UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Al-Assaf S, Sakata M, McKenna C, Aoki H, Phillips GO. 2009. Molecular associations in acacia gum. Structural Chemistry **20(2):** 325 – 336.

Ali KSE and Daffalla HM. 2018. Physicochemical and functional properties of the gum arabic from *Acacia senegal*. Annalisys Food Science and Technology **19(1):** 27-34.

Almatsier S. 2004. Prinsip Dasar Ilmu Gizi. PT Gramedia Pustaka Utama, Jakarta.

Anderson DMW, Brown DDM, Morrison NA, Wang W. 1990. Specifications for gum arabic (*Acacia senegal*) analytical data for samples collected between 1904 and 1989. Food Addit Contam **7(3):** 303-321.

Anjo FA, Saraiva BR, Silva JBD, *et al*. 2020. *Acacia mearnsii* gum: A residue as an alternative gum arabic for food stabilizer. Food Chemistry **30(40)**: 1-8.

Ansar, Nazaruddin dan Azis AD. 2019. Pengaruh suhu dan lama penyimpanan terhadap perubahan ph dan warna nira aren (*Arenga pinnata* Merr) setelah penyadapan. Jurnal Teknik Pertanian Lampung **8(1):** 40 – 48.

Awadesseid A, Adam IM, Jamal M, Teia. 2019. physicochemical properties of kakamut gum (*Acacia polyacantha*) and hashab gum (*Acacia senegal*): a comparative analysis. International Journal of Applied Agricultural Sciences **5(6):** 138 - 143. doi: 10.11648/j.ijaas.20190506.12

Badan Standardisasi Nasional. 2015. Produk Pangan dan Pakan - Pedoman Umum Untuk Penentuan Nitrogen Menggunakan Metode Kjeldahl - SNI 297G2015 butir A.5.2. Jakarta.

Bakri B, Ani I, dan Widartika. 2018. Sistem Penyelenggaraan Makanan Institusi. Jakarta.

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Bartkowiak A and Hunkeler D. 2001. Carrageenan oligochitosan microcapsules: Optimization of The Formation Process. Colloids Surface B. BioInterfacea **21**: 285 - 298.

Bashir M, Usmani T, Haripriya S, Ahmed T. 2018. Biological and textural properties of underutilized exudate gums of Jammu and Kashmir, India. International Journal of Biological Macromolecules **109**: 847-854. https://doi.org/10.1016/j.ijbiomac.2017.11.052.

Bhushette PR and Annapure US. 2017. Comparative study of *Acacia nelotica* exudate gum and Acacia Gum. International Journal of Biological Macromolecules 1-18. http://dx.doi.org/doi:10.1016/j.ijbiomac.2017.03.178.

Bertolini AC, Siani AC, Grosso CR. 2001. Stability of Monoterpenes Encapsulation in Gum Arabic by Spray Drying. Journal of Agricultural and Food Chemistry **49**: 27 – 36.

Bleam W. 2017. Soil and Environmental Chemistry (Second Edition). Academic Press.

Boland DJ. 1987 Genetic resources and utilisation of Australian bipinnate acacias (Botrycephalae). ACIAR Proceedings, Australian Centre for International Agricultural Research, No. 16, 29-37; In Australian acacias in developing countries. Proceedings of an international workshop, Gympie, Qld., Australia, 4-7 August 1986 [edited by Turnbull, J.W.]; 45 ref.

Budianto AK. 2009. Dasar-Dasar Ilmu Gizi. UMM Press. Malang.

CABI. 2019. *Acacia decurrens* dalam Forestry Compendium. Wallingford, CAB International. UK. https://www.cabi.org/isc/datasheet/2208 (diakses Agustus 2021).

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

CABI. 2020. *Acacia decurrens (green wattle*). In: Invasive Species Compendium dalam Forestry Compendium.Wallingford, CAB International. UK. https://www.cabi.org/isc/datasheet/2208 (diakses September 2021).

Castellani O, Guibert D, Al-Assaf S, Axelos M, Phillips GO, Anton M. 2010. Hydrocolloids with emulsifying capacity. Part 1–emulsifying properties and interfacial characteristics of conventional (*Acacia senegal* (L.) Willd. var. senegal) and matured (Acacia (sen) SUPER GUM™) *Acacia senegal.* Food Hydrocoll **24**: 193–199. https://doi.org/10.1016/j.foodhyd.2009.09.005.

