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**[BIBLIOMETRIC STUDIES ON RESEARCH PUBLICATION MATERIALS:
TOWARDS THE LATEST RESEARCH IN ISLAMIC STUDIES]**

**KAJIAN BIBLIOMETRIK TERHADAP BAHAN PENERBITAN PENYELIDIKAN
BERKAITAN DELIMA: KE ARAH PENYELIDIKAN TERKINI
DALAM BIDANG PENGAJIAN ISLAM**

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Abstract

Pomegranates are an antioxidant-rich superfood with alternative and natural medicine resources for the natural health community. From the perspective of ancient medical practice, pomegranate is in a highest ranking of healthy fruits because of its diverse beneficial in curing diseases. Trend research publications pomegranates were studied. The study focused on content analysis, especially in the field of primary research on pomegranate. Referring to the results of 'literature review' on pomegranate, researchers found that the majority of previous research on pomegranate dominated by journal articles by 85.5 percent. Research on the method of analysis conducted in the previous studies found that most studies on pomegranate done on a scientific analysis (laboratory studies). Studies on aspects of science has been divided into six areas. Focus areas include scientific discussion of pomegranate is pharmaceutical, Food Science,

Botany, Bio-Medical, Bio-Chemistry and Microbiology. Only one field of study that focuses on the analysis of Islamic view focusing on Islamic Education. Additional fields of Environmental Education (Flora) are also included by researchers to collect data and find a results on plants that contain pomegranate. Thus, the efforts of researchers from Universiti Malaya through grants TRGS (TR001A-2014) entitled 'Safe and Health Uses of Fruits and Herbs Mentioned in Al- Quran and Ahadith: An Analysis of ethno medicinal Importance in Islamic Products in Malaysia' are very significant in the development of science. Advanced new study of henna is expected to produce benefits to Malaysia as a whole.

Keyword: *Pomegranate; Research trend; Recommendations, New Research Studies, Malaysian Product*

Abstrak

Delima (*pomegranate*) merupakan bahan perubatan semula jadi yang amat bernilai. Dalam amalan perubatan kuno (*ancient healing benefits*), delima berada pada senarai teratas disebabkan manfaat kegunaannya yang *versatile*. Trend penerbitan penyelidikan berkenaan delima telah dikaji. Kajian ditumpukan kepada analisis kandungan terutamanya dalam bidang penyelidikan utama berhubung delima. Merujuk hasil tinjauan literatur, pengkaji mendapati majoriti penyelidikan lepas mengenai delima di dominasi oleh artikel jurnal sebanyak 85.5%. Melihatkan metode analisis yang pernah dilakukan, penyelidikan lepas berkenaan delima kebanyakannya berkisar tentang analisis saintifik (kajian makmal). Bagi kajian sains sahaja, telah terbahagi kepada enam bidang kajian. Fokus aspek perbincangan saintifik terhadap delima meliputi bidang farmasi, sains pemakanan (*food science*), sains botani, bio-perubatan, bio-kimia dan mikrobiologi. Hanya satu bidang yang memfokuskan analisis berasaskan pengajian Islam (*Islamic Studies*). Tambahan bidang pendidikan alam sekitar (flora) turut dimuatkan pengkaji bagi mengumpulkan hasil kajian yang bersifat data umum tentang tumbuhan termasuk delima. Justeru, usaha terkini para penyelidik dari Universiti Malaya melalui geran TRGS (TR001A-2014A) bertajuk '*Safe and Health Uses of Fruits and Herbs Mentioned in Al-Quran and Ahadith: An Analysis of Ethnomedicinal Importance in Islamic Products in Malaysia*' amat signifikan dalam perkembangan ilmu. Lanjutan kajian baru terhadap delima diharapkan menghasilkan sesuatu bagi manfaat Malaysia seluruhnya.

Kata kunci: Delima; Trend penyelidikan; Cadangan; Penyelidikan Baru; Produk Kesihatan

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PENDAHULUAN

Kajian bercorak penerbitan boleh digunakan sebagai penunjuk produktiviti penyelidikan, arah aliran dan penekanan yang diberikan kepada penyelidikan dalam pelbagai disiplin. Kajian ini juga dapat menentukan keutamaan penyelidikan dalam hal berkaitan penerbitan. Tujuan kajian ini adalah untuk menganalisis perkembangan artikel mengikut bidang atau disiplin penyelidikan dalam bentuk yang lebih spesifik.

Artikel yang diterbitkan di dalam mana-mana wacana lazimnya hasil penyelidikan atau kajian terkini yang dapat dikembangkan, di edar untuk dikongsi bersama dan dijadikan sebagai rujukan saintifik yang boleh dipercayai. Ini disebabkan proses penerbitan bahan ilmiah perlu melalui proses penyaringan dan pengulasan oleh pakar dalam bidang berkenaan untuk memastikan bahan yang diterbitkan, bukan sahaja mematuhi ciri-ciri untuk penerbitan jurnal atau bahan ilmiah, tetapi juga untuk memastikan penyelidikan yang dijalankan mengikut tatacara sepatutnya.

DEFINISI DELIMA

Delima atau nama saintifiknya ‘*punica granatum*’¹ merupakan sejenis buah yang telah dicatatkan namanya di dalam al-Quran sebanyak tiga kali iaitu dalam surah al-An’am (6), ayat 99 dan 141 dan surah al-Rahman (55), ayat 68. Dalam istilah bahasa Inggeris, delima dikenal sebagai ‘pomegranate’ dan ‘al-Rumman’ atau ‘al-Rummanah’ dalam bahasa ‘Arab’.²

Menurut *Oxford English Dictionary*, perkataan *pomegranate* berasal dari bahasa Latin iaitu *ponum* (buah) dan *granatum* (berbiji). Bagi bahasa Perancis lama, delima dipanggil *pomme granatum* membawa maksud epal (*pomme*) dan *granatum* merujuk kepada buah yang berbiji atau tempat asalnya iaitu Granada. Malah, *Encyclopedia Britannica* menyatakan bandar Granada di selatan Sepanyol mendapat namanya dari buah delima yang merupakan buah tempatan di sana.³

