabolism on the qualitative qualities and biological activity of fermented fruit and vegetable juices	2024
22 3	¹ H NMR profiling and chemometric analysis for ripening and production characterization of Grana Padano cheese	2024
22 4	Chapter 17: Utilization of contaminated lands for cultivation of dye producing plants for dyestuff	2024
22 5	Phytochemical composition and in vitro biological activities of <i>Morinda citrifolia</i> fruit juice	2021
22 6	Impact of lactic acid bacterial fermentation on the chemical composition, antioxidant capacities and flavor properties of dandelion	2024
22 7	A new pair of enantiomeric lignans from the fruits of <i>Morinda citrifolia</i> and their absolute configuration	2018
22 8	Review of fruits flavor deterioration in postharvest storage: Odorants, formation mechanism and quality control	2024
22 9	19: Clinical trials, patents, and marketed products of nanocurcumin-based anticancer drug delivery systems	2024
23 0	The influence of microwave-assisted osmotic dehydration in coconut meat preservation technique	2024
23 1	Insights into metabolomics in quality attributes of postharvest fruit	2022
23 2	Virgin coconut oil: wet production methods and food applications – a review	2024
23 3	Initial review on medicinal preparations of undetermined constitution containing natural materials for the treatment of HIV or AIDS	2021
23	Impact of β -casein variants on the formation of β -casomorphins in blue	2025

4	cheeses: Investigating key drivers through peptidomic analysis	
23	Nutritional, anti-nutrient, stability and organoleptic characterisation of	2024
5	plant-based milk alternatives derived from adzuki bean (<i>Vigna angularis</i>)	
	and mung bean (<i>Vigna radiata</i>)	
23	Metabolomic analysis reveals the effect of ultrasonic-microwave	2024
6	pretreatment on flavonoids in tribute Citrus powder	
23	Chapter 9: Quinones as antiinflammatory agents	2025
7		
23	Understanding the effect of plastic food packaging materials on food	2024
8	flavor: A critical review	
23	In silico and in vivo study of anti-inflammatory activity of <i>Morinda</i>	2024
9	<i>longissima</i> (Rubiaceae) extract and phytochemicals for treatment of	
	inflammation-mediated diseases	
24	Biocompounds recovery from purple corn cob by-product: extraction	2025
0	kinetics, thermal and physicochemical stability of liquid and powdered	
	anthocyanin-rich extract	
24	bis-Pyridinium cyclophanes: Novel ligands with high affinity for the	2008
1	blood–brain barrier choline transporter	
24	Ethanollic cashew leaf extract: Antioxidant potential and impact on quality	2024
2	changes of dried fermented catfish during storage	
24	Inhibitory effect of ethanol, sulphur dioxide and proanthocyanidinic	2016
3	tannins on lysozyme antimicrobial activity in model wine	
24	Insights into physicochemical and sensory properties and metabolomic	2024
4	changes of antioxidant-rich jackfruit juice fermented by lactic acid	
	bacteria	
24	Bis-azaaromatic quaternary ammonium salts as ligands for the blood–	2010
5	brain barrier choline transporter	
24	Anthraquinones from the roots of <i>Morinda scabrida</i> Craib exhibit	2024
6	antiproliferative activity against A549 lung cancer cells and antitubulin	
	polymerization	
24	Chapter 5: Medicinal plants as potential functional foods or resources for	2021
7	obtaining anticancer activity metabolites	
24	Polyphenols and carotenoids in pickled bell pepper from organic and	2019
8	conventional production	
24	Maillard <i>Compounds</i> as Crosslinks in Heated β -Casein-Glucose Systems	2005
9		
25	Public Health Risks Associated with Food Process Contaminants – A	2025
0	Review	
25	Carbohydrate Characterization and Exploitation	2024
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25	Review on potential therapeutic effect of <i>Morinda citrifolia</i> L.	2016
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25	Chapter 5: Plant crude drugs	2024
3		
25	Effect of fermentation by lactic acid bacteria on the phenolic composition,	2023
4	antioxidant activity, and flavor substances of jujube–wolfberry composite	
	juice	
25	Evolution at multiple processing levels underlies odor-guided behavior in	2023
5	the genus <i>Drosophila</i>	
25	Selecting autochthonous lactic acid bacteria for co-inoculation in Chinese	2024
6	bayberry wine production: Stress response, starter cultures application and	
	volatilomic study	
25	Flavonoids and phenolic acids from the roots of <i>Sophora</i>	2020

7	tonkinensis Gagnep	
25	Furosine as marker of quality in dried durum wheat pasta: Impact of heat	2021
8	treatment on food quality and security – A review	
25	Exogenous application of sucrose promotes the repartitioning of	2024
9	anthocyanin and proanthocyanidin in ‘Cabernet Sauvignon’ grapevine	
	berries	
26	Antioxidant and cytotoxic effects of hexane extract of Morinda	2012
0	pubescens leaves in human liver cancer cell line	
26	Fruit extracts to control pathogenic Escherichia coli: A sweet solution	2020
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26	Osmotic distillation applying potassium pyrophosphate as brine	2018
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26	Cavitation technologies for extraction of high value ingredients from	2024
3	renewable biomass	
26	16: Car and Truck Wash <i>Compounds</i>	1995
4		
26	Natural molecules as tumour inhibitors: Promises and prospects	2014
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26	3D-QSAR study of bis-azaaromatic quaternary ammonium analogs at the	2005
6	blood–brain barrier choline transporter	
26	Volatilomic profile of the tree tomato (Solanum betaceum Cav.) pulp	2023
7	during ripening and senescence using HS–SPME with GC–MS	
26	Morinda citrifolia lipid transfer protein 1 exhibits anti-inflammatory	2017
8	activity by modulation of pro- and anti-inflammatory cytokines	
26	From lab to nature: Recent advancements in the journey of	2024
9	gastroprotective agents from medicinal chemistry to phytotherapy	
27	Lycium barbarum leaf flavonoids ameliorate high fructose induced insulin	2024
0	resistance in mice by regulating blood glucose and gut microbiota	
	composition	
27	Gas-filled membrane absorption: a review of three different applications to	2013
1	describe the mass transfer by means of a unified approach	
27	Chapter 14: Plant extracts with putative hepatotoxicity activity	2021
2		
27	Chapter 21: Fruit and vegetable juices and breast cancer	2021
3		
27	A UHPLC-HRMS based metabolomics and chemoinformatics approach to	2020
4	chemically distinguish ‘super foods’ from a variety of plant-based foods	
27	A review of natural plant extracts in beverages: Extraction process,	2023
5	nutritional function, and safety evaluation	
27	Guanidino <i>compound</i> levels in brain regions of non-dialyzed uremic	1995
6	patients	
27	Parkinson's disease a futile entangle of Mankind's credence on an herbal	2020
7	remedy: A review	
27	Photophysics and photochemistry of new verdin <i>compounds</i>	1991
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27	Microwave-assisted Morinda citrifolia L leaves extract mediated	2024
9	synthesis, magnetic and antimicrobial studies of pure and calcium	
	substituted zinc ferrite	
28	An overview of RAF kinases and their inhibitors (2019–2023)	2024
0		
28	The anti-leech potential of the solvent extract of Bornean neem leaves and	2021
1	ultra-high performance liquid chromatography-high-resolution mass	
	spectrometry profiling	

28	Enhancing the bio-polymeric stabilization of spray-dried <i>Chlorella</i>	2023
2	phenolic-rich extract: Analysis of its physicochemical, functional, structural, and biological properties	
28	Phytotoxicity, nematocidal activity and chemical constituents	2021
3	of <i>Peucedanum ostruthium</i> (L.) W.D.J.Koch (Apiaceae)	
28	Changes in the soluble nitrogen fraction of milk throughout PDO Grana	2015
4	Padano cheese-making	
28	Antioxidant and antiangiogenic activities of the essential oils of <i>Myristica</i>	2012
5	fragrans and <i>Morinda citrifolia</i>	
28	Mitigation of Maillard reaction in spaghetti by optimization of the drying	2023
6	conditions	
28	Phyto-synthesis of silver nanoscale particles using <i>Morinda citrifolia</i> L.	2012
7	and its inhibitory activity against human pathogens	
28	The inhibitory effects of wine phenolics on lysozyme activity against	2011
8	lactic acid bacteria	
28	Probing occurrence of phenylpropanoids in <i>Morinda citrifolia</i> in relation	2015
9	to foliar diseases	
29	Green extraction of <i>Commiphora leptophloeos</i> Mart. – J. B. Gillett aiming	2023
0	to increase the content of hinokinin, an “emerging bioactive”	
29	Anthraquinones from <i>Morinda longissima</i> and their insulin mimetic	2017
1	activities via AMP-activated protein kinase (AMPK) activation	
29	Chapter 9: Carbohydrates	2019
2		
29	Storage of pasteurized milk in clear PET bottles combined with light	2020
3	exposure on a retail display case: A possible strategy to define the shelf life and support a recyclable packaging	
29	Biological control of pathogens in artisanal cheeses	2023
4		
29	Growth inhibitory effect of grape phenolics against wine spoilage yeasts	2013
5	and acetic acid bacteria	
29	Unraveling the role of medicinal plants and Gut microbiota in colon	2023
6	cancer: Towards microbiota- based strategies for prevention and treatment	
29	A survey of the protective effects of some commercially available	2012
7	antioxidant supplements in genetically and chemically induced models of oxidative stress in <i>Drosophila melanogaster</i>	
29	Ultrasound-assisted extraction of anthraquinones from roots of <i>Morinda</i>	2006
8	<i>citrifolia</i>	
29	Emerging therapeutic potential of the iridoid molecule, asperuloside: A	2009
9	snapshot of its underlying molecular mechanisms	
30	Chapter Thirteen: Nicotinic Receptor Antagonists as Treatments for	2014
0	Nicotine Abuse	
30	Analysis of lysozyme in cheese samples by on-line combination of	2014
1	capillary zone electrophoresis and mass spectrometry	
30	Manufacture of active multilayer films made of functionalized pectin	2023
2	coated by polyhydroxyalkanoates: A fully renewable approach to active food packaging	
30	5: Effects and Mechanisms of Antioxidant-Rich Functional Beverages on	2019
3	Disease Prevention	
30	Study on volatile markers of pasta quality using GC-MS and a peptide	2019
4	based gas sensor array	
30	Isolation and characterization of terpene synthases potentially involved in	2012
5	flavor development of ripening olive (<i>Olea europaea</i>) fruits	