Chenlo F, Moreira R, Silva C. 2010. Rheological behavior of aqueous systems of tragacanth and guar gums with storage time. Journal of Food Engineering **96**: 107 – 113. doi:10.1016/j.jfoodeng.2009.07.003.

Clemson A. 1985. Honey and Pollen Flora. Inkata Press. University of Minnesota.

Costa JFD, Windu, M, Ferly RO. 2018. Analisa proximat, aktivitas antioksidan, dan komposisi pigmen *Ulva lactuca* L. dari perairan Pantai Kukup. Jurnal Teknologi Pangan dan Gizi **17(1)**: 1-17.

CSIRO. 2000. Australian Tree Seed Centre, Forestry and Forestry Products. CSIRO. Australia.

Da Silva BC, de Oliveira M, Ferreira JGL, Sierakowski MR, Simas-Tosin FF, *et al.* 2015. Polyelectrolyte complexes from gum arabic and gelatin: Optimal complexation pH as a key parameter to obtain reproducible microcapsules. Food Hydrocolloids **46**: 201–207. https://doi.org/10.1016/j. foodhyd.2014.12.022.

Deman. 1997. Kimia Makanan Edisi Kedua. ITB Bandung. Bandung.

Desrosier NW. 1988. Teknologi Pengawetan Pangan. Penerjemah M. Muljohardjo. UI-Press. Jakarta.

Djufri. 2004. *Acacia nilotica* (L.) Willd. ex Del. dan permasalahannya di Taman Nasional Baluran Jawa Timur. Biodiversitas **5(2)**:96–104.

UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Dyah UP. 2018. Panduan Gizi & Kesehatan Anak Sekolah. Penerbit Andi. Yogyakarta.

Elamin dan Hassan M. 2019. Influences of short term storability on gum arabic properties. Acta Scientific Agriculture **3(1)**: 86-90.

Elliot WR and Jones DL. 2002. Encyclopedia of Australian Plants Suitable for Cultivation. Encyclopedia of Australian Plants (2nd ed., Vol. 8). Lothian Press. Port Melbourne.

Ensminger ME, Oldfield JG, Heiremann WW. 1990. Feed and Nutrition. Ensminger Publishing Co. California.

FAO. 1990. Specification for Fdentity, and Purity of Certain Food Additives. Food and Nutrition Paper, No. 49. FAO. Rome.

Fardiaz D. 1989. Hidrokoloid. Laboratorium Kimia dan Biokimia Pangan. Pusat Antar Pangan dan Gizi. Institut Pertanian Bogor. Bogor.

Fraser-Reid BO, Tatsuta K, Joachim T. 2008. Glycoscience (2 ed.). Springer. New York.

Funami T. 2011. Next target for food hydrocolloid studies texture design of foods using hydrocolloid technology. Food Hydrocolloids **25**: 1904–1914

Gashua IB, Ukekpe US, Yusuf I. 2013. Biophysical investigation of plant exudate of *Acacia senegal* (L) Willd. from Sudan-savannah ecological zone of Nigeria. International Journal of Advanced Research **1(4):** 228-232.

Giri SK, Prasad N, Pandey SK, Prasad M, Baboo B. 2008. Natural Resins and Gums of Commercial Importance – At a Glance. Indian Council of Agricultural Research. Jharkhand.

Glicksman M, Sand RE. 1973. Gum arabic. In: Whistler, R.L., BeMiller, J.N. (Eds.), Industrial Gums, second ed. Academic Press. New York. pp. 197–263.

UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Grein A, da Silva BC, Wendel CF, Tischer CA, Sierakowski MR, *et al.* 2013. Structural characterization and emulsifying properties of polysaccharides of *Acacia mearnsii* de Wild gum. Carbohydrate Polymers **92(1):** 312–320. https://doi.org/10.1016/j.carbpol.2012.09.041.

Grein-Iankovski A, Ferreira JGL, Orth ES, Sierakowski MR, Cardoso MB, Simas, *et al.* 2018. A comprehensive study of the relation between structural and physical chemical properties of Acacia gums. Food Hydrocolloids **85**: 167–175. https://doi.org/10.1016/j.foodhyd.2018.07.011.

Hall N, Wainwright RW, Wolf LJ. 1981. Summary of Meteorological Data in Australia. CSIRO, Divisional Report No. 6. CSIRO, Division of Forest Research: Canberra.