Pokok delima berbentuk renek berbuah dan boleh membesar sehingga ketinggian lima hingga lapan meter. Ia berasal dari kawasan Asia Barat Daya dan telah ditanam secara semulajadi di seluruh kawasan Mediterranean dan Caucasus sejak zaman kuno. Ia ditanam secara meluas di seluruh Afghanistan, Algeria, Armenia, Azerbaijan, Iran, Iraq, India, Pakistan, Syria, Turki, Semenanjung Malaysia, India Timur dan kawasan tropika di Afrika. Delima dibawa masuk ke Amerika Latin dan California oleh para pendatang Sepanyol pada tahun 1769 dan ditanam di sebahagian California serta Arizona untuk pengeluaran jus.⁴

¹ Armenag K. Bedewian, *Illustrated Polyglottic Dictionary of Plant Names*, Cairo: Medbouly Library, 1994, h.494 dan V.H. Heywood & S.R. Chant, *Popular Encyclopedia of Plants*, New York: Cambridge University Press, 1982, h.147.

² Jamaluddin Mahrar, „Abd al-„Azim Hafna Mubashir, al-Ghadza“ wa al-Dawa“ fi al-Qur“an al-Karim, (terj.) Al-Qur’an Bertutur Tentang Makanan & Obat-Obatan, Yogyakarta: Mitra Pustaka, h.439.

³ Oxford English Dictionary, http://oxforddictionaries.com/view/entry/m_en_gb0646980#m_en_gb0646980.002, 22 Julai 2015. Rujuk juga Munirah Abd Razzak, *Punica Granatum Bicara Al-Qur“an Al-Hadith Dan Sains Perubatan Moden*, Jurnal Al-Bayan, bil. 9 (1), Universiti Malaya: Jabatan Al-Qur“an dan Al-Hadith, Akademi Pengajian Islam, 2011, h.1-2.

⁴ Julia F. Morton, *Pomegranate dalam Fruits of Warm Climates*, Miami, Florida: T.P., 1987, h.352-355.

Buahnya sangat mengagumkan kerana memiliki empat bahagian yang boleh dimanfaatkan manusia. Ia terdiri daripada buah, kulit, akar dan jus (air perahannya).⁵ Dalam industri makanan, delima dikategorikan sebagai spesies buah eksotik dan sumber makanan berkhasiat.⁶ Jenis-jenis delima adalah beraneka bentuk, warna, biji dan berbeza tahap kemanisan dan kemasaman. Jenis delima yang paling baik adalah delima yang memiliki warna paling terang, berkulit nipis dan banyak kandungan air.⁷



Sumber: Google Image, carian: “Delima”.

SKOP DAN METODOLOGI

Kajian ini menggunakan pendekatan analisis bibliometrik untuk mengkaji hasil penulisan lepas berkaitan dengan delima. Analisis bibliometrik merupakan satu kaedah untuk mengkaji dan mengukur teks dan maklumat dalam bahan penerbitan. Analisis biommetrik bukan sahaja sering digunakan dalam bidang sains perpustakaan dan sains maklumat tetapi juga digunakan

⁵ Fakhr al-Din al-Razi, Tafsir Fakhr al-Razi, Beirut: Dar al-Fikr, juz. VII, 1994, h.115.

⁶ Tanner, Cory, "Pomegranate". Horticulture Extension Department, Clemson University, 2009, 21 June 2014.

⁷ Ibid dan Florida Growables, Pomegranate - Punica granatum L, rujuk link: <http://www.growables.org/information/TropicalFruit/pomegranate.htm>, 22 Julai 2015.

secara meluas dalam bidang lain dalam bentuk analisis kutipan (*citation*) dan analisis kandungan.⁸

The British Standard Institution mendefinisikan bibliometrik sebagai penggunaan dokumen dan pola penerbitan dengan menetapkan metode matematik dan statistik. Jadi, tujuan analisis bibliometrik adalah untuk menjelaskan proses komunikasi tertulis, sifat dan arah pengembangan penyelidikan melalui pendekatan deskriptif dan analisis terhadap pelbagai tingkat komunikasi.⁹ Bahkan, objek utama kajian bibliometrik adalah bahan penerbitan yang telah diterbitkan hasil penyelidikan dalam jurnal ilmiah. Penerbitan dianggap sebagai media penting dalam komunikasi ilmiah dan merupakan pengetahuan awam yang boleh diperoleh dan dibaca oleh sesiapa pada bila-bila masa. Kemungkinan dalam bentuk format bercetak atau elektronik. Perkembangan terhadap bentuk atau format penerbitan membantu dalam memperoleh data utama dalam analisis bibliometrik.¹⁰ Walaupun begitu, Pitchard pula membatasi bibliometrik sebagai pengaplikasian metode matematik dan statistik terhadap buku dan semua media komunikasi.¹¹ Pendefinisian ini meluaskan ruang cakupan bibliometrik kepada pelbagai media yang bukan hanya terhadap buku dan artikel jurnal ilmiah sahaja. Artikel ini cenderung kepada pandangan Pitchard dalam kajian terhadap delima yang merangkumi semua penerbitan yang berkaitan.

Kaedah carian adalah penting bagi memastikan setiap data berhubung penyelidikan yang ingin di 'review' dapat dijumpai dengan berkesan. Daripada kata kunci carian berikut, pengkaji menemui penyelidikan berhubung delima memfokuskan semua bahan ilmiah lepas berhubung delima. Bagi mendapat hasil carian terbaik, pengkaji menggunakan kaedah carian berikut;

	Kata kunci carian
1.	Delima + PDF
2.	Punica Granatum + PDF
3.	Pomegranate + PDF
4.	الرَّيْمَانُ
5.	الرَّيْمَانَةُ

Selepas semua data dikumpulkan, semua data diimbas secara manual dan dijadualkan menggunakan perisian Microsoft Office Excel. Data yang telah dijadualkan selanjutnya akan dianalisis menggunakan program statistik SPSS (*Statistical Package for the Social Sciences*).