30 6	Recent research and prospects of non-thermal physical technologies in green and high-efficient extraction of natural pigments: A review	2024
30 7	Efficient one-pot synthesis of 2-(2-hydroxyaryl)-2,4,4-trimethylchromanes from 1-(2-hydroxyaryl)ethanones	2023
30 8	Combination of green extraction techniques and smart solvents for bioactives recovery	2023
30 9	Forage system is the key driver of mountain milk specificity	2019
31 0	Deep eutectic solvents (DES): An update on the applications in food sectors	2023
31 1	Antimicrobial activity of honeybush (<i>Cyclopia intermedia</i>) ethanol extract against foodborne pathogens and its application in washing fresh-cut Swiss chard	2021
31 2	Extraction and purification of Pongame oiltree essential oils enhanced the anti-biofilm activity against biofilm-forming <i>Acinetobacter baumannii</i>	2024
31 3	Phenolic profile and antioxidative properties of pulp and seeds of <i>Randia monantha</i> Benth	2018
31 3	The effects of silage feeding on some sensory and health attributes of cow's milk: A review	2011
31 4	A review on polysaccharide-based jelly: Gell food	2024
31 5	Superconducting and normal state properties of the A3C60 compounds	1992
31 6	Evaluation of two intelligent packaging prototypes with a pH indicator to determine spoilage of cow milk	2021
31 7	bis-Azaaromatic quaternary ammonium analogues: ligands for $\alpha 4\beta 2^*$ and $\alpha 7^*$ subtypes of neuronal nicotinic receptors	2002
31 8	Feasibility of the SPME method for the determination of the aroma retention capacity of proteose-peptone milk protein fraction at different pH values	2011
31 9	Evaluation of quality attributes and in vitro characteristics of synbiotic legume-based beverage during storage	2023
32 0	Terpenoid traceability of commercial sheep cheeses produced in mountain and valley farms: From pasture to mature cheeses	2019
32 1	Capsaicin and gingerol analogues inhibit the growth of efflux-multidrug resistant bacteria and R-plasmids conjugal transfer	2019
32 2	Evaluation of the neuroprotective effect of rutin on <i>Drosophila melanogaster</i> about behavioral and biochemical aspects induced by mercury chloride (HgCl ₂)	2021
32 3	3: Functional Nonalcoholic Beverages: A Global Trend Toward a Healthy Life	2019
32 4	Experimental regimen targeting the ependyma slows disease progression in four patients with amyotrophic lateral sclerosis	2009
32 5	Monkey orange fruit juice improves the nutritional quality of a maize-based diet	2019
32 6	Chapter 24: Fruits and vegetable powders	2024
32 7	Chapter 11: An update on antileishmanial agents from natural resources	2023
32 8	Obtaining (5-formylfuran-2-yl)methyl 4-chlorobenzoate through an esterification of 5-hydroxymethylfurfural: Interesting achiral molecule crystallizing in a Sohncke P212121 space group	2022

32	Medicinal herbs and their metabolites with biological potential to protect	2024
9	and combat liver toxicity and its disorders: A review	
33	Chapter 9: Exploring the world of herbal teas	2025
0		
33	Sensory mechanisms for the shift from phytophagy to haematophagy in	2022
1	mosquitoes	
33	Chapter 14: Utilization of Contaminated Lands for Cultivation of Dye	2016
2	Producing Plants	
33	Review: African medicinal plants with wound healing properties	2016
3		
33	Chapter 6: Plant Crude Drugs	2017
4		
33	Signal Transduction Pathways in Cancer Development and as Targets for	2005
5	Cancer Prevention	
33	Ideal gas thermodynamic properties of oxygen	1992
6	heterocyclic <i>compounds</i> Part 1. Three-membered, four-membered and	
	five-membered rings	
33	Chapter 18: Indian fermented herbal beverages	2025
7		
33	Chemical profile, antioxidant and anti-inflammatory properties of <i>Miconia</i>	2021
8	<i>albicans</i> (Sw.) Triana (Melastomataceae) fruits extract	
33	UPLC–QTOF–MS and NMR analyses of graviola (<i>Annona muricata</i>)	2016
9	leaves	
34	Novel botanical ingredients for beverages	2009
0		
34	Therapeutic potentials of iridoids derived from Rubiaceae against in vitro	2024
1	and in vivo inflammation: A scoping review	
34	Consequences of the salvage of purine <i>compounds</i> on the proliferation of	1984
2	rat T-lymphocytes with normal or inhibited purine de novo synthesis	
34	Naphthohydroquinones, naphthoquinones, anthraquinones, and a	2016
3	naphthohydroquinone dimer isolated from the aerial parts of <i>Morinda</i>	
	<i>parvifolia</i> and their cytotoxic effects through up-regulation of p53	
34	Dynamics of bichromophoric <i>compounds</i> in the excited and ionic states:	1985
4	Conformational and configurational aspects	
34	Survival strategies of <i>Bacillus</i> spp. in saline soils: Key factors to promote	2024
5	plant growth and health	
34	Subtype-selective nicotinic receptor antagonists: potential as tobacco use	2004
6	cessation agents	
34	Stabilization of extruded earth-based materials by adding hydrated cement	2024
7	powder from recycled concrete	
34	2: Health-Promoting Ingredients in Beverages	2019
8		
34	Nutritional ecology, infection and immune defence — exploring the	2022
9	mechanisms	
35	Recombineering enables genome mining of novel siderophores in a non-	2023
0	model Burkholderiales strain	
35	Development and evaluation of gum arabic-based antioxidant	2021
1	nanocomposite films incorporated with cellulose nanocrystals and fruit	
	peel extracts	
35	Studies on the microhardness, dielectric properties, and luminescence of	2023
2	L-threonine and Nd: L-threonine crystals	
35	Antimicrobial anthraquinones from <i>Morinda angustifolia</i>	2008
1		

35 2	2,4-Quinolinedione alkaloids: occurrence and biological activities	2024
35 3	Acute oral toxicity of damnacanthal and its anticancer activity against colorectal tumorigenesis	2022
35 4	Signatures of selection and evolutionary relevance of cytochrome P450s in plant-insect interactions	2021
35 5	High pressure synthesis and structural evolution of new <i>compounds</i> of formulation $\text{NaNb}_{1-x}\text{W}_x\text{O}_3$	1983
35 6	Effect of the incorporation of β -galactosidase in the GOS production during manufacture of soft cheese	2020
35 7	Chapter 6: Extraction Processes	2014
35 8	Peroxidation and photo-peroxidation of pantoprazole in aqueous solution using silver molybdate as catalyst	2021
35 9	Tetrakis-azaaromatic quaternary ammonium salts: Novel subtype-selective antagonists at neuronal nicotinic receptors that mediate nicotine-evoked dopamine release	2008
34 0	Scopoletin increases glucose uptake through activation of PI3K and AMPK signaling pathway and improves insulin sensitivity in 3T3-L1 cells	2020
34 1	Evaluation of bioactive flavonoids and antioxidant activity in Pericarpium Citri Reticulatae (Citrus reticulata ‘Chachi’) during storage	2017
34 2	From mango by-product to food packaging: Pectin-phenolic antioxidant films from mango peels	2021
34 3	Evolutionary Genetics: You Are What You Evolve to Eat	2015
34 4	6: Advances in the effective application of membrane technologies in the food industry	2013
34 5	Natural resources as cancer-treating material	2023
34 6	Fuzi polysaccharides improve immunity in immunosuppressed mouse models by regulating gut microbiota composition	2023
34 7	Flow injection spectrophotometry using natural reagent from Morinda citrifolia root for determination of aluminium in tea	2012
34 8	Antibacterial effect of ultrasound combined with Litsea cubeba essential oil nanoemulsion on Salmonella Typhimurium in kiwifruit juice	2025
34 9	Evolution of sensory systems	2021
35 0	How the biodiversity loss in natural whey culture is affecting ripened cheese quality? The case of Trentingrana cheese	2019
35 1	Whole cell biosynthesis of luteolin glycosides by engineered Corynebacterium glutamicum harboring the amylosucrase gene	2021
35 2	Nutritional value, phytochemistry, health benefits, and potential food applications of Pouteria campechiana (Kunth) Baehni: A comprehensive review	2023
35 3	Functional Foods: Dietary Fibers, Prebiotics, Probiotics, and Synbiotics	2016
35 4	Functional Foods: Dietary Fibers, Prebiotics, Probiotics, and Synbiotics	2016
35 5	Beyond the gut: Investigating the mechanism of formation of β -casomorphins in human blood	2024
35 6	Photoactive siderophores: Structure, function and biology	2021

35 7	A systematic review of antimalarial activities of <i>Morinda</i> species	2022
35 8	Nonactin biosynthesis: the potential nonactin biosynthesis gene cluster contains type II polyketide synthase-like genes	2000
35 9	Composition, proteolysis, and volatile profile of Strachitunt cheese	2017
36 0	Whey-based sports supplements: Heat damage and protein breakdown after in vitro gastrointestinal digestion	2024
36 1	Polysaccharides as antioxidants and prooxidants in managing the double-edged sword of reactive oxygen species	2023
36 2	The effect of the duration of infusion, temperature, and water volume on the rutin content in the preparation of mate tea beverages: An optimization study	2014
36 3	Authentication of Italian PDO lard using NIR spectroscopy, volatile profile and fatty acid composition combined with chemometrics	2016
36 4	Mechanistic insights on the catalytic ozonation of trimethoprim in aqueous phase using geopolymer catalysts produced from mining waste	2023
36 5	Study of the stability of siloxane stone strengthening agents	2014
36 6	Effect of digestive process on Maillard reaction indexes and antioxidant properties of breakfast cereals	2009
36 5	Chapter 17: Fruits waste in packaging applications	2024
36 6	Effect of alkaline salts and whey protein isolate on the quality of rice-maize gluten-free pasta	2024
36 7	Feasibility of biodegradable based packaging used for red meat storage during shelf-life: A pilot study	2018
36 8	Vipirinin, a Coumarin-based HIV-1 Vpr Inhibitor, Interacts with a Hydrophobic Region of VPR	2011
36 9	The golden era of fruit juices-based probiotic beverages: Recent advancements and future possibilities	2024
37 0	Health effects of fruit juices and beverages with varying degrees of processing	2024
37 1	Assessment of suspended growth biological process for treatment and reuse of mixed wastewater for irrigation of edible crops under hydroponic conditions	2020
37 2	Update on the potential adverse effects of preoperative herbal medication use during the perioperative period	2024
37 3	A short review of extraction methods associated with chromatographic analysis for the control of pesticide residues in processed fruit juices	2023
37 4	Anthraquinone Glycosides from the Roots of <i>Prismatomeris connata</i>	2011
37 5	Endophytic fungi: Unravelling plant-endophyte interaction and the multifaceted role of fungal endophytes in stress amelioration	2024
37 6	Biocontrol mechanism of <i>Bacillus siamensis</i> sp. QN2MO-1 against tomato fusarium wilt disease during fruit postharvest and planting	2024
37 7	<i>Morinda citrifolia</i> L. leaves extracts obtained by traditional and eco-friendly extraction solvents: Relation between phenolic compositions and biological properties by multivariate analysis	2020
37 8	Chronic consumption of purple grape juice in gestational-lactation and post lactation promotes anxiolity effect and antioxidant defense improvement in brain from Wistar male offsprings	2019
37	Mannosidase-inhibiting iminosugar production by	2024