Hannah BC, Fergus BJ, Jones RN. 1977. Kraft pulping and bleaching studies on young exotic hardwood species. Appita **30(6)**: 483-487.

Haslina, Muis SF, Suyatno. 2006. Nilai gizi daya cerna protein dan daya terima patilo sebagai makanan jajanan yang diperkaya dengan hidrolisat protein ikan mujair (*Oreochomis mossambicus*). J. Nutr **1(2)**: 34-40.

Herawati, H. 2018. Potensi hidrokoloid sebagai bahan tambahan pada produk pangan dan nonpangan bermutu. Jurnal Litbang Pertanian **37(1):** 17-25. DOI: 10.21082/jp3.v37n1.2018.p17-25

Hillis WE. 1989. Historical Uses of Extractives and Exudates. In Rowe J.W. (eds) Natural Products of Woody Plants. Springer Series in Wood Science (hal. 1–13). Springer Berlin Heidelberg, Berlin. Heidelberg.

Horváth, Zs.H. dan Hodúr, C. 2007. Colour of paprika powders with different moisture content. Int. Agrophysics **21**: 67-72.

Hui YH. 1992. Encyclopedia of Food Science and Technology. Volume II. John Willey and Sons Inc. Canada.

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Idris OHM, Williams PA, Phillips GO. 1998. Characterization of gum from *Acacia senegal* trees of different age and location using multidetection gel permeation chromatography. Food Hydrocolloids **12**: 379-388.

Indrajaya, Y. 2016. Serapan karbon tegakan akasia gunung (*Acacia decurrens*): jenis pionir Pegunungan di Jawa. Prosiding Seminar Nasional Penelitian dan PKM. Sains dan Teknologi. pp: 103-110.

Islam AM, Phillips GO, Sljivo A, Snowden MJ and Williams PA. 1997. A review of recent developments on the regulatory, structural and functional aspects of gum Arabic. Food Hydrocolloids **11(4):** 493–505. https://doi.org/10.1016/S0268-005X (97)80048-3.

Karamalla, K.A. 1999. Gum Arabic Production, Chemistry and Applications. Manager Research and Development Department, Gandil Agricultural Company Ltd. Sudan.

Kartohardjono S, Anggara, Subihi, Yuliusman. 2007. Absorbsi CO_2 dari campurannya dengan CH_4 atau N_2 melalui kontraktor membran serat berongga menggunakan pelarut air. Jurnal Teknologi **11(2):** 97-102.

Kheir MKSE, Yagoub AEG, Baker AA. 2008. Emulsion stabilizing effect of gum from *Acacia Senegal* (L) Willd. The role of quality and grade of gum, oil type, temperature, stirring time and concentration. Pakistan Journal of Nutrition **7(3)**: 395-399.

Kismurtono M. 2012. Fed-batch alcoholic fermentation of palm juice (*Arenga pinnata* Merr): Influence of the feeding rate on yeast, yield and productivity. International Journal of Engineering dan Technology **2(5)**: 795-799

Krisdianto and Dewi LM. 2012. Jenis Kayu untuk Mebel. Bogor: Badan Penelitian dan Pengembangan Kehutanan, Kementrian Kehutanan.

Kusnandar F. 2010. Komponen Makro. Dian Rakyat. Jakarta.

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Kusumah MS, Wiyono HT, Subekti A, Muzakhar K, Winarsa R. 2020. Produksi gum arabic Baluran sebagai pendukung pengembangan wisata kampung banteng di Karang Tekok sebagai wilayah penyangga Taman Nasional Baluran. Jati Emas (Jurnal Aplikasi Teknik dan Pengabdian Masyarakat) **4(1):** 21 – 26.

Latifah NH. 2010. Pemilihan Jenis Plastik dan Pembuatan Desain Kemasan untuk Keripik Tette Madura. Skripsi (Tidak dipublikasikan). Teknologi Industri Pertanian Fakultas Pertanian Universitas Trunojoyo Madura. Bangkalan.

Lalujan LE, Djarkasi GSS, Tuju TJN, Rawung D, Sumual MF. 2017. Komposisi kimia dan gizi jagung lokal varietas 'Manado Kuning' sebagai bahan pangan pengganti beras. Jurnal Teknologi Pertanian **8(1):** 47-54

Lehninger. 2005. Dasar-dasar Biokimia I. Erlangga. Jakarta.