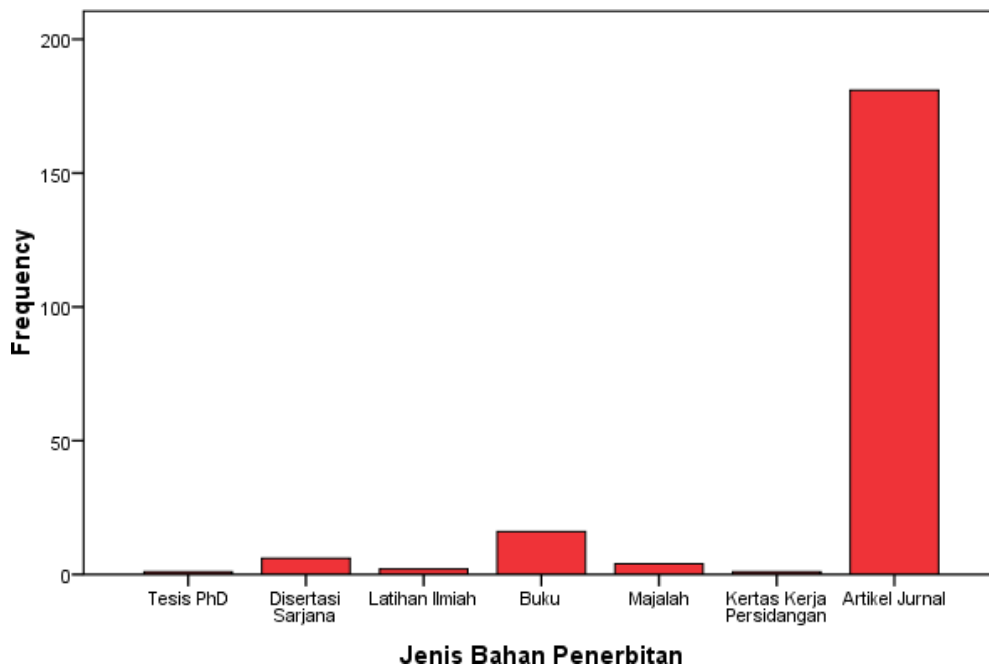
⁸ Hertz, D.H. (2003), "Bibliometrics history" dalam Drake, Miriam A. (ed) *Encyclopaedia of Library and Information Science*, Vol. 1, New York : Marcel Dekker, 2003, h. 288-328

⁹ Sulisty Basuki, *Bibliometrics, Scientometrics dan Informetrics*. Kumpulan Makalah Kursus Bibliometrik. Depok: Pusat Studi Jepang, 2002, h.13-15.

¹⁰ Ibid., 14.

¹¹ Pitchard, A., "Statistical bibliography or bibliometrics?" dalam *Journal of Documentation*, Vol. 25(4), 1969, h.348-349.

LITERATURE REVIEW BERKAITAN DELIMA



Merujuk rajah di atas, pengkaji mendapati majoriti penyelidikan lepas mengenai delima didominasi oleh artikel jurnal sebanyak 85.8%. Peratusan kedua tertinggi adalah buku sebanyak 7.6%. Ini kemudian diikuti disertasi sarjana dengan peratusan sebanyak 2.8% dan latihan ilmiah 0.9%. Peratusan terendah dicatat tesis PhD dan kertas kerja persidangan dengan peratusan sama sebanyak 0.5%. Senarai bahan-bahan penerbitan berkaitan delima boleh dilihat pada jadual berikut;

SENARAI BAHAN-BAHAN PENERBITAN BERKAITAN DELIMA¹²

Tesis PhD	
1.	Nauli, Rizki Rahma. 2010. <i>Pengaruh Pemberian Ekstrak Kulit Buah Delima Putih (Punica Granatum Linn) Dan Ketokonazol 2% Terhadap Pertumbuhan Candida Albicanssecara In Vitro Pada Kandidiasis Vulvovaginalis</i> . Skripsi. Program Pendidikan Sarjana Kedokteran, Fakultas Kedokteran. Semarang: Universitas Diponegoro
Disertasi Sarjana	
1.	Sugianto, Nanik Lidyawati. 2011. <i>Pemberian Jus Delima Merah (Punica Granatum) Dapat Meningkatkan Kadar Glutation Peroksidase Darah Pada Mencit (Mus Musculus) Dengan Aktivitas Fisik Maksimal</i> . Tesis: Program Magister, Program Studi Ilmu Biomedik, Program Pascasarjana. Denpasar: Universitas Udayana
2.	Wirawan, Hans Ceisar. 2008. <i>Pengaruh ekstrak delima putih (punica granatum) terhadap proliferasi alur sel leukimia (thp-1) secara in Vitro</i> . Skripsi. Fakultas

¹² Disebabkan jumlah artikel jurnal yang terlalu banyak serta bagi mengelakkan perulangan data, pengkaji tidak memasukkan bahagian artikel jurnal berhubung delima pada jadual senarai bahan-bahan penerbitan. Semua artikel jurnal tersebut terus dinyatakan pada bahagian dapatan kajian.