9	recombinant <i>Corynebacterium glutamicum</i> harboring the 1-deoxynojirimycin biosynthetic gene cluster	
38	Fermented blend from sunflower seed press-cake and bovine sweet whey: Protein breakdown during in vitro gastrointestinal digestion	2024
0	Cytotoxicity, antioxidant activity and an effect on CYP3A4 and CYP2D6 of <i>Mutellina purpurea</i> L. extracts	2013
38	A Waldenström macroglobulin which binds 3-amino-2,4,6-triiodobenzoic acid—I: Immunochemical characterization of the reaction: Positive cooperation between antigen binding sites of this IgM reacting with divalent compounds	1980
2	Milk process authentication by vitamin B6 as a novel time temperature integrator	2018
38	Culturally relevant picturebook for Middle Eastern Muslim students' healing	2023
3	Ohmic heating in dairy processing: Relevant aspects for safety and quality	2017
38	HPLC-Q-Orbitrap-MS/MS phenolic profiles and biological activities of extracts from roxburgh rose (<i>Rosa roxburghii</i> Tratt.) leaves	2021
5	A zwitterionic nickel–olefin initiator for the preparation of high molecular weight polyethylene	2007
38	Anticancer and antioxidant efficacy of silver nanoparticles synthesized from fruit of <i>Morinda citrifolia</i> Linn on Ehrlich ascites carcinoma mice	2020
38	Antioxidant potential of herbal polysaccharides: An overview on recent researches	2022
8	Invited review: Advances in yogurt development—Microbiological safety, quality, functionality, sensory evaluation, and consumer perceptions across different dairy and plant-based alternative sources	2025
38	Chapter 5: Volatiles affecting the flavor of milk and milk products	2017
9	An in vitro and in silico evaluation of bioactive potential of cornelian cherry (<i>Cornus mas</i> L.) extracts rich in polyphenols and iridoids	2021
39	Extraction and concentration of anthraquinones from roots of <i>Morinda citrifolia</i> by non-ionic surfactant solution	2009
39	Contents	2024
3	A rare primary posterior mediastinal angiolipoma: A case report	2021
39	New trends in yeast selection for winemaking	2012
5	Chapter 6: Selenium and Other Beneficial Elements in Fruit Juices	2018
39	Total phenolic content, antioxidant, and antimicrobial activities of ripe and unripe Ghanaian habanero pepper (<i>Capsicum chinense</i>)	2024
7	Applications and opportunities for ultrasound assisted extraction in the food industry — A review	2008
39	QSAR study on maximal inhibition (Imax) of quaternary ammonium antagonists for S-(–)-nicotine-evoked dopamine release from dopaminergic nerve terminals in rat striatum	2009
9	RNA sequencing reveals the involvement of quorum sensing in dairy spoilage caused by psychrotrophic bacteria	2020
40	Synthesis, crystal structures and characterization of late first row transition metal complexes derived from benzothiazole core: Anti-tuberculosis activity and special emphasis on DNA binding and cleavage property	2014
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40 2	Chapter 9: Role Phytochemicals Play in the Activation of Antioxidant Response Elements (AREs) and Phase II Enzymes and Their Relation to Cancer Progression and Prevention	2019
40 3	Multi-omics reveals aspirin eugenol ester alleviates neurological disease	2023
40 4	Identification and quantification of native beta-casomorphins in Australian milk by LC–MS/MS and LC–HRMS	2015
40 5	Kinetic description of chlorination of polyethylene and related <i>compounds</i> at different orders of reaction with respect to the hydrocarbon Kinetic description of chlorination of polyethylene and related <i>compounds</i> at different orders of reaction with respect to the hydrocarbon	1997
40 6	Invited review: Dairy proteins and bioactive peptides: Modeling digestion and the intestinal barrier	2019
40 7	Quality evaluation of chestnut flour addition on fresh pasta	2020
40 8	Capturing whey proteins from milk whey using an ionic liquid-based magnetic adsorbent	2025
40 9	Recent advances in the rational design and development of LIM kinase inhibitors are not enough to enter clinical trials	2018
41 0	Mononuclear late first row transition metal complexes of ONO donor hydrazone ligand: Synthesis, characterization, crystallographic insight, in vivo and in vitro anti-inflammatory activity	2018
41 1	Antimicrobial action of Oregano, Thyme, Clove, Cinnamon and Black pepper essential oils free and encapsulated against foodborne pathogens	2023
41 2	Chapter 4: Utilization of fruit waste as protein sources	2024
41 3	Predicting lactulose concentration in heat-treated reconstituted skim milk powder using front-face fluorescence	2017
41 4	5: Sustainable approach toward antibacterial textiles	2023
41 5	Enhancing Ag ₂ MoO ₄ catalytic activity: An investigation on synthesis, characterization, and application in catalytic ozonation reactions	2024
41 6	Quantification of glutathione, catechin and caffeic acid in grape juice and wine by a novel ultra-performance liquid chromatography method	2011
41 7	The influence of processing technologies on the biological activity of carbohydrates in food	2024
41 8	Novel sol-gel synthesis of CeO ₂ nanoparticles using Morinda citrifolia L. fruit extracts: Structural and optical analysis	2021
41 9	A novel sizing methodology for fixed-wing VTOL UAVs considering constraint on minimum transition time	2025
42 0	Synthesis and characterization of cyano-bridged <i>compounds</i> (IV) Chromium-nickel, chromium-palladium and chromium-platinum dinuclear complexes	1981
42 1	Isotope dilution liquid chromatography–tandem mass spectrometry for simultaneous identification and quantification of beta-casomorphin 5 and beta-casomorphin 7 in yoghurt	2014
42 2	Chapter 21: Beta-Casomorphins in Yogurt	2017
42 3	Chapter 21: Beta-Casomorphins in Yogurt	2005
42	Predictive screening model for potential vector-mediated transport of	2010

4	cationic substrates at the blood–brain barrier choline transporter	
42	Chapter 2: Food and Toxicologic Pathology	2023
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42	Chemically-bonded phosphate ceramics obtained from aluminum	2014
6	anodizing waste for use as coatings	
42	Strategies for the discovery, identification and validation of milk protein-	2016
7	derived bioactive peptides	
42	Effects of grape seed extract on the properties of pullulan	2023
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42	Release of beta-casomorphins during in-vitro gastrointestinal digestion of	2021
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43	Incorporation of absorption and metabolism into liver toxicity prediction	2018
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43	Impact of combined plant extracts on long COVID: An exploratory	2024
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43	Biocontrol and anti-biofilm potential of aerosols sprayed slightly acidic	2023
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44	Quality changes in refrigerated stored minced pork wrapped with plastic	2017
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44	Food-drug interactions precipitated by fruit juices other than grapefruit	2018
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44	Functional characterization of Lactobacillus plantarum ITEM 17215: A	2018
4	potential biocontrol agent of fungi with plant growth promoting traits, able	
	to enhance the nutritional value of cereal products	
44	Identification and quantification of beta-casomorphin peptides naturally	2019
5	yielded in raw milk by liquid chromatography-tandem mass spectrometry	
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44	Changes in terpenoid composition of milk and cheese from commercial	2017
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45	Analysis of the hotspots and trends in traditional Chinese medicine	2021
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45	Functionality of the components from goat's milk, recent advances for	2019
7	functional dairy products development and its implications on human	
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45	1: Introduction to herbs and spices: medicinal uses and sustainable	2012
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46	Heat-induced inactivation of enzymes in milk and dairy products. A	2021
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46	Bioactive Peptides in the Gut–Brain Axis	2019
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46	1032 Apoptosis-inducing effects of <i>morinda citrifolia</i> and doxorubicin on	2009
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47	Time dependent inhibition of <i>Morinda citrifolia</i> essential oils against multi	2024
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48	Liver toxicity related to herbs and dietary supplements: Online table of	2017
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64	β -Casomorphin: A complete health perspective	2021
7		
64	Effects and impacts of technical processing units on the nutrients and functional components of fruit and vegetable juice	2023
8		
64	The effect of mutual orientation on the triplet state magnetization of covalently linked hybrid porphyrin dimers	1986
9		
65	Preparation, stability, and in vitro transport of soybean protein-based diosgenin nanoemulsions	2023
0		
65	Vasorelaxation induced by common edible tropical plant extracts in isolated rat aorta and mesenteric vascular bed	2004
1		
65	Mössbauer and NMR study of tin(IV) and organotin(IV) hydridotris(3-Me-1H-pyrazol-1-yl)borates. The X-ray crystal structure of phenyldichlorotin(IV) derivative	1992
2		
65	Single and joint toxicity of polymethyl methacrylate microplastics and As (V) on rapeseed (<i>Brassia campestris</i> L.)	2022
3		
65	SPI-slope/PIT-slope mapping as a guiding tool for the selection of technical grade surfactants for chemical enhanced oil recovery	2023
4		
65	SiOC and SiCN-based ceramic supports for catalysts and photocatalysts	2021
5		
65	Antioxidant and α -glucosidase inhibitory activities of <i>Murraya koenigii</i> leaf extracts	2012
6		
65	Enhancement of anthraquinone accumulation in <i>Morinda citrifolia</i> suspension cultures	2005
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65	N-n-Alkylpyridinium Analogs, a Novel Class of Nicotinic Receptor Antagonists: Selective Inhibition of Nicotine-Evoked [3H]Dopamine Overflow from Superfused Rat Striatal Slices	2003
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65	Codonopsis pilosula and fish collagen yogurt: Proteolytic, potential Angiotensin-I converting enzyme (ACE) inhibitory activity and sensory properties	2022
9		
66	Wild African <i>Drosophila melanogaster</i> Are Seasonal Specialists on Marula Fruit	2018
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66	Causality imputation between herbal products and HILI: An algorithm evaluation in a systematic review	2021
1		
66	Detection of hen's egg white lysozyme in food: Comparison between a sensitive HPLC and a commercial ELISA method	2010
2		
66	Geopolymers produced with fly ash and rice husk ash applied to CO ₂ capture	2020
3		
66	RIFM fragrance ingredient safety assessment, methyl decanoate, CAS Registry Number 110-42-9	2021
4		
66	Progressive freeze concentration of cheese whey for protein and lactose recovery	2023
5		
66	Adventitious root cultures and secondary metabolite production in <i>Morinda citrifolia</i> as affected by growth regulators and inoculum	2008
6		

	density	
66	Prospects for the use of plant cell cultures in food biotechnology	2014
7		
66	In vitro permeation study of capsaicin and its synthetic derivatives from	1995
8	ointment bases using various skin types	
66	Crystal structure of nonsuperconducting	1990
9	Pb ₂ (Sr _{0.94} Nd _{0.06}) ₂ (Nd _{0.76} Sr _{0.24})Cu ₃ O ₈	
67	The chemical ecology of the fly	2015
0		
67	Effect of purple sugarcane peel extracts on properties of films based on	2022
1	lemon peel waste pectin and the application in the visible detection of food	
	freshness	
67	A novel fucoidan complex-based functional beverage attenuates oral	2021
2	cancer through inducing apoptosis, G2/M cell cycle arrest and retarding	
	cell migration/invasion	
67	A trauma-informed approach to understanding firearm decision-making	2022
3	among Black adolescents: Implications for prevention	
67	Polysaccharides from <i>Pachyrhizus erosus</i> roots: Extraction optimization	2022
4	and functional properties	
67	History of safe use as applied to the safety assessment of novel foods and	2007
5	foods derived from genetically modified organisms	
67	RIFM fragrance ingredient safety assessment, methyl hexanoate, CAS	2021
6	Registry Number 106-70-7	
67	Evaluation of thermodynamic simulation (FactSage) for the interpretation	2021
7	of the presence of phases and the firing behavior of triaxial ceramics	
67	A comparative study of the fatty acid and terpene profiles of ovine and	2019
8	caprine milk from Greek mountain sheep breeds and a local goat breed	
	raised under a semi-extensive production system	
67	The Effect of Maltodextrin Concentration and Drying Temperature to	2015
9	Antioxidant Content of Sinom Beverage Powder	
68	Efficient extraction, physiochemical, rheological properties, and	2022
0	antioxidant activities of polysaccharides from <i>Armeniaca vulgaris</i> Lam	
68	Graphical abstract TOC	2021
1		
68	Nanostructured lipid carriers (NLC) in cosmetic dermal products	2007
2		
68	Effect of probiotification with <i>Lactobacillus plantarum</i> MCC 2974 on	2019
3	quality of Sohiong juice	
68	Natural Therapeutic Options in Endodontics - A Review	2016
4		
68	FOOD TECHNOLOGY Membrane Separations	2013
5		
68	Microstructure-oriented porcelain stoneware tile composition design	2023
6		
68	Evaluation of quality changes of differently formulated cloudy mixed	2021
7	juices during refrigerated storage after high pressure processing	
68	In vitro evaluation of antioxidant and anticancer potential of <i>Morinda</i>	2013
8	<i>pubescens</i> synthesized silver nanoparticles	
68	The use of plants in the traditional management of diabetes in Nigeria:	2014
9	Pharmacological and toxicological considerations	
69	Combined effects of plant food processing by-products and high oxygen	2022
0	modified atmosphere packaging on the storage stability of beef patties	
69	RIFM fragrance ingredient safety assessment, Methyl octanoate, CAS	2021