Lenon JK, Jumba IO, Keter JK, Chemuku W, Oduor FDO. 2010. Assessment of physical properties of gum arabic from *Acacia senegal* varieties in Baringo District, Kenya. African Journal of Plant Science **4(4)**: 95-98.

Li JM and Nie SP. 2016. The functional and nutritional aspects of hydrocolloids in foods. Food Hydrocolloids **53**: 46–61.

Logan AF and Balodis V. 1982. Pulping and papermaking characteristics of plantation-grown *Acacia mangium* from Sabah. Malaysian Forester **45(2)**: 217-236.

Martin A, James, Arthur. 2003. Farmasi Fisik: Dasar-Dasar Kimia Fisik Dalam Ilmu Farmasetik Edisi 2. UI Press. Depok.

Martin V. 1974. Dyemaking with Australian Flore. Rigby: Adelaide. Australia.

Mbugua R, Ramadhan S, Julius N. 2016. Effect of gum arabic karroo as a water-reducing admixture in concrete. Materials **9(2)**: 80

McClements DJ. 2018. Factors Affecting Food Emulsion Properties. Department of Food Science University of Massachusetts. Amherst.

UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Megawati LS. 2013. Karakter fisiologi dan biokimia umbi kimpul putih (*Xanthosoma sagittifolium* L.) dan kimpul hitam (*Xanthosoma nigrum* Vell.) pada suhu penyimpanan yang berbeda. Skripsi (Tidak dipublikasikan). Jurusan Biologi Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Sebelas Maret. Surakarta.

Mhinzi GS. 2003. Intra-species variation of the properties of gum exudates from *Acacia senegal* var. senegal and *Acacia seyal* var. fistula from Tanzania. Bulletin of the Chemical Society of Ethiopia **17(1)**: 67-74.

Midgley SJ, Vivekanandan K. 1987. *Australian acacias* in Sri Lanka. In: Turnbull JW, ed, Australian Acacias in Developing Countries. Proceedings of an International Workshop. Gympie, Qld., Australia. 4-7 August 1986. ACIAR Proceedings No. 16: 132-135.

Montenegro MA, Boiero ML, Valle L, Borsarelli CD. 2012. Gum Arabic: more than an edible emulsifier, products and applications of biopolymers. Casparus Johannes Reinhard Verbeek. IntechOpen. DOI: 10.5772/33783. Available from: https://www.intechopen.com/chapters/31731

Moore K, Hyland T, and Morgan R, 2002. A Plague of Plants: Controlling Invasive Plants in Santa Cruz County. 2nd edn. Wildlands Restoration Team. Santa Cruz.

Mudgil D and Barak S. 2020. Mesquite gum (Prosopis gum): Structure, properties and applications - A review. International Journal of Biological Macromolecules **159**: 1094 – 1102.

Musa HH, Abdelkareem AA, Taha HM. 2018. Chemistry, Biological, and Pharmacological Properties of Gum Arabic. Bioactive Molecules in Food, Reference Series in Phytochemistry. Springer International Publishing. https://doi.org/10.1007/978-3-319-54528-8_11-1.

Mustika DC. 2012. Bahan Pangan Gizi dan Kesehatan. Alfabeta. Bandung.

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Nataliani MM, Kosala K, Fikriah I, Isnuwardana R, Paramita S. 2018. Pengaruh penyimpanan dan pemanasan terhadap stabilitas fisik dan aktivitas antioksidan larutan pewarna alami daging buah naga (*Hylocereus costaricensis*). Jurnal Tumbuhan Obat Indonesia **11(1):** 10.

Nielsen SS. 2010. "Compositional Analysis of Foods," in Nielsen, S. S. (ed.) Food Analysis. 4 ed. West Lafayette: Springer, hal. 85–130.

Ningrum EM. 2011. Kajian Sifat Fisik Yoghurt Pasteurisasi dan Tanpa Pasteurisasi pada Penyimpanan Lemari Es. Makassar: Jurusan Produksi Ternak. Fakultas Peternakan Universitas Hasanuddin.

Nofrida R, Warsiki E and Yuliasih I. 2013. Pengaruh suhu penyimpnanan terhadap perubahan warna label cerdas indikator warna dari daun erpa (*Aerva sanguinolenta*). Jurnal Teknologi Industri Pertanian **23(3):** 232 – 241.