	Teknologi Pertanian. Bogor. Institut Pertanian Bogor
3.	Ade Indah Pratiwi, 2014. Manfaat Berkumur Sari Buah Delima Merah (<i>Punica Granatum</i>) Terhadap Penurunan akumulasi Plak Gigi, Skripsi Sarjana Kedokteran Gigi. Fakultas Kedokteran Gigi Universitas Mahasaraswati Denpasar
4.	عبير بنت حسن على جنبي, 2009 و استخلاص البكتين والتين من الرمان. بحث مقدم لنيل درجة الماجستير في العلوم. كلية الاقتصاد المنزلي والتربية الفنية. جامعة الملك عبد العزيز بجدة
5.	Nor Azma Hannah Mazlan, 2004. Cytoprotection effects by honey alone or in combination with methanol extract of <i>punica granatum</i> L. and ethanol extract of <i>nigella sativa</i> L. on ethanol-induced gastric damage in rats. Disertasi Sarjana. Jabatan Perubatan Molekul, Fakulti Perubatan, Kuala Lumpur: Universiti Malaya
6.	عزت فارس, الرمان: غذاء ودواء, ماجستير تغذية الإنسان, قسم التغذية, كلية الصيدلة والعلوم الطبية, جامعة البرتا الأردنية
Latihan Ilmiah	
1.	Nooradilah Binti Ab.Kadir, <i>Makanan Berkhasiat Menurut Perspektif Al-Quran</i> , Latihan Ilmiah bagi memenuhi keperluan ijazah Sarjana Muda, Jabatan Al-Quran dan Al-Hadith Akademi Pengajian Islam Universiti Malaya sesi 2010/2011
2.	Siti Rudainah Bt Saleh, <i>Pemakanan di dalam Al-Quran dan Al-Hadith</i> . Latihan Ilmiah bagi memenuhi keperluan ijazah Sarjana Muda Usuluddin, Akademi Pengajian Islam Universiti Malaya sesi 1997/1998
Kertas kerja Persidangan	
1.	Arshi Malik, Farrukh Afaq, Sami Sarfaraz, Vaqar M. Adhami, Deebea N. Syed, and Hasan Mukhtar, <i>Pomegranate fruit juice for chemoprevention and chemotherapy of prostate cancer</i> , Proceedings of the National Academy of Sciences of the United States of America, October 11, 2005, vol. 102, no. 41
Buku	
1.	Fairuzah Tsabit, 2013, <i>Makanan Sehat Dalam Al-Quran</i> , Yogyakarta: Pustaka Ilmu
2.	Ibn Qayyim al-Jawziyyah, <i>Perubatan Rasulullah</i> , (terj.) Nabilah Abd. Jalil, 2013, Selangor: Al-Hidayah House of Publishers Sdn. Bhd
3.	Jamaluddin Mahran, 'Abd al-'Azim Hafna Mubashir, al-Ghadza' wa al-Dawa' fi al-Qur'an al-Karim, (terj.) Al-Qur'an Bertutur Tentang Makanan & Obat-Obatan, Yogyakarta: Mitra Pustaka
4.	Rukayah Aman, 1999. <i>Buah-Buahan Malaysia</i> , Kuala Lumpur: Dewan Bahasa dan Pustaka
5.	Rukayah Aman, 2001. <i>Buah-buahan Nadir Semenanjung Malaysia</i> . Kuala Lumpur: Dewan Bahasa dan Pustaka
6.	Ismail Saidin, 2013, <i>Dusun Melayu</i> , Kuala Lumpur: Dewan Bahasa dan Pustaka
7.	Mohamed Roselan Ab Malek, 2010, <i>Tumbuhan Berbuah</i> , Petaling Jaya: Nikaz Publications
8.	Dr. Zaid bin Muhammad al-Rummani, 2009, <i>Penawar Dalam Buah Delima, Makanan</i> Syurga dan Ubat, (terj.) Faisal Saleh, Kuala Lumpur: al-Hidayah
9.	Eric M.Oey, 1996, Tropical Fruits of Malaysia & Singapore, Hong Kong: Periplus Editions (HK) Ltd
10.	Chin Hoong Fong, Yong Hoi-Sen, 2000, Malaysian Fruits in Colour, Bangsar: Tropical Press Sdn Bhd
11.	Desmond Tate, 1999, Tropical Fruit, New York: Archipelago Press
12.	Abu 'Ali al-Husayn bin 'Abd Allah Ibn Sina, 1998, Al-Qanun fi al-Tibb, Beirut: Muassasah al-Ma'arif
13.	Abu 'Abd Allah Muhammad bin Ahmad al-Dhahabi, 1990, Al-Tibb al-Nabawi, Beirut: Dar Ihya' al-'Ulum
14.	Muhammad al-Sayyid Arna'ut, 1998, Al-A'shab wa al-Nabatat Ghiza' wa Dawa', Kaherah: al-Dar al-Misriyyah al-Lubnaniyyah

15.	Shams al-Din Muhammad bin Abu Bakr Ibn Qayyim al-Jawziyyah, 1990, <i>Al-Tibb al-Nabawi</i> , Beirut: Dar al-Fikr
16.	فراش ارشيد, 2012, البرنامج المتكامل لخدمة اشجار الرمان, السلطة الوطنية الفلسطينية وزارة الزراعة, نشر رقم: 35

Majalah	
1.	Zuarida Mohyin, <i>Buah Delima Kurangkan Risiko Sakit Jantung</i> , majalah Al-Islam, Februari 2001
2.	Purwantini, Indah dan Subagus Wahyuono. <i>Isolation and identification of antifungal (candida albicans) compound from the hull of delima fruits (punica granatum)</i> . Majalah Farmasi Indonesia. UGM Yogyakarta
3.	Dr. Ong Hean Choi, <i>Delima</i> , Dewan Kosmik, Ogos 2003
4.	Suzanne Jorgensen, Charlotte Brennard, <i>Pomegranates</i> , Preserve the Harvest, bilangan 7, Jun 2005

HASIL DAPATAN

Merujuk bidang kajian delima, penyelidikan lepas terhadap delima dibahagikan dan dianalisis mengikut lapan bidang utama. Pembahagian kepada lapan bidang tersebut adalah berasaskan kepada penelitian dan pandangan pengkaji berasaskan kepada maklumat dapatan daripada penerbitan yang telah diperolehi dalam kajian ini. Ia bersesuaian dengan bidang-bidang penyelidikan yang sedia ada di Malaysia sendiri. Berikut merupakan hasil dapatan kajian lepas mengenai delima;