1	Registry Number 111-11-5	
69	Combined effects of plant food processing by-products and high oxygen	2022
2	modified atmosphere packaging on the storage stability of beef patties	
69	An in vitro method for the evaluation of antiarrhythmic and antiischemic	1994
3	agents by using programmed electrical stimulation of rabbit heart	
69	Structural features of polysaccharides from edible jambo (<i>Syzygium</i>	2018
4	jambos) fruits and antitumor activity of extracted pectins	
69	Chapter 1 Reactions of Inert Complexes and Metal Organic <i>Compounds</i>	1972
5		
69	Antifungal activity of <i>Morinda citrifolia</i> fruit extract against <i>Candida</i>	2009
6	<i>albicans</i>	
69	Colon-targeted drug delivery of polysaccharide-based nanocarriers for	2021
7	synergistic treatment of inflammatory bowel disease: A review	
69	The effect of semolina replacement with protein powder from	2018
8	fish (<i>Pseudophycis bachus</i>) on the physicochemical characteristics of pasta	
69	Evaluation of cytotoxic activity of protein extracts from the leaves	2017
9	of <i>Morinda pubescens</i> on human cancer cell lines	
70	Online cheating at the intersection of the dark triad and fraud diamond	2021
0		
80	Impact of the use of skim milk powder and adjunct cultures on the	2023
1	composition, yield, proteolysis, texture and melting properties of Cremoso	
	cheese	
80	How interactions with plant chemicals shape insect genomes	2019
2		
80	Green 3D bioprinting of plant cells: A new scope for 3D bioprinting	2022
3		
80	RIFM fragrance ingredient safety assessment, ethyl octanoate, CAS	2021
4	Registry Number 106-32-1	
80	Ontogenesis and secretion mechanism of <i>Morinda citrifolia</i> L. (Rubiaceae)	2019
5	colleters	
80	Clinical applications and mechanism insights of natural flavonoids against	2024
6	type 2 diabetes mellitus.	
80	Electrospinning of cellulose using ionic liquids: An overview on	2021
7	processing and applications	
80	Structuring wheat flour-based crackers using whey protein isolate	2022
8		
80	Synergetic one-step synthesis of SiC/SiOC/TiO ₂ composites for visible-	2022
9	light-driven hydrogen generation from methanol reforming	
81	Subcritical water extraction of rutin from the aerial parts of common	2019
0	buckwheat	
81	<i>Marsdenia tenacissima</i> (Roxb.) Moon injection exerts a potential anti-	2022
1	tumor effect in prostate cancer through inhibiting ErbB2-GSK3 β -HIF1 α	
	signaling axis	
81	General practitioners' drug prescribing practice and diagnoses for	1997
2	prescribing: The Møre & Romsdal prescription study	
81	Hepatotoxicity associated with dietary energy supplements: use and abuse	2012
3	by young athletes	
81	Evaluation of In Vitro Tools to Predict the In Vivo Absorption of	2022
4	Biopharmaceuticals Following Subcutaneous Administration	
81	Plant asparaginyl endopeptidases and their structural determinants of	2021
5	function	
81	A review study on medicinal plants used in the treatment of learning and	2014
6	memory impairments	

81 7	Effects of purple passion fruit peel extracts on characteristics of <i>Pouteria campechiana</i> seed starch films and the application in discernible detection of shrimp freshness	2023
81 8	Development of active packaging with chitosan, guar gum and watermelon rind extract: Characterization, application and performance improvement mechanism	2023
81 9	Consumption of β -casomorphins-7/5 induce inflammatory immune response in mice gut through Th2 pathway	2014
82 0	Identification and mechanism evaluation of a novel osteogenesis promoting peptide from Tubulin Alpha-1C chain in <i>Crassostrea gigas</i>	2019
82 1	3.06: Recent Developments in Membrane Technologies for Concentration of Liquid Foods and Food Ingredients	2021
82 2	Comparative anti-gonococcal activity of S-565, a new rifamycin	1996
82 3	Medicinal plants for primary dysmenorrhoea: A systematic review	2018
82 4	Application of ultra-high performance liquid chromatography coupled to high-resolution mass spectrometry (Orbitrap™) for the determination of beta-casein phenotypes in cow milk	2020
82 5	Fruits of Tropical Climates: Biodiversity and Dietary Importance	2016
82 6	Characterization of native lactic acid bacteria from traditionally fermented chhurpi of Sikkim Himalayan region for the production of chhurpi cheese with enhanced antioxidant effect	2022
82 7	The use of alternative water sources as a means of adaptation to water shortages in Nsimoyong, Yaounde city: a quality assessment	2021
82 8	Role of herbal products in animal production – An updated review	2021
82 9	A selection of eleven plants used as traditional Polynesian cosmetics and their development potential as anti-aging ingredients, hair growth promoters and whitening products	2019
83 0	Retinoids enhance lectin binding to gp130, a glycoprotein of NIH-3T3 cells: Correlation with cell growth and adhesion	1991
83 1	Abstracts from the 63rd Reciprocal Meat Conference of the American Meat Science Association, 20–23 June 2010, Texas Tech University, Lubbock, Texas	2010
83 2	Amino acid-mediated loading of Ag NPs and tannic acid onto cotton fabrics: Increased antibacterial activity and decreased cytotoxicity	2022
83 3	Trends in the extraction, purification, characterisation and biological activities of polysaccharides from tropical and sub-tropical fruits – A comprehensive review	2020
83 4	A comparative ethno-religious study of traditionally used medicinal plants employed in the management of cardiovascular diseases	2021
83 5	Biofilm formation by <i>Staphylococcus aureus</i> isolated from food poisoning outbreaks and effect of <i>Butia odorata</i> Barb. Rodr. Extract on planktonic and biofilm cells	2020
83 6	Whole <i>Leea macrophylla</i> ethanolic extract normalizes kidney deposits and recovers renal impairments in an ethylene glycol-induced urolithiasis model of rats	2012
83 7	Effect of flaxseed processing on engineering properties and fatty acids profiles of pasta	2013
83 8	4.02: Sustainable Agriculture and Cultivation Practices	2023

83	Simulation of mass transfer in hollow fiber used for concentration of	2019
9	juices by osmotic distillation	
84	Transcriptomics: A powerful tool to evaluate the behavior of foodborne	2019
0	pathogens in the food production chain	
84	Anti-obesity natural products and gut microbiota	2022
1		
84	A review on the relation between grinding process and quality of ground	2023
2	meat	
84	Catechin profile and hypolipidemic activity of <i>Morinda citrifolia</i> leaf	2020
3	water extract	
84	Microstructure and Mechanical Properties of Precipitation Strengthened	2015
4	Fire Resistant Steel Containing High Nb and Low Mo	
84	Preparation and characterization of pectin-based edible coating agent	2022
5	encapsulating carvacrol/HP β CD inclusion complex for inhibiting fungi	
84	RIFM fragrance ingredient safety assessment, ethyl hexanoate, CAS	2021
6	Registry Number 123-66-0	
84	Osmotic adjustment, production, and post-harvest quality of mini	2022
7	watermelon genotypes differing in salt tolerance	
84	Peptidomics for discovery, bioavailability and monitoring of dairy	2014
8	bioactive peptides	
84	Inorganic Chemistry and Drug Design	1991
9		
85	Insight into the efficacy profile of fermented soy foods against diabetes	2023
0		
85	Infection control in cystic fibrosis: Practical recommendations for the	2000
1	hospital, clinic, and social settings	
85	Metabolic and Transcriptional Regulation of Reproductive Diapause	2025
2	in <i>Arma chinensis</i>	
85	The role of microbial coagulants on the physicochemical, proteolysis,	2024
3	microstructure and sensory properties of low-fat Edam cheese	
	manufactured from ultrafiltered buffalo milk	
85	Effect of fermentation in nutritional, textural and sensorial parameters of	2020
4	vegan-spread products using a probiotic folate-producing <i>Lactobacillus</i>	
	<i>sakei</i> strain	
85	Potentiality of Neglected and Underutilized Species (NUS) as a future	2024
5	resilient food: A systematic review	
85	Modulation of dendritic cell immune functions by plant components	2016
6		
85	Olfactory Preference for Egg Laying on Citrus Substrates in <i>Drosophila</i>	2013
7		
85	Rosiglitazone alters insulin secretion, glycogen metabolism and	2000
8	triglycerides in prediabetic monkeys	
85	Effects of dietary supplements on induction and inhibition of cytochrome	2004
9	P450s protein expression in rats	
86	Ir56b is an atypical ionotropic receptor that underlies appetitive salt	2022
0	response in <i>Drosophila</i>	
86	The deterioration of Apuan white marble in contemporary architectural	2019
1	context	
86	Green coffee extract enhances oxidative stress resistance and delays aging	2017
2	in <i>Caenorhabditis elegans</i>	
86	Evidence-Based Management of Herb-Drug Interaction in Cancer	2010
3	Chemotherapy	

86 4	Impact of fermentation conditions on the quality and sensory properties of a probiotic cupuassu (<i>Theobroma grandiflorum</i>) beverage	2017
86 5	Determinants of the competitive advantage of dairy supply chains: Evidence from the Chinese dairy industry	2019
86 6	Application of fermented Chinese herbal medicines in food and medicine field: From an antioxidant perspective	2024
86 7	Supercritical fluid extraction of vegetable matrices: Applications, trends and future perspectives of a convincing green technology	2014
86 8	Novel foods in the European Union: Scientific requirements and challenges of the risk assessment process by the European Food Safety Authority	2020
86 9	Nutritional and technological properties of non-traditional einkorn (<i>Triticum monococcum</i>) wheat pasta	2020
87 0	Inhibitory effects of litchi (<i>Litchi chinensis</i> Sonn.) flower-water extracts on lipase activity and diet-induced obesity	2013
87 1	Melatonin in grapes and grape-related foodstuffs: A review	2017
87 2	Green synthesis of titanium dioxide nanoparticles using plant biomass and their applications- A review	2022
87 3	Effect of storage temperature on galactose formation in UHT milk	2001
87 4	Enzymatic hydrolysis and microbial fermentation: The most favorable biotechnological methods for the release of bioactive peptides	2021
87 5	The mystery of the Hawaii liver disease cluster in summer 2013: A pragmatic and clinical approach to solve the problem	2016
87 6	Water erosion hazard distribution under a Semi-arid climate Condition: Case of Mellah Watershed, North-eastern Algeria	2021
87 7	RIFM fragrance ingredient safety assessment, benzoic acid, CAS Registry Number 65-85-0	2022
87 8	High-purity chalcogenide glasses as materials for fiber optics	1995
87 9	The effect of the addition of soluble fibers (polydextrose, corn, pea) on the color, texture, structural features and protein digestibility of semolina pasta	2022
88 0	Higher microbial diversity in raw than in pasteurized milk Raclette-type cheese enhances peptide and metabolite diversity after in vitro digestion	2021
88 1	Monoclonal antibodies blocking CGRP transmission: An update on their added value in migraine prevention	2020
88 2	Effects of durum wheat debranning on total antioxidant capacity and on content and profile of phenolic acids	2015
88 3	Lysozyme immobilized on chitosan beads: Kinetic characterization and antimicrobial activity in white wines	2016
88 4	Analytical assessment of the intensity of heat treatment of milk and dairy products	2021
88 5	Elucidation of the potential mechanism of punicalagin for conferring disease resistance in Yesso scallops against <i>Vibrio anguillarum</i> infection	2021
88 6	Quantitation of lysinoalanine in dairy products by liquid chromatography–mass spectrometry with selective ion monitoring	2009
88 7	Age related neurodegenerative Alzheimer's disease: Usage of traditional herbs in therapeutics	2020
88 8	Assessment of quality and technological characterization of lactose-hydrolyzed milk	2007
88	Densification behavior of floor tiles added with sugarcane bagasse ash	2016