Noviati DA. 2002. Pemanfaatan Daun Katuk (*Souropus andogynus*) Meningkatkan Kadar Kalsium Crackers. Skripsi (Tidak dipublikasikan). Fakultas Pertanian, Institut Pertanian Bogor. IPB Press Bogor.

Novika C. 2013. Kajian penggunaan tepung millet kuning sebagai subtitusi tepung terigu pada karakteristik sensoris, fisikokimia dan aktivitas antioksidan mi instan ubi jalar ungu. Jurnal Teknosains **2(1):** 1-8.

Nur, M. 2009. Pengaruh cara pengemasan, jenis bahan pengemas dan lama penyimpanan terhadap sifat kimia, mikrobiologi dan organoleptik sate bandeng (*Chanos chanos*). Jurnal Teknologi dan Industri Hasil Pertanian **14(1):** 1–11. https://jurnal.fp.unila.ac.id/index.php/JTHP/article/view/49.

Nussinovitch A. 1997. Hydrocolloid Applications: Gum Technology In The Food and Other Industries. Blackie Academic & Professional. London.

Nussinovitch A. 2010. Plant Gum Exudates of The World. CRC Press.

UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Osman AAA. 2016. Physicochemical and Functional Properties of Glucuronic Acid and Potassium Glucuronate from *Acacia senegal* var. senegal gum. M. Sc. Thesis. Sudan University of Science and Technology.

Page J K, Wulf D M, and Schwotzer T R. 2001. A survey of beef muscle color and pH. Journal of Animal Science **79(3):** 678-687.

Paramita O. 2012. Kajian proses pembuatan tepung buah mangga (*Mangifera indica* L) varietas arumanis dengan suhu perendaman yang berbeda. Jurnal Bahan Terbarukan **1(1):** 1-10.

Phillips GO and Williams PA. 2009. Handbook of Hydrocolloids. Second edition. CRC Press. New York. Pages 252-273.

Pomeranz Y and Meloan CE. 1994. Food Analysis: Theory and Practice, Chapman and Hall. New York.

Prayitno TA. 1982. Pengaruh umur terhadap kadar tanin dalam pohon. Duta Rimba **8(55)**: 43-44.

Purnama RA. 2021. Pengaruh perbedaan jenis pelarut terhadap kandungan senyawa kimia, aktivitas antioksidan, dan kadar sitotoksisitas dari ekstrak gum *Acacia decurrens* Willd. Tesis. Tesis (Tidak dipublikasikan). Fakultas Kehutanan, Universitas Gadjah Mada, Yogyakarta.

Purwaningsih. 2010. *Acacia decurrens* Wild.: jenis eksotik dan invasive di Taman Nasional Gunung Merbabu, Jawa Tengah. Berkala Hayati Penelitian Hayati Edisi Khusus **4A**: 23-38.

Putri JCS, Sri H, Munifatul I. 2017. Pengaruh lama penyimpanan terhadap perubahan morfologi dan kandungan gizi pada umbi talas bogor (*Colocasia esculenta* (L.) Schott). Jurnal Biologi **6(1)**: 49-48.

Quattrocchi U. 2006. *CRC World Dictionary of grasses.* Volume I, A-D. 1 A-C. CR C, Press. https://doi.org/10.1201/9781420003222

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Radhakrishnan S, Bhavan PS, Seenivasan C, Muralisankar T. 2017. Nutritional profile of spirulina platensis, *Chlorella* sp. sp. vulgaris and *Azolla pinnata* to novel protein source for aquaculture feed formulation. Austin J Aquac Mar Biol **2(1):** 1-8.

Ramadhan R, Mursyid H, Tyaningsih Adriyanti, D, Triwanto J, Triwaskitho N. 2020. Pertumbuhan Jenis Invasif *Acacia decurrens* Willd. dan Pengaruh Naungannya Terhadap Tanaman Restorasi. Biotropika: Journal of Tropical Biology **8(2):** 71 – 78. https://doi.org/10.21776/ub.biotropika.2020.008.02.02.

Randall RC, Phillips GO, Williams PA. 1989. Fractionation and characterization of gum from *Acacia senegal*. Food Hydrocolloids **3(1):** 65 – 75.