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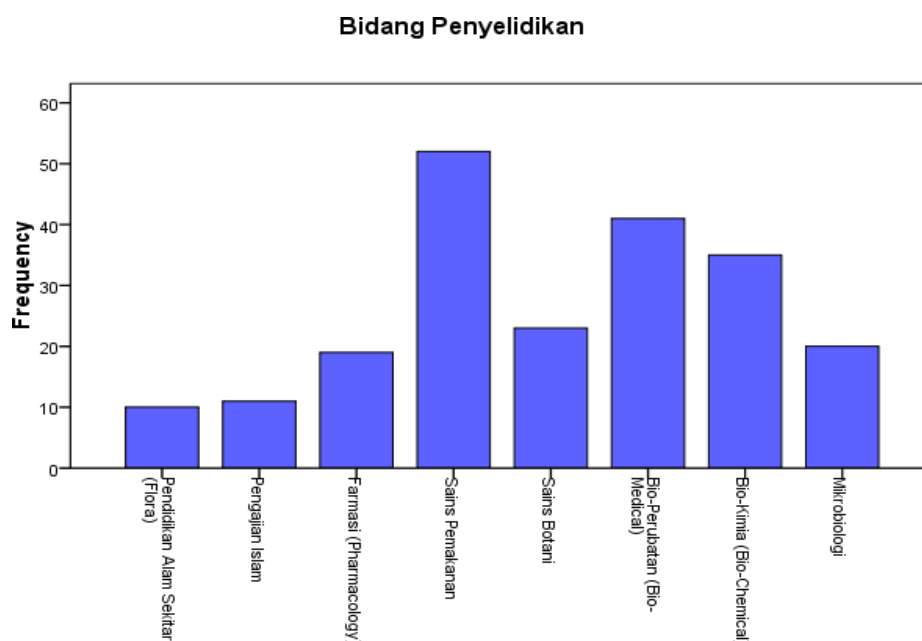
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ASPEK KAJIAN DAN PERBINCANGAN TERHADAP DELIMA

Berdasarkan pengkelasan bidang kajian terhadap delima, pengkaji dapat merumuskan hasil kajian lepas adalah berikut;

Bidang Penyelidikan Berkenaan Delima

	Frequency	Valid Percent
Valid Pendidikan Alam Sekitar (Flora)	10	4.7
Pengajian Islam	11	5.2
Farmasi (Pharmacology)	19	9.0
Sains Pemakanan	52	24.6
Sains Botani	23	10.9
Bio-Perubatan (Bio-Medical)	41	19.4
Bio-Kimia (Bio-Chemical)	35	16.6
Mikrobiologi	20	9.5
Jumlah	211	100.0



Melihatkan metode analisis yang pernah dilakukan, penyelidikan lepas berkenaan delima kebanyakannya berkisar tentang analisis saintifik (kajian makmal). Bagi kajian sains sahaja, telah terbahagi kepada enam bidang kajian. Fokus aspek perbincangan saintifik terhadap delima meliputi bidang Farmasi, Sains Pemakanan (*Food Science*), Sains Botani, Bio-Perubatan (*Bio-Medical*), Bio-Kimia (*Bio-Chemical*) dan Mikrobiologi. Hanya satu bidang yang memfokuskan analisis berasaskan pengajian Islam (*Islamic Studies*). Tambahan bidang Pendidikan Alam Sekitar (Flora) turut dimuatkan pengkaji bagi mengumpulkan hasil kajian yang bersifat data umum tentang tumbuhan terkandung delima.

Jika dinilai dari segi jumlah penyelidikan, sebanyak 188 jenis bahan melibatkan kajian dari aspek saintifik dibandingkan hanya 11 berasaskan pengajian Islam (*Islamic Studies*) dan 10 pendidikan alam sekitar (flora). Oleh itu, ini membuktikan kajian saintifik terhadap delima adalah terlalu banyak.

Delima merupakan sejenis buah yang telah menarik perhatian penyelidik dari seluruh dunia. Semua bahan yang berasal dari delima mempunyai signifikan bagi tujuan analisis oleh para penyelidik.¹³ Ini termasuklah bahagian kulit, buah,¹⁴ jus,¹⁵ biji untuk menghasilkan ekstrak-ekstrak yang bermanfaat dari delima.¹⁶

Merujuk kajian mengenai delima dari perspektif pengajian Islam, jelas menunjukkan

¹³ Lihat Angel Sánchez-Lamara, et.al. Assessment of the genotoxic risk of Punica granatum L. (Punicaceae) whole fruit extracts, *Journal of Ethnopharmacology*, 115(3), 2008, h.416-422.

¹⁴ Antaranya; D. N. Syed et.al., „Phtotchemopreventive Effect of Pomegranate Fruit Extract on UVA-Mediated Activation of Cellular Pathways In Normal Human Epidermal Keratinocytes“, dalam *Photochem Photobiology*, 82(2), 2006, h.398-405.

¹⁵ Antaranya; Dori Farkas, et.al, „Pomegranate Juice Does Not Impair Clearance of Oral or Intravenous Midazolam, a Probe for Cytochrome P450-3A Activity: Comparison With Grape fruit Juice“, *The Journal of Clinical Pharmacology*, 47(3), 2007, h.286-294.

¹⁶ Antaranya; Ahmed R, Ifzal SM, Saifuddin A, Nazeer M. „Short communication: studies on punica granatum-l isolation and identification of some constituents from the seeds of punica granatum“, dalam *Pakistan Journal of Pharmaceutical Sciences*, 8(1), 1995, h.69-71.

kekurangan bahan penyelidikan khusus membabitkan delima. Perbahasan khusus mengenai delima yang sedia wujud dan paling baik dari segi gabungan agama dan saintifik ialah artikel jurnal *Punica Granatum Bicara Al-Quran Al-Hadith Dan Sains Perubatan Moden* oleh Munirah Abd Razzak¹⁷ dan buku Zaid bin Muhammad al-Rummani bertajuk *Penawar Dalam Buah Delima, Makanan Syurga dan Ubat*.¹⁸

Selebihnya, kajian agamawan mengenai delima adalah berbentuk umum atau hanya diselitkan kegunaan atau khasiat delima dalam buku-buku atau artikel jurnal memfokuskan kajian perubatan berasaskan Tibb al-Nabawi mahupun makanan sunnah dalam al-Qur'an dan al-Hadith. Antara contoh terbaik ialah buku Tibb al-Nabawi oleh Ibn Qayyim al-Jawziyyah¹⁹ dan Pemakanan di dalam Al-Quran dan Al-Hadith oleh Siti Rudainah Saleh.²⁰ Kajian mengenai delima dalam majalah-majalah pula terlalu ringkas.