9	waste	
89	Desiccation strategies of <i>Cronobacter sakazakii</i> to survive in low moisture	2024
0	foods and environment	
89	Larvicidal activity of titanium dioxide nanoparticles synthesized	2015
1	using <i>Morinda citrifolia</i> root extract against <i>Anopheles stephensi</i> , <i>Aedes</i>	
	<i>aegypti</i> and <i>Culex quinquefasciatus</i> and its other effect on non-target fish	
89	An insight into anti-inflammatory effects of natural polysaccharides	2020
2		
89	Role of the mineral matrix during kerogen pyrolysis	1984
3		
89	Application of direct-injection detector integrated with the multi-pumping	2016
4	flow system to chemiluminescence determination of the total polyphenol	
	index	
89	Syngas production by dry reforming of methane using lyophilized nickel	2019
5	catalysts	
89	The effect of direct and indirect heat treatment on the attributes of whey	2018
6	protein beverages	
89	Oxidative stability in raw, cooked, and frozen ground beef using	2020
7	Epazote (<i>Chenopodium ambrosioides</i> L.)	
89	Ginger prevents obesity through regulation of energy metabolism and	2019
8	activation of browning in high-fat diet-induced obese mice	
89	Role of sodium/calcium exchange in the mechanism of myocardial	1993
9	stunning: Protective effect of reperfusion with high sodium solution	
90	Exploration of therapeutic applicability and different signaling mechanism	2021
0	of various phytopharmacological agents for treatment of breast cancer	
90	Analysis of nutrient composition and antioxidant characteristics in the	2019
1	tender shoots of Chinese toon picked under different conditions	
90	Antihyperlipidemic effect of iridoid glycoside deacetylasperulosidic acid	2019
2	isolated from the seeds of <i>Spermacoce hispida</i> L. - A traditional	
	antiobesity herb	
90	Development and characterization of pH-sensing films based on red pitaya	2024
3	(<i>Hylocereus polyrhizus</i>) peel treated by high-pressure homogenization for	
	monitoring fish freshness	
90	Pharmacokinetics of Brequinar sodium (NSC 368390) in patients with	1989
4	solid tumors during a phase I study	
90	In vitro evaluation of traditionally used Surinamese medicinal plants for	2016
5	their potential anti-leishmanial efficacy	
90	Coupling of lactulose and furosine indices for quality evaluation of	1995
6	sterilized milk	
90	Proteome Analysis of Inhibitory Effect of Gadolinium on <i>Sinorhizobium</i>	2007
7	<i>fredii</i>	
90	Antioxidant peptides released from gastrointestinal digestion of	2016
8	“Stracchino” soft cheese: Characterization, in vitro intestinal protection	
	and bioavailability	
90	The effect of natural antimicrobials against <i>Campylobacter</i> spp. and its	2021
9	similarities	
	to <i>Salmonella</i> spp, <i>Listeria</i> spp., <i>Escherichia coli</i> , <i>Vibrio</i> spp., <i>Clostridium</i>	
	spp. and <i>Staphylococcus</i> spp	
91	Binding modes of a dimethyliminopentanone ligand on nickel pre-	2009
0	catalysts toward olefin polymerization	
91	Certifying the feed to guarantee the quality of traditional food: An easy	2011
1	way to trace plant species in complex mixtures	
91	Modification of olefin polymerization catalysts. III. A 13C CP-MAS	1990

2	NMR study of adsorption of silyl ethers on MgCl ₂ -supported Ziegler-Natta catalysts	
91	Bioactive amines in <i>Passiflora</i> are affected by species and fruit development	2016
3		
91	Nonsteroidal anti-inflammatory drug activated gene-1 (NAG-1) modulators from natural products as anti-cancer agents	2014
3		
91	Comparative studies on lignin and polycyclic aromatic hydrocarbons degradation by basidiomycetes fungi	2011
4		
91	N-Acylated α -aminonitriles and their conversion into 5-aminooxazole, 5(4h)-oxazolone and 4(5h)-imidazolone derivatives	1984
5		
91	Adaptogenic-active components from <i>Kaempferia parviflora</i> rhizomes	2012
6		
91	Current strategies, perspectives and challenges in management and control of postharvest diseases of papaya	2022
7		
91	Effect of ripening and in vitro digestion on the evolution and fate of bioactive peptides in Parmigiano-Reggiano cheese	2020
8		
91	Effect of lysozyme on “flor” velum yeasts in the biological aging of sherry wines	2012
9		
92	Heat-treated milk differentiation by a sensitive lactulose assay	2004
0		
92	Cancer prevention by food factors through targeting signal transduction pathways	2004
1		
92	RIFM fragrance ingredient safety assessment, butyric acid, CAS Registry Number 107-92-6	2019
2		
92	Effect of heat-treatment on the antioxidant and pro-oxidant activity of milk	2004
3		
92	Direct evidence for the role of Maillard reaction products in protein cross-linking in milk powder during storage	2013
4		
92	Effect of membrane wetting on the performance of PVDF and PTFE membranes in the concentration of pomegranate juice through osmotic distillation	2019
5		
92	Antioxidant, antimicrobial and anticarcinogenic activities of bovine milk proteins and their hydrolysates - A review	2022
6		
92	Analysis of the contrast between natural occurrence of toxigenic <i>Aspergilli</i> of the Flavi section and aflatoxin B1 in cassava	2014
7		
92	some mechanisms of nonspecific antiarrhythmic action of phosphocreatine in acute myocardial ischemia	1988
8		
92	From honor to disparagement: The grammaticalization of — tapsiko in Korean	2020
9		
93	Incorporation mechanism of colloidal TiO ₂ nanoparticles and their effect on properties of coatings grown on 7075 Al alloy from silicate-based solution using plasma electrolytic oxidation	2021
0		
93	Perfluorinated alkyl substances affect the growth, physiology and root proteome of hydroponically grown maize plants	2022
1		
93	Black Tea with <i>Averrhoa Bilimbi</i> L Extract: A Healthy Beverage	2016
2		
93	β -casomorphin-7 alters μ -opioid receptor and dipeptidyl peptidase IV genes expression in children with atopic dermatitis	2014
3		
93	Chapter 12. Recent Advances in Antifungal Agents	1989
4		
93	Nutrition and Health: Effects of Processing on Protein Quality of Milk and Milk Products	2016
5		
93	Cross-validation of standardisation techniques at ANSTO using cobalt-60	2023

6	and learnings from the presence and identification of non-gamma-ray emitting impurities	
93	Prospective features of functional 2D nanomaterial graphene oxide in the wound healing process	2023
7		
93	Exopolysaccharide-producing isolates from Thai milk kefir and their antioxidant activities	2016
8		
93	Nephrotoxicity of Alternative Medicine Practice	2012
9		
94	Modifications induced by controlled storage conditions on whey protein concentrates: Effects on whey protein lactosylation and solubility	2020
0		
94	Chemical variability, pharmacological potential, multivariate and molecular docking analyses of essential oils obtained from four medicinal plants	2020
1		
94	The influence of μ -opioid receptor agonist and antagonist peptides on peripheral blood mononuclear cells (PBMCs)	2011
2		
94	53rd Annual Congress of the Society for Medicinal Plant Research, a joint meeting with the Italian Society of Phytochemistry — August 21–25, 2005, Florence, Italy	2006
3		
94	<i>Spirulina platensis</i> polysaccharides attenuate lipid and carbohydrate metabolism disorder in high-sucrose and high-fat diet-fed rats in association with intestinal microbiota	2021
4		
94	Heat damage of water biscuits from einkorn, durum and bread wheat flours	2011
5		
94	Determination of butter adulteration with margarine using Raman spectroscopy	2013
6		
94	The influence of breast milk and infant formulae hydrolysates on bacterial adhesion and Caco-2 cells functioning	2016
7		
94	Effect of genetic type and casein haplotype on antioxidant activity of yogurts during storage	2013
8		
94	Comparison of capillary electrophoresis and isoelectric focusing for analysis of casein/caseinate addition in processed cheeses	2006
9		
95	Pterocarpan scaffold: A natural lead molecule with diverse pharmacological properties	2017
0		
95	Natural Medicines Causing Acute Kidney Injury	2008
1		
95	Microencapsulation of <i>Morinda citrifolia</i> L. extract by spray-drying	2012
2		
95	Bael (<i>Aegle marmelos</i>) beverage pasteurization by non-isothermal heating with continuous microwave to achieve microbial safety	2024
1		
95	Cheese proteolysis and matrix disintegration during in vitro digestion	2019
2		
95	Characterization and suitability of polyphenols-based formulas to replace sulfur dioxide for storage of sparkling white wine	2016
3		
95	Gingival mesenchymal stem cells: Biological properties and therapeutic applications	2024
4		
95	What can play the role of gluten in gluten free pasta?	2013
5		
95	Updating on the lysinoalanine content of commercial infant formulae and beicost products	2003
6		
95	Stability of bifidobacteria entrapped in goat's whey freeze concentrate and inulin as wall materials and powder properties	2020
7		
95	"Assessing the Maillard reaction development during the toasting process of common flours employed by the cereal products industry"	2009
8		

95	Drug Interactions—A Review	2005
9		
94	Design guidelines for titania-silica-alumina ceramics with tuned anatase to	2019
0	rutile transformation	
94	Polysaccharides obtained from natural edible sources and their role in	2021
1	modulating the immune system: Biologically active potential that can be	
	exploited against COVID-19	
94	Proteolytic and ACE-inhibitory activities of Dutch-type cheese models	2020
2	prepared with different strains of <i>Lactococcus lactis</i>	
94	High-speed-rate direct energy deposition of Fe-based stainless steel:	2022
3	Process optimization, microstructural features, corrosion and wear	
	resistance	
94	Structure of an arabinogalactan from the edible tropical fruit tamarillo	2015
4	(<i>Solanum betaceum</i>) and its antinociceptive activity	
94	Genome analysis reveals probiotic propensities of <i>Paenibacillus</i>	2021
5	<i>polymyxa</i> HK4	
94	Alkali extraction of rice residue protein isolates: Effects of alkali treatment	2018
6	conditions on lysinoalanine formation and structural characterization of	
	lysinoalanine-containing protein	
94	Reverse Engineering Podkletnov's Experiments	2011
7		
94	Sorption, degradation, and transport of methyl iodide and other iodine	2012
8	species in geologic media	
94	Complementary and alternative therapies	2003
9		

Lampiran 2.