Renard D, Lavenant-Gourgeon L, Ralet MC, Sanchez C. 2006. *Acacia senegal* gum: Continuum of molecular species differing by their protein to sugar ratio, molecular weight and changes. Biomacromolecules **7(9):** 2637 – 2649.

Rhazi L, Lyes L, Ophelie A, *et al.* 2020. Relationship between the molecular characteristics of Acacia gum and its functional properties. Food Chemistry **328**: 1-8. https://doi.org/10.1016/j.foodchem.2020.126860.

Rohadi MP. 2009. Sifat Fisik Bahan dan Aplikasinya Dalam Industri Pangan. Semarang University Press. Semarang.

Rosleine D and Rafi NA. 2018. Struktur populasi spesies invasif *Acacia decurrens* di Kawasan Taman Nasional Gunung Merapi, Jawa, Indonesia. Seminar Nasional Biodiversitas. Surakarta: 03 November 2018. **5(7):** 213 – 214.

Ruskin FR. 1983. Firewood Crops. Shrub and Tree Spesies for Energy Production. Volume 2. BOSTID Report No. 40. National Academy Press. Washington DC. USA.

UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Sao KP. 2012. Physico-chemical properties of some Indian plants gums of commercial importance. Indian Institute of Natural Resins & Gums (Indian Council of Agricultural Research). Bulletin (Technical) no.: 01/2012. Namkum, Ranchi. Jharkhand.

Sanchez C, Nigen M, Mejia TV, *et al*. 2017. Acacia Gum: History of the future. Food Hydrocolloids. https://doi.org/10. 1016 / j.foodhyd. 2017.04.008

Sandjaja. 2009. Kamus Gizi Pelengkap Kesehatan Keluarga. PT Kompas Media Nusantara. Jakarta.

Schaude C, Fröhlich E, Meindl C, *et al*. 2017. The Development of Indicator Cotton Swabs for the Detection of pH in Wounds. Sensors, **17.** doi:10.3390/s1706136.

Siregar SB. 1994. Ransum Ternak Ruminansia. Penebar Swadaya. Jakarta.

Subba Rao GU.1959. Oil from the seeds of *Acacia decurrens* Willd. Curr Sci **28**:410.

Sudarmadji S, *et al.* 2007. Analisa Bahan Makanan dan Pertanian. Liberty. Yogyakarta.

Sudarmaji, SB. 2006. Prosedur Analisis untuk Bahan Makanan dan Pertanian. Liberty. Jakarta.

Sudarsono D, Gunawan S, Wahyono IA, Donatus, Purnomo. 2002. Tumbuhan Obat II. Pusat Studi Obat Tradisional UGM. Yogyakarta.

Sukara E and Atmowidjoyo ET. 1980. Pemanfaatan Ubi Kayu Produksi Enzim Emylase, Optimasi Nutrisi untuk Fermentasi Substrat Cair dengan Menggunakan Kapang *Rhizopus* sp. Prosiding Seminar Nasional UPTRRP.

Sumantri RA. 2013. Analisis Makanan. Gajah Mada University Press. Yogyakarta.

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Sunardi. 2016. Populasi dan Autekologi *Acacia decurrens* (Wendl.) Wild. di Taman Nasional Gunung Merapi. Institut Pertanian Bogor.

Suparjo. 2010. Analisis Proksimat dan Analisis Serat. Fakultas Peternakan. Universitas Jambi. Jambi.

Suryanto P, Hamzah MZ, Mohamed A, Alias MA. 2010. The dynamic growth and standing stock of *Acacia decurrens* following the 2006 eruption in Gunung Merapi National Park, Java, Indonesia. International Journal of Biology **2(2).** https://doi.org/10.5539/ijb.v2n2p165

Suryawan D, Sutyarto E, Umaya R, Asep K, Hadiyah Y. 2015. Sebaran invasive alien species *Acacia decurrens* pada kawasan Taman Nasional Gunung Merapi. 1 (Alaydrus 2013), 738–742. https://doi.org/10.13057/psnmbi/m010409

Sutomo. 2019. Ekologi dan potensi invasif *Acacia decurrens* di sebagian kawasan Taman Nasional Gunung Merapi Yogyakarta. Jurnal Metamorfosa **6(1)**: 1 - 6 DOI : 10.24843/metamorfosa.v6i1.46983.

Tahir AAA, Sabah Elkheir MK, Yagoub AA. 2007. Effect of tree and nodule age on some physicochemical properties of gum from *Acacia senegal*(L.) Wild., Sudan. Research Journal of Agriculture and Biological Sciences **3(6):** 866-870.