SUMBANGAN HASIL KAJIAN LEPAS

Delima mengandungi 78% air, 1.6% protein, 0.1% lemak, 5.1% serabut, 14.5% karbohidrat, 0.7% bahan mineral dan 14mg/100g asid askorbik (vitamin C). Delima kaya dengan sodium, riboflavin, thiamin, niacin, vitamin C, kalsium dan fosforus. Kesemua bahagian pokok ini mengandungi tanin, terutamanya pada bahagian kulit buah 26%, kulit batang 10-25% dan kulit akar 28%. Tanin ini digunakan untuk mewarnakan bahan daripada kulit. Kulit batang dan akar delima turut mengandungi alkaloid.²¹

Bunga delima juga boleh digunakan terutamanya dalam rawatan penyakit. Selain itu, bunganya yang berwarna merah terang juga merupakan sumber pewarna semulajadi.²² Dalam satu kajian, Universiti of California di Los Angeles telah mengkaji 10 jenis minuman yang

¹⁷ Artikel ini membicarakan mengenai *punica granatum* daripada pelbagai sudut pengenalan, sejarah buah delima menurut pelbagai agama serta kaitan dengan sains perubatan. Kajian ini adalah yang paling hamper mengaitkan buah delima dengan al-Qur'an dan al-Hadith dengan mendatangkan beberapa ayat Al-Quran dan beberapa hadith berkaitan *punica granatum*. Rujuk Munirah Abd Razzak, „*Punica Granatum Bicara Al-Quran Al-Hadith Dan Sains Perubatan Moden*“, dalam *Jurnal Al-Bayan*, bil. 9(1), Jabatan Universiti Malaya: Al-Quran dan Al-Hadith, Akademi Pengajian Islam, 2011, h.1-28.

¹⁸ Penulisan ini mengupas tentang definisi delima, ensiklopedia delima, resepi buah delima dan farmasi buah delima serta delima menurut al-Quran dan al-Hadith. Rujuk Zaid bin Muhammad al-Rummani, *Penawar Dalam Buah Delima, Makanan Syurga dan Ubat*, (terj.) Faisal Saleh, Kuala Lumpur: al-Hidayah, 2009, h.111.

¹⁹ Antara contoh lain penulisan umum delima boleh didapati dalam buku berikut; Shams al-Din Muhammad bin Abu Bakr Ibn Qayyim al-Jawziyyah, *Al-Tibb al-Nabawi*, Beirut: Dar al-Fikr, 1990; Abu „Ali al-Husayn bin „Abd Allah Ibn Sina, *Al-Qanun fi al-Tibb*, Beirut: Muassasah al-Ma'arif, 1998; Abu „Abd Allah Muhammad bin Ahmad al-Dhahabi, *Al-Tibb al-Nabawi*, Beirut: Dar Ihya' al-„Ulum, 1990; dan Muhammad al-Sayyid Arna'ut, *Al-A'shab wa al-Nabatat Ghiza' wa Dawa'*, Kaherah: al-Dar al-Misriyyah al-Lubnaniyyah, 1998.

²⁰ Lihat Siti Rudainah Saleh, *Pemakanan di dalam Al-Quran dan Al-Hadith*. Latihan Ilmiah bagi memenuhi keperluan ijazah Sarjana Muda Usuluddin, Akademi Pengajian Islam Universiti Malaya sesi 1997/1998. Antara contoh lain ialah Nooradilah Binti Ab.Kadir, *Makanan Berkhasiat Menurut Perspektif Al-Quran*, Latihan Ilmiah bagi memenuhi keperluan Ijazah Sarjana Muda, Jabatan Al-Quran dan Al-Hadith Akademi Pengajian Islam Universiti Malaya sesi 2010/2011; Fairuzah Tsaib, *Makanan Sehat Dalam Al-Quran*, Yogyakarta: Pustaka Ilmu, 2013; dan Jamaluddin Mahran, „*Abd al-„Azim Hafna Mubashir, al-Ghadza' wa al-Dawa' fi al-Qur'an al-Karim*, (terj.) Al-Qur'an Bertutur Tentang Makanan & Obat-Obatan, Yogyakarta: Mitra Pustaka.

²¹ Munirah Abd Razzak, „*Punica Granatum Bicara Al-Qur'an Al-Hadith Dan Sains Perubatan Moden*“, *Jurnal Al-Bayan*, 9(1), Jabatan Universiti Malaya: Al-Qur'an dan Al-Hadith, Akademi Pengajian Islam, 2011, h.1-2.

²² Ibn Qayyim al-Jawziyyah, *Perubatan Rasulullah*, (terj.) Nabilah Abd. Jalil, Selangor: Al-Hidayah House of Publishers Sdn. Bhd, 2013, h.395-397.

mempunyai daya tinggi untuk melawan penyakit. Hasil penelitian mendapati jus delima merupakan yang terbaik diikuti arak merah, jus anggur Concord, jus blueberry, jus black cherry, jus cranberry, jus oren, teh dan jus epal.²³

Selain itu, delima amat signifikan untuk kesihatan badan kerana mengandungi antioksida yang tinggi.²⁴ Secara spesifik, unsur bioaktif utama dalam jus delima adalah polifenol yang mempunyai ciri-ciri antioksida. Didapati ia mampu menurunkan tekanan darah bagi pesakit hipertensi.²⁵ Punicalagin pula ialah antioksida polifenol utama dalam jus buah delima. Aktiviti antioksida telah diuji secara in vitro dengan jus buah delima, punicalagin, asam ellagic dan tanin delima (ekstrak polifenol dari sari buah delima). Keputusan eksperimen mendapati keseluruhan jus buah delima mempunyai aktiviti antioksida lebih daripada unsurnya.²⁶

Selanjutnya, jus atau ekstrak delima didapati bermanfaat untuk atherosclerosis. Pengambilan jus buah delima seharian adalah baik bagi pesakit jantung koronari. Dalam satu kajian, penyelidik telah menyediakan jus delima untuk 45 orang pesakit yang menderita penyakit jantung koronari dan myocardial ischemia²⁷ setiap hari selama 3 bulan. Berdasarkan data, para penyelidik menyimpulkan bahawa jus buah delima dapat mengurangkan kadar rangsangan stress.²⁸