A. Judul artikel menggunakan kata kunci Noni Medicinal Plant (based on 2019-2025 and open acces)

No	Judul	Tahun
1	Enhancing bioactive compounds extraction from <i>noni</i> leaves (Morinda citrifolia) by enzymes-assisted extraction	2024
2	Bioactivity and influence on colonic microbiota of polyphenols from <i>noni</i> (Morinda citrifolia L.) fruit under simulated gastrointestinal digestion	2024
3	Morinda Citrifolia (<i>Noni</i>) attenuated transcriptional and degenerative markers of cardiac toxicity in bisphenol A treated male wistar rats	2023
4	Effects of <i>noni</i> fruit extract on the growth performance, digestive enzymes, and stress tolerance of juvenile whiteleg shrimp (Litopenaeus vannamei)	2023
5	Constituent analysis, laxative activity, and toxicological evaluation of methanol extract of <i>noni</i> fruit (Morinda citrifolia L., Rubiaceae)	2023
6	On the importance of integrating convolution features for Indian <i>medicinal plant</i> species classification using hierarchical machine learning approach	2024
7	DIMPSAR: Dataset for Indian <i>medicinal plant</i> species analysis and recognition	2023
8	<i>Medicinal plants</i> used for management of diabetes and hypertension in Ghana	2023
9	Unraveling the role of <i>medicinal plants</i> and Gut microbiota in colon cancer: Towards microbiota- based strategies for prevention and treatment	2023
10	Quality control standardization of Indonesian <i>noni</i> fruit (Morinda citrifolia) extract and evaluation of their angiotensin-converting enzyme inhibitory activity	2022
11	Effect of combined ultrasonic and enzymatic extraction technique on the quality of <i>noni</i> (Morinda citrifolia L.) juice	2023
12	Protective role of herbal formulation-divine <i>noni</i> against cisplatin-induced cytotoxicity in healthy cells by activating Nrf2 expression: An in-vivo and in-vitro approach	2021
13	Evaluation of Nutrient, Antinutrient and Phytochemical Properties of <i>Noni</i> Fruit (Morinda citrifolia); (Concentrate, Pulp, And Seed) (P10-047-19)	2019
14	The influence of Morinda citrifolia fruit maturity level, parts and storage length on total phenols, ascorbic acid, antioxidant activity and ethylene gas emission	2024
15	<i>Medicinal</i> herbs and their metabolites with biological potential to protect and combat liver toxicity and its disorders: A review	2024
16	Traditional ecological knowledge and <i>medicinal plant</i> diversity in Ecuadorian Amazon home gardens	2019
17	Multifaceted roles of <i>plant</i> -derived bioactive polysaccharides: A review of their biological functions, delivery, bioavailability, and applications within the food and pharmaceutical sectors	2025
18	A comprehensive review of ethnopharmacologically important <i>medicinal plant</i> species from Mauritius	2019
19	Impact of combined <i>plant</i> extracts on long COVID: An exploratory	2024

	randomized controlled trial	
20	Do Uncommon <i>Plant</i> Phenolic Compounds Have Uncommon Properties? A Mini Review on Novel Flavonoids	2021
21	Potential of traditionally consumed <i>medicinal</i> herbs, spices, and food <i>plants</i> to inhibit key digestive enzymes geared towards diabetes mellitus management — A systematic review	2019
22	Invited review: Advances in yogurt development—Microbiological safety, quality, functionality, sensory evaluation, and consumer perceptions across different dairy and <i>plant</i> -based alternative sources	2025
23	Role of herbal tea (<i>Camellia sinensis</i> L. Kuntze, <i>Zingiber officinale</i> Roscoe and <i>Morinda citrifolia</i> L.) in lowering cholesterol level: A review and bibliometric analysis	2023
24	Virtual screening of potential phyto-candidates as therapeutic leads against SARS-CoV-2 infection	2021
25	Evaluation of the Brazilian functional fruit <i>Morinda citrifolia</i> as phospholipases A2 and proteases modulator: <i>Morinda citrifolia</i> : enzymatic modulation	2021
26	Phytoimmunomodulators: A review of natural modulators for complex immune system	2024
27	Impact of phytoconstituents on oral health practices: a post COVID-19 observation	2024
28	Time dependent inhibition of <i>Morinda citrifolia</i> essential oils against multi drug resistant bacteria and A549 lung cancer cells	2024
29	Effective removal of biofilm formation in <i>Acinetobacter baumannii</i> using chitosan nanoparticles loaded <i>plant</i> essential oils	2022
30	Therapeutic potentials of iridoids derived from Rubiaceae against in vitro and in vivo inflammation: A scoping review	2024
31	Genus <i>Morinda</i> : An insight to its ethnopharmacology, phytochemistry, pharmacology and Industrial Applications	2022
32	Potentiality of Neglected and Underutilized Species (NUS) as a future resilient food: A systematic review	2024
33	Antioxidant and immunosuppressive activities of extracts of endophytic fungi isolated from <i>Psidium guajava</i> and <i>Newbouldia laevis</i>	2021
34	Exploration of therapeutic applicability and different signaling mechanism of various phytopharmacological agents for treatment of breast cancer	2021
35	Antimicrobial action of Oregano, Thyme, Clove, Cinnamon and Black pepper essential oils free and encapsulated against foodborne pathogens	2023
36	Estrogenic activity and toxicity screening of <i>Damnacanthal</i> nanospheres and their metabolites assessed using an in vitro bioluminescent yeast assay	2022
37	Phytochemical composition and in vitro biological activities of <i>Morinda citrifolia</i> fruit juice	2021
38	Nutritional value, phytochemistry, health benefits, and potential food applications of <i>Pouteria campechiana</i> (Kunth) Baehni: A comprehensive review	2023
39	Hepatoprotective and hypoglycemic effect of lactic acid fermented Indian Gooseberry-Amla beverage on chronic alcohol-induced liver damage and diabetes in rats	2023
40	A systematic review of antimalarial activities of <i>Morinda</i> species	2022
41	Polysaccharides as antioxidants and prooxidants in managing the double-edged sword of reactive oxygen species	2023
42	Fruit extracts to control pathogenic <i>Escherichia coli</i> : A sweet solution	2020

43	Asparaginyl endopeptidases: enzymology, applications and limitations	2021
44	Causality imputation between herbal products and HILI: An algorithm evaluation in a systematic review	2021
45	The use of alternative water sources as a means of adaptation to water shortages in Nsimeyong, Yaounde city: a quality assessment	2021
46	Virgin coconut oil: wet production methods and food applications – a review	2024
47	The anti-leech potential of the solvent extract of Bornean neem leaves and ultra-high performance liquid chromatography-high-resolution mass spectrometry profiling	2021
48	Microscopic monitoring of the antibacterial potential of <i>Nepeta elymaitica</i> Bornm essential oil against kohlrabi leaves' foodborne pathogens	2023
49	Subcritical water extraction on phenolic, flavonoid and antioxidant activity from <i>Orthosiphon stamineus</i> leaves: Experimental and optimization	2024
50	Bioactive components and biological properties of cornelian cherry (<i>Cornus mas</i> L.): A comprehensive review	2020
51	Effect of drying temperature on antioxidant activity, phenolic compound profile and hygroscopic behavior of pomegranate peel and seed flours	2023
52	One health and social research in disease ecology: A social contextual study of vector-borne diseases in the Yucatan Peninsula, Mexico	2024
53	Gastroprotective effects of Pikad Tri-phol-sa-mut-than herbal remedy on multiple gastric ulcer models in rats	2023
54	Fuzi polysaccharides improve immunity in immunosuppressed mouse models by regulating gut microbiota composition	2023
55	Analysis of the hotspots and trends in traditional Chinese medicine immunomodulation research based on bibliometrics	2021
56	Fourth Controlled Human Infection Model (CHIM) meeting – CHIMs in endemic countries, May 22–23, 2023	2024
57	Impact des Thérapies Complémentaires sur la Survie de Patients Atteints d'un Cancer Traités par Chimiothérapie Orale dans un Établissement Hospitalier Français Spécialisé en Oncologie : Étude Exploratoire	2022
58	Effects of stevia (<i>Stevia rebaudiana</i> Bertoni) leaf extracts on the quality and shelf life of refrigerated catla (<i>Gibelion catla</i>) fillets	2024
59	Effect of scopoletin on phagocytic activity of U937-derived human macrophages: Insights from transcriptomic analysis	2020
60	Covalent organic frameworks (COFs) and metal–organic frameworks (MOFs) as electrochemical sensors for the efficient detection of pharmaceutical residues	2023
61	Enhancing the bio-polymeric stabilization of spray-dried <i>Chlorella</i> phenolic-rich extract: Analysis of its physicochemical, functional, structural, and biological properties	2023
62	Gingival mesenchymal stem cells: Biological properties and therapeutic applications	2024
63	Larvicidal and antibacterial activity of aqueous leaf extract of <i>Peepal</i> (<i>Ficus religiosa</i>) synthesized nanoparticles	2020
64	Multi-therapeutic potential of flavonoids as an essential component in nutraceuticals for the treatment and management of human diseases	2024
65	Characterizations and antibacterial activities of passion fruit peel pectin/chitosan composite films incorporated <i>Piper betle</i> L. leaf extract	2022

	for preservation of purple eggplants	
66	Extraction of bioactive compounds from beach-cast brown algae: a review on accelerated solvent extraction and subcritical water extraction	2024
67	Ontogenesis and secretion mechanism of <i>Morinda citrifolia</i> L. (Rubiaceae) colleters	2019
68	Deep eutectic solvents (DES): An update on the applications in food sectors	2023
69	Chemical profile, antioxidant and anti-inflammatory properties of <i>Miconia albicans</i> (Sw.) Triana (Melastomataceae) fruits extract	2021
70	“If I'm a naturopath, It's because I trust nature above everything else”: Canadian naturopaths' construction of vaccination as a risk object	2023
71	HPLC-Q-Orbitrap-MS/MS phenolic profiles and biological activities of extracts from roxburgh rose (<i>Rosa roxburghii</i> Tratt.) leaves	2021
72	<i>Codonopsis pilosula</i> and fish collagen yogurt: Proteolytic, potential Angiotensin-I converting enzyme (ACE) inhibitory activity and sensory properties	2022
73	Immunomodulant feed supplement <i>Boswellia serrata</i> to support broiler chickens' health and dietary and technological meat quality	2020
74	Monkey orange fruit juice improves the nutritional quality of a maize-based diet	2019
75	Unseen existences: Stories of life from Venembeli, Papua New Guinea	2021
76	Plants as a source of dietary bioactives: Flavonoids and basis for their health benefits	2024
77	Flavonoids of <i>Chromolaena odorata</i> (L.) R.M.King & H.Rob. as potential leads for treatment against tuberculosis	2023
78	Acute diseases: An epidemiologic perspective	2023