Tame T. 1992. Acacias of South Eastern Australia. Kenthurst, Sidney. Kangaroo Press. Australia.

Tewari A and Jindal VK. 2010. Studies on uronic acid materials and structure of *Acacia decurrens* gum polysaccharide. J. Chem. Pharm. Res **2(2):** 233–239. Diambil dari www.jocpr.com

Torrez LL, Michael N, Pascale W, Thierry D, Christian S. 2015. *Acacia senegal* vs. *Acacia seyal* gums - Part 1: Composition and structure of hyperbranched plant exudates. Food Hydrocolloids **15**: 41-53. https://doi.org/10.1016/j.foodhyd.2015.04.019.

UNIVERSITAS GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Trinurasih S dan Sutrisno. 2013. Kombinasi perlakuan hot water treatment dan $CaCl_2$ untuk mencegah kerusakan fisiologis buah belimbing *(Averrhoa carambola* L.). Jurnal Keteknikan Pertanian **27(1):** 41-48.

Victor I and Orsat V. 2018. Colour changes during the processing of *Arenga pinnata* (palm) sap into sugar. Jounal Food Science Technology **55**: 3845–3849. doi.org/10.1007/s13197- 018-3314-8.

Victor I dan Orsat V. 2018. Characterization of *Arenga pinnata* (Palm) Sugar. Sugar Tech, **20(1):** 105-109.

Viguera CG dan Bridle P. 1999. Influence of structure on Colour Stability of Anthocyanins and Flavylum Salts with Ascorbic Acid. Journal Food Chem **64 (1):** 21- 26.

Vuillemin ME, Michaux F, Adam AA, Linder M, Muniglia L, Jasniewski J. 2020. Physicochemical characterizations of gum Arabic modified with oxidation products of ferulic acid. Food Hydrocolloids **107**: 1-10. https://doi.org/10.1016/j.foodhyd.2020.105919.

Warohmah N. 2015. Fraksinasi Protein pI 7 dan pI 8 Hasil Ekstraksi Asam dan Basa Biji Labu Merah (*Cucurbita moschata* (Duch.) Poir) Serta Studi Potensinya Sebagai Bahan Fortifikasi Pangan. Skripsi (Tidak dipublikasi). Departemen Kimia FMIPA UGM. Yogyakarta.

Webb DB, Wood PJ, Smith JP, Henman GS. 1984. A Guide to Species Selection for Tropical and Sub-tropical Plantations. Tropical Forestry Papers, No.15. Commonwealth Forestry Institute. University of Oxford. Oxford, UK.

Whistler RL and BeMiller JN. 1993. Industrial Gums, 3rd edn. Academic Press. New York.

Wijayanti IE. 2010. Mempelajari Keberhasilan Pembuatan Minyak Kelapa yang Diproses dengan Metode Pengasaman Melalui Analisis Asam Amino di

UNIVERSITAS
GADJAH MADA
PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM Acacia decurrens Willd.
ALVENIA GADING M S P, Sigit Sunarta, S.Hut., M.P., M.Sc., Ph.D.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

dalam Blondo Menggunakan HPLC. Skripsi (Tidak dipublikasi). Departemen Kimia FMIPA UGM, Yogyakarta.

Williams PA, Idris OHM, Phillips GO. 2000. Chapter 21: Structural analysis of gum from *Acacia senegal* (Gum Arabic). In: Nothnagel et al., (Eds.), Cell and Developmental Biology of Arabinogalactan-Proteins. Kluwer Academic/Plenum Publishers, pp. 241-251.

Winarno FG. 2004. Kimia Pangan dan Gizi. Universitas Gadjah Mada, Yogyakarta.

Wishnu FA and Widyatmoko D. 2017. Growth and habitat preference of *Acacia decurrens* Willd. (*Fabaceae*) after the 2010 eruption of Mount Merapi, Indonesia, Asian Journal of Applied Science **5(1)**: 64-65.

Wrigley J dan Fagg M. 1996. Australian Native Plants Acacia Section, 4th edn. Reed Books Pty Ltd. Australia.

Zulaekah S. 2004. Diktat Ilmu Bahan Makanan I. Fakultas Ilmu Kesehatan Universitas Muhammadiyah Surakarta. Surakarta.