Bukan itu sahaja, jus delima turut didapati dapat mengurangkan jumlah kolesterol, low-density lipoprotein (LDL), nisbah LDL / lipoprotein ketumpatan tinggi (HDL) dan nisbah jumlah kolesterol HDL. Penemuan ini menunjukkan bahawa pengambilan jus buah delima dapat mengubah faktor risiko penyakit jantung pada pesakit yang hyperlipidemia (kekurangan lipid dalam darah).²⁹

Seterusnya, delima juga bersifat anti-bakteria dan anti-mikrob. Hasil kajian menunjukkan ekstrak dari delima dapat melawan Methicilin-sensitive-resistant (MRSA), Staphylococcus aureus Salmoneela typhi dan Escherichia coli O157: H7.³⁰ Kajian in vitro menunjukkan anti-HIV-1 microbicide berpotensi dihasilkan dari delima.³¹ Dalam bidang

²³ Aviram et.al. „Pomegranate Juice Consumption for 3 Years by Patients with Carotid Artery Stenosis Reduces Common Carotid Intima-media Thickness, Blood Pressure and LDL Oxidation“, Clinical Nutrition, 23(3), 2004, h.423- 433

²⁴ Antioksida merupakan bahan kimia yang diperlukan tubuh manusia untuk meneutralkan radikal bebas dan mencegah kerosakan terhadap sel normal, protein dan lemak.

²⁵ Aviram et.al. „Pomegranate Juice Consumption for 3 Years by Patients“, h. 427.

²⁶ N. P. Seeram, et.al. „In Vitro Antiproliferation, Apoptotic and Antioxidant Activities of Punicalagin, Ellagic Acid and A Total Pomegranate Tannin Extract Are Enhanced in Combination With Other Polyphenols As Found In Pomegranate Juice, Journal of Nutritional Biochemistry, 16(6), 2005, h.360-367.

²⁷ Dikenal juga sebagai angina adalah keadaan jantung yang disebabkan kekurangan darah yang kaya dengan oksigen ke jantung. Tanda-tandanya ialah sakit dan rasa tidak selesa di bahagian dada.

²⁸ Michael D. Summer et.al. „Effects of Pomegranate Juice Consumption on Myocardial Perfusion in Patients with Coronary Heart Disease“, dalam The American Journal of Cardiology, 96(6), 2005, h.810-814.

²⁹ A. Esmailzadeh et.al. „Cholesterol-lowering Effect of Concentrated Pomegranate Juice Consumption in Type II Diabetic Patients with Hyperlipidemia“, International Journal Vitamin Nutritional Resources, 76(3), 2006, h.147-151.

³⁰ Shams al-Din Muhammad bin Abu Bakr Ibn Qayyim al-Jawziyyah, Al-Tibb al-Nabawi, Beirut: Dar al-Fikr, 1990, h.243-244; Abu „Ali al-Husayn bin „Abd Allah Ibn Sina, Al-Qanun fi al-Tibb, Beirut: Muassasah al-Ma„arif, j. 2, 1998, h.277-278; Abu „Abd Allah Muhammad bin Ahmad al-Dhahabi, Al-Tibb al-Nabawi, Beirut: Dar Ihya„ al-„Ulum, 1990, h.122-123.

³¹ L. C. Braga, et.al. „Synergic Interaction between Pomegranate Extract and Antibiotics against Staphylococcus Aureus“, Canadian Journal of Microbiology, 51(7), 2005, h.541-547.

³¹ A. Robert Neurath et.al. 2005. „Punica Granatum (Pomegranate) Juice Provides an HIV-1 entry Inhibitor and Candidate

pergigian, ekstrak Hydroalcoholic (HAE) dari delima sangat berkesan melawan mikroorganisma plak gigi.³²

Kajian in vivo kesan minyak buah delima, minyak biji, polifenol jus yang diperam dan polifenol pericarp terhadap pertumbuhan sel kanser prostat manusia turut menunjukkan ia mampu menghalang pertumbuhan mendadak sel kanser payudara, pencerobohan dan meningkatkan apoptosis (kematian sel yang diprogram) sel kanser payudara. Ekstrak buah delima berkesan memperbaiki kerosakan UVA-mediated dengan melembutkan laluan sel dan mencegah potensi kanser kulit.³³ Ia boleh bertindak sebagai penghalang terhadap enzim yang boleh merosakkan tulang rawan. Jus buah delima merupakan ubat bagi kulit yang rosak akibat sinaran matahari dan proses penuaan. Ia memperbaiki kerosakan supaya kulit kembali halus dan muda. Bagi penghidap Alzheimer, jus delima boleh membantu menghalang dan melambatkan perkembangannya.

Dari sudut agamawan, Ibn Sina (1037M), Ibn Qayyim (1292M) dan al-Dhahabi (1348M) berpandangan memakan buah delima dapat menguatkan jantung, menghapuskan cacing pita, mengubati penyakit disentri, kelemahan saraf, radang-radang tekak. Kulit buah delima jika direbus dan diminum airnya, akan menghentikan penyakit diare. Makan buah delima segar dapat mengurangkan kadar kolesterol dan membantu penghadaman.³⁴

Selain itu, meminum jus delima dengan madu mampu melancarkan fungsi usus, menghilangkan kesukaran membuang air, melancarkan pernafasan, membersihkan darah dan merawat luka kecederaan. Muhammad al-Sayyid al-Arna'ut pula mengatakan jus delima boleh menenangkan kesakitan, demam dan kehausan. Kulit delima kering baik untuk batuk, sakit dada, paru-paru, jantung, perut, radang hati, pencernaan dan merawat cirit-birit dan jangkitan cacing pita.³⁵

Setelah meneliti kajian-kajian perubatan mengenai buah delima, maka terbukti ia merupakan buah-buahan yang mempunyai banyak manfaat kepada kesihatan tubuh badan manusia seperti bersifat antioksidan, anti-bakteria, anti-kanser, malahan baik untuk kesihatan jantung, hati, penghasilan sperma,³⁶ perut,³⁷ kulit, otak, gigi, tulang rawan dan luka kecederaan.³⁸

Topical Microbicide', *Annals of the New York Academy of Sciences*, 1056(1), h. 311-327.