B. Judul artikel menggunakan kata kunci Noni Compounds (based on 2019 -2025 and open acces)

No	Judul	Tahun
1	Enhancing bioactive compounds extraction from noni leaves (Morinda citrifolia) by enzymes-assisted extraction	2024
2	Bioactivity and influence on colonic microbiota of polyphenols from noni (Morinda citrifolia L.) fruit under simulated gastrointestinal digestion	2024
3	Divine noni's protective impact on Swiss albino mice's short-term memory impairment caused by cyclophosphamide: A behavioral and biochemical approach	2024
4	Modulatory effect of Mengkudu fruit on the activities of key enzymes of glucose synthesis and utilization pathways of diabetic induced rats.	2019
5	Iridoid glycosides from noni (Morinda citrifolia L.) fruit pomace: A novel booster strategy for its extraction and will its α -glucosidase inhibitory be increased by acetylation?	2024
6	Effect of combined ultrasonic and enzymatic extraction technique on the quality of noni (Morinda citrifolia L.) juice	2023
7	Constituent analysis, laxative activity, and toxicological evaluation of methanol extract of noni fruit (Morinda citrifolia L., Rubiaceae)	2023
8	Effects of noni fruit extract on the growth performance, digestive enzymes, and stress tolerance of juvenile whiteleg shrimp (Litopenaeus vannamei)	2023
9	A validated HPLC-DAD method and comparison of different extraction techniques for analysis of scopoletin in noni -based products	2023
10	Morinda Citrifolia (Noni) attenuated transcriptional and degenerative markers of cardiac toxicity in bisphenol A treated male wistar rats	2023
11	A novel strategy for improving the antioxidant, iridoid, and flavor properties of Noni (Morinda citrifolia L.) fruit juice by lactic acid bacteria fermentation	2023
12	Physicochemical and antioxidant properties, total phenolic and nutritional contents of noni (Morinda citrifolia) seed and its oil cultivated in Sabah, Malaysia	2022
13	Quality control standardization of Indonesian noni fruit (Morinda citrifolia) extract and evaluation of their angiotensin-converting enzyme inhibitory activity	2022
14	Protective role of herbal formulation-divine noni against cisplatin-induced cytotoxicity in healthy cells by activating Nrf2 expression: An in-vivo and in-vitro approach	2021
15	Noni juice-fortified yogurt mitigates dextran sodium sulfate-induced colitis in mice through the modulation of inflammatory cytokines	2021
16	Evaluation of Nutrient, Antinutrient and Phytochemical Properties of Noni Fruit (Morinda citrifolia); (Concentrate, Pulp, And Seed) (P10-047-19)	2019
17	Effect of Noni , Morinda citrifolia fruit extract supplementation on the growth performances and physiological responses of the hepatopancreas of Whiteleg shrimp, Penaeus vannamei Post Larvae	2021
18	Evolution of fatty acid taste in drosophilids	2023
19	The influence of Morinda citrifolia fruit maturity level, parts and storage	2024

	length on total phenols, ascorbic acid, antioxidant activity and ethylene gas emission	
20	Scopoletin and rutin attenuate ethanol reward in mouse-conditioned place preference test	2024
21	Extraction of bioactive compounds from beach-cast brown algae: a review on accelerated solvent extraction and subcritical water extraction	2024
22	Physiochemical properties, volatile compounds and consumer acceptance of novel ultra-high temperature milk during storage	2024
23	Molecular Basis of Hexanoic Acid Taste in <i>Drosophila melanogaster</i>	2023
24	Effect of drying temperature on antioxidant activity, phenolic compound profile and hygroscopic behavior of pomegranate peel and seed flours	2023
25	Virtual screening of potential phyto-candidates as therapeutic leads against SARS-CoV-2 infection	2021
26	Impact of phytoconstituents on oral health practices: a post COVID-19 observation	2023
27	Multivariate data analysis strategy to monitor Trentingrana cheese real-scale production through volatile organic compounds profiling	2024
28	Do Uncommon Plant Phenolic Compounds Have Uncommon Properties? A Mini Review on Novel Flavonoids	2021
29	Estrogenic activity and toxicity screening of Damnacanthan nanospheres and their metabolites assessed using an in vitro bioluminescent yeast assay	2022
30	Alzheimer's Disease Prevention through Natural Compounds : Cell-Free, In Vitro, and In Vivo Dissection of Hop (<i>Humulus lupulus</i> L.) Multitarget Activity	2022
31	Antimicrobial potential of exotic fruits residues	2019
32	Recent advances in stereoselective synthesis of non-classical glycosides	2024
33	Higher Habitual Flavonoid Intakes Are Associated with a Lower Incidence of Diabetes	2021
34	Role of herbal tea (<i>Camellia sinensis</i> L. Kuntze, <i>Zingiber officinale</i> Roscoe and <i>Morinda citrifolia</i> L.) in lowering cholesterol level: A review and bibliometric analysis	2023
35	Microscopic monitoring of the antibacterial potential of <i>Nepeta elymaitica</i> Bornm essential oil against kohlrabi leaves' foodborne pathogens	2023
36	Evaluation of the Brazilian functional fruit <i>Morinda citrifolia</i> as phospholipases A2 and proteases modulator: <i>Morinda citrifolia</i> : enzymatic modulation	2021
37	Recent advances of fermented fruits: A review on strains, fermentation strategies, and functional activities	2024
38	Subcritical water extraction on phenolic, flavonoid and antioxidant activity from <i>Orthosiphon stamineus</i> leaves: Experimental and optimization	2024
39	Genus <i>Morinda</i> : An insight to its ethnopharmacology, phytochemistry, pharmacology and Industrial Applications	2022
40	Amplifying Bioactivity of blue honeysuckle (<i>Lonicera caerulea</i> L.) fruit puree through Ultrasonication: Antioxidant and antiproliferative activity	2025
41	Phytoimmunomodulators: A review of natural modulators for complex immune system	2024
42	Precursors consumption preferences and thiol release capacity of the wine yeasts <i>Saccharomyces cerevisiae</i> , <i>Torulaspora delbrueckii</i> , and <i>Lachancea thermotolerans</i>	2024
43	Multifaceted roles of plant-derived bioactive polysaccharides: A review of their biological functions, delivery, bioavailability, and applications within the food and pharmaceutical sectors	2025

44	Hepatoprotective and hypoglycemic effect of lactic acid fermented Indian Gooseberry-Amla beverage on chronic alcohol-induced liver damage and diabetes in rats	2023
45	Antioxidant and immunosuppressive activities of extracts of endophytic fungi isolated from <i>Psidium guajava</i> and <i>Newbouldia laevis</i>	2021
46	Microencapsulated granaticins from <i>Streptomyces vilmorinianum</i> YP1: Optimization, physiochemical characterization and storage stability	2024
47	¹ H NMR profiling and chemometric analysis for ripening and production characterization of Grana Padano cheese	2024
48	The consequences of fermentation metabolism on the qualitative qualities and biological activity of fermented fruit and vegetable juices	2024
49	Phytochemical composition and in vitro biological activities of <i>Morinda citrifolia</i> fruit juice	2021
50	The influence of microwave-assisted osmotic dehydration in coconut meat preservation technique	2024
51	Virgin coconut oil: wet production methods and food applications – a review	2024
52	Impact of β -casein variants on the formation of β -casomorphins in blue cheeses: Investigating key drivers through peptidomic analysis	2025
53	Nutritional, anti-nutrient, stability and organoleptic characterisation of plant-based milk alternatives derived from adzuki bean (<i>Vigna angularis</i>) and mung bean (<i>Vigna radiata</i>)	2024
54	Ethanollic cashew leaf extract: Antioxidant potential and impact on quality changes of dried fermented catfish during storage	2024
55	Public Health Risks Associated with Food Process Contaminants – A Review	2025
56	Effect of fermentation by lactic acid bacteria on the phenolic composition, antioxidant activity, and flavor substances of jujube–wolfberry composite juice	2023
57	Evolution at multiple processing levels underlies odor-guided behavior in the genus <i>Drosophila</i>	2023
58	Fruit extracts to control pathogenic <i>Escherichia coli</i> : A sweet solution	2020
59	Volatilomic profile of the tree tomato (<i>Solanum betaceum</i> Cav.) pulp during ripening and senescence using HS–SPME with GC–MS	2023
60	What is the impact of Endodontic Irrigant Solutions on the Viability of Stem Cells from Apical Papilla in an in-vitro setting: A Systematic Review	2023
61	The anti-leech potential of the solvent extract of Bornean neem leaves and ultra-high performance liquid chromatography-high-resolution mass spectrometry profiling	2021
62	Enhancing the bio-polymeric stabilization of spray-dried <i>Chlorella</i> phenolic-rich extract: Analysis of its physicochemical, functional, structural, and biological properties	2023
63	Mitigation of Maillard reaction in spaghetti by optimization of the drying conditions	2023
64	Unraveling the role of medicinal plants and Gut microbiota in colon cancer: Towards microbiota- based strategies for prevention and treatment	2023
65	Forage system is the key driver of mountain milk specificity	2019
66	Deep eutectic solvents (DES): An update on the applications in food sectors	2023
67	A review on polysaccharide-based jelly: Gell food	2024
68	Monkey orange fruit juice improves the nutritional quality of a maize-based diet	2019

69	Medicinal herbs and their metabolites with biological potential to protect and combat liver toxicity and its disorders: A review	2024
70	Chemical profile, antioxidant and anti-inflammatory properties of <i>Miconia albicans</i> (Sw.) Triana (Melastomataceae) fruits extract	2021
71	Therapeutic potentials of iridoids derived from Rubiaceae against in vitro and in vivo inflammation: A scoping review	2024
72	Recombineering enables genome mining of novel siderophores in a non-model Burkholderiales strain	2023
73	Acute oral toxicity of damnacanthal and its anticancer activity against colorectal tumorigenesis	2022
74	Peroxidation and photo-peroxidation of pantoprazole in aqueous solution using silver molybdate as catalyst	2021
75	Fuzi polysaccharides improve immunity in immunosuppressed mouse models by regulating gut microbiota composition	2023
76	Nutritional value, phytochemistry, health benefits, and potential food applications of <i>Pouteria campechiana</i> (Kunth) Baehni: A comprehensive review	2023
77	Beyond the gut: Investigating the mechanism of formation of β -casomorphins in human blood	2024
78	Photoactive siderophores: Structure, function and biology	2021
79	A systematic review of antimalarial activities of <i>Morinda</i> species	2022
80	Polysaccharides as antioxidants and prooxidants in managing the double-edged sword of reactive oxygen species	2023
81	Effect of alkaline salts and whey protein isolate on the quality of rice-maize gluten-free pasta	2024
82	An overview of chronic disease models: a systematic literature review	2019
83	Health effects of fruit juices and beverages with varying degrees of processing	2024
84	A short review of extraction methods associated with chromatographic analysis for the control of pesticide residues in processed fruit juices	2023
85	Chronic consumption of purple grape juice in gestational-lactation and post lactation promotes anxiolity effect and antioxidant defense improvement in brain from Wistar male offsprings	2019
86	Fermented blend from sunflower seed press-cake and bovine sweet whey: Protein breakdown during in vitro gastrointestinal digestion	2024
87	HPLC-Q-Orbitrap-MS/MS phenolic profiles and biological activities of extracts from roxburgh rose (<i>Rosa roxburghii</i> Tratt.) leaves	2021
88	Antioxidant potential of herbal polysaccharides: An overview on recent researches	2022
89	Anticancer and antioxidant efficacy of silver nanoparticles synthesized from fruit of <i>Morinda citrifolia</i> Linn on Ehrlich ascites carcinoma mice	2020
90	Invited review: Advances in yogurt development—Microbiological safety, quality, functionality, sensory evaluation, and consumer perceptions across different dairy and plant-based alternative sources	2025
91	A rare primary posterior mediastinal angiolipoma: A case report	2021
92	Total phenolic content, antioxidant, and antimicrobial activities of ripe and unripe Ghanaian habanero pepper (<i>Capsicum chinense</i>)	2024
93	Multi-omics reveals aspirin eugenol ester alleviates neurological disease	2023
94	Invited review: Dairy proteins and bioactive peptides: Modeling digestion and the intestinal barrier	2019
95	Antimicrobial action of Oregano, Thyme, Clove, Cinnamon and Black pepper essential oils free and encapsulated against foodborne pathogens	2023
96	The influence of processing technologies on the biological activity of	2024