³² S. M. Menezes, L. N. Cordeiro dan G. S. Viana, 2006, „Punica Granatum (Pomegranate) Extract Is Active against Dental Plaque”, *Journal of Herbal Pharmacotherapy*, 6(2), h. 79-92.

³³ D.N. Syed et.al. „Photoprotective Effect of Pomegranate Fruit Extract on UVA-Mediated Activation of Cellular Pathways In Normal Human Epidermal Keratinocytes”, *Photochem Photobiology*, 82(2), 2006, h.398-405.

³⁴ Shams al-Din Muhammad bin Abu Bakr Ibn Qayyim al-Jawziyyah, *Al-Tibb al-Nabawi*, Beirut: Dar al-Fikr, 1990, h.243-244; Abu „Ali al-Husayn bin „Abd Allah Ibn Sina, *Al-Qanun fi al-Tibb*, Beirut: Muassasah al-Ma'arif, j. 2, 1998, h.277-278; Abu „Abd Allah Muhammad bin Ahmad al-Dhahabi, *Al-Tibb al-Nabawi*, Beirut: Dar Ihya' al-„Ulum, 1990, h.122-123.

³⁵ Muhammad al-Sayyid Arna'ut, *Al-A'shab wa al-Nabatat Ghiza' wa Dawa'*, Kaherah: al-Dar al-Misriyyah al-Lubnaniyyah, 1998, h.121.

³⁶ Gaffari Türk, et.al. „Effects of pomegranate juice consumption on sperm quality, spermatogenic cell density, antioxidant activity and testosterone level in male rats”, dalam *Clinical Nutrition*, 27(2), 2008, h.289-296.

³⁷ F Lei, X N Zhang, et.al. „Evidence of anti-obesity effects of the pomegranate leaf extract in high-fat diet induced obese mice”, dalam *International Journal of Obesity* 31, 2007, h.1023-1029.

³⁸ K. N. Chidambara Murthy, et.al. „Study on Wound Healing Activity of Punica granatum Peel”, dalam *Journal of Medicinal Food*, 7(2), 2004, h.256-259.

PENYELIDIKAN LANJUTAN BERKAITAN DELIMA

Bidang kesihatan berasaskan herba merupakan satu bidang yang luas. Terdapat banyak aspek yang boleh dilakukan kajian terperinci pada masa hadapan sama ada dari aspek agama mahupun kajian sains. Berikut merupakan cadangan bidang dan aspek penyelidikan berkaitan;

- i. Kajian spesifik delima dari perspektif agama adalah sangat kurang. Kebanyakan kajian yang bersifat umum perlu dikhususkan dengan menekankan aspek khasiat dan manfaat delima yang boleh didapati dari perbincangan terhadap ayat-ayat al-Quran melalui karya-karya tafsir³⁹ dan perbincangan terhadap hadith-hadith sahih berkaitan dengan delima berasaskan kepada penelitian terhadap kitab-kitab syarah hadith⁴⁰.
- ii. Gabungan penyelidikan mengenai delima dari sudut pandang agama dan sains perlu dipergiat. Setakat penelitian, hanya dua bahan penerbitan yang ada membahaskan delima secara gabungan agama dan pembuktian sains.⁴¹ Manakala selebihnya hanya secara umum dan ringkas. Hasil usaha ini seterusnya akan membuktikan kebenaran ajaran Islam dengan pembuktian- pembuktian hasil analisis saintifik.
- iii. Produk-produk berasaskan kandungan delima yang sedia wujud atau berpotensi dijadikan produk baru boleh diteliti dari perspektif halalan tayyiban. Hasil delima mampu dijadikan produk berharga dan bernilai tinggi. Justeru, kandungan delima perlu diteliti dan dikaji dari aspek keberkesanannya memenuhi keperluan ummah.
- iv. Spesies delima adalah berbeza mengikut negara. Penyelidikan mengenai delima di Malaysia diperhatikan amat kurang. Para penyelidik perlu mula bekerjasama melakukan kajian. Penelitian terhadap spesies delima yang terdapat di Malaysia boleh diaplikasikan untuk menghasilkan produk kesihatan Malaysia.

KESIMPULAN

Delima merupakan bahan penyelidikan berasaskan sunnah yang amat berharga. Manfaat buah delima tidak dapat disangkal lagi. Ia bukan sekadar sebiju buah yang boleh dimakan tetapi keseluruhan pokok buah delima memberi manfaat untuk kesihatan dan pencegahan penyakit. Semua aspek kajian berkaitan delima perlu diteliti dengan mendalam oleh ahli akademik bagi menghasilkan suatu produk yang berguna kepada semua golongan masyarakat.

Justeru, usaha para penyelidik dari Universiti Malaya melalui geran TRGS (TR001A-2014A) bertajuk „Safe and Health Uses of Fruits and Herbs Mentioned in Al-Quran and

³⁹ Antara karya tafsir yang boleh dirujuk adalah seperti Tafsir al-Tabari karya Abu Ja'far al-Tabari, Tafsir al-Qur'an al-'Azim (Tafsir Ibn Kathir) karya Ibn Kathir, Tafsir al-Qurtubi karya Abu „Abd Allah al-Qurtubi dan lain-lain lagi.

⁴⁰ Antara kitab-kitab syarah hadith yang boleh dirujuk adalah Fath al-Bari karya Ibn Hajar al-„Asqalani, al-Minhaj oleh Imam al-Nawawi, Tuhfah al-Ahwadhi karya al-Mubarakfuri dan lain-lain lagi.

⁴¹ Rujuk perbincangan sebelumnya mengenai artikel jurnal Punica Granatum Bicara Al-Quran Al-Hadith Dan Sains Perubatan Moden oleh Munirah Abd Razzak dan buku Zaid bin Muhammad al-Rummani bertajuk Penawar Dalam Buah Delima, Makanan Syurga dan Ubat.

Ahadith: An Analysis of Ethnomedicinal Importance in Islamic Products in Malaysia” amat signifikan dalam perkembangan ilmu. Lanjutan kajian baru terhadap delima diharapkan menghasilkan sesuatu bagi manfaat Malaysia.

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