	carbohydrates in food	
97	Impact of combined plant extracts on long COVID: An exploratory randomized controlled trial	2024
98	Biocontrol and anti-biofilm potential of aerosols sprayed slightly acidic electrolyzed water against <i>Cronobacter sakazakii</i> in infant food industry	2023
99	Analysis of the hotspots and trends in traditional Chinese medicine immunomodulation research based on bibliometrics	2021
100	Monitoring molecular composition and digestibility of ripened bresaola through a combined foodomics approach	2019
101	Time dependent inhibition of <i>Morinda citrifolia</i> essential oils against multi drug resistant bacteria and A549 lung cancer cells	2024
102	Effects of stevia (<i>Stevia rebaudiana</i> Bertoni) leaf extracts on the quality and shelf life of refrigerated catla (<i>Gibelion catla</i>) fillets	2024
103	Physicochemical and functional characteristics of a gourd (<i>Cucurbita argyrosperma</i> Huber) seed protein isolate subjected to high-intensity ultrasound	2024
104	Determination of water-soluble vitamins and carotenoids in Brazilian tropical fruits by High Performance Liquid Chromatography	2020
105	Lipid-lowering capacity of GABA-rich supernatant from fermented okara in OA-induced HepG2 cells	2024
106	The impact of milk storage temperatures on cheese quality and microbial communities at dairy processing plant scale	2023
107	Gastroprotective effects of Pikad Tri-phol-sa-mut-than herbal remedy on multiple gastric ulcer models in rats	2023
108	Generation of bioelectricity from fruit waste	2020
109	Photocatalytic activity of ceramic tiles coated with titania supported on kaolinite	2023
110	Medicinal plants used for management of diabetes and hypertension in Ghana	2023
111	Characterizations and antibacterial activities of passion fruit peel pectin/chitosan composite films incorporated Piper betle L. leaf extract for preservation of purple eggplants	2022
112	Covalent organic frameworks (COFs) and metal–organic frameworks (MOFs) as electrochemical sensors for the efficient detection of pharmaceutical residues	2023
113	Effective removal of biofilm formation in <i>Acinetobacter baumannii</i> using chitosan nanoparticles loaded plant essential oils	2022
114	Peptidomics and biological activity analysis of in vitro digested Parmigiano Reggiano cheese at different ripening stages	2024
115	Fortification of orange juice with microencapsulated <i>Kocuria flava</i> Y4 towards a novel functional beverage: Biological and quality aspects	2023
116	A Review of Essential Oils as Antimicrobials in Foods with Special Emphasis on Fresh Produce	2022
117	Atxn2-CAG100-KnockIn mouse spinal cord shows progressive TDP43 pathology associated with cholesterol biosynthesis suppression	2021
118	Molecular mechanism of <i>Achyranthis bidentatae</i> radix and <i>Morinda officinalis</i> radix in osteoporosis therapy: An investigation based on network pharmacology, molecular docking, and molecular dynamics simulations	2023
119	Application of essential oils as sanitizer alternatives on the postharvest washing of fresh produce	2023
120	Effects of stocking rate on growth performance, energy and nitrogen	2024

0	utilization, methane emission, and grazing behavior in Tan sheep grazed on typical steppe	
12	Interfacial behavior and emulsifying property of thermosonication -treated soy glycinin	2023
12	Sulfur dioxide-free wine with polyphenols promotes lipid metabolism via the Nrf2 pathway and gut microbiota modulation	2024
12	Preparation, stability, and in vitro transport of soybean protein-based diosgenin nanoemulsions	2023
12	Codonopsis pilosula and fish collagen yogurt: Proteolytic, potential	2022
4	Angiotensin-I converting enzyme (ACE) inhibitory activity and sensory properties	
12	Causality imputation between herbal products and HILI: An algorithm evaluation in a systematic review	2021
6		
12	Progressive freeze concentration of cheese whey for protein and lactose recovery	2023
7		
12	A novel fucoidan complex-based functional beverage attenuates oral cancer through inducing apoptosis, G2/M cell cycle arrest and retarding cell migration/invasion	2021
8		
12	Evaluation of quality changes of differently formulated cloudy mixed juices during refrigerated storage after high pressure processing	2021
9		
13	Ontogenesis and secretion mechanism of <i>Morinda citrifolia</i> L. (Rubiaceae) collectors	2019
0		
13	Evaluation of In Vitro Tools to Predict the In Vivo Absorption of Biopharmaceuticals Following Subcutaneous Administration	2022
1		
13	Plant asparaginyl endopeptidases and their structural determinants of function	2021
2		
13	Characterization of native lactic acid bacteria from traditionally fermented chhurpi of Sikkim Himalayan region for the production of chhurpi cheese with enhanced antioxidant effect	2022
3		
13	The use of alternative water sources as a means of adaptation to water shortages in Nsimyong, Yaounde city: a quality assessment	2021
4		
13	Simulation of mass transfer in hollow fiber used for concentration of juices by osmotic distillation	2019
5		
13	Catechin profile and hypolipidemic activity of <i>Morinda citrifolia</i> leaf water extract	2020
6		
13	Metabolic and Transcriptional Regulation of Reproductive Diapause in <i>Arma chinensis</i>	2025
7		
13	The role of microbial coagulants on the physicochemical, proteolysis, microstructure and sensory properties of low-fat Edam cheese manufactured from ultrafiltered buffalo milk	2024
8		
13	Potentiality of Neglected and Underutilized Species (NUS) as a future resilient food: A systematic review	2024
9		
14	Ir56b is an atypical ionotropic receptor that underlies appetitive salt response in <i>Drosophila</i>	2022
0		
14	Novel foods in the European Union: Scientific requirements and challenges of the risk assessment process by the European Food Safety Authority	2020
1		
14	Enzymatic hydrolysis and microbial fermentation: The most favorable biotechnological methods for the release of bioactive peptides	2021
2		
14	The effect of the addition of soluble fibers (polydextrose, corn, pea) on the color, texture, structural features and protein digestibility of semolina pasta	2022
3		
14	Analytical assessment of the intensity of heat treatment of milk and dairy	2021

4	products	
14	Exploration of therapeutic applicability and different signaling mechanism	2021
5	of various phytopharmacological agents for treatment of breast cancer	
14	The effect of natural antimicrobials against <i>Campylobacter</i> spp. and its	2021
6	similarities	
	to <i>Salmonella</i> spp, <i>Listeria</i> spp., <i>Escherichia coli</i> , <i>Vibrio</i> spp., <i>Clostridium</i>	
	spp. and <i>Staphylococcus</i> spp	
14	Antioxidant, antimicrobial and anticarcinogenic activities of bovine milk	2022
7	proteins and their hydrolysates - A review	
14	Incorporation mechanism of colloidal TiO ₂ nanoparticles and their effect	2021
8	on properties of coatings grown on 7075 Al alloy from silicate-based	
	solution using plasma electrolytic oxidation	
14	Gingival mesenchymal stem cells: Biological properties and therapeutic	2024
9	applications	
15	Stability of bifidobacteria entrapped in goat's whey freeze concentrate and	2020
0	inulin as wall materials and powder properties	
15	Genome analysis reveals probiotic propensities of <i>Paenibacillus</i>	2021
1	<i>polymyxa</i> HK4	
15	Classifying deceptive reviews for the cultural heritage domain: A lexicon-	2024
2	based approach for the Italian language	
15	Immunomodulant feed supplement <i>Boswellia serrata</i> to support broiler	2020
3	chickens' health and dietary and technological meat quality	
15	Protein fingerprinting and quantification of β -casein variants by ultra-	2020
4	performance liquid chromatography–high-resolution mass spectrometry	
15	Salt-tolerance induced by leaf spraying with H ₂ O ₂ in sunflower is related	2020
5	to the ion homeostasis balance and reduction of oxidative damage	
15	Influence of dietary vitamin E and selenium supplementation on broilers	2022
6	subjected to heat stress, Part II: oxidative stress, immune response, gut	
	integrity, and intestinal microbiota	
15	Effect of hydroxyapatite:zirconia volume fraction ratio on mechanical and	2022
7	corrosive properties of Ti-matrix composite scaffolds	
15	Effects of dietary crude protein levels on ammonia emission, litter and	2019
8	manure composition, N losses, and water intake in broiler breeders	
15	Determination and evaluation of whey protein content in matured cheese	2023
9	via liquid chromatography	
16	Bioactive components and biological properties of cornelian cherry	2020
0	(<i>Cornus mas</i> L.): A comprehensive review	
16	Role of CSN2, CSN3, and BLG genes and the polygenic background in	2022
1	the cattle milk protein profile	
16	Smart cities and sustainable development goals (SDGs): A systematic	2024
2	literature review of co-benefits and trade-offs	
16	Effects of reduced nitrogen and suitable soil moisture on wheat (<i>Triticum</i>	2020
3	<i>aestivum</i> L.) rhizosphere soil microbiological, biochemical properties and	
	yield in the Huanghuai Plain, China	
16	Framework of Guidelines for Management of CKD in Asia	2024
4		
16	In vivo digestion characteristics of protein sources fed to broilers	2019
5		
16	Potential of traditionally consumed medicinal herbs, spices, and food	2019
6	plants to inhibit key digestive enzymes geared towards diabetes mellitus	
	management — A systematic review	
16	Mobilization-based chemotherapy-free engraftment of gene-edited human	2022
7	hematopoietic stem cells	

16		2019
8	Traditional ecological knowledge and medicinal plant diversity in Ecuadorian Amazon home gardens	
16	Royal society of Canada COVID-19 report: Enhancing COVID-19 vaccine acceptance in Canada	2021
9		
17	Clinical applications and mechanism insights of natural flavonoids against type 2 diabetes mellitus.	2024
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17	Buckwheat extracts rich in flavonoid aglycones and flavonoid glycosides significantly reduced blood glucose in diabetes mice.	2024
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Lampiran 3.

A. Daftar Jurnal yang lolos penyaringan dan memenuhi kriteria menggunakan kata kunci

Noni Medicinal Plant (Based on 2019-2025 and open acces)

No	Judul	Tahun
1	Morinda citrifolia (Noni): A comprehensive review on its industrial uses, pharmacological activities, and clinical trials	2023
2	Effect of combined ultrasonic and enzymatic extraction technique on the quality of noni (<i>Morinda citrifolia</i> L.) juice	2023
3	<i>Morinda Citrifolia</i> (Noni) attenuated transcriptional and degenerative markers of cardiac toxicity in bisphenol A treated male wistar rats	2023
4	Plants as a source of dietary bioactives: Flavonoids and basis for their health benefits	2024
5	The influence of <i>Morinda citrifolia</i> fruit maturity level, parts and storage length on total phenols, ascorbic acid, antioxidant activity and ethylene gas emission	2024
6	Medicinal plants used for management of diabetes and hypertension in Ghana	2023
7	Flavonoids of <i>Chromolaena odorata</i> (L.) R.M.King & H.Rob. as potential leads for treatment against tuberculosis	2023
8	Multi-therapeutic potential of flavonoids as an essential component in nutraceuticals for the treatment and management of human diseases	2024
9	Acute diseases: An epidemiologic perspective	2023

B. Daftar Jurnal yang lolos penyaringan dan memenuhi kriteria menggunakan kata kunci

Noni Medicinal Plant (Based on 2019-2025 and open acces)

No	Judul	Tahun
1	Recent advances in stereoselective synthesis of non-classical glycosides	2024
2	Modulatory effect of Mengkudu fruit on the activities of key enzymes of glucose synthesis and utilization pathways of diabetic induced rats.	2019
3	Clinical applications and mechanism insights of natural flavonoids against type 2 diabetes mellitus.	2024
4	Buckwheat extracts rich in flavonoid aglycones and flavonoid glycosides significantly reduced blood glucose in diabetes mice.	2024
5	Higher Habitual Flavonoid Intakes Are Associated with a Lower Incidence of Diabetes	2021
6	An overview of chronic disease models: a systematic literature review	